Luxury Automotive

Most preferred
Ferrari | TP € 221

Least preferred
Aston Martin | TP £ 20

Premium for the lead horse

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Price 09/07/21	Reco.	Curr.	Price	TP
Aston Martin Lagonda	Neutral	GBP	1974.00	2000.00
Ferrari	Outperform	EUR	186.05	221.00

Luxury cars constitute a specific niche that has outperformed the broader automotive sector and should continue to benefit from favourable underlying trends. However, the segment is also in the throes of change, with shifting consumer preferences and new challenges arising from the move to electric. We think, however, that these challenges should be overcome and without upsetting the current hierarchy. Investor uncertainties have created an opportunity to take up a position on Ferrari (initiation at Outperform), whereas we believe that it is still too soon for Aston Martin (Neutral).

Return to favourable trends from 2021

While the luxury car industry (ASP > € 150k, ~120k units worldwide) had previously shown resilience to the downturn that has struck the automotive sector since 2018, it did not escape the combined demand and supply shock from the 2020 COVID-19 crisis. Nevertheless, luxury looks back on track in 2021, with record H1 results and packed order books. Low production volumes should also allow luxury OEMs to emerge largely unscathed from the semiconductor shortage crisis currently plaguing the automotive sector. In the medium term, structural growth of the market continues to be buoyed by the steady expansion of the addressable luxury goods market, High Net Worth Individuals (+7% per year until 2025), which should allow luxury automotive to grow 3.5x faster than overall light vehicle production, with an expected 2019-2030e CAGR of 4.2%.

Ferrari and AML now well-positioned on the latest market trends

Looking beyond the overall growth of the segment, HNWIs have experienced a demographic shift, with the strongest growth coming from Asia, younger populations and women. These shifts have resulted in changing preferences, with a greater emphasis on comfort or technology rather than pure performance, illustrated by the popularity of SUVs or even GTs relative to sports cars. After being slow (or reluctant) to recognise these new trends, Ferrari and Aston Martin (AML) have adapted their offering and now look well positioned to take advantage of these new markets. AML sales will be lifted starting this year by its new DBX SUV, while Ferrari should benefit from the broadening of its range (new understated GT range, refreshed interior technology, introduction of PHEVs, first SUV expected in 2022-2023).

Electrification unlikely to upset the hierarchy in our view

While most mass-market OEMs are now well on track in their shift to electric technology, this is clearly not yet the case for luxury carmakers. Spared from stringent CO2 emissions regulations thanks to their small volume manufacturer status, their efforts have so far mainly focused on hybrids, with the first BEVs not expected before 2025 for most. However, with regulatory consensus (EU, UK, California, etc.) increasingly moving towards outright bans of new ICE vehicle sales (including hybrids) by 2035, luxury OEMs will have no choice but to accelerate their shift towards full electrification, which is naturally fuelling investor uncertainty regarding the associated commercial, strategic and financial impacts of this transformation. We believe, however, that these fears are overdone, and that luxury OEMs should overcome these challenges while maintaining the status quo. While Aston Martin's strategy (technology partnership with Mercedes) offers greater visibility at this stage than Ferrari's (for which details will not be revealed until the company's June 2022 CMD), the Italian group's positioning (best-in-class pricing power and profitability) and experience (2 PHEVs already developed, F1 technology learnings, flawless operational track record) should enable it to rise to the challenge once again.

Entry point for Ferrari, still too soon for Aston Martin

While Ferrari's multiples were closely correlated to those of the luxury goods sector and particularly Hermès, the underperformance vs the luxury goods sector (-46% y-o-y) offers a good entry point and we adopt an Outperform rating on the share (target price € 221). The OEM's track record up to the crisis was flawless and we see the deferral of the 2022 guidance to 2023 as a temporary setback, a consequence of supply rather than demand issues, while demand indicators (waiting list >12 months, residual value resilience) remain robust. Conversely, we believe it is still too soon to take a position on AML (Neutral; target price £ 20). The group is showing encouraging signs of recovery but execution risk still looms, with a return to capital markets likely in the event of any operational misstep.

	Currency	Market Cap (m)	Rating		TP		EPS		PE (x)	
			Revised	Former	Revised	Former	2021e	2022e	2021e	2022e
Aston Martin Lagonda	££	2 269	Neutral		2000.0		-169.95	-112.99	ns	ns
Ferrari	€	34 416	Outperform		221.0		4.52	4.85	41.1	38.3

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WE INITIATE FERRARI AT OUTPERFORM (TP € 221) AND ASTON MARTIN AT NEUTRAL (TP £ 20)

Ferrari and Aston Martin both offer attractive earnings growth prospects. However, the distant breakeven at Aston Martin and its mixed track record highlight the group's financial fragility and lead us to adopt a Neutral rating. Conversely, Ferrari's demonstrated mastery of the luxury business model makes us confident that it can overcome the challenges it faces and justifies an Outperform rating on the share.

Luxury cars are a niche segment that should continue to outperform the automotive sector

A niche segment that stands out from the traditional automotive market

Although there is no strict definition of the luxury car market, it is commonly defined as covering vehicles that combine performance, high prices (in general >€ 150k and reaching several million or even tens of millions of euros for the most high-performance and exclusive models) and deliberately constrained supply to preserve a sentiment of exclusivity. We therefore do not include in this category premium players (Audi, BMW, Daimler, etc.), or even European (Porsche) or American (Mustang, Dodge, Corvette, etc.) sports car brands, which, due to their pricing/volume policies, are not exposed to the same trends (economic cycle vs HNWI populations) or business models (scale effects vs pricing power).

Average price luxury vs premium cars (€ k)

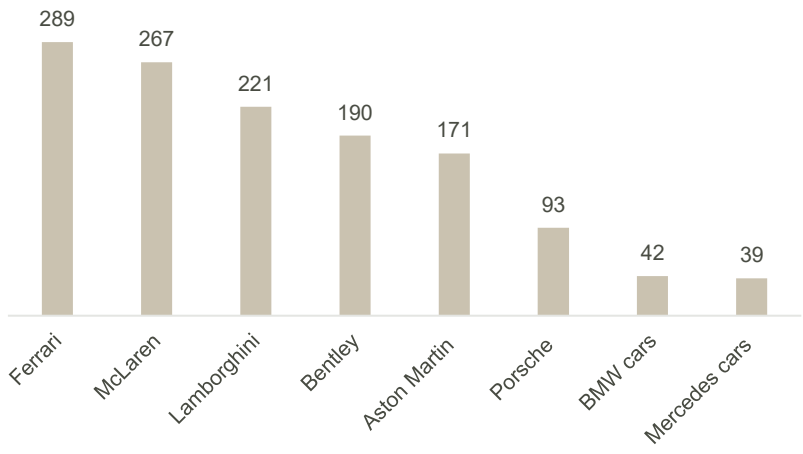


Chart 1 - Sources: ODDO BHF Securities

We identify 6 main luxury car pure players: Ferrari, Lamborghini, Aston Martin, Bentley, Rolls-Royce and McLaren. Among these players, three are independent (Ferrari, Aston Martin, McLaren) and 3 are subsidiaries of major groups (Lamborghini and Bentley are owned by Volkswagen, Rolls-Royce by BMW). While the OEMs that are part of major groups clearly benefit from their parents' financial firepower (they generally provide them with engines and platforms, as well as financing their investments), they are also forced to use their products and follow their technological road map (this is the case for Lamborghini for example, whose most recent sports car model excluding refreshes dates back to 2014 and whose Urus shares much of the same components as Audi's SUVs).

In addition to these six players, we may add 1/ a series of niche carmakers producing very limited volumes (Bugatti, Koenisgegg, Pininfarina, Rimac, Lotus, etc.), 2/ sub-brands of major groups (Maybach and AMG for Mercedes, S & RS for Audi, etc.), and 3/ certain performance models of premium brands (Cayenne SE, Acura NSX, etc.).

Therefore, despite the growth ambitions of certain players (Pininfarina aiming to sell 8-10k units per year, Lotus 5k units, etc.), the luxury car market remains a niche market with volumes of around 120k vehicles sold per year, i.e. a fraction of global light vehicle production (89m vehicles in 2019).

Luxury cars had shown good resilience to the automotive sector downturn until 2020

The peculiar dynamics of the luxury car industry had enabled it to escape the automotive sector downturn until 2020. In recent years, one notable driver has been the introduction of new luxury SUV models to the traditional sports/GT car ranges.

Growth in luxury car volumes vs the automotive sector

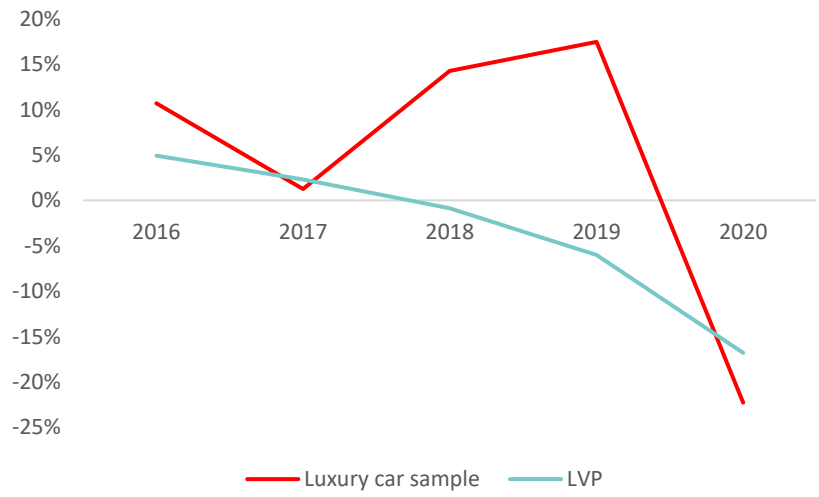


Chart 2 - Sources: ODDO BHF Securities, IHS

Luxury car sample: Aston Martin, Bentley, Ferrari, Lamborghini, McLaren, Rolls-Royce

We also believe that the luxury sector's collapse in 2020 should be seen in light of the peculiar nature of the crisis. Indeed, more than demand, it was supply that was most affected, in particular for these players which produce mainly, or even in most cases exclusively, in Europe, where factory closures were particularly lengthy. Note also that luxury car manufacturing processes also have a higher manual component than traditional manufacturing, which makes it more complicated to carry out while complying with social distancing measures. Most of the players in our luxury sample thus had to contend with production stoppages of several weeks in early 2020, followed by a gradual ramp-up phase (for example, Ferrari closed its factories for seven weeks, i.e. more than 15% of annual production time, and in the end showed a fall in FY 2020 volumes of 10%). It can also be difficult for these players to make up lost volumes via increased

production cadence due to limited capacities (small factories, skilled labour force).

And the sector should continue to outperform

An addressable market posting structural growth

The weak correlation between the luxury vehicle market and the mass market suggests that the sector should be analysed through a different lens. One relevant indicator is the growth of luxury's addressable market, High Net Worth Individuals (HNWIs). HNWIs, which are generally defined as individuals with net investable assets (i.e. excluding main place of residence, personal spending, etc.) of over $ 1m, and ultra HNWIs (net assets >$ 30m), have grown almost without interruption in the last few years. The Capgemini Wealth Report estimates that the wealth of HNWIs grew at a CAGR of 7.0% between 2012 and 2019, i.e. more than three times faster than GDP growth over the period (2.2%). The number of HNWIs grew even more rapidly (CAGR 7.4% vs 1.1% for the world population).

All wealthy segments of the population are likely to continue to expand in the coming years. In its 2020 Wealth Report, Knight Frank estimates that HNWIs should growth at a 7.1% CAGR out to 2025, while UHNWIs should grow slower, but still outperform with a 4.9% CAGR. REPLACE??

The sector should grow 3.5x faster than the automotive market

The different structural growth levers should enable the luxury car segment to continue to post growth 3.5x higher than the global auto market.

Annual growth rate of passenger car sales 2019-2030

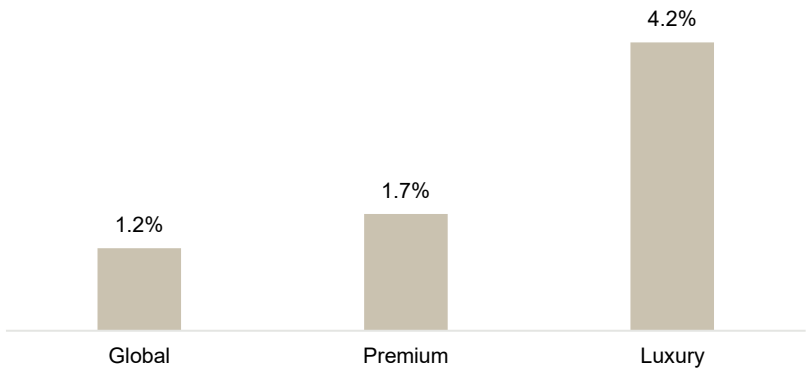


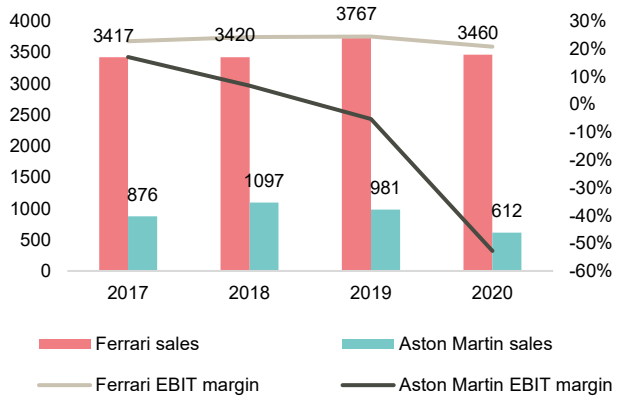
Chart 3 - Sources: IHS, ODDO BHF Securities

2020 again showed that only Ferrari can be compared to major luxury goods players

The luxury car business model is lucrative, but complex

The luxury car business model is a delicate balancing act as it requires mastery of the very different criteria of the luxury goods market (desirability, exclusivity) and the car market (technology, industrial efficiency). Cars must be at the cutting edge of technology and design, which requires significant investments in frequent renewals of the product portfolio, while OEMs are limited in their ability to amortize these investments through volumes, lest they undermine the feeling of exclusivity that is crucial to charge high prices. Most sector players have, at one time or another, experienced financial difficulties by failing to meet one or more of these criteria. Ferrari and Aston Martin offer a perfect illustration of the success and failure of this model. The two companies have experienced opposing financial and stock market fortunes in recent years, with the divergence culminating in 2020.

Financial performance Ferrari (€ m) vs AML (£ m)



Share performances Ferrari vs AML (base 100)

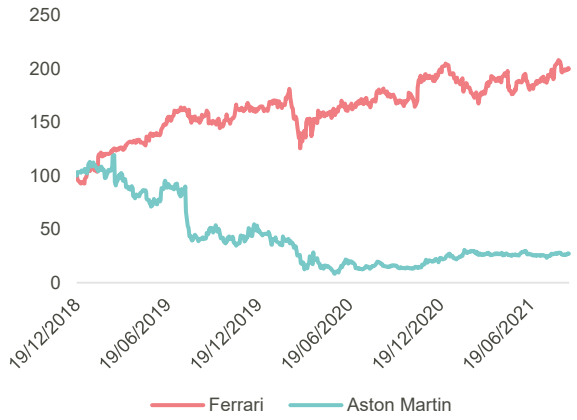


Chart 4 - Sources: companies, ODDO BHF Securities

Challenging years for AML

Aston Martin's struggles in the last few years are a perfect illustration of the main pitfalls in the luxury car business; as well as underestimating the complexity and time needed to develop some of its new vehicles (leading to delays and cost overruns), the group produced too many units and overstuffed its network, causing a collapse in prices. Since 2019, AML has been wrestling to rebalance supply and demand, which involved a forced inventory reduction. The recovery in the ASP and residual values seems to suggest that this process has now come to an end. However, restoring brand image and exclusivity is a process that will take time.

Aston Martin core model average selling price (£ k)

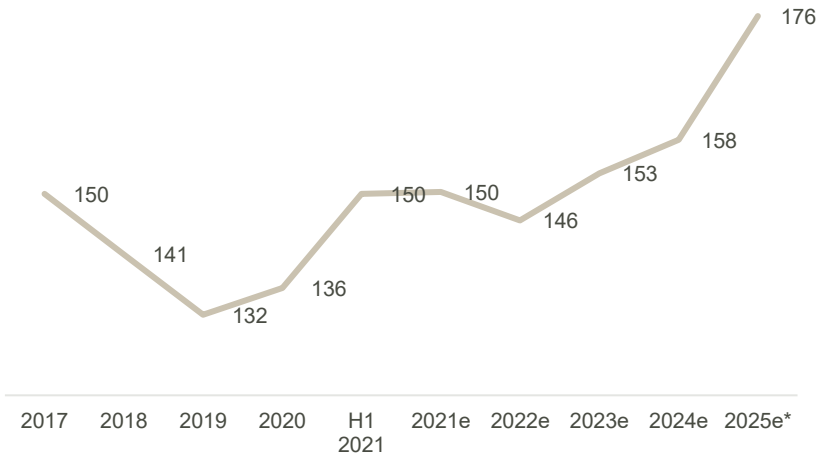


Chart 5 - Sources: company, ODDO BHF Securities
**Introduction of a new mid-engine sports car in 2025*

Ferrari has demonstrated perfect mastery of the model

Ferrari, on the other hand, has demonstrated perfect mastery of the luxury car business model. The group strictly controls the volumes distributed, with a waiting list that systematically exceeds 12 months (and even neared 18 months at the end of 2020 due to production delays resulting from the COVID crisis). As well as volumes, the group controls who it sells its cars to, with the most exclusive models (limited editions) being reserved to its best customers, which drives repeat purchases. As a result, 65% of sales in 2020 were made to existing clients and the group believes that 32% of its customers have more than one Ferrari. Ferrari's product portfolio is varied, frequently renewed, and the group even recently successfully moved into new segments (GT, hybrids, soon SUVs) to adjust its offering to new market demands. The Brand Finance institute again voted Ferrari the strongest brand in Europe, and the second strongest worldwide, in 2021.

The group also manages its pricing well, particularly via limited editions (the most recent Monza SP1 & SP2 were priced at € 1.6m vs an average of ~€ 200k for GTs and ~€ 300k for the other models) or by introducing convertible versions of its production models (price premium of +10% on average). Ferrari does not disclose its ASP and calculating one would not make much sense given the strong impact of limited editions, however, the favourable pricing trend for GT models seems to offer an indication of the group's steady pricing power.

Ferrari GT pricing trends (€ k)

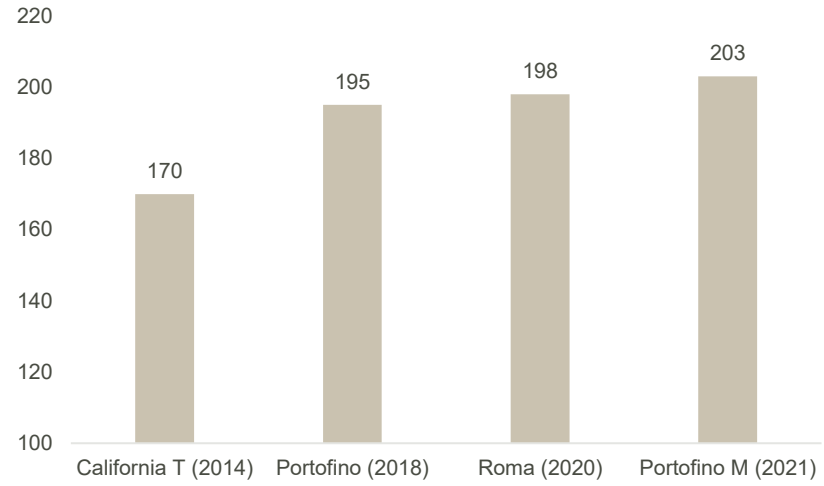


Chart 6 - Sources: company, ODDO BHF Securities

Ferrari's mastery of exclusivity and desirability are well represented by the brand's higher than average residual values. Beyond illustrating brand image strength, residual values support new vehicle sales by reducing ownership cost.

Another good illustration in our view of Ferrari's exemplary control of the luxury carmaker business model is the low volatility of sales. While luxury cars are generally less exposed than traditional cars to the economic cycle, the sector often experiences strong volatility as a result of the impact of product launches (often compounded by delays). The stability with which Ferrari's sales have grown in recent years illustrates its perfect understanding of the product cycle and flawless execution (until the forced factory shutdowns in 2020).

Growth in volumes Ferrari vs luxury car peers * (base 100)

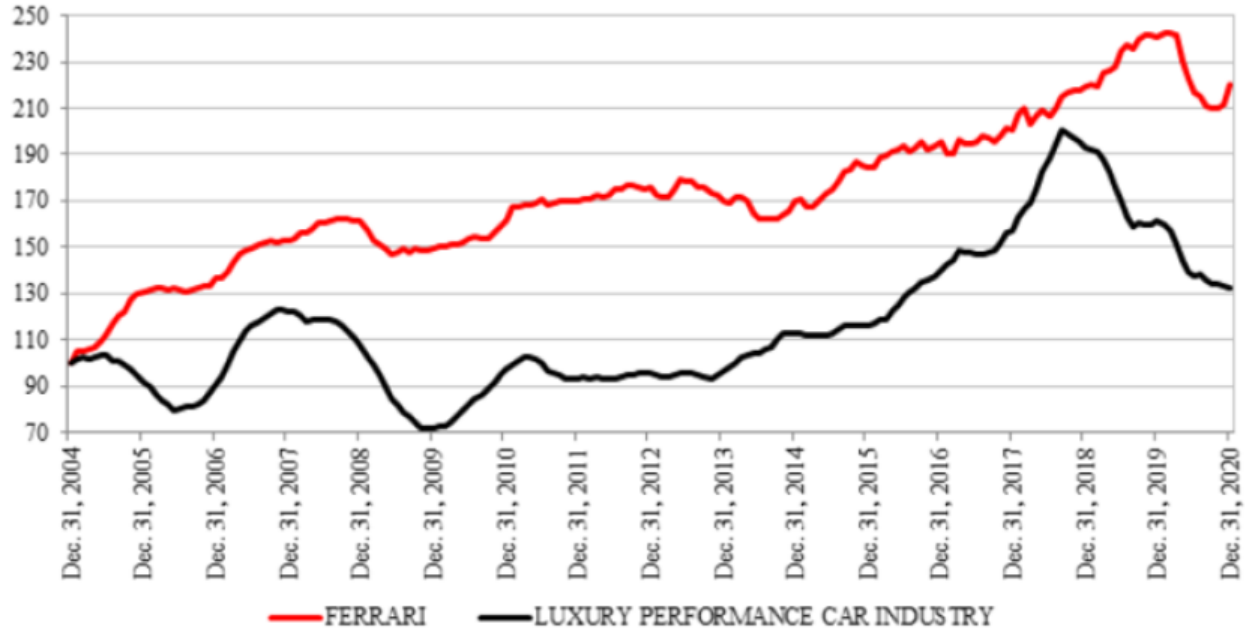


Chart 7 – Sources: company, ODDO BHF Securities

** Volumes of two-door vehicles with more than 500hp and a price over € 150k*

And therefore only Ferrari can be compared with luxury goods players at this stage

The importance of managing brand image and exclusivity in the luxury car industry calls for comparison with other segments of the broader luxury goods market.

Indeed, we note that Ferrari boasts similar profitability levels to the big luxury goods players.

Ferrari 2020 EBIT margin vs luxury goods players

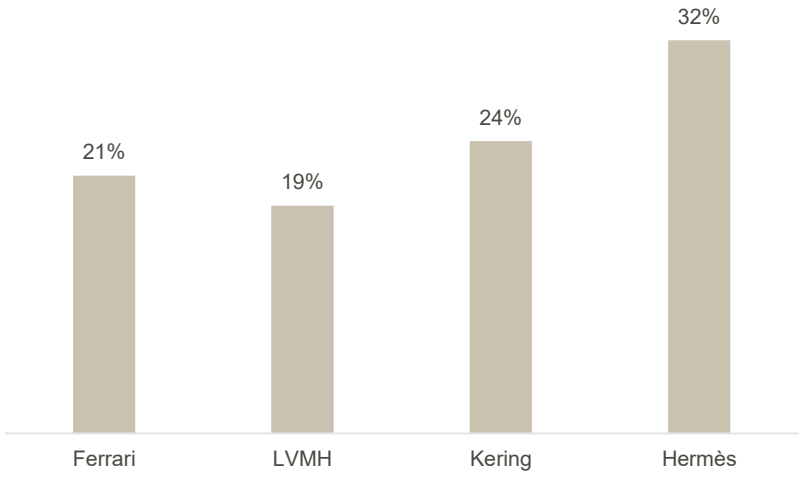


Chart 8 - Sources: company, ODDO BHF Securities

These similarities have justified a strong historical correlation between Ferrari's share performance and those of luxury goods players until 2021 (described hereafter). PAS DANS LA VF

Share performances over 2 years

Chart 9 – Source: FactSet

A similarity also reflected in valuation multiples, in particular those of Hermès.

Trend in Ferrari's NTM P/E multiple vs luxury goods players

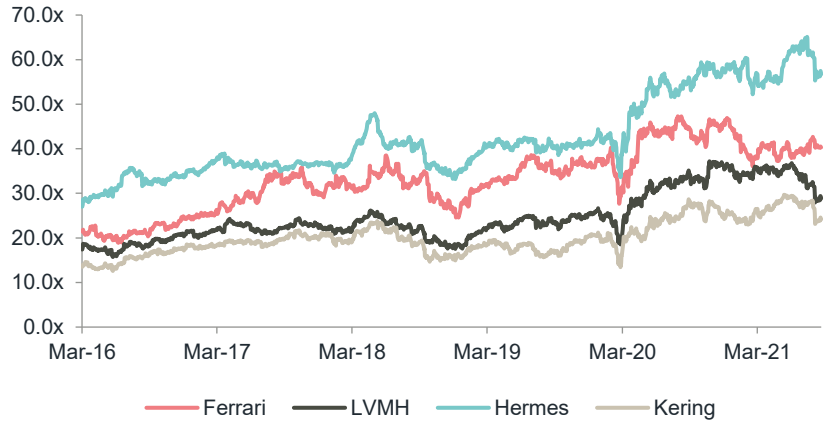


Chart 10 – Source: FactSet

This is why it is still too soon to play AML, whereas Ferrari offers an opportunity

Mission not yet fully accomplished for AML

Early signs of recovery after two very challenging years

Aston Martin's strategic missteps have had a severe impact on its financials, with a collapse in volumes, sales and profitability in the last two years. Facing serious financial difficulties, the group had to call on the market four times in 2020. The capital increases shored the company up with £ 776m in cash (net), but at the cost of strong dilution (90%).

2020 was nevertheless a year of renewal in many respects: the group improved its financial situation, brought in a new reference shareholder (Lawrence Stroll), announced new strategic plans with fresh financial targets, and forged a new partnership with Mercedes that will allow it to use the German OEM's technologies in return for a 20% stake in its capital.

The group's restructuring seems to be bearing fruit, with a rebalancing of wholesale/retail sales, a restoration of the ASP and a return to growth and positive EBITDA since Q4 2020.

Aston Martin sales, EBITDA margin and net margin growth (£ k)

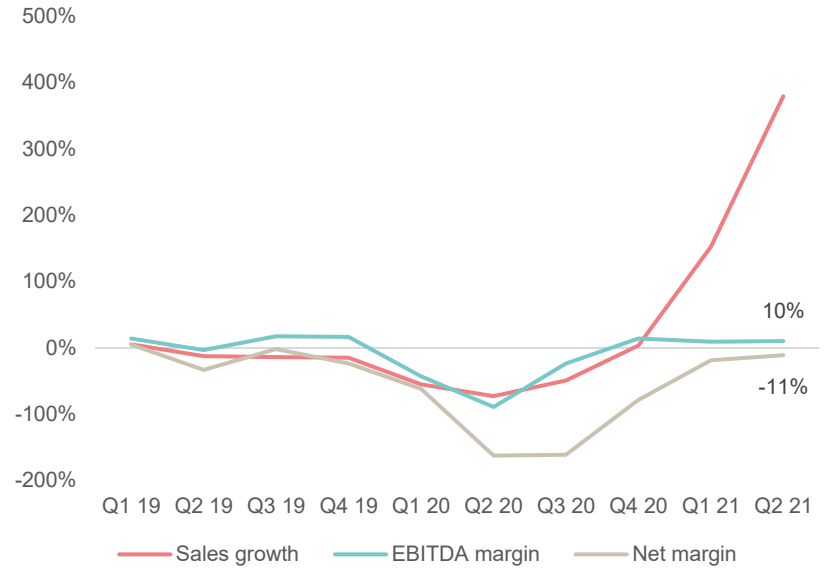


Chart 11 - Source: company

Positive growth outlook, but high execution risk

Aston Martin now offers bright growth prospects. The launch of the DBX since H2 2020 allowed the group to move up a gear and sales of the Valkyrie should (at last) begin in H2 this year. In the medium term, the refresh of the GT/sports car portfolio expected in 2023 should help drive momentum. We expect a 2020-2025e sales CAGR of 27% (16% over 2021-2025e) and a gradual reduction in losses until EBIT breakeven is achieved in 2023.

AML sales and EBIT margin scenario (£ m)

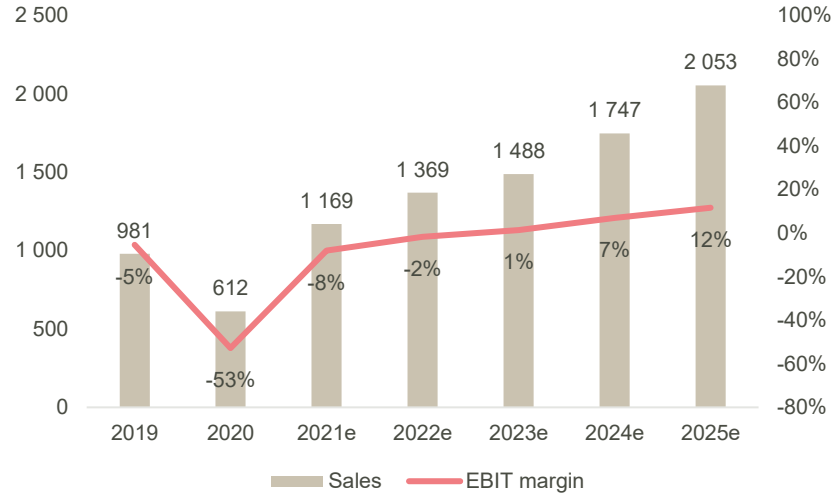


Chart 12 - Sources: ODDO BHF Securities

However, execution risk still looks very high. We do not expect the group to reach positive free cash flow until 2024, with a low point in gross cash at just £ 187m (£ 250m including potential warrant conversion), which implies that any delay, market downturn, or other strategic/operational/financial misstep would likely lead to a new capital increase. And indeed we believe that the risk of postponement is not to be excluded, considering the busy product schedule up to 2023 (we count 9 new launches including refreshes) and the fact AML is entering uncharted territory with its expansion in the mid-engine segment, bearing in mind that the group has suffered from delays and/or cost

overruns in the past. Moreover, near-term sales will remain highly dependent on the DBX (the SUV will likely represent 50-60% of volumes in the next two years) and, while it is still too soon to judge its success, 2020 volumes should be some way below the group's aspirations (we expect 3.3k units this year vs targets to ramp-up to 4k+ units) and any potential disappointment would affect the group's ability to finance its new programmes, even as competition in the segment ramps up, with the DBX still lagging peers on performance and technology.

We initiate on Neutral with a target price of £ 20

Given the distant time horizon for achieving profitability, we opt for a valuation based on multiples applied to 2025 aggregates which we then discount. For our reference multiples, we use Ferrari's multiples to which we apply a discount of 20% to take account of AML's lower profitability (2025e EBIT margin of 11% vs 25%e for Ferrari in 2021). We use only EBIT because the different accounting methods (capitalisation of R&D outlays) and balance sheets (Aston Martin 2025e leverage of 2x vs industrial net cash position for Ferrari as of 2021) limit comparability in terms of EBITDA and P/E.

Future dilution should also be taken into account. Between the warrants (which have a strike price at £ 10 and are therefore already in the money) and the second tranche attributable to Mercedes, there remain 17.6m shares to be issued, i.e. 15% of the current capital.

Our valuation points to a target price of £ 20, i.e. upside of 1% to the current share price, justifying a Neutral recommendation on the stock.

Valuation of Aston Martin	
Aston Martin 2025 EBIT (£ m)	**227**
Aston Martin 2025 net profit (£ m)	88
Benchmark EBIT multiple (Ferrari 12m + discount 20%)	24
Net profit benchmark multiple (Ferrari 12m + discount 20%)	31
Net debt and other adjustments (incl. warrants, provisions)	1 134
Number of shares, diluted (m)	132.5
Average target price 2025 (£)	27
Discount rate	10%
Discounted target price (£, rounded)	**20**
Current price (£, rounded)	20
Upside / (downside)	1%

Table 13 - Source: ODDO BHF Securities

Ferrari – still a winning horse

(Limited) hitch after a flawless run

Until 2020, Ferrari had posted a flawless performance with a 2015-2019 CAGR of 9% for sales and 20% for EBIT (2019 margin of 24.4%), brushing off the difficulties besetting the automotive sector. The momentum came to a halt in 2020 with the closure of the group's factories for 7 weeks (i.e. c.15% of annual production time), leading it to report the first decline in sales since 2009. While the damage was in the end very limited given the context (decline in sales of -8% in 2020, of which only -3% for cars, 370bp deterioration in the EBIT margin to 20.7%), the group's caution and project deferrals led it to push its 2022 targets back by one year.

But we expect a strong recovery that will outstrip forecasts

The 2020 disruption should be quickly left in the rear-view mirror, with a return to positive indicators for demand (record backlog, waiting list >12 months, recovery in residual values in 2021) as well as supply (factory reopening, new product launches), leading to 2021 sales and EBIT 15% and 19% above 2019 figures, respectively. Momentum in 2021 and 2022 will be supported by the mix, as well as the ramp-ups of the numerous models presented or introduced in 2020 (SF90 Stradale & Spider, Roma, Portofino M, 488 GT Modificata). While we still have few details on 2023 at this stage, the launch of the group's first SUV, the Purosangue, should at the very least support this momentum, and at best enable Ferrari to shift up a gear, especially in China.

We expect a 2020-2023e CAGR of 14% for sales (8% over 2019-2023e) and 24% for EBIT (10% over 2019-2023e).

Ferrari sales (€ m) and EBIT margin scenario

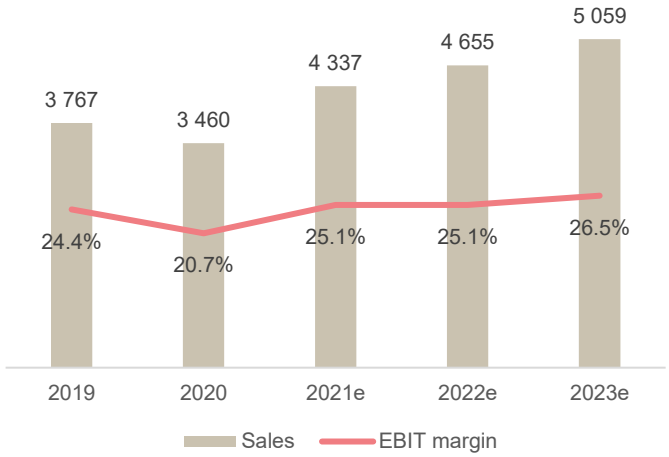


Chart 14 - Sources: ODDO BHF Securities

Note that we are above consensus and the company's guidance for 2021 and 2022. Indeed, the guidance for a 2021 EBIT margin between 22.6% and 23.7% (issued in February at the annual results report and then confirmed in Q2) looks overly cautious in light of H1 performance. With a number of indicators pointing to a strong recovery for the luxury market in 2021 (see comments from peers in the luxury car sector), we believe that there is clearly a chance that these targets might be revised up (for a company which, it should be recalled, was used to guidance upgrades before 2020). Note also that we are very close to the company's initial EBIT guidance for 2022 (>€ 1.2bn) and even believe that it is still within reach in an optimistic scenario.

At the cash level, we do not think that the future investments in electric vehicles will have an excessive impact on Ferrari's investment needs. Indeed, we believe that the BEV should add € 300-500m in incremental investment to current projects out to 2025, i.e. ~2% of cumulative sales in the period, largely offset by growth, while the group has already been investing in new electric technologies for many years (LaFerrari hybrid in 2013, hybridisation in F1 since 2014, SF90 PHEV model in 2019, 296 GTB PHEV in 2021). Moreover, we also believe that the group's strong pricing power will enable it to generate satisfactory profitability and return on capital on its BEV (like the SF90, which is accretive on profitability thanks to a price premium of 81% vs the ICE sports car model on which it is based).

We are initiating coverage on Outperform with a target price of € 221

Ferrari's share price historically moved in line with those of the big luxury goods players before a sharp correction in 2021.

Share performances over 2 years (base 100)

Chart 15 – Source: FactSet

Part of this correction is due to less favourable earnings momentum, with downward revisions for Ferrari vs upward revisions for big luxury goods players, resulting in a bigger COVID crisis impact on activity at Ferrari. Indeed, the group's production capacities are grouped together at Maranello in Italy and as a result it was more heavily affected by the lockdowns than traditional luxury goods players with a global footprint. However, earnings forecasts for Ferrari have begun to be revised upward again since the H1 release, which should drive a further catch-up for the share. Conversely, it may be the turn of luxury goods players to see downward revisions to earnings forecasts as a result of the Chinese government's new policy aimed at reducing inequality, which could potentially affect luxury goods sales in China (and could also affect Ferrari, but to a lesser extent as the group generates just ~6% of its sales in the country vs 30-35% on average for traditional luxury goods players). Part of this correction is due to less favourable earnings momentum. Unlike its peers, the lockdown measures had a far-reaching impact on the group's production capacities. In addition, we note that the lower exposure to China might limit the recovery outlook.

Trend in 2022e EPS consensus forecasts

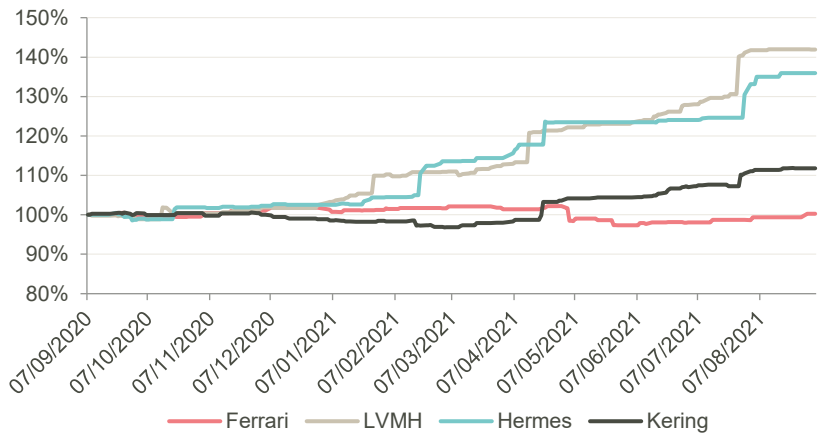


Chart 16 – Source: FactSet

Ferrari's underperformance also most likely reflects fears regarding the group's shift to electric. However, as we explained above, we believe these fears are overblown and think that the good results we expect for 2021 and the CMD in 2022 should dispel doubts and restore the share's good long-term momentum.

Given the link between Hermès and Ferrari in terms of their stock market and operating performances (leading positions in the high-end segment, strategy of controlling volumes to preserve exclusivity, best-in-class pricing power/profitability), we use Hermès' multiples to value Ferrari. We apply a discount of 15%, close to the historical average, while the two companies' multiples had converged strongly before Ferrari's recent fall.

Our valuation points to a target price of € 221, i.e. upside of 20% to the current share price, justifying our Outperform recommendation on the stock.

Ferrari valuation

€ m	**2022e**
Sales	4 655
EBITDA	1 711
EBIT	1 167
Net profit	901
Hermès multiples	
EV/Sales (x)	13
EV/EBITDA (x)	31
EV/EBIT (x)	35
P/E (x)	54
Premium/discount	15%
Implied target price (€)	2022e
EV/EBITDA	244
EV/EBIT	193
P/E	225
Average target price (€)	**221**
Current price (€)	186
Upside (downside)	19%

Table 17 - Source: ODDO BHF Securities

FERRARI AND AML NOW WELL POSITIONED ON THE LATEST MARKET TRENDS

After a historic collapse in 2020, the luxury car sector is set to return to more favourable momentum as of this year. The sector continues to benefit from structural and resilient growth in its addressable market, High Net Worth Individuals (HNWIs), which should enable it to continue to outperform global Light Vehicle Production. However, with the fastest growth coming from Asia, younger populations, and women, market preferences have shifted. Even though Ferrari and Aston Martin were late to adapt to these new trends, the two players are now well placed to take advantage of them. As of 2021, Aston Martin is benefitting from the launch of its first SUV, the DBX, which should allow it to capitalize on the outperformance of the segment and accelerate in China. Ferrari has opted for a more gradual and diversified approach (new understated GT models, introduction of PHEV technology, first SUV expected to contribute in 2023) which perhaps offers less immediate potential but at the same time does not expose the group to any particular trend or market.

Spectacular crash in 2020, catch up in 2021

A historic decline in 2020

Whilst European players in the luxury automobile segment had previously proven resilient to the decline in the automotive sector that has been ongoing since 2018, sales fell sharply in 2020, with a 22% decline for our sample.

Trend in volumes for our sample of groups in the luxury sector

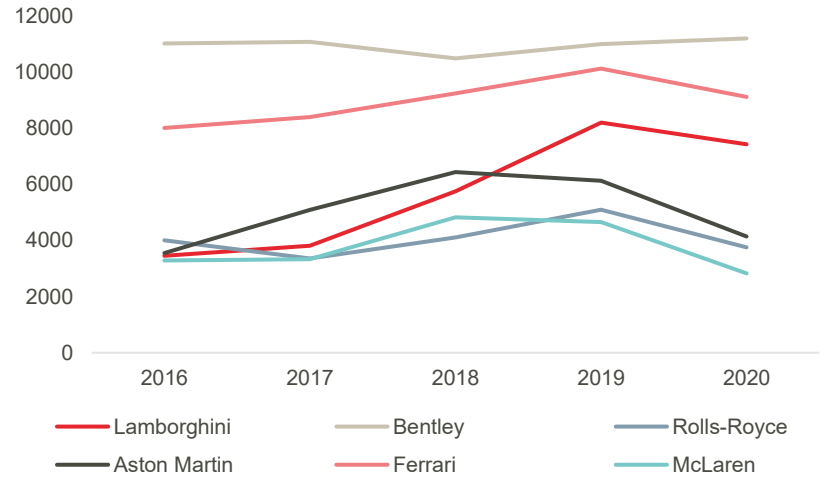


Chart 18 – Sources: companies, ODDO BHF Securities
**For Aston Martin and McLaren, we have decided to show retail volumes which are a better reflection of end demand. On a wholesale basis, in 2020 Aston Martin reported a decline of -42% and McLaren of -64%*

Over and above the general decline in the sector in 2020, we underline the significant disparity between those players which have proven resilient (Lamborghini -9%, Ferrari -10%, Bentley -14%) and others for which sales collapsed (Aston Martin -42%, McLaren -64%, Rolls-Royce -24%). For Aston Martin and McLaren, the crisis pre-dates 2020 and clearly goes beyond issues of factory closures; since 2019 the two players had been in the process of rebalancing their supply and demand, and then the crisis hit, plunging them both into financial difficulties (leading at Aston Martin to capital increases + new banking credit). The divergent performances also reflect differences in strategy: the players that performed the best are generally those that have been most successful in expanding into China and/or which have developed a SUV. Ferrari is the notable exception to this rule.

2021 set to be a record year

We expect 2021 to be marked by a generalised rebound in the sector, buoyed by a resumption of production (with the semiconductors crisis having a more limited impact on the luxury sector than the mass market), new products, a rebalancing of supply and demand at Aston Martin and McLaren, and the potential recapture of a share of the volumes lost in 2020. The rebound in residual value since H2 2020, after a difficult H1, offers an encouraging signal on the health of the market.

Towards a record 2021

The majority of players in the luxury market had a very good Q1 with, in many cases, record results and full backlogs that provide good visibility on the continuation of the improvement.

Activity indicators for players in the luxury automobile sector in 2021

	Growth H1 2021	H1-21 / H1-19	Growth guidance FY 21 / FY 20	FY 21 / FY 19	Indication
Ferrari	36%	6%	24%	14%	Record backlog, +20% y-o-y (~+10% restated for delays linked to COVID). Backlog >12 months
Aston Martin	242%	23%	77%*	2%*	Backlog of 4-6 months, supply/demand rebalanced, core ASP +32% y-o-y
Lamborghini	37%*	7%*			Record H1 sales. Backlog +25% y-o-y
Rolls Royce	92%*	19%			Record H1 sales. Backlog 6 months+
McLaren**	118%	-35%			

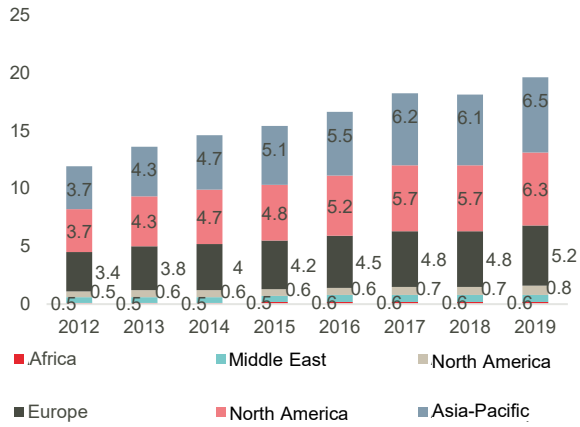
Chart°19 - Source: ODDO BHF Securities
**Volumes*
***Q1 (H1 not reported)*

Structural growth of the addressable market, but preferences have shifted

Whilst all regions outside Latin America have historically posted dynamic growth rates in HNWIs, this has been particularly strong in Asia-Pacific (CAGR of 9.2% in value terms and 8.4% in volumes), which now represents the leading market worldwide (30% in value terms and 33% in numbers). North America also remains a zone which is both dynamic (CAGR 8.0%) and dominant (29% in value and 32% in numbers). Europe is third-ranked in terms of size (23% value, 27% in numbers), but fourth-ranked for growth (CAGR of 6.3%), behind the Middle East (CAGR of 7.1%), which nonetheless represents a far smaller market (12% in value and 3% in numbers).

It is also interesting to note that HNWIs displayed resilience during the crisis, particularly in the wealthiest brackets. Indeed, the Knight Frank 2021 Wealth Report estimates that the number of UHNWIs grew a further 2% in 2020 (with +12% in Asia, +4% in North America, and +1% in Europe), as growth in asset values (in particular equities and real estate) offset the effects of the crisis.

Trend in the number of HNWIs (m)



Trend in the wealth of HNWIs (in $ 1,000bn)

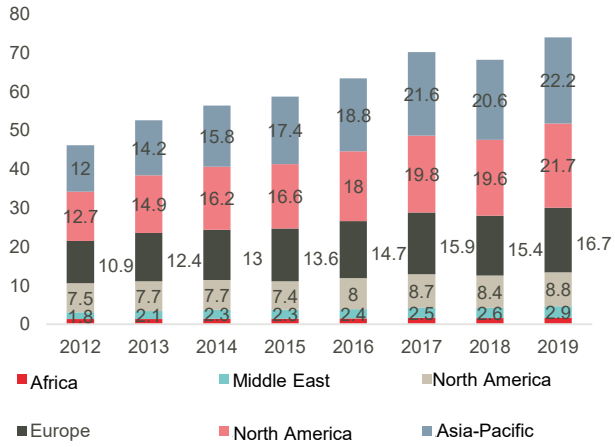


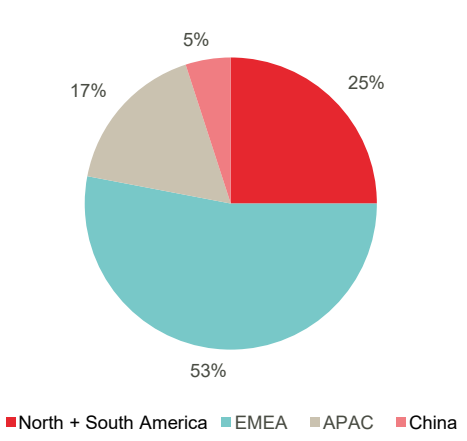
Chart 20 - Sources: Capgemini Wealth Report, ODDO BHF Securities

In addition to the emergence of Asia in the HNWI populations, we note two other trends with an increasing share of women and younger buyers. Thus, and even though the potential market continues to show structural growth, we think it vital for luxury carmakers to offer products that meet new market demographics.

Now well positioned to accelerate in China

Currently underpenetrated, the Chinese market represents a strong growth lever for luxury carmakers, although it requires an understanding of its particularities. Aston Martin and Ferrari have launched new initiatives which should enable them to accelerate in the country and underpin their growth. Addressing the Chinese potential looks of particular strategic importance for Aston Martin, who is not only counting on the region to restore positive volumes momentum, but also to improve its pricing.

Ferrari's sales by geographic area



Aston Martin's sales by geographic area

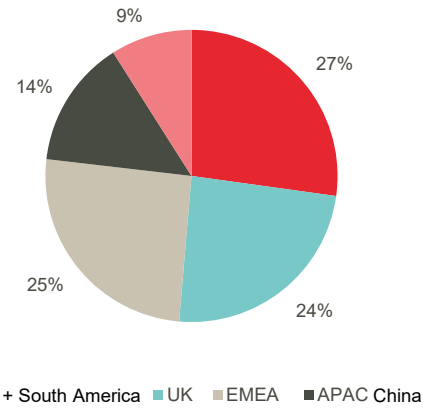


Chart 21 - Source: ODDO BHF Securities

China, a market of strong potential, but underpenetrated

The enrichment of Asia and notably China offers major potential for the development for players in the luxury automobile sector. The country already has a great number of UHNWI (ultra-high net worth individuals) and this share is set to continue to grow in the coming years.

Weight of China in the population of HNWI and UHNWI

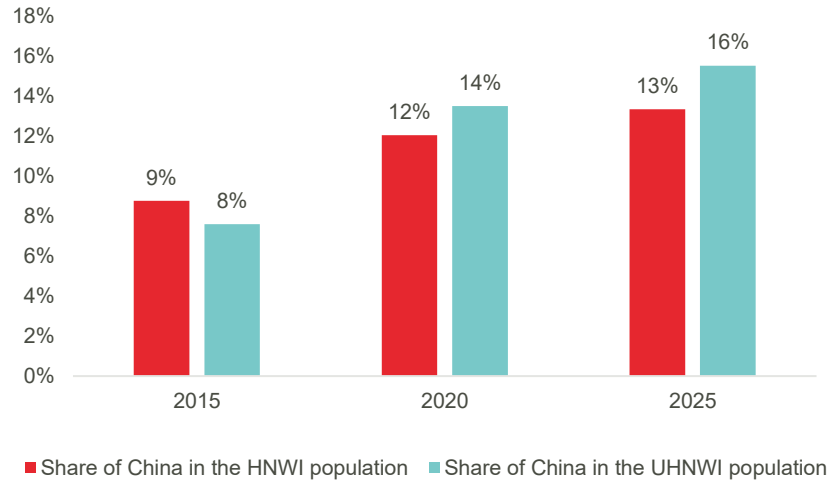
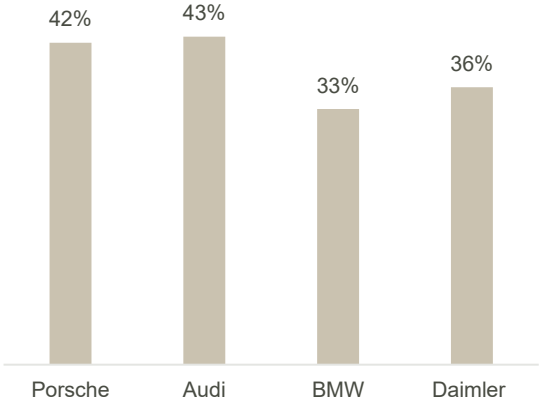


Chart 22 - Sources: Knight Frank, ODDO BHF Securities

A dynamic, largely unserved addressable market and weak local competition make up fertile ground for western luxury car manufacturers. The success of the traditional luxury brands, but also premium car manufacturers gives some sense of the country's potential.

Share of sales generated in China in 2020 for premium players



Outperformance of the premium segment in China

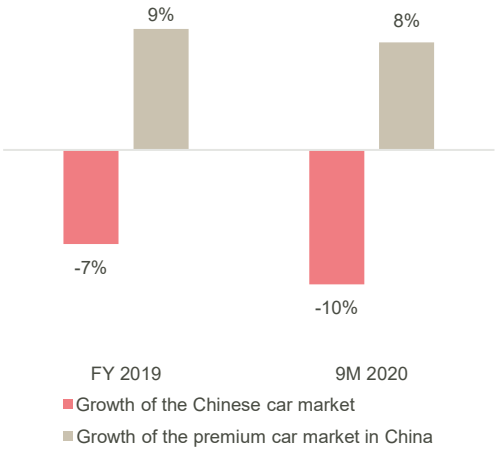


Chart 23 - Sources: companies, ODDO BHF Securities

However, and despite this potential, the luxury car sector remains underexposed to this market.

Trend in the average weight of China in luxury car manufacturer volumes

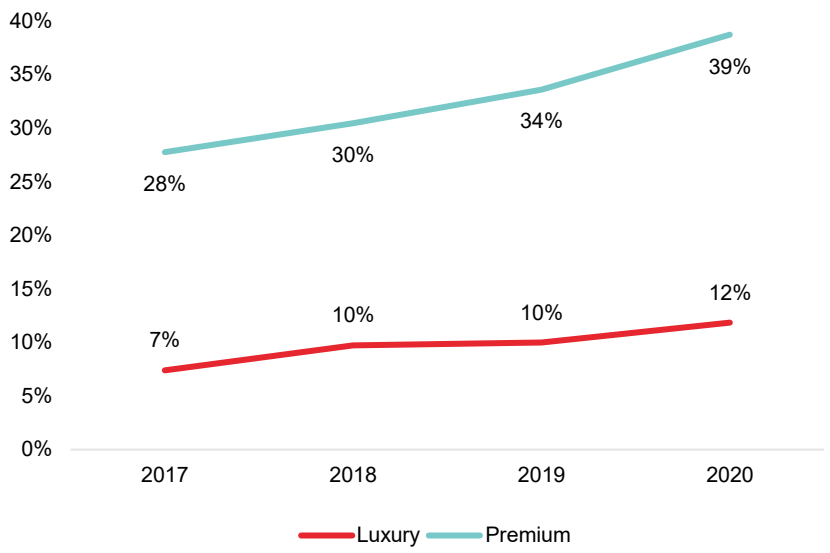


Chart 24 - Sources: companies, ODDO BHF Securities
**Premium: Audi, BMW, Daimler, Porsche*
***luxury sample excluding Rolls-Royce*

Consumer preferences at odds with the traditional offerings from Ferrari and Aston Martin

An analysis of the performance in China by each carmaker reveals major disparities.

Trend in the weight of China in the volumes sold by the groups in our sample

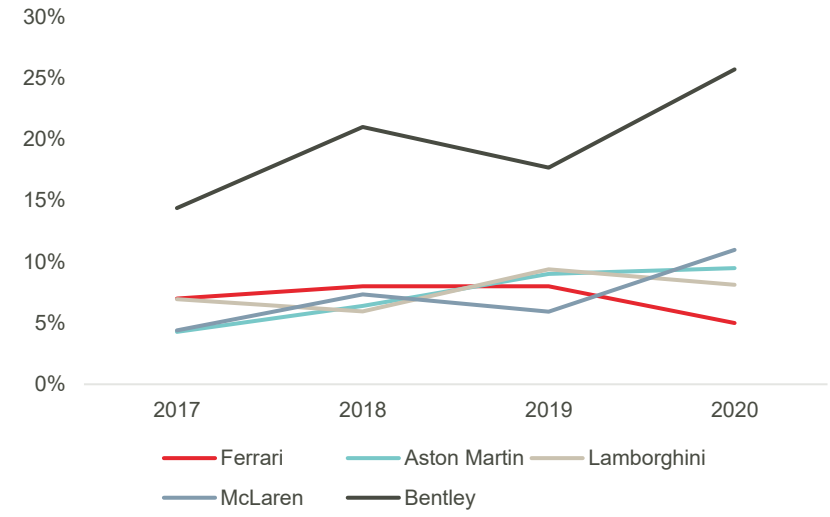


Chart 25 - Sources: companies, ODDO BHF Securities
**Some of the 2020 declines are attributable to changes in CO2 regulations which prompted some carmakers to bring deliveries forward to 2019*
***No country figures available for Rolls-Royce but the CEO said at the 2019 Shanghai motor show that China represented the group's second-largest market after the US and that it would certainly become its leading market in the near future, which suggests penetration levels closer to that of Bentley than other players.*

The relative success of Bentley, Rolls-Royce, Maybach (a luxury brand by Mercedes which generates the bulk of its sales in China), but also premium players more generally, suggests that the Chinese consumer prefers sedans, and

possibly SUVs (offered by Bentley and more recently Lamborghini and Rolls-Royce) over traditional sports models. This observation is backed by Porsche's success in China, largely underpinned by the SUV models Cayenne/Macan as well as its four-door Panamera (with China the leading market for this vehicle). In our view, there are several reasons that explain this preference: a less developed sports car culture, the lower quality of road infrastructure, frequent use of chauffeurs, and even the higher presence of women in the buying population (according to Aston Martin, women buyers represent 40% of sales in China).

Another specific characteristic of the Chinese consumer is youth, broadly at around 40 years, or even 35 years for certain models (e.g. the fully electric Taycan by Porsche), vs around 55 years in other regions. This characteristic probably explains the appetite of local consumers for technology.

The share of consumers ready to change vehicle for improved connectivity (%)

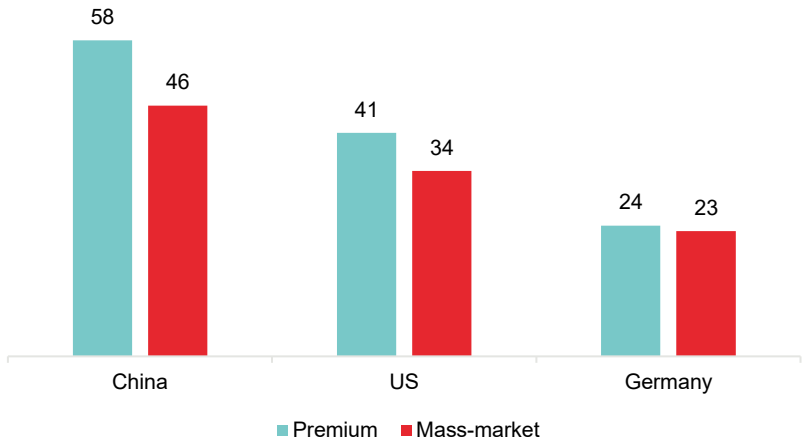


Chart 26 - Source: McKinsey

Lastly, we could also note the popularity of electric vehicles in China, notably underpinned by the different subsidy mechanisms. Whilst luxury vehicles are too expensive to be eligible to benefit from the majority of the new purchase subsidy mechanisms, any vehicles that fall into the "new energy" category (BEV, PHEV and FEV, but not mild-hybrid HEVs) can nonetheless benefit from exemptions on registration plate limits.

Over and above product preferences, we would also underscore that the success of premium brands in China hinges on a policy of massive investment in the development of a local presence (brand image, network, products, etc.). Whilst the majority of luxury brands are already very well identified in western markets, they will need to invest time and resources to develop their presence in China if they want to replicate premium players' success.

Sales outlets in China

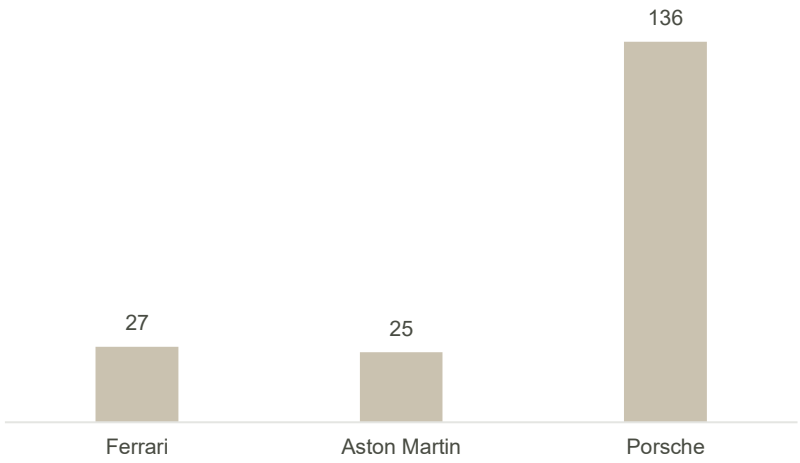


Chart 27 - Source: company websites

In our view, these different preferences explain the limited success enjoyed to date by Ferrari and Aston Martin in China. Indeed, the two carmakers are historically specialised in two-seater sports cars, traditionally with more limited interior features and/or technology. Moreover, these carmakers do not have the same financial clout to develop their presence and technology as Bentley and Rolls Royce which have been able to benefit from the respective VW and BMW networks.

Aston Martin and Ferrari launch new campaigns in China

Aware of the untapped potential in China, Aston Martin and Ferrari have both launched new initiatives in the country, albeit adopting different strategies. The two groups now appear well positioned to take advantage of the opportunity represented by this market, starting in 2021.

Aston Martin betting it all on the SUV

Aston Martin is relying on its new SUV, the DBX, to address a greater share of the Chinese population. Indeed, we can see a noticeable impact of the SUV since China represented 22% of group volumes in Q4 2020 (vs 9% for the full year). Whilst this rate should normalise over the coming quarters after an initial stock-building phase, the rate of penetration for sales in China should gravitate towards a level that is higher than the historic average (~15% est.). The launch of the hybrid versions (mild hybrid as of Q3 2021 and a rechargeable hybrid as of end-2023) is also in line with the local trend, but note that the mild hybrid is less appealing to the Chinese consumer than rechargeable models because they are not eligible for “new energy vehicle” status in the country and therefore do not benefit from the same registration plate exemptions (and towns like Shanghai have even announced that this status will be cancelled for PHEVs by 2023). Lastly, over and above volumes, note that Aston Martin’s growth in China will lead to a positive mix effect since the group applies a price premium in the country.

Ferrari opts for elegance and hybrids, pending the launch of its SUV

Ferrari's sales in China hit a low point in 2020, penalised by the decision to bring forward deliveries in 2019 ahead of change in CO_2 regulations. But even beyond this effect, the group's penetration in China remains historically below luxury peer average, which we largely attribute to a product portfolio that is heavily weighted towards sports cars. The brand's image, unrivalled in the west, is also probably less developed in China.

That said, Ferrari has, without explicitly admitting it, clearly begun to address the China issue. At end-2019 the group unveiled the Ferrari Roma, a GT model with a focus on understated luxury and, although still a two-door model, management indicated that orders in China were tracking 50% above those of its previous model (Ferrari Portofino). Deliveries for this model (available in China only as of mid-2020) should underpin group sales in country this year. Moreover, the SF90 plug-in hybrid should also fit with local preferences, and indeed Ferrari has confirmed that the model had been successful in the country. Lastly, note that these two vehicles are equipped with a new Human Machine Interface (HMI) system with several leading-edge technologies (heads-up display, new infotainment, new functions on the steering wheel and redesigned cluster instruments) that improve competitiveness with regards to local players which have strong expertise in this field.

Ferrari Roma

Ferrari Roma interior with new HMI

Chart 28 - Sources: Company

The group's Q1 results revealed the beginnings of a recovery in China, with volumes up +424% (but from a low comparison base with COVID + the rebuild of the waiting list in Q1 2020 following the 2019 destock), i.e. 7% of volumes, which remains below peers, although in line with the group's long-term average. Ferrari has also indicated that its order book in China doubled in Q1. Whilst it is difficult to draw any precise interpretation from this indication, we think that Ferrari's sales in China could rapidly (as of this year) achieve 10% of volumes (vs 5% in 2020 and 8% in 2019).

Beyond 2021, we think that the SUV Purosangue should enable the group to move up a gear, by opening up access to a new client segment, even though this is only likely to happen as of mid-2023 (based on a launch at end-2022 and a classic delivery cycle which prioritises Europe before the US and China).

However, Ferrari's attachment to its sports cars image (even its SUV is expected to be a high performance rather than comfort vehicle) could limit its potential to penetrate the Chinese market in the short term. In the medium term, the group could benefit from the positive impact of its investment in the development of the local sporting culture (events, driving lessons offered free-of-charge for each vehicle purchase, F1, etc.). Also note that in this respect that Porsche indicated that it has observed an increase in demand for sports cars in China of, respectively, +70% and +50% for its two-door sports models the 911 and 718 (although spurred in part by the launch of new versions and probably low comparison bases).

And arriving at last on the SUV market

SUVs, the new golden goose of luxury car market

The luxury car segment has not been immune from the inexorable rise of the SUV. Whilst the sector has taken longer to launch this type of product, for a long-time considered as technically or stylistically incompatible with luxury, all European luxury carmakers except McLaren have now launched (or at least announced a forthcoming launch in the case of Ferrari) their LUV (Luxury Utility Vehicle). As mentioned above, SUVs have proven very popular in China, but also in the US and other countries like Russia and India. The potential of SUVs in the luxury segment is particularly attractive because it enables players to potentially access a new client base which would otherwise not be interested in sports/performance cars and therefore, theoretically, to minimise cannibalisation (an advantage relative to the mass-market/premium segments). However, we note the majority of players in the luxury segment would have reported declining volumes over recent years if we were to exclude SUVs, which suggests that cannibalisation is probably not null. It also highlights how reliant the sector has now become on SUVs.

Luxury automobile volumes including and excluding SUVs

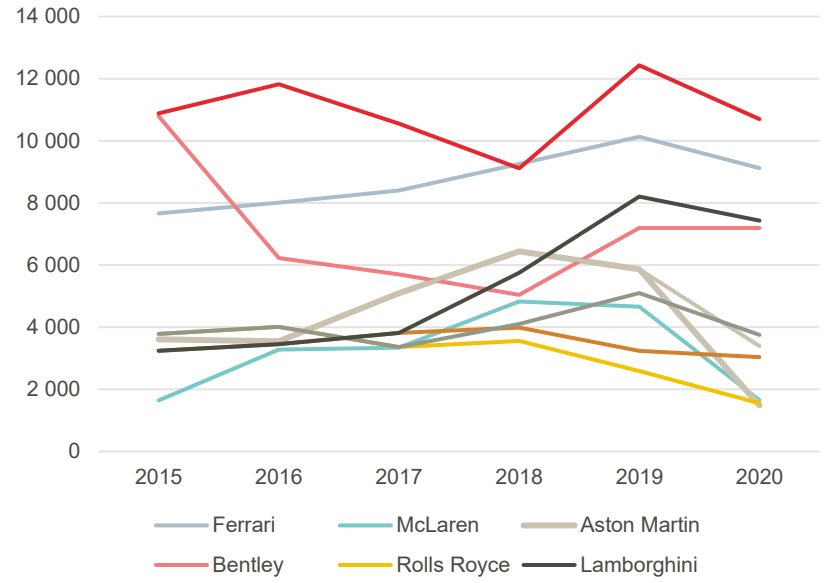


Chart 29 - Sources: companies, ODDO BHF Securities

A crowded, but still growing market

The LUV market is still relatively immature, but almost all players now have at least one product in this category. Bentley was the forerunner with the first sales of the Bentayga in 2016, followed by Lamborghini with the Urus (2018), Rolls-Royce with the Cullinan (2018), Aston Martin with the DBX (2020), and soon Ferrari with the Purosangue (2023 est.). In addition to these traditional luxury players, we think that a number of premium players should be added to the competitive landscape of luxury SUVs, as their top trims puts them in the price and performance levels traditionally associated with luxury. The lead taken by premium carmakers in the SUV segment (Porsche is already on the third generation of its Cayenne), makes them all-the more serious rivals.

Price of luxury + premium SUVs (€ k)

Power of luxury + premium SUVs (hp)

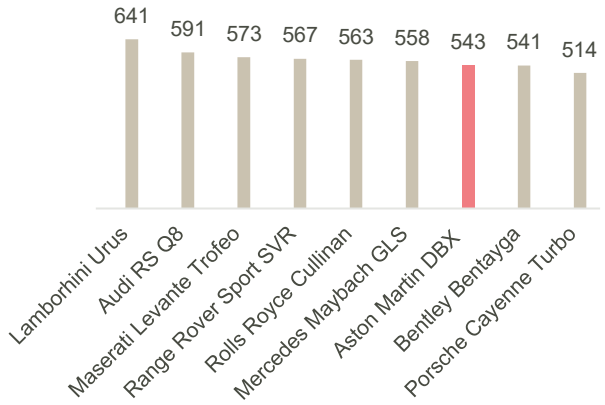


Chart 30 - Sources: companies, ODDO BHF Securities

The deluge of new SUV models naturally raises questions on the market's capacity to absorb these volumes. Whilst it is difficult to estimate the depth of the market, given its immaturity and capacity to broaden its addressable market, we note that:

- The market is yet to show any signs of slowing down. Sales were robust for all players until 2019 (+35% growth for the segment), they did not underperform in 2020, and they are picking up strongly in 2021.

- SUVs now account for 60% of sales at Lamborghini, Rolls Royce and 55% at Aston Martin. Whilst this rate does not seem anomalous (at Porsche, SUVs have historically represented between 60% and 70% of sales, even though this is split between two models), it suggests that we are approaching an optimal level and therefore the increase in SUV sales should henceforth begin to trend more in line with the other models.

- We estimate the luxury SUV market (including premium players' top-of-the-range models) at 47k units in 2019, which compares to ~900k units for the premium SUV market. Gaining share from the premium segment as luxury develops its offering could therefore be a way for the segment to achieve sustained outperformance.

- Bentley has historically managed to consistently sell ~5k units of its Bentayga each year. Even though this has been achieved via frequent updates (diesel in 2017, PHEV in 2018, V8 in 2019, refresh in 2021) in an undoubtedly less competitive environment, it could serve as a reference point for luxury peers (although note the group likely benefits from VW/Audi/Porsche distribution networks).

Aston Martin should benefit more rapidly, but Ferrari is less exposed

Here again, Aston Martin and Ferrari have understood the importance of this new source of growth but differ in their approach. AML has placed its SUV at the core of its offering (targets 50-60% of sales), which implies that the group's success (and likely its solvability) will hinge on a continued outperformance of this model/segment. Meanwhile Ferrari, whose SUV will only reach the market in 2022-2023, only considers the SUV as an extension of its existing range (we estimate 20-30% of sales), which will limit its exposure to the outgrowth of the SUV segment, but also its potential saturation.

Aston Martin off to a strong start with the DBX

Aston Martin has fully seized, albeit somewhat belatedly, the opportunity represented by SUVs. The DBX was launched smoothly in H2 2020, with sales of 1,171 units in Q4 and 1,595 units in H1 2021, i.e., respectively, 64% and 55% of group sales. We expect 3.3k units for the full year. Note that these are wholesales generated through the group's distribution network and therefore do not represent real end-demand, but the order book (4-6 months) appears encouraging and we think that the group will also now be more careful to avoid overstocking the network after the setbacks of recent years. We would also mention the positive commercial reception for the new SUV, which has the advantage of having been developed on its own platform, in contrast to several of its competitors (e.g. the Bentayga and Urus which are developed on the same Volkswagen platform, also shared with Porsche and Audi). However, there is a quid pro quo to this independence, which comes in the form of an outdated infotainment system supplied from Daimler (dating back to 2016), which has been a frequent criticism of the vehicle and could potentially hurt sales, especially in China where customers are particularly sensitive to in-vehicle technology. The new partnership with Mercedes should enable the group to address this problem, but not before the 2023 product refresh.

Interior and infotainment in the DBX

Chart 31 - Source: company

With pricing at the low end of the LUV range (the basic price of € 185k vs the Urus at € 212k and the Cullinan >€ 300k), the group is clearly targeting a volume strategy, attacking the market share occupied by Porsche Cayenne, Land Rover and Bentayga. Moreover, the DBX should also benefit from the launch of a mild hybrid version in Q3 this year and a performance version which should be sold from Q1/Q2 2022, and we expect a PHEV derivative by 2023.

All of these elements make us relatively confident in the group's capacity to achieve around 3.6k units by 2022. That said, note that the group aims to sell between 5k and 6k SUV units in the medium term (i.e. >50% of its target of 10k units out to 2024-2025) and, even if the derivatives should provide support to sales, we think that it will be difficult to maintain this level on a model that is five years old especially in the luxury segment where models age more quickly (Bentley has historically managed to sell ~5k Bentayga per annum, but in a more favourable competitive environment and thanks to the regular launch of new models). We therefore think that in order for the group to achieve its targets, it will have to develop a new model by this date (as Porsche has done with the Macan).

No SUV impact before 2023 at Ferrari, and probably in smaller numbers

Ferrari finally gave in to the siren song of the SUV when it announced its Purosangue. Ferrari will be the last company in our luxury peer list to launch its SUV on the market (assuming that McLaren keeps its promise to not to develop one). The final delivery date is still unknown (as almost everything else with the model), all we know is that it should be announced by 2022. The group has provided no indications for volumes or prices, but has already said that it will not become “a new Porsche” which, while very vague, we interpret as meaning that SUVs will not represent a disproportionate amount of group sales. We estimate that Ferrari sells ~2k of its GT models per annum and 4-5k of its sports models, and we therefore assume a range of 2k to 3k units for the Purosangue, at a price level that is well above most peers.

We would also note that the FUV (Ferrari Utility Vehicle) will seemingly stand apart from the classic SUV. Even though the model is yet to be unveiled, Ferrari has promised it will make no compromise in terms of performance, and the first images of the test vehicles (unconfirmed) appear to indicate a more sporty design than that of a classic SUV. Whilst we understand Ferrari’s wish to remain consistent with its brand image (SUV's are not generally favourably perceived by fans of the sports car, and particularly at Ferrari[1]), there is a risk that the model will not suit all consumers, notably in the Chinese market where much importance is attached to the comfort (spacious, etc.) of the vehicle, even though the success of the Panamera in the country shows that there is a market there for a four-seater sports car. Moreover, note that previous attempts at producing “comfortable” vehicles, the Ferrari FF and the GTC4 Lusso, were not met with overwhelming success by our estimates (judging by the residual values), with sales probably peaking at fewer than 2k/year. However, even if this risk materialises, the impact will be minor for the group. Indeed, recall that Ferrari is the only player in our luxury sample to show positive growth for its sport/GT vehicles between 2015 and 2020 (+18% even taking into account the COVID crisis). As such, we see the development of the group’s SUV as a new string to its bow, but without creating a reliance on the segment. If the risk of saturation in this segment materialises, the impact for Ferrari would be minimal (unlike for AML).

Flattering to sales but not profitability?

Given the similarity in trends between mass-market SUVs and the luxury segment, one could imagine a similar impact on carmakers’ financials. However, and whilst SUVs represent one of the main profitability pools in the mass-market and premium segments, we do not think that this is the case for the luxury sector. Indeed, we have observed no correlation nor positive visible impact on profitability trends at those luxury players that have strongly developed their SUV ranges, like Bentley and even Porsche. Intuitively this makes sense as luxury SUV models are generally not the most expensive of the range, whilst material costs should be higher. We therefore think that the DXB by Aston Martin (€ 185k), already at the low end of the price range for LUVs, could generate profitability that is closer to the “entry-level” model Vantage (€ 150k) than the DB11 (€ 190k), even though in the short term the mix effect should be positive since the early commercial success of the model will lead to fewer purchase incentives at the dealer level. Conversely, we think that Ferrari, which steers its projects based on return on investment, should not dilute its profitability with its Purosangue.

[1] https://www.ferrarichat.com/forum/threads/ferrari-suv-fuv-purosangue-wild-speculation-poll-what-engine-power-price.602295/

Market for limited series and classic cars still resilient

No signs of weakness in the limited series, particularly at Ferrari

In addition to their production models, luxury carmakers have over recent years intensified the development of limited series models, the so-called supercars and hypercars.

Previously a rarity, the influx of new super/hypercars to the market regularly raises questions on the impact on the exclusivity of luxury car brands. However, we currently see no particular signs of weakness. All of the latest limited series models developed by Ferrari were sold out even before they were officially unveiled, whether they be high in price (Monza SP1 & SP2, €1.8m, 500 units) or volumes (812 Competizione and 812 Aperta at, respectively, $ 600k and $ 700k, with a combined total of 1,598 units sold). Concerning Aston Martin, the group has already sold all of the units of its Valkyrie coupe ($ 3.2m, 150 units to be delivered in 2021-2022), while a small number of the 88 Speedsters remained unsold at end-Q1 ($ 950k, for delivery in 2021-2022). We think that the bulk of Valhalla sales (£600k, 750-1k units to be produced by our estimates) remain to be sold, but this is not particularly alarming at this stage given the relatively distant delivery horizon (H2 2023) and the fact that the market is almost certainly waiting to gauge the performance of the Valkyrie, on which the model is based, before making a purchase decision.

The classic car market proved resilient in 2020, but It will need to evolve

With super/hyper-cars often considered as investments for collectors, we think that a look at the market for classic cars could serve as a relevant leading indicator on demand in the market. Against all expectations, the classic car market posted growth of 6% in 2020, according to the HAGI Top Index, with a particularly strong performance from Ferrari (+14%). After the cancellation of auctions in H1 last year, the market picked up again significantly in H2. It is possible that the travel bans and the risks (real or perceived) posed by public transport helped to underpin vehicle sales. However, this should be seen in the perspective of a somewhat mixed context for the classic cars market over recent years. Indeed, after a surge in sales between 2012 and 2016, growth over recent years has been far more modest. We also observed that several of the vehicles that were put up for auction failed to achieve their reserve price. That said, the most well-known brands (and notably Ferrari) are still highly sought-after by investors.

Trend on the HAGI Index of classic cars

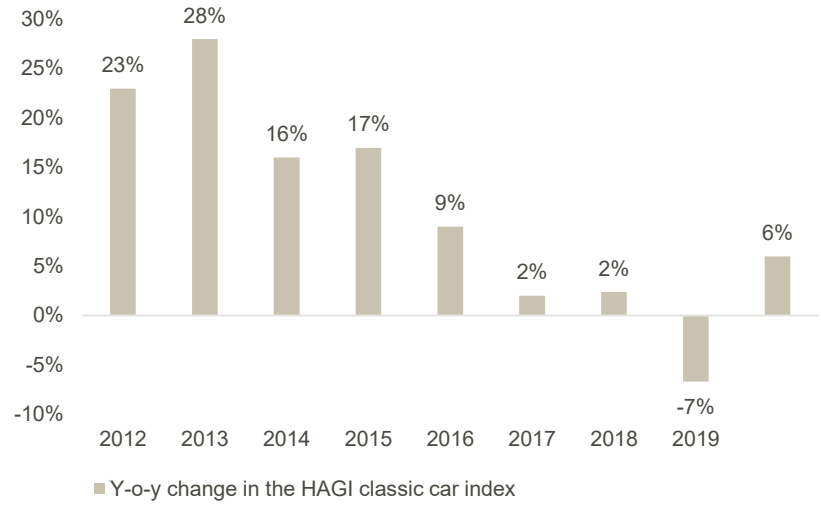


Chart 32 - Source: Historical Auto Group Index

Over and above fears of a supply glut, one of the risks weighing on the classic car market is that tightening CO2 emissions regulations will eventually impact the value of these vehicles. For the time being, this risk appears to have had no significant impact on the market, possibly because the first bans on combustion vehicles are not anticipated before 2030-2035. However, we think that it will be important for carmakers to offer models that comply with emission norms (hybrids, or even full-electric models) between now and the second half of the decade. Moreover, note that HNWI demographic trends could also impact this market. Indeed, classic cars are only the fifth-favourite passion investment in Asia, whilst in the majority of other markets they come in second.

Passion investment worldwide (1 = most popular)

	Asia	North America	Europe (ex-UK)	Middle East	Russia	UK	Average
Art	2	1	1	1	1	1	1
Classic cars	5	2	2	3	6	2	2
Watches	1	4	3	2	3	4	3
Wine	4	3	3	6	4	3	4
Jewellery	3	5	5	4	2	5	5

Table 33 - Source: Knight Frank

AND CONCERNS ON ELECTRIFICATION ARE OVERBLOWN

While mass-market and premium carmakers have now got their energy transition well underway, this is clearly not yet the case for luxury players, whose BEV plans seem both distant (not before 2025 for most) and lacking.

Spared until now thanks to the small volume manufacturer status, an increasingly stringent regulatory framework will trigger an acceleration of the electrification of the luxury sector in the coming years, which is naturally raising investor concerns about the commercial, technical, and financial impacts of this transformation.

We nonetheless think that, as with the mass market, these challenges will likely be overcome and that they should not unduly disrupt the current hierarchy.

This time the sector will not escape transformation

Little impact from CO_2 emission standards so far

Low-volume carmakers benefit from exemptions from environmental regulations, with varying treatment depending on the region:

- **In Europe**, each carmaker producing fewer than **10k units in the EU** benefits from an exemption from the CO_2 quotas in force but instead needs to show a gradual improvement in the emissions rate. Ferrari had to comply with a CO_2/km rate of 277g (vs 290g in 2016) by the end of 2021, which is well above the level imposed on mass-market carmakers (95g on average). The group was still above its threshold in 2020 (282g), but the arrival of hybrid models should underpin an improvement over the next few years. We also understand that the penalties for exceeding the threshold are minimal.

Trend in Ferrari's CO_2 emissions in Europe (g/km)

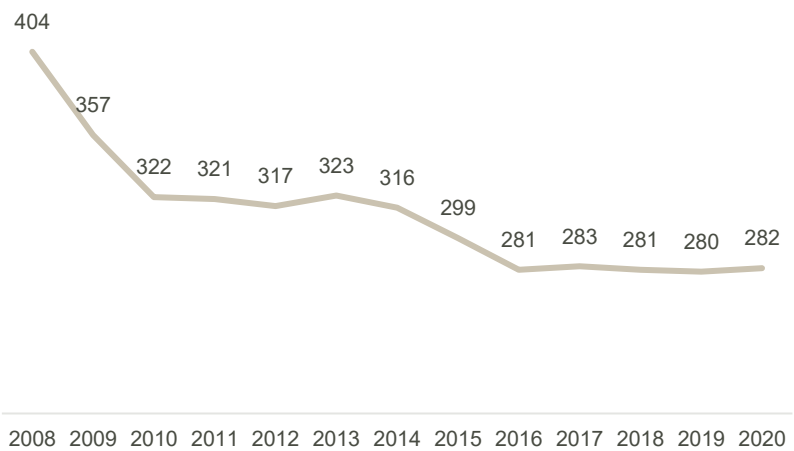


Chart 34 - Sources: company

- In the US, there are two separate agencies and standards with the EPA and NHTSA, plus some states such as California which seek to establish their own regulations. The EPA has allowed manufacturers developing less than **5k units for the US market** to deviate from the general emissions standards and to propose their own standards which are currently being finalised. The NHTSA regulations apply to carmakers producing more than **10k vehicles worldwide**. Lastly, the state of California has its own regulatory system. This was challenged by the Trump administration, but the Biden administration is expected to return California's right to set its own targets and small volume carmakers will likely have to renew their demand for exemptions.

- In **China**, a small volume carmaker is defined as one that **imports less than 2k units into the country**. Low volume carmakers must demonstrate a minimum rate of improvement in CAFC (Corporate Average Fuel Consumption), otherwise they must purchase NEV credits on the market.

Ferrari and Aston Martin are still below most of the applicable thresholds to continue to benefit from CO_2 emission exemptions. While some of these thresholds may soon be exceeded (Ferrari is expected to lose its NHTSA exemption again this year and both carmakers may also exceed the standards in China), the credit purchases required to regularise their situation (which, as a reminder, are based on the number of vehicles sold) are minimal within the current framework.

Volume by region and thresholds

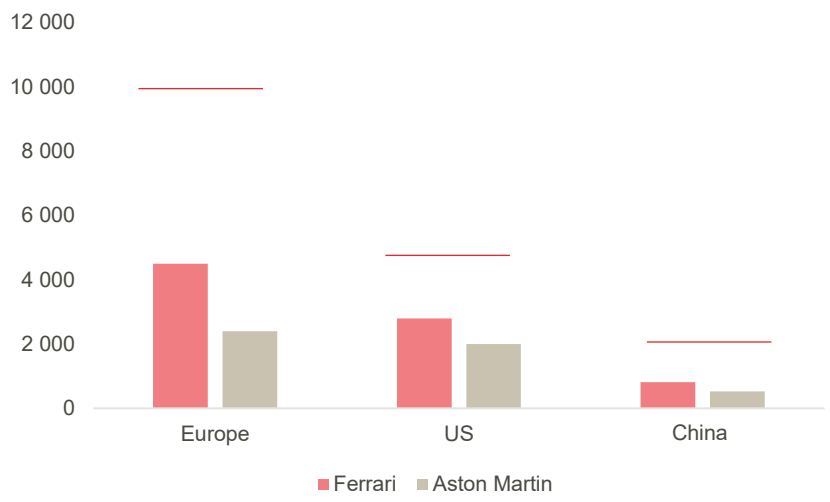


Chart 35 - Sources: ODDO BHF Securities

But towards combustion engine bans by 2030-2035

While luxury carmakers should therefore continue to benefit from emissions exemptions in the short/medium term (aside from some possible credit purchases), they now face much greater pressure as new measures to ban sales of new combustion vehicles gather pace. In total, we count more than 30 countries and over 20 major cities aiming to ban these vehicles, usually by 2030-2035, and while there was until now some doubt about the treatment of hybrids, several countries have explicitly included them in their bans This is the case, for example, in California, the UK, and now the European Union, which recently proposed a total ban on sales of new combustion + hybrid engines by 2035, as well as a removal of the small volume manufacturer exemptions by 2030.

Ambitious targets but a slow start

Despite some recent announcements of ambitious long-term targets, it is clear that the luxury car sector is lagging behind in the electric car segment, with very few all-electric (BEV) offerings, and none from the big 6 European players. This follows several postponements or project shelving (Aston Martin Rapide E BEV, Lamborghini Estoque BEV, Lamborghini Urus PHEV, etc.), illustrating the difficulties (commercial or financial) of developing a viable BEV offer in the luxury car sector.

For the time being, luxury carmakers have concentrated their efforts on hybrids, which are a fairly easy compromise as it facilitates increasing the vehicle's power (by adding electric motors), without however addressing the main technical and commercial problems posed by all-electric vehicles (no range issues, minimal weight addition, engine sound preserved, limited investments, etc.). The transition to all-electric therefore still represents a major challenge for luxury carmakers.

Electrification progress and ambitions in the luxury carmaker space

	Electric ambitions	Date of first HEV	Date of first PHEV	Date of first BEV
Aston Martin	90% electrified by 2030	Q3 2021 (DBX)	2023/24 (DBX)	~2025
Ferrari	60% hybrid by 2022 (postponed)	2013 (LaFerrari)	2019 (SF90 Stradale)	2025
Rolls Royce	?	?	?	By 2030 (Silent Shadow)
Bentley	100% PHEV by 2026	2017 (Bentayga)	2019 (Bentayga)	2025/26
McLaren	And 100% BEV by 2030 100% electric by 2035	-	2013 (P1)	2025-2030
Lamborghini	-100% hybrids by 2024 - Emissions -50% by 2025	2020 (Sian)	2023	2025-2030

Table 36 – Sources: companies, ODDO BHF Securities

Beyond the main luxury players, one can find some all-electric performance vehicles on the market today, but they are mostly concentrated on the ultra-high end of the super/hypercar range. In this category, we would highlight the Croatian player Rimac with the Nevera, the Italian Pininfarina (Mahindra Group) with its Batista (based on a Rimac architecture), or Lotus with the Evija, all scheduled for H2 2021. The high prices of these vehicles (~€ 2m) compensate for the investments linked to electrification, but they limit their status to that of a niche product (~150 units produced).

We could also mention Porsche, whose performance versions of its Taycan are priced at luxury levels (€ 156k for the Turbo and € 190k for the Turbo S), as well as Audi with the RS version of its e-tron GT. It should be noted, however, that these vehicles do not claim the levels of performance usually found in luxury. Tesla's Roadster could be the next vehicle to achieve sports car levels of performance, but the delay in the development of the vehicle (with a final release date still to be announced) seems to be a further indication of the challenges involved in developing a full-electric sports car, even for the company that is undoubtedly one of the most advanced on battery technology.

Technical challenges, especially Ferrari, but time and expertise to address them

A challenging technology, and one that is likely to remain so in the short term

BEV technology is still restrictive for luxury

While electric technology allows record levels of acceleration (instant torque), it also poses significant technical challenges, namely the additional weight and reduced range. These challenges are magnified for sports cars: the range of a battery reduces exponentially when the engine is running at high power, while the additional weight impacts handling, which is central to the efficient driving of the vehicle.

Weight of similar cars with different engines (in kg)

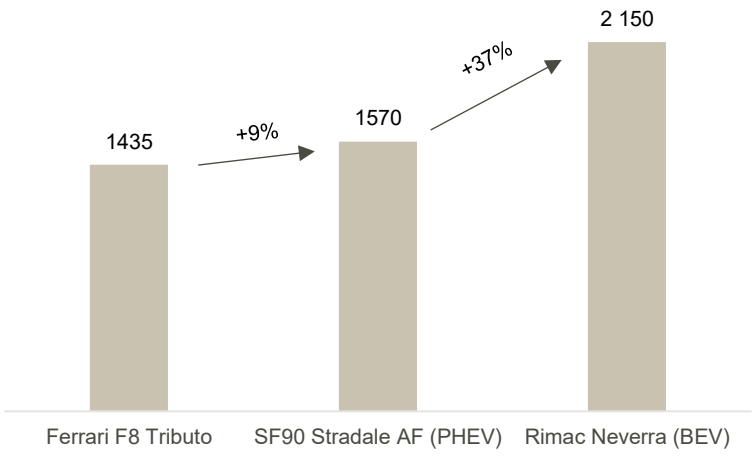


Chart 37 - Sources: company, ODDO BHF Securities

Indeed, technical and technological barriers are one of luxury carmakers' main arguments for delaying their switch to all-electric. While we believe that this argument at least partly masks more financial considerations, it is true that the performance of all-electric sports cars is currently quite limited.

Range of the Lotus Evija (miles) in different conditions

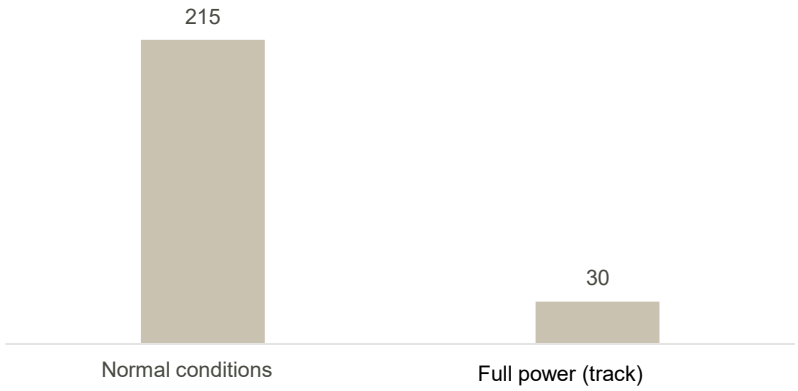


Chart 38 - Sources: ODDO BHF Securities

And probably no disruptive innovation in batteries before the second half of the decade

We would also stress that we do not expect any technological breakthroughs in the short term that would bring a significant jump in performance. Indeed, the main challenge associated with electric vehicles today is the battery, which is too heavy (~600 kg for an all-electric battery system, 250 kg for a PHEV system) and inefficient. While much progress has been made in the performance of electric vehicles, the battery technology itself has evolved little in recent years. Rimac's Nevera hypercar uses broadly the same cell technology (cylindrical lithium-ion with NMC chemistry) as the earliest Model 3. While there are almost countless battery research projects underway (lithium-metal, lithium-air, graphene, solid-state, etc.), all claiming great potential, none of them has yet made it past the laboratory stage, which means they are still years away from production considering the lengthy and rigorous car development cycles. Even solid-state, which seems to be the most advanced technology today and could therefore represent the most potential in the medium term, will only likely see its first applications from 2025 onwards (with its precursors QuantumScape and Solid Power just starting to plan pilot plants), and even potentially later for performance cars (where the battery's high internal resistance could prove problematic). Looking at other technologies, we could mention Tesla's new 4680 battery cells (even if they are technically not a new battery type, rather a reworked industrial process, meaning improvements will likely be more incremental than revolutionary), who should come earlier than Solid-State. However, even those have been pushed back to the latter part of 2022. While we acknowledge the luxury sector could move faster than the mass market in some cases by overcoming the constraints of large-scale and low-cost industrialisation (generally seen as the primary challenge for battery production), we do not anticipate breakthrough technologies for several years.

But carmakers have until 2025 to meet these challenges without risking excessive market share losses

The first electric vehicles from the major luxury players, including Ferrari and Aston Martin, are not expected before 2025-2026. In addition to allowing time to resolve the technical (and financial) challenges posed by electric vehicles, we do not believe that the distant horizon exposes luxury carmakers to disproportionate losses of market share because:

- 1/ The clientele of luxury, and in particular sports cars remains largely loyal to the combustion engine today (they are referred to as "petrolheads after all);
- 2/ The BEV offer should still be quite limited between now and then, as most luxury players have aligned themselves with post-2025 release dates. Some premium players are already tackling the segment, such as Porsche with the Taycan Turbo S at € 190k, or Audi with the RS e-tron GT (€ 140k), but with performance levels that do not rival ICE or hybrid vehicles. As for hypercars, they are by nature limited in number (generally 130-150 total units), and also in performance at this stage.
- 3/ The hybrid models expected in the interim should be able to satisfy a clientele that is more concerned about its environmental impact.

Ferrari is alone but well equipped, while AML is well supported

Ferrari, a rare lone horse going against an armada of partnerships

The technical constraints posed by electrification will not be approached in the same way by the luxury players. Companies that are part of large groups will largely rely on the propulsion systems developed by their parent company (Lamborghini, Rolls-Royce, Bentley) or the capital it provides (Lotus, Pininfarina. Alpine). Some smaller players have developed partnerships (Aston Martin-Mercedes, Pininfarina-Rimac, Koenigsegg-Rimac, Alpine-Lotus, Jaguar-(X),). Ferrari, on the other hand, is going at it alone. Furthermore, the group has always emphasised its high level of insourcing, and we therefore believe that it intends to develop a large part of the technologies inhouse, although probably to a lesser than before.

But the group should take advantage of the lessons learned from F1 and the SF90, as well as its new CEO

Formula 1, in addition to being a marketing tool, is used as a technological laboratory whose innovations trickle down to carmakers' road cars. The introduction of a hybrid engine in Formula 1 from 2014 has allowed Ferrari to develop a multi-year expertise in a full range of electric technologies: batteries and their control systems, inverters, regenerative braking, software, etc. These skills have thereby enabled the group to (successfully) develop two plug-in hybrid models (SF90 Stradale and 296 GTB), which already represents a considerable technological step forward compared to light hybrids and place the carmaker well ahead of most of its peers (first Aston Martin PHEV production model not expected before 2023).

While not all F1 technology and investment are of course perfectly transferable to road vehicles, we believe that a sports carmaker like Ferrari is particularly well suited to take advantage of these technologies. Indeed, the group has historically incorporated more F1 inspirations than most of its peers (engine expertise, carbon fibre, paddle shifters, driving modes etc.).

We are also quite encouraged by Ferrari's progress on weight. The SF90 has achieved record levels of power/weight ratios, with a weight ex-hybrid system (-250kg) rivalling Lamborghinis and McLarens, which are usually best-in-class in that area. In current form, a Ferrari BEV would be 11% lighter than the Rimac Neverra (using same battery pack weight assumptions). Furthermore, Ferrari has achieved this performance despite using, by our estimates, less carbon fibre than its peers (Ferrari being historically more partial to aluminium), which would suggest that there is still room for improvement in the forthcoming BEV. Here again, the group should also be able to draw inspiration from F1 where carbon fibre is widely used.

Current and theoretical weight of Ferrari vehicles vs peers (kg)

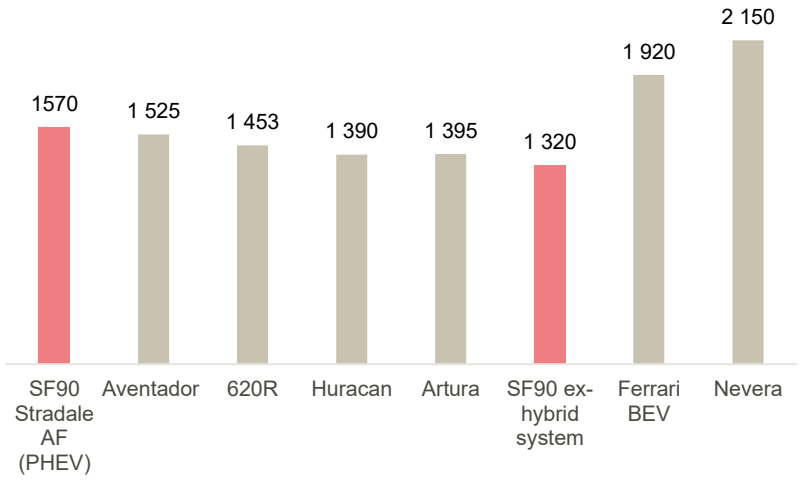


Chart 39 - Sources: ODDO BHF Securities

Lastly, given the need to accelerate the development of new technologies (batteries but also software, infotainment, etc.), we believe that the choice of a new CEO from the technological world at Ferrari could prove to be judicious. In addition to his good leadership track record, Mr. Vigna's experience as a director at STM could provide valuable technical skills. STM supplies electronic components that fill many different functions within the vehicle, ranging from control units, to display/infotainment, but also having a direct influence on the vehicle's performance (notably, STM is a leading supplier of silicon carbide inverters, one of the key elements to improve the efficiency of the electric motor). Although Mr. Vigna did not head the Power Electronics division himself, there is no doubt that he has the necessary skills and contacts to develop this activity at Ferrari.

Formula E – not such a good idea?

Given the potential for knowledge transfer between Formula 1 and road cars, one could imagine Formula E (electric) fulfilling the same role for electric technologies, and thus justifying a possible entry of Ferrari into the competition (which has so far denied intention to participate). However, we believe this could be misguided, as the current technical specifications of Formula E seem to limit its potential learning curve. Indeed, the tournament currently imposes a single type of battery (the latest generation of which was developed by Lucid, and the next by Williams Advanced Engineering), which we believe is the main element of differentiation and performance improvement for electric vehicles. In fact, BMW and Audi have justified their departure from Formula E by the lack of learning experience offered by the competition.

EVs redefine the value proposition, but there is a definitely a market for the sports BEV

Redefining the value proposition

The sound of silence

In an interview, Ferrari's technical director admitted that engine sound was one of his customers' primary concerns. In fact, we believe that within the world of luxury carmakers, Ferrari is one of the most exposed to this issue (in the same way as Lamborghini or McLaren) because of its 'sport' image and its reputation for powerful combustion engines (and in particular the venerable V12). While Aston Martin also sells sports cars, the carmaker plays on a more 'subtle', understated image with elegance also at the centre of its value proposition, an image more compatible in our view with a quiet engine. Bentley and Rolls-Royce could even take advantage of the silence to reinforce the luxury-comfort aspect of their vehicles.

Ferrari music

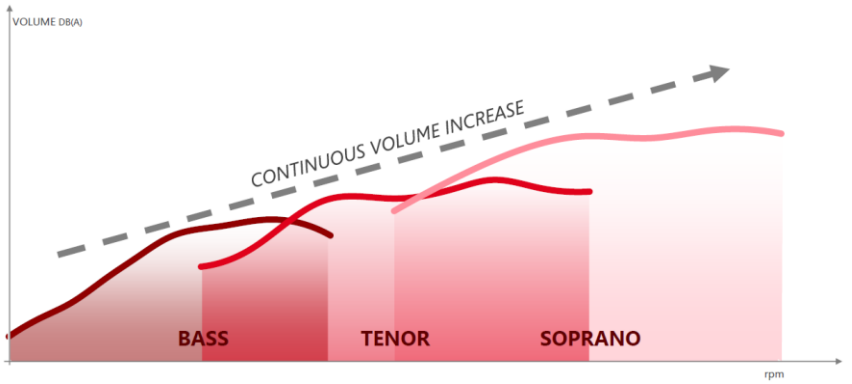


Chart 40 - Sources: Ferrari

Luxury carmakers are currently working to solve this problem and we expect this to become an important point of innovation and differentiation in the future. There are few clear indications at present, but this will lead to the introduction of artificial sounds into the cabin. One example is Lotus, which has hired the music producer of Britney Spears and Susan Boyle to reproduce a version of the sound of Formula 1.

Finally, we note that Ferrari claims to have received positive feedback from its customers on the emotive response triggered by the experience of driving its hybrids, even in all-electric model.

Performance convergence, but it's been a long time since speed ruled all

While we believe that carmakers should be able to solve the technical challenges posed by electric cars, we believe that it will be more difficult for them to differentiate on performance than before, for two reasons:

- Unlike the combustion engine, they do not have decades of experience in developing the electric motor propulsion system. On the contrary, they lag behind pure-electric players who have been investing in their R&D for many years and whose models have already reached record levels of performance (Rimac's Nevera and Tesla's Plaid are currently vying for the

title of fastest acceleration with a 0-60km/h time of under 1.9s vs 2.5s for Ferrari's fastest model).

- The characteristics of the electric motor inevitably lead to greater homogeneity. The relative simplicity of the electric motor reduces the performance gap between the models. Only a few tenths of a second separate the performance of the Plaid and the Nevera, but the Plaid costs $ 129k while the Nevera has been advertised at $ 2.4m

Tesla Model Plaid vs Rimac Nevera

	Plaid	Nevera
0-60 (sec)	1.99	1.85
1/4 mile	9.23	8.6
Maximum speed (mph)	200	258*
Range (miles)	390**	340*
Prix ($ 000)	129	2 400

Average acceleration difference between premium vehicles (acceleration 0-100km/h, in sec)

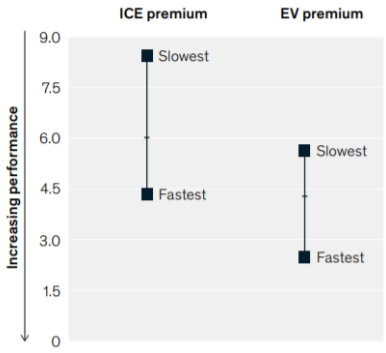


Chart 41 - Sources: companies, McKinsey, ODDO BHF Securities
**Company estimate*
***Accreditation cycle not specified for the Plaid*

However, we do not see the loss of dominance on speed as a major risk factor for luxury players, even for a more performance-oriented player like Ferrari. After all, Ferrari (let alone Aston Martin) has long since stopped trying to break acceleration records for its road cars, preferring to focus on the overall driving experience. This is also due to a relationship of diminishing returns: at the levels of power now achieved, any incremental additions add little, and can even be counterproductive by making the vehicle more difficult to control. The rise of less powerful GT models in recent years also shows that performance is no longer the focus of luxury customers. However, we believe that this will require carmakers to increase focus on other aspects of the car: interior, technology, perceived brand quality, etc.

There is undoubtedly a market for electric sports cars

While the question of the commercial acceptance of the electric vehicle, especially at Ferrari, but also at Aston, is becoming more and more important, we would point out that:

- **This represents a distant challenge with a long phase of transition** - The first electric vehicles from the major luxury players are not expected until 2025-2026 and even then, the electric vehicle will only represent a small minority of their product portfolio. Even in Europe, where they will face the most stringent CO2 regulations, carmakers will continue to sell combustion or hybrid vehicles (which have already been successfully marketed) out to 2030-2035 (plus a remainder beyond that for racing cars). Outside Europe, i.e. ~50% of Ferrari and Aston Martin sales (and probably a higher proportion by then), carmakers should be able to continue to distribute their traditional ICE models even longer.

- **There is indeed a (new) market for luxury electric cars, even for sports models** - While the big luxury players have not yet launched their BEVs, there are already electric performance cars on the market, and we see that these have been very successful. It is worth remembering that electrics can provide access to a new clientele that would not buy a combustion sports car (already

observed at Ferrari with its SF90 PHEV, which attracted new customers to the brand) thereby increasing the addressable market. Rather than a threat, electric cars could therefore represent an opportunity. The best illustration of this is surely Porsche's Taycan, of which 9,072 units were sold in Q1 2021, already representing 13% of the group's sales and almost as much as the iconic 911 (9,133). The success of Porsche's electric model also shows that neither performance nor price are the only (or even the main) selection criteria for a consumer, otherwise the model would struggle in comparison to Tesla's Model S.

Porsche Taycan volumes

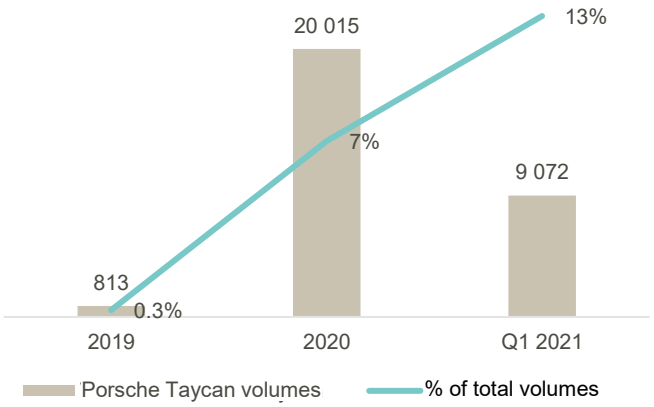


Chart 42 - Source: company

An uncertain financial impact, in particular for Ferrari, but should be overcome

With electrification ramping-up, the financial impact of the transformation has become a major cause for investor concern. This is particularly the case for Ferrari which is set to develop its technologies internally (vs via partnership with Mercedes for AML) and has announced it intends to continue to offer its combustion models in parallel to its EVs, implying that investments in BEV will be incremental not substitutive. However, we believe that Ferrari will be able to leverage its scale, its experience, its flexibility, and its pricing power to successfully overcome this challenge. Our capex scenarios suggest an incremental investment need for € 300-500m per year, i.e. a level that can be comfortably absorbed without increasing the group's capex ratio. In the long term, we think that electric could even reduce investment and be accretive to the group's ROCE.

Ferrari is a rare lone horse but should be able to benefit from its pricing power and expertise

Already halfway there thanks to the SF90 and F1?

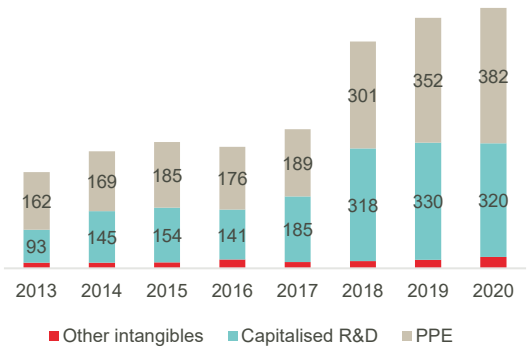
Ferrari has built up expertise in hybridisation technologies at the highest level for many years (light hybrid for the LaFerrari hypercar in 2013, PHEV technology in F1 since 2014). The group has also heavily invested in the development of PHEV technology for its road cars with the SF90, which in our view is one of the most technically advanced cars on the luxury automotive market (record weight/performance ratio), and more recently with the 296 GTB.

Therefore, and unlike several of its direct competitors, the group has already made some significant progress towards electrification (in fact, the main difference between a PHEV and BEV is the absence of a combustion engine and a larger battery). Although the amount invested in the group's hybridization has not been disclosed, it is clearly significant, as evidenced by Lamborghini's announcement it would invest € 1.5bn in the next four years just to hybridise its range (even while benefiting from VW platforms). We can also glean some information from Aston Martin's deal with Mercedes. In its technology deal with the German carmaker (total value estimated at £ 286m), Aston Martin allocated £ 140m of the deal's total value to light hybridisation and electronic technologies and £ 146m to PHEV and BEV technologies (allocation as carried out by an auditor). Based on these ratios, Ferrari could already be halfway there, at least in terms of R&D (and bear in mind that R&D generally represents over 70% of the group's investments).

Moreover, we note that Ferrari has noticeably ramped up investment in recent years, especially as of 2018, which coincides with the start of the development of the SF90. We have therefore already seen the impact of electrification on the group's investments. In this context, it is interesting to note that the increase in investments in recent years had not affected the stock's performance.

Lastly, the fact that Ferrari has continued to make significant investments in 2020 and 2021, despite a sparser product release programme, could suggest that it has already begun to invest in the next technology stage, thereby reducing the need for future investment.

Trend in capex at Ferrari (€ m)



Trend in R&D and capex at Ferrari (€ m)

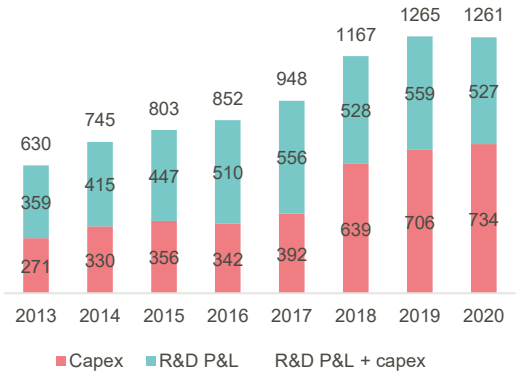


Chart 43 - Sources: companies, McKinsey, ODDO BHF Securities

High flexibility should limit investments in production facilities

An important area for investment in electrification for mass market and premium players has been the development of specific platforms. Unlike HEV and PHEV, the full-electric approach requires a vehicle architecture overhaul.

Architecture Mercedes AMG PHEV vs skateboard BEV vs Rimac H-type

Table 44 – Sources: Mercedes, Rimac, ODDO BHF Securities

However, we think that the luxury segment could benefit from its flexibility to limit required investment. In fact, with its smaller volumes and higher prices, this segment is not subject to the same constraints in terms of productivity and scale effects as mass market and even premium manufacturers. Moreover, most of Ferrari's production is still manual. It is therefore likely that the group could use the same platform for the production of its combustion and electric vehicles (already the case for PHEV as the SF90 is produced using the same production lines as the group's other vehicles), which would limit investment in infrastructure. For example, BMW, which opted for a flexible platform, invested "just" € 200m in the adaptation of its production facilities (a small amount, even for Ferrari which invested € 708m in capex excluding F1 in 2020) while Volkswagen invested $ 7bn in its MEB platform (although it is scaled for much higher volumes). As a reference, the €40m Ferrari invested in the renovation of its engine plant several years ago could provide an idea of the amounts in play.

Furthermore, Ferrari's production tool seems correctly scaled in our view. The Maranello plants have capacity of 14-15k units (and potentially more with an additional shift), i.e. almost 50% more than current production levels

Make vs buy - different scenarios for batteries

The total amount invested in electricity will be highly dependent on the level of in-housing chosen by Ferrari. There are two segments in particular that may represent very significant amounts; batteries and software. Although software (infotainment, ADAS/autonomous driving, over-the-air updates, etc.) can represent massive investment needs, we do not think that this will be the case for Ferrari as: 1/ the group has already begun to develop certain systems (ADAS, HMI, etc.), and; 2/ in our view, the group seems unlikely to seek to develop autonomous driving, which is by far the software segment with the highest capital requirement. However, we are not ruling out a vertical integration in the battery segment.

The battery of an electric vehicle is made up of cells that are assembled in modules and then in a pack to form the battery system (as well as a cooling system and energy management software). Currently, most carmakers are integrated at the module or pack level, but outsource cell production to specialist groups (CATL, LG Chem, SK Innovation, Panasonic, Northvolt, etc.). Nonetheless, we think that there are several elements that could justify Ferrari in seeking to move up the value chain to cell production:

- The performance of the cell has a significant influence on the vehicle's general performance and can be considered the equivalent of an engine for a combustion vehicle. It will therefore be difficult for Ferrari to stand out from its peers (and even rival some well-advanced players such as Tesla)

without mastering the cell's complexities (chemical composition and architecture).

- Luxury vehicles will need specialised cells and traditional cell players may not invest in this niche due to limited demand. At its Power Day in March, Volkswagen explained that 20% of its highest-performance vehicles required specialised cells. We also highlight the recent announcements on the creation of a joint venture between Porsche and Customcells (spin-off of the Frauhofer research institute) for high performance cell production.

Ferrari is therefore highly likely to move up the production chain to the cell level. The group has purchased pieces of land in recent years (>€ 60m in 2019-2020) although is far from reaching the limit of its production capacity, which leads us to believe that this space could be dedicated to batteries. In our view, the most likely option is that Ferrari will invest in a cell research unit, potentially with a pilot plant to control the manufacturing process. The group could also invest in the production of the cells themselves (especially in light of the rumours announcing that some sports car manufacturers such as Porsche and Rimac were considering the possibility). However, we think that this is less likely as: 1/ this stage of production offers less added value in our view; 2/ one of the reasons that motivates certain carmakers to invest in cell production is the desire to guarantee capacities to face possible shortages, but we consider this risk to be smaller for low-volume luxury carmakers (as currently shown by the semiconductor crisis), and; 3/ it will be difficult for the group to achieve scale effects. If Ferrari branches out into cell production (for better quality control/performance, for example), a possible and likely option would be a joint venture, which remains the favoured route for many carmakers (Tesla with Panasonic, Stellantis-Saft, GM-LG, Ford-SKI, potentially Porsche with Customcells, etc.).

To estimate the amount to be invested in cell R&D, we could use as a reference the sums dedicated to research and the small series production of cells that have been communicated by several carmakers.

Investment in R&D and small series cell production

	Type of investment	Investment (€ m)	Surface area (m^2)
BMW	Skill centre dedicated to research on the various kinds of battery chemistry and architecture	200	8 000
	Pilot cell manufacturing plant	110	14 000
Daimler	Campus dedicated to research and the small series production of cells and to the development of electric propulsion systems	"Triple-digit figure"	
Ford	Battery lab + pilot plant	155	18 000

Table 45 - Source: ODDO BHF Securities

The cell production stage is more complicated to estimate given the absence of projects in the size that Ferrari would require (3-4k electric cars per year in our view). The cost of major Gigafactory projects generally stands at around € 80m per GWh, which would imply €40 expense Ferrari, but without including lost scale effects. To take this into account, a figure in the region of € 100m seems more realistic to develop cell production capacity. Porsche's recent announcement of a "high double-digit € m amount" in the production of battery cells as part of its joint venture with Customcells (with a production target to equip 1k vehicles per year) also seems to validate this amount.

Potential investment in cell production

Company	Project	Investment (€ m)	Capacity (GWh)	Vehicles (k)	Cost (€ m/GWh)
ACC	R&D + prod	5,000	48	675	104
Leclanché	Plant expansion in Germany	54	0.7	7.5	77
SKI	Plant in Hungary	2,300	30		77
Samsung SDI	Plant expansion in Hungary	740	10		74
SVOLT	Saarland plant	2,000	24	400	83
Britishvolt	Blythe plant	2,900	30	300	97
Average price per GWh in € m (A)					**81**
Size of the Ferrari battery pack (kWh)					120
Ferrari's medium-term BEV volumes					4,000
Required battery capacity GWh (B)					0.48
Investment required € m (A x B)					**41**
Adjustment (scale, greenfield, technology and capacity)					50
Assumption of investment required € m (A x B)					**91**

Table 46 - Source: ODDO BHF Securities

Lastly, the assembly stage (cell to modules to pack) should have the lowest capital intensity. Here, we could use the company Microvast as a reference, which invested € 50m for production capacity of 300-500k modules, i.e. 10-15k vehicles.

We summarise the various investment scenarios in the following table:

Ferrari: investment scenarios for batteries (€ m)

Level of integration	R&D, production, assembly	R&D, production (JV), assembly	R&D, assembly
R&D cells	200	200	200
Production cells	100	50	0
Assembly	50	50	50
Total amount invested in batteries	350	300	250

Table 47 - Source: ODDO BHF Securities

Additional needs that we estimate at € 300-500m which should fit into the group's natural capex growth

Beyond batteries and the adaptation of the production tool, we think that most other areas of investment could fit into the group's existing development cycle. Ferrari will naturally continue to develop its electrical drivetrain, but this could be part of the standard product development (the engine is already systematically reworked for each product). Bear in mind that the company: 1/ already has hybrid experience, and; 2/ had exceptional capex charges in 2020 (land acquisitions, development of Purosangue). We identify several risks with our scenario, with: 1/ possible additional needs for investment, maybe in over-the-air update functionalities, weight reduction technologies, or battery management systems (software, cooling), and; 2/ amounts that could exceed those of our peers due to more advanced technical complexity and smaller scale effects.

We identify different scenarios for Ferrari's investment in its technological transformation:

- **Low investment scenario:** Ferrari invests in cell R&D but outsources final production to a third-party partner able to fulfil the group's requirements. Batteries are assembled in new plants, the land for which will have already been purchased by end-2021. The vehicles are assembled on the group's production lines with limited investment to adapt production to BEV architecture. The remaining investment needs (e-powertrain, software, etc.) are covered by the current investment budgets.

- **Mid-range investment scenario:** Ferrari moves into cell production, but through a joint venture with a partner. The plants require more investment than planned (new cell/pack architecture, cooling system). The group invests slightly more than in the past in its plant in order to adapt production to BEV architecture.

- **High investment scenario:** Ferrari continues to make significant investments to optimise the electric propulsion system. It also invests in a new production line dedicated to BEV. Other essential investments are required (over-the-air software…).

Ferrari: technology investment scenarios (€ m)

Scenario	Low investment	Mid-range investment	High investment
Batteries	250	300	350
Tooling, capacity	40	60	80
Other (e-drive, OTA, etc.)		40	80
Total investment	**290**	**400**	**510**

Table 48 - Source: ODDO BHF Securities

These investments should be spread over the period until the release of the first BEV (unveiled in 2025, we expect delivery in 2026). If we assume that none of these investments have been made so far, this implies an incremental investment need of € 60-100m per year.

As a sanity check, we compare these figures to investment amounts that have been communicated by peers.

Peer overall investment in electrification

Porsche	Announced that it would increase its investment in electric mobility from € 3bn to € 6bn from 2018 to 2022 (50% R&D, 50% PPE), of which: 1/ € 500m to develop the Taycan and derivative products; 2/ € 1bn to electrify the remainder of its range; 3/ several hundred € m to expand its production capacity, and; 4/ € 700m to develop new technologies (charging infrastructure, mobility, etc.)
Aston Martin	Technological partnership with Mercedes valued at £ 286m (€ 335m), of which: 1/ 50% (~€ 168m) for access to standard/hybrid light + electronic propulsion technologies, and; 2/ 50% (~€ 168m) for access to PHEV and BEV technologies
Lamborghini	€ 1.8bn in the hybridisation of its range
Rimac	Provides no details on investment but we estimate that the group has raised an amount close to € 240m since its creation

Table 49 - Sources: company, ODDO BHF Securities

Bear in mind that VW's entities (Porsche and Lamborghini) seem to have a relatively broad definition of investment in "electric mobility" which seems to apply to all investments in a product that has any form of electrification (HEV, PHEV, BEV) but does not represent an incremental investment in the technology. However, the € 500m dedicated to the development of the Taycan seem to be in line with our estimates of the development costs of a Ferrari BEV (but bear in mind that >20k Taycan units are sold per year vs ~10k units in total for Ferrari).

An increase in the short/medium term before a likely decline in the long term

Lastly, we think that this will merely be a short/medium-term effect (mainly out to 2025). Beyond this, the relative simplicity of electric technology could even reduce investment and have an accretive effect on margins and ROCE. Premium and mass-market carmakers have begun hinting at this during recent presentations, encouraged by rapidly increasing profitability levels for their BEVs.

Last, the phase-out of one of the group's engines (V12) would also reduce the need for investment.

...and pricing power that should help to preserve margins and ROCE

With investment only part of the equation a key question for us remains whether BEV capex can be offset by revenues to preserve margins and return on capital. In this regard, we are reassured by the fact that:

- The prices of electrified vehicles (incl. hybrids) currently on the market are generally higher than those of combustion vehicles. This is particularly the case for Ferrari, whose SF90 posts the highest premium vs ICE vehicle that we have found (81%). This pricing power should enable the group to amortise investment and even to offset possible deflationary pressure on electric vehicles.

Average price premium charged for electrified models vs ICE

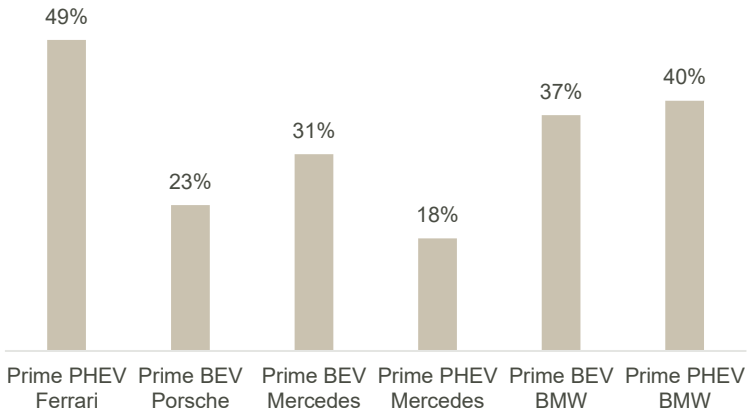


Chart 50 - Sources: ODDO BHF Securities

- In addition to the commercial success of the SF90, the group's first PHEV is accretive on group margins. If profitability is generally lower for BEVs, it is mainly due to battery costs that represent 30-40% of the value of a mass market vehicle, but which could be better amortised in the luxury segment, particularly if battery prices continue to decline out to 2025. In fact, Porsche's CEO confirmed in March that the Taycan was already profitable (only in its second year of production) and that the model would shortly reach a double-digit margin (vs a group EBIT margin of 15%), despite a relatively modest pricing premium.

- Ferrari has so far successfully offset investments (excluding 2020), even in 2018 when capex almost doubled from € 379m to € 637m.

FCF vs capex for Ferrari (€ m)

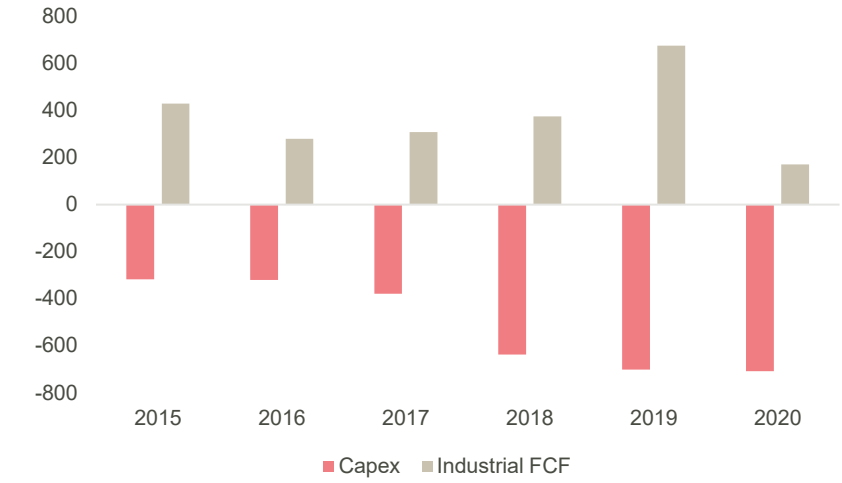


Chart 51- Sources: company, ODDO BHF Securities

Initiating coverage
Automotive | United Kingdom

Aston Martin Lagonda

Neutral ➔ | Target 2000p
Price (07/09/2021): 1974.00p | Upside: 1 %

Revision	2021e	2022e
EPS	ns	ns

Mission not yet fully accomplished

Wednesday 08 September 2021

Capital	
AML LN | AML.L	
Market Cap (£m)	2 269
Enterprise value (£m)	
Extrema 12 months (p)	965.6 - 2 273
Free Float (%)	ns

Performance (%)	1m	3m	12m
Absolute	-3.2	-10.3	79.5
Perf. rel. Country Index	-3.8	-14.0	39.6
Perf. rel. Automotives	1.2	-0.7	26.0

P&L	12/21e	12/22e	12/23e
Sales (£m)	1 169	1 385	1 502
EBITDA (£m)	161	266	327
Current EBIT (£m)	-93.5	-14.0	51.6
Attr. net profit (£m)	-195	-130	-74
Adjusted EPS (p)	-169.95	-112.99	-64.47
Dividend (p)	0.00	0.00	0.00
P/E (x)	ns	ns	ns
P/B (x)	3.8	4.9	5.8
Dividend Yield (%)	0.0	0.0	0.0
FCF yield (%)	ns	ns	ns
EV/Sales (x)			
EV/EBITDA (x)			
EV/Current EBIT (x)			
Gearing (%)	157	240	ns
Net Debt/EBITDA (x)	5.9	4.4	3.7

Next Events	
26/10/2021	Earnings Release

Early signs of recovery after two very difficult years

After having sold more cars than were demanded by the market for some years, since 2018 Aston Martin has undertaken a forced inventory reduction to restore the exclusivity of its brand. With sales already having fallen 11% in 2018-2019, the crisis worsened with a 38% sales decline in 2020. Profitability was also hit hard, with losses reaching £ 419m in 2020 and forcing the group to call on the market four times last year, enabling it to raise £ 776m but at the price of strong dilution. However, we are now observing initial signs of a recovery with a return to grown, restored residual values and ASP, and positive EBITDA.

A fresh start on many levels

Since 2020, Aston Martin has secured new financing through a new reference shareholder (Lawrence Stroll), implemented a fully overhauled management team (including a new CEO, Tobias Moers, former CEO of Mercedes AMG, a new CFO, a new COO and several fresh divisional heads) and announced two new strategic plans with downgraded 2025 targets. The group is now aiming for sales of 10k units per year, sales of £ 2bn and EBITDA of £ 500m in 2024-2025. Lastly, Aston Martin signed in November a technology partnership with Mercedes that should give the group access to the German OEM's technologies, ultimately in exchange for 20% of its capital.

Attractive growth prospects, but no breakeven before 2024

Going forward, Aston Martin should enjoy better momentum thanks to a strong product launch schedule: the SUV since Q4 2020, Valkyrie hypercar in H2 2021, refresh of the GT/sports car portfolio in 2023, and expansion into mid-engine cars as of 2023-2024. We expect 2020-2025 sales CAGR of 27% (13% over 2019-2025). However, overinvestment and high debt levels should continue to depress group profitability via D&A charges and interest expense. Therefore, we only expect breakeven to be reached in 2023 at the EBIT level and 2024 for net profit.

The execution risk remains high

With cash breakeven not expected until 2023, Aston Martin's gross cash position reaches a low point of £ 187m in 2023 in our scenario (£ 250m including potential cash from warrants), which makes it vulnerable to a need for a capital increase in the event of any misstep. We think that the execution risk is not insignificant considering: 1/ the need for timely product launches, given that some vehicles (notably mid-engine) are very different to the group's standard products and the group has faced delays several times in the past, and; 2/ heavy reliance until 2023 on the success of the DBX SUV (60% of volumes and 45% of sales in 2022) in a segment that is now competitive.

We initiate at Neutral with a target price of £ 20

Given the distant horizon for achieving profitability, we opt for a valuation based on multiples applied to 2025 aggregates that we discount. After factoring in the future dilution (15% of the capital yet to be issued), our valuation points to a target price of £ 20 and a Neutral rating.

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Signs of recovery after two very difficult years

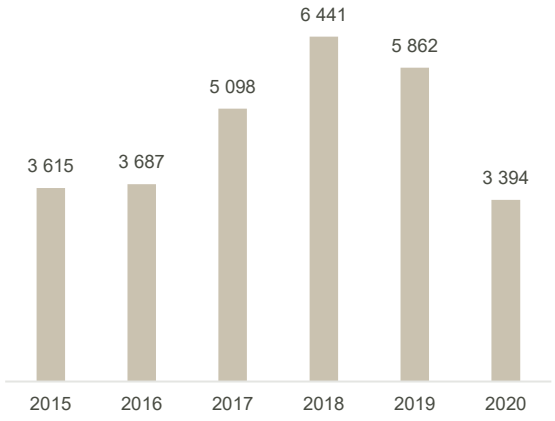
Collapse in sales and profitability since 2018

Excess supply, then COVID led to a collapse in sales

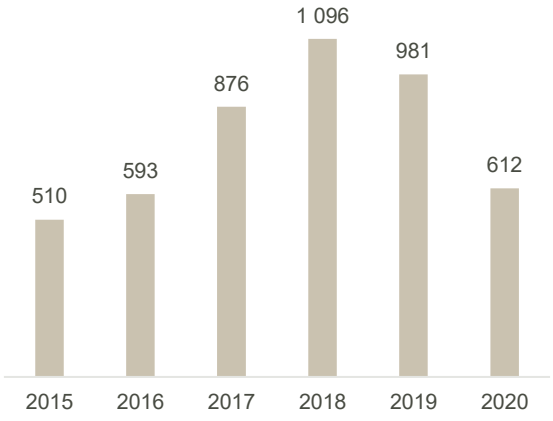
Aston Martin generates virtually all of its sales from the sale of vehicles, spare parts and servicing but also has a small licensing and motor sports business (2% of 2020 sales).

The group has seen a strong contraction in sales since 2018, mainly due to oversupply. The group overestimated demand for its sports cars and overstocked its dealers, prompting the latter to cut prices to unload volumes. COVID brought fresh complications in 2020, notably by further postponing the launch of the group's Valkyrie hypercar.

Growth in Aston Martin's volumes



Growth in Aston Martin's sales (£ m)

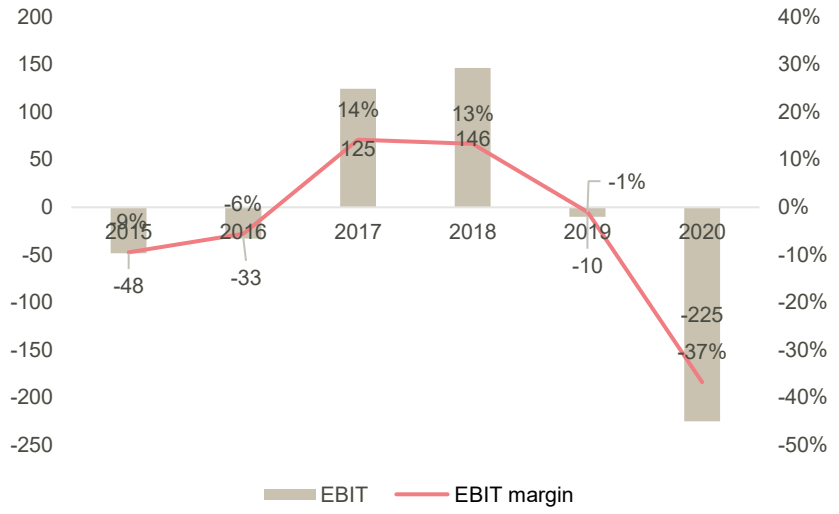


Sources: companies

Which largely eroded the group's already fragile profitability

AML's profitability naturally collapsed with the fall in sales as it was already weak. Indeed, at the peak in 2017, the group generated an adjusted EBIT margin of 14% vs 21.5% on average at Ferrari over 2015-2020 (and closer to 25% in recent years).

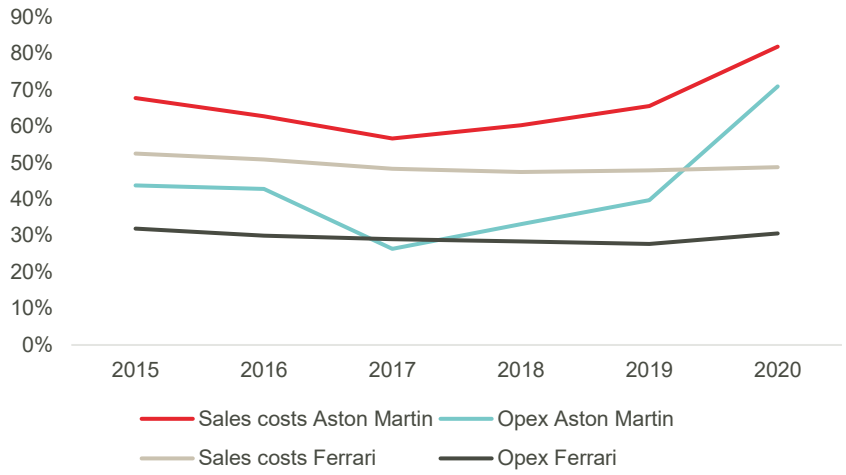
Trend in Aston Martin's adjusted EBIT (£ m)



Source: ODDO BHF Securities

A comparison of the two groups' cost structures points to structural weakness at the gross margin level, reflecting pricing that is too weak and/or a lack of operating efficiency.

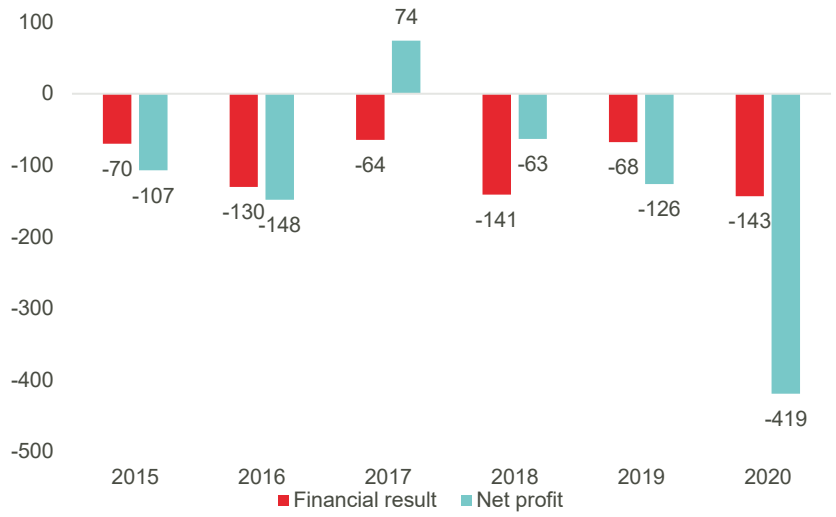
Cost comparison Aston Martin vs Ferrari (as % of sales)



Source: ODDO BHF Securities

Lastly, debt has also been a permanent burden on the group's results. Aston Martin's gross debt (including IFRS 16) at 31 December 2020 stood at £ 1.2bn with net debt at £ 727m, for adjusted EBITDA of -£ 70m.

Trend in Aston Martin's net profit (£ m)



Source: ODDO BHF Securities

New management, new financing and new strategy

2020 was a year of transition for Aston Martin in many respects:

New funding but still at a high cost to shareholders

Aston Martin made changes to its capital structure in 2020:

- **Four highly dilutive capital increases and a new reference shareholder.** Faced with the group's financial difficulties, Aston Martin carried out four capital increases in 2020 that shored up the company with £ 776m in (net) cash, at the cost of strong dilution (90%). The capital increases also brought in a new reference shareholder, Lawrence Stroll (who owns ~16% of the company and occupies the Executive Chairman position). Mr Stroll is a billionaire Canadian entrepreneur who made a fortune in the fashion industry and is also the owner of the Racing Point Formula 1 team, now rebranded as the Aston Martin Cognizant F1 team. In addition to the financing, the arrival of Mr Stroll and the affiliation with the Formula 1 team provides Aston Martin with a promotion platform.

- **Extension of debt maturities, but at a high price.** The group also refinanced its long-term debt, extending the maturity of its bonds from 2022 to 2025 and 2026. This refinancing provides headroom but with strong maturities, with rates respectively at 10.5% on the first line Senior Secured Notes or SSNs (nominal value $ 1,085m) and 15% (including 6% PIK) on the second line SSNs (nominal value $ 335m). Note that the bonds have non-redemption clauses running until November 2023 for the second line and November 2024 for the first line, with interest rates expected to run at least until those dates (and that a possible refinancing before these deadlines would result in penalties). The second line SSNs include warrants that give the holders the right to subscribe for a maximum number of 6.3m Aston Martin shares (5.5% of the current capital) at a strike price of £ 10 (vs the current price of £ 19).

A new experienced management team

With the reorganisation of the capital, Aston Martin carried out a far-reaching overhaul of its management team, bringing in several experienced profiles, including:

- **A new CEO,** Tobias Moers, the former CEO/CTO of Mercedes AMG (18 years at the group, including almost seven as CEO) before joining Aston Martin in August 2020;
- **A new CFO,** Kenneth Gregor, who was previously CFO at Jaguar Land Rover for 11 years until June 2019 and joined Aston Martin in June 2020;
- **A new COO,** Michael Straughan (November 2020), a former member of the management committee at Bentley;
- **New business unit heads**, in particular a new head of vehicle engineering, powertrain engineering, electrical engineering, a new head of sales and new regional heads, etc.

New technology partnership with Mercedes (also dilutive)

While Aston Martin and Mercedes already had a customer-supplier relationship (the German OEM supplies Aston Martin with its V8 engines as well as other components under a commercial agreement), the two groups strengthened their ties in October 2020 by signing a new technology partnership that will give Aston Martin access to a range of Mercedes technologies (in particular its electrical and hybrid architecture) in exchange for a maximum of 20% of Aston Martin's shares and two seats on the board of directors (vs nine members currently). When the agreement was signed, these shares were valued at £ 286m, i.e. a price per share after the reverse split of £ 12.4, but after the recent rise in the share price, we calculate a current value of £ 430m (and note that a provision for compensation has been booked in the event that the Aston Martin share price falls below the level at the time the deal was signed with a possible additional payment of £ 29m). One of the partnership's main advantages is that it will give Aston Martin access to the latest Mercedes technology whereas previously it was still lagging 12-18 months behind. Aston Martin distributed an initial tranche of shares to Mercedes in December to gain access to powertrain technologies (notably the mild hybridisation that will be used as of Q3 this year in the its SUV) and electronic architecture technologies. This deal lifted Mercedes' stake in Aston Martin from ~3% to ~12% and gave it a seat on the Board. We believe that the group will distribute a second tranche of shares in 2023 (which corresponds to the date of the group's first plug-in hybrid), which will provide access to Mercedes' PHEV and BEV technologies. Lastly, the technological agreement allowed Aston Martin to renegotiate its commercial supplier agreement with Mercedes, which should enable it to secure more favourable purchasing terms (prices or volume commitments).

Two new strategic plans

The new financing, partnerships and management teams have led Aston Martin to set out new targets for 2024-2025:

- Volumes of ~10k units per year vs medium-term guidance of 14k units previously;
- £ 2bn in sales;
- Adjusted EBITDA of £ 500m, i.e. a margin of 25% vs >30% previously;
- Average capex of £ 250-300m.

While we believe that the reduction in the volume targets reflects a more realistic vision of final demand and should ultimately enable better value creation by restoring the brand's exclusivity, it requires an adjustment to the group's cost structure, the latter having been sized for production of 14k units. AML therefore also revealed several cost reductions measures in parallel, including:

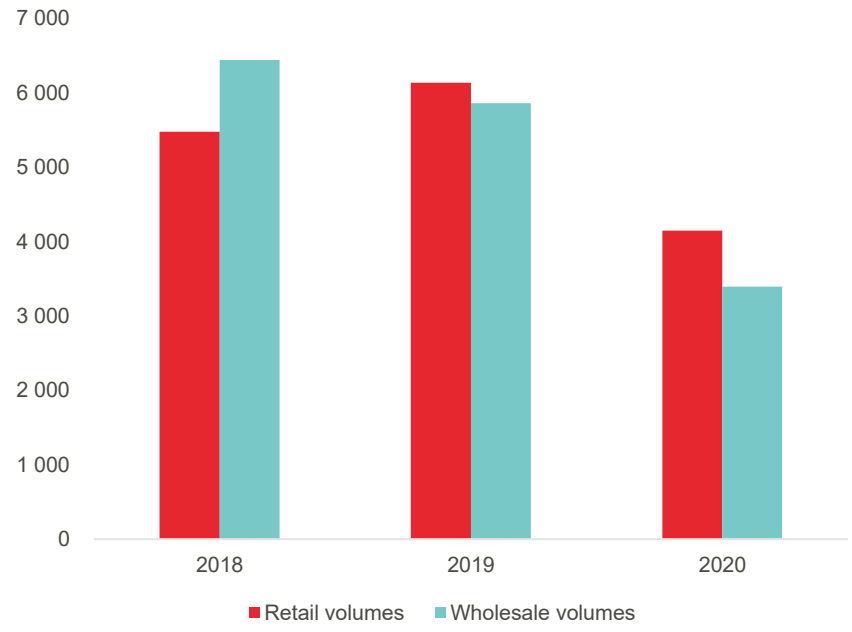
- A reduction in the headcount of up to 500 jobs (out of 2,450 at 31 December 2019).
- A revision to project development, including notably the shelving of the group's electric vehicle (Rapide E) as well as its hybrid V6 engine (now supplied by Mercedes) and the postponement of the launch of the Lagonda brand to "not before 2025" vs 2022 previously.
- Additional measures at the initiative of the new CEO via a new plan, "Project Horizon", which aims to generate 30% of industrial efficiency. The details of the plan have not been released but it is expected to cover a wide scope of cost areas, mainly variable costs, such as procurement, production costs, logistics, etc. In concrete terms, Aston Martin has already announced that it intends to group most of its vehicle production (excluding DBX) at its Gaydon plant and most of its paint operations at its second plant in St Athan, as well as reducing the number of production lines and stands.

Early signs of recovery

Wholesale and retail sales now aligned, backlog and ASP restored

The 42% fall in wholesale volumes in 2020 should be seen in light of the efforts to restore balance to the supply and demand for the group's products. Indeed, retail sales posted a slightly less significant decline of 31%, though this remains higher than the average for our sample of luxury car companies (-22%). The control of volumes distributed to dealers thus reduced inventories of Sport/GT models (excluding SUVs) by 1,580 units in 2020 (offset by an increase in SUV stocks at the launch), after already having been reduced by 190 units in 2019. The group believes that dealer inventories have now reached normative levels and assured that wholesales are aligned with retail sales (no further indications as AML has stopped reporting on retail sales as of Q1 2021). Furthermore, during the H1 conference call, Aston Martin reported on a solid backlog providing over four months of visibility.

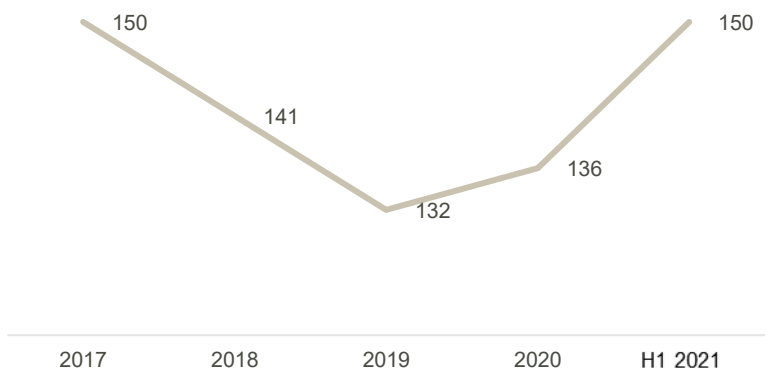
Trend in Aston Martin's retail vs wholesale volumes EBIT (£ m)



Source: ODDO BHF Securities

The end of the process of rebalancing supply and demand is reflected in the group's ASP, which has now returned to pre-crisis levels.

Trend in Aston Martin's core ASP (£ k)

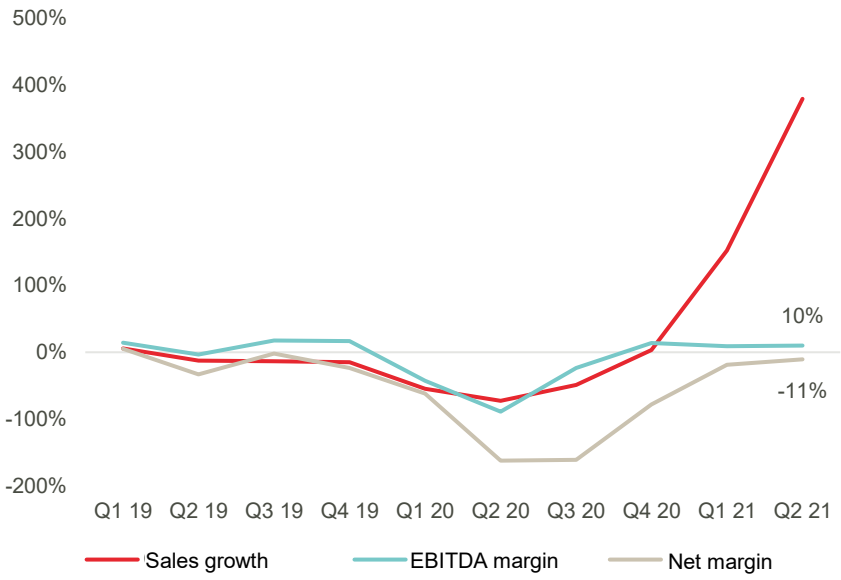


Source: company

Return to growth and profitable at the EBITDA level, but not in terms of the net result

The improvement in operating aggregates is reflected in the group's finances, with a return to growth and positive EBITDA since Q4 2020, confirmed in H1, though Aston Martin is still largely in the red.

Growth in sales and margin trends



Source: company

Strong earnings growth in prospect, but a significant execution risk

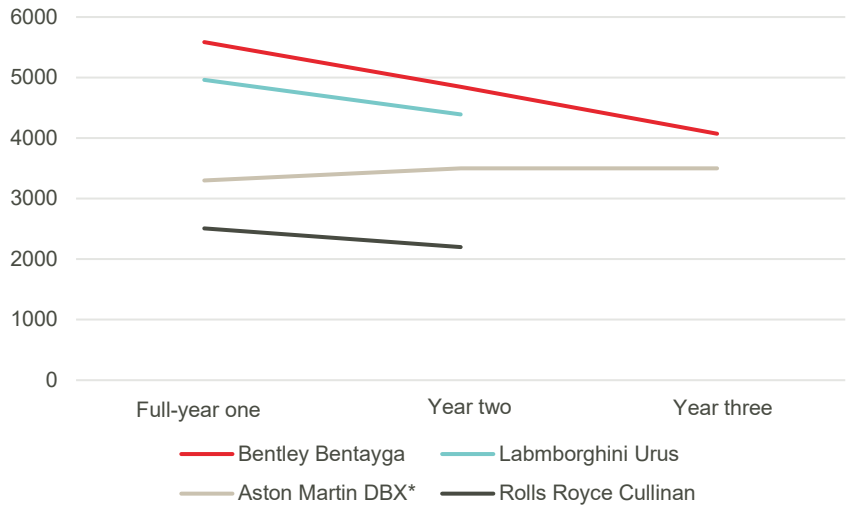
Sales driven by the SUV and the Valkyrie, pending the Sport/GT refresh in 2023

Two new segments to refresh the product portfolio

We break the group's volumes and sales down into:

- **GT models** (currently DB11, DBS Superleggera) – Aston Martin's historical segment which has suffered in recent years. Sales should rebound in 2021 (market recovery and completion of the destock), but we expect a decline in the segment in 2022 before new, refreshed variants are released in 2023. Note that at this stage, no electrified (PHEV or BEV) variants of these models are planned before the new variants post-2025.
- **Sports car models** – the group's other historical segment with just one vehicle currently in the portfolio, the Vantage, which is also Aston Martin's entry level vehicle. Vantage sales have been disappointing so far but should pick up in 2021 thanks to: 1/ new variants (Roadster, F1); 2/ lowered pricing, and; 3/ a potential marketing boost with the model being used as a safety car in Formula 1. Like the GT models, we expect a reduction in sales in 2022 ahead of the refresh also planned for 2023.
- **SUV models –** this is a new category since the launch of the DBX at the end of 2020. The group is aiming for 4-5k units per year in this segment (a similar level to rivals in the luxury SUV segment), i.e. over 50% of total volumes. This ratio should be exceeded with the DBX this year (we forecast 3.3k units, i.e. 55% of total volumes), and most likely out until 2023-2024 thanks to the new variants (mild hybrid in Q3 2021, performance variant in 2022, PHEV in 2023). However, we are slightly less optimistic than the company on the DBX volume forecasts (peak of 3.6k units in our scenario vs guidance of 4k+), caution that we justify by: 1/ the fact that SUV sales at competitors reached their peak in the first full year of sales (2021 for AML), despite coming out with variants; 2/ greater competition on the luxury SUV segment (with the arrival of Ferrari's Purosangue in 2022-2023), given that DBX does not stand out in terms of performance (Lamborghini's Urus wins here) or interior (Bentley's speciality, shown once again with the Bentayga), even if the refresh planned for 2022 (performance variant) and 2023 (PHEV and infotainment) should help it to compete. Moreover, we think that it could be tough to maintain volumes of 3-5k units out to 2025 on a five-year-old model, which implies that a new SUV should be developed by then, in our view (with the capex that this implies, even if part of the DBX investments should be transferable). We factor into our scenario a second SUV as of 2024. Where profitability is concerned, and as outlined in the SUV market section of this report, we expect the DBX to be slightly dilutive, with a margin level between the Vantage and the DB11.

Luxury SUV sales (in units)



Sources: companies, ODDO BHF Securities
**ODDO BHF Securities estimates*

- **Mid-engine models**, a new category for the group with three successive products:
  - The **Valkyrie**, Aston Martin's hypercar. This is the group's first mid-engine model, making it strategically important as it could determine the success of future models in this category (in particular the Valhalla, dubbed "son of Valkyrie" as it was largely based on this model). As is often the case for hypercars, the Valkyrie had a laborious development process but after the release was postponed several times (initially scheduled for end-2018), management confirmed at the H1 conference call its goal to begin deliveries in H2 this year. We note that the group has made several changes to the commercial strategy for the model in recent months, with the introduction of a Spider variant (convertible) and an increase in the number of units to be produced to 275 units (of which 150 for the coupé variant, 85 for the Spider variant and 40 for the circuit variant) vs 175 initially. Despite the planned increase in volumes, we think that AML should be able to sell all versions of the Valkyrie as the 150 original models were oversubscribed. With prices ranging from £ 2.5m (before tax) for the coupé variant to £ 3m for the circuit variant, the increase in volumes should contribute close to ~£ 280m in additional sales (out of a total of ~£ 730m for all variants of the model), between end-2021 and 2023 in our scenario. The Valkyrie should therefore have significant weight in AML's sales, in particular in 2022 (close to 30% of group sales). Conversely, with the delays and cost overruns on the development of the vehicle, we think that its profitability in terms of EBIT is ultimately likely to be limited, even if the increase in the number of units to be sold should better amortise investment. Therefore, and as we think that there is upside on the consensus' 2022 sales estimate that does not seem to have fully integrated the increase in the number of Valkyrie units, we are ultimately in line on EBIT.

- The **Valhalla**, Aston Martin's supercar, will come after the Valkyrie (deliveries expected to begin as of H2 2023), with a "reduced" price tag (~£ 600k), slightly larger volumes (750-1,000 units in our view) and a PHEV drivetrain. Some models have been pre-reserved, but we believe that the bulk have yet to be sold, which implies a certain financial risk on top of the operating risk involved in the development of this new type of vehicle, while by then the group will be facing competition that is already well-established on the super-PHEV (Ferrari will almost certainly be on its second generation super-PHEV after the SF90 and
  McLaren is expected to release its Artura as of this year. Furthermore, the group lowered the price announced for the Valhalla (from £ 900k to £ 600k), which should be offset by an increase in volumes (500 to 750-1,000 units in our view), possibly to be more in line with competitors' pricing (Ferrari SF90 Stradale from £ 360k).

- The **Vanquish** will be the mid-engine production model, set be launched in 2024-2025 and also expected to offer a PHEV version. Ultimately, and if the model is a success, this could represent annual volumes of 1,500 to 2,000 units based on sales of similar models at competitors.

- **Other "special" models** – Aston Martin's product portfolio now contains several other highly-priced models (DB5 Goldfinger at £ 2.5m, Speedster at £ 765k) but in very limited volumes (25 units for the DB5, 88 units for the Speedster) with an impact on the group's results that is ultimately very low. AML implied that other special models could be developed in the coming years but at reduced prices (£ 500-600k vs £ 1m+ on average historically) and in greater volumes (500-1,000 vs several dozen), thus making a more significant overall contribution. However, at this stage we are not factoring in other special models into the duration our scenario due to: 1/ a development timeline that is already busy out to 2023 (nine new models counting their refreshes); 2/ limited financial resources, and; 3/ uncertainty surrounding the market's appetite for this kind of vehicle in a context of greater competition on the supercar segment.
- The future Aston Martin BEV, expected in 2025-2026, but on which no details have been disclosed so far.

Ramp-up in volumes at the end of the plan but sizeable execution risk

We have summarised our investment case in the following table:

Volume scenario for Aston Martin

£ m	2020	2021e	2022e	2023e	2024e	2025e
Wholesale volumes	**3 394**	**6 030**	**5 913**	**7 530**	**9 066**	**10 064**
Growth	*-42%*	78%	-2%	27%	20%	11%
o/w SUVs	1 516	3 300	3 600	3 500	3 950	4 600
Growth		118%	9%	-3%	13%	16%
% of the total	45%	55%	61%	46%	44%	46%
o/w GT	1 116	1 200	950	2 250	2 700	2 400
Growth		8%	-21%	137%	20%	-11%
% of the total	33%	20%	16%	30%	30%	24%
o/w Sports	691	1 410	1 200	1 680	2 016	1 814
Growth		104%	-15%	40%	20%	-10%
% of the total	33%	23%	20%	22%	22%	18%
o/w mid-engine	0	45	145	100	400	1 250
Growth			222%	-31%	300%	213%
% of the total		1%	2%	1%	4%	12%
o/w other specials	71	75	18	0		
Growth		6%	-76%	-100%		
% of the total	2%	1%	0%	0%		
ASP (£ k)	157	177	215	183	179	187
Core ASP (ex-specials) (£ k)	136	150	146	152	157	175

Source: ODDO BHF Securities

- **After the rebound in 2021, we are likely to have to wait for the end of the plan to see a real ramp-up in volumes**. The achievement of the target of 10k units in 2024-2025 should mainly materialise at the end of the plan, thanks to the mid-cycle refresh for GT/Sport models (expected in 2023) as well as the start of Valhalla sales (H2 2023e). Indeed, growth in volumes should be limited in 2022 (expected decline in GT/Sport sales ahead of the refresh) and remain highly reliant on the DBX, once again highlighting the major role that this vehicle plays in Aston Martin's success. H1 2021 sales of the DBX (1,595 wholesale units, retail sales not detailed but above this figure according to the group) are currently encouraging for our 2021 target. However, this momentum must also be sustained next year.

Strong sales growth forecast

The group's sales should therefore see significant growth for the horizon of our scenario, including in 2022 despite the decline in volumes, as the mix (mainly the Valkyrie) should offset this. We expect a sales CAGR of 27% for 2020-2025 and 13% for 2021-2025.

Sales scenario for Aston Martin						
£ m	2020	2021e	2022e	2023e	2024e	2025e
Car sales	535	1 070	1 270	1 378	1 621	1 880
Growth	-39%	100%	19%	9%	18%	16%
Spare part sales	57	75	89	96	113	132
Growth	-10%	32%	19%	9%	18%	16%
Servicing sales	7	11	13	14	16	19
Growth	-29%	62%	19%	9%	18%	16%
Brand and motorsports sales	14	14	14	14	14	14
Growth	-51%	0%	0%	0%	0%	0%
Aston Martin total sales	**612**	**1 169**	**1 385**	**1 502**	**1 764**	**2 044**
Growth	-38%	91%	19%	8%	17%	16%
FactSet consensus		1 156	1 339	1 534		
ODDO BHF vs consensus		1%	3%	-2%		

Source: ODDO BHF Securities

Regarding sales, we note that:

- **We are above the sales consensus until 2022 but below for 2023 and the risk of a delay should not be ruled out.** As explained previously, we think that the consensus has not yet fully integrated the new Valkyrie models for 2022 (in particular the Spider version announced in August). However, we are more cautious on 2023, forecasting a release of refresh models during the year and SUV volumes at 3.5k units. Bear in mind too that any delay in model launches (which has happened several times in the past at Aston Martin) would naturally push back the forecasts as in our view the group's financial situation leaves little leeway. Although the refreshes represent a relatively limited risk in our view, the Valhalla (expected in H2 2023) is a new model with an architecture that is different to that normally used by the group. The very operational experience of Tobias Moers at AMG should help (although Mr Moers has also faced significant delays on Project One, the release date of which has yet to be announced two years after the planned launch), but the risk of delay is significant.
- **Product personalisation may represent a considerable source of upside**. Although the group's pricing should return to a normative level in 2021 after years of discounts to run down stocks, there is still significant potential for improvement via the sale of bespoke vehicle options. We currently factor in product personalisation levels ranging from 5% to 12% depending on the model, which are still some way below those of Ferrari (15-20% on average). Aligning the bespoke order levels would raise our 2023 sales estimates by 5% (all else being equal), which would put us in line with the consensus.

Breakeven still far off due to D&A and financial costs

Increase in the gross margin and EBITDA, but D&A and financial costs should continue to act as a drag

With regard to margins, we note:

- **Significant leverage on the gross margin** – with; 1/ the rebound in volumes; 2/ improved pricing with the rebalancing of supply and demand; 3/ the favourable mix effect as of H2 with the start of Valkyrie sales, and; 4/ Project Horizon which aims to generate 30% of operating efficiency. We think that a gross margin of around 40% (vs 50% at Ferrari) should ultimately be within reach, although it is likely to continue to be impacted this year (the merger of the production sites is still underway).
- **SG&A excluding D&A** – should post slower growth than sales.
- **D&A** – expected to show a significant increase as of 2021 following substantial investment in recent years and in particular the Valkyrie project.

- **Financial costs** – also set to remain high with debt not refinanced until 2025 in our scenario.

Breakeven: only as of 2023 for EBIT and in 2024 for the net result

Results scenario for Aston Martin

£ m	2019	2020	2021e	2022e	2023e	2024e	2025e
Aston Martin total sales	**981**	**612**	**1 169**	**1 385**	**1 502**	**1 764**	**2 044**
Growth	-11%	-38%	91%	19%	8%	17%	16%
FactSet consensus			1 156	1 339	1 534		
ODDO vs consensus			1%	3%	-2%		
Cost of sales	-643	-501	-783	-887	-916	-1050	-1206
% of sales	-66%	-82%	-67%	-64%	-61%	-60%	-59%
Gross margin	**338**	**111**	**386**	**499**	**586**	**714**	**838**
% of sales	*34%*	*18%*	*33%*	*36%*	*39%*	*41%*	*41%*
Selling & distribution	-95	-80	-90	-96	-101	-108	-116
% of sales	-10%	-13%	-8%	-7%	-7%	-6%	-6%
Administrative & other operating	-276	-354	-389	-416	-433	-463	-496
% of sales	-28%	-58%	-33%	-30%	-29%	-26%	-24%
Other	-19	0	0	0	0	0	0
% of sales	-2%	0%	0%	0%	0%	0%	0%
EBIT	**-52**	**-323**	**-94**	**-14**	**52**	**143**	**227**
% of sales	*-5%*	*-53%*	*-8%*	*-1%*	*3%*	*8%*	*11%*
EBIT consensus			-96	-15	77		
EBIT margin consensus			-8%	-1%	5%		
ODDO vs consensus					-33%		
D&A	129	155	255	280	275	280	285
% of sales	*13%*	*25%*	*22%*	*20%*	*18%*	*16%*	*14%*
EBITDA	**119**	**-70**	**161**	**266**	**327**	**423**	**512**
% of sales	*12,1%*	*-11,5%*	*13,8%*	*19,2%*	*21,7%*	*24,0%*	*25,0%*
EBITDA consensus			155	243	338		
ODDO vs consensus			4%	9%	-3%		
Financial result	-68	-143	-135	-135	-135	-135	-135
Tax	2	56	36	22	13	0	0
Minority shareholders	-9	-9	-3	-3	-3	-3	-3
Net profit	**-126**	**-419**	**-195**	**-130**	**-74**	**5**	**88**
% of sales	*-13%*	*-69%*	*-17%*	*-9%*	*-5%*	*0%*	*4%*
Net profit consensus			-201	-136	-58		

Source: ODDO BHF Securities

No room for error on cash

Cash burn out to 2023 and capital increase likely in case of misstep

In terms of cash, we expect:

- **Capex** – should remain at £ 250-300m for the duration of the plan with a ramp-up as of 2022 due to the Valkyrie and the 2023 refreshes. We expect investment to slightly decline in 2023 before picking up in 2024, mainly factoring in the development of the group's first BEV.

- **WCR:**

  - **Ex-deposits** – we should see a WCR improvement thanks to the shift to a build-to-order strategy that is likely to reduce receivables, partly offset by an increase in inventories to contend with supply chain pressures and the initial Valkyrie deliveries;

  - **Deposits** – should begin to reverse in 2021 and especially in 2022 with the delivery of the majority of the Valkyries before the group begins to collect down payments on the Valhalla.

We therefore expect cash burn to continue out to 2023 with gross cash that should reach a low point at £ 187m in 2023 (£ 250m including potential cash from warrants). This does not leave the group with very comfortable leeway (bear in mind that AML burned -£ 539m FCF in 2020, -£ 338m in 2019 and -£ 126m in 2019) and, with debt capacity already stretched to the maximum, any potential misstep (product delays, cycle downturn, etc.) would imply the likely use of a fresh capital increase. In our view, this risk is significant given the various operational, industrial and financial challenges that the group is expected to face in the next three years. Past capital increases highlight the high dilution risk for the shareholder if the group were to call again on the market.

FCF and net debt scenario for Aston Martin

£ m	2019	2020	2021e	2022e	2023e	2024e	2025e
CFO ex-WCR	**41**	**-170**	**41**	**146**	**207**	**303**	**392**
As a % of sales	*4%*	*-28%*	*4%*	*11%*	*14%*	*17%*	*19%*
Change in WCR	-69	-109	64	-47	54	13	-16
Capex	-310	-261	-269	-288	-287	-298	-311
As a % of sales	-32%	-43%	-23%	-21%	-19%	-17%	-15%
FCF	**-338**	**-539**	**-163**	**-189**	**-27**	**17**	**64**
As a % of sales	-34%	-88%	-14%	-14%	-2%	1%	3%
Gross debt (including IFRS 16)	1 104	1 226	1 303	1 303	1 303	1 303	1 303
Gross cash	116	499	403	214	187	205	269
Published net debt	**988**	**727**	**900**	**1 089**	**1 116**	**1 098**	**1 034**
"x EBITDA"	8.3x	-10.4x	5.6x	4.1x	3.4x	2.6x	2.0x

Source: ODDO BHF Securities

Our valuation yields a target price of £ 20, we initiate coverage at Neutral

Given the distant horizon of achieving profitability, we opt for a valuation based on multiples applied to 2025 aggregates that we then discount to end-September 2022. We use the multiples for Ferrari to which we apply a 20% discount to factor in lower profitability (EBIT margin for Aston Martin of 11% in 2025e vs 25% est. for Ferrari in 2021). We use only EBIT and P/E because the different accounting methods (R&D capitalisation) limit comparability in terms of EBITDA.

The future dilution should also be taken into account. Between the warrants (which have a strike price at £ 10 and are therefore already in the money) and the second tranche attributable to Mercedes, 17.6m shares remain to be issued, i.e. 15% of the current capital.

Our valuation yields a target price of £ 20, i.e. upside of 1% to the current share price, justifying a Neutral recommendation on the stock.

Valorisation Aston Martin

2025 EBIT Aston Martin (£ m)	**227**
2025 net income Aston Martin (£ m)	88
Reference EBIT multiple (Ferrari 12m + 20% discount)	24
Reference net income multiple (Ferrari 12m + 20% discount)	31
Net debt and other restatements (incl. warrants, provisions)	1,134
Number of diluted shares (m)	132.5
Average 2025 target price (£)	27
Discount rate	10%
Discounted target price (£, rounded)	**20**
Current price (£, rounded)	20
Upside/(downside)	1%

Source: ODDO BHF Securities

AML LN | AML.L — **Neutral** — **Price 1974.00 p**
Automotive | United Kingdom — **Upside 1.32%** — **TP 2000.00 p**

PER SHARE DATA (£)	12/16	12/17	12/18	12/19	12/20	12/21e	12/22e	12/23e
Adjusted EPS	-73.22	33.12	31.09	-198.85	-369.95	-169.95	-112.99	-64.47
Reported EPS	**-73.22**	**36.73**	**-31.04**	**-290.57**	**-543.13**	**-169.95**	**-112.99**	**-64.47**
Growth in adjusted EPS	-	ns	-6.1%	ns	ns	ns	ns	ns
Net dividend per share	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FCF to equity per share	-24.79	1.63	-62.33	-776.55	-698.58	-142.15	-164.48	-23.14
Book value per share	33.50	63.61	217.43	725.29	1 020.47	515.49	402.51	338.04
Number of shares market cap (m)	0.00	0.00	0.00	228.00	114.93	114.93	114.93	114.93
Number of diluted shares (m)	202.00	202.00	202.00	43.50	77.20	114.93	114.93	114.93
VALUATION (£m)	**12/16**	**12/17**	**12/18**	**12/19**	**12/20**	**12/21e**	**12/22e**	**12/23e**
12m highest price (£)			11 621	8 824	3 516	2 273		
12m lowest price (£)			7 255	2 564	614	1 615		
(*) Reference price (£)			9 147	5 225	1 489	1 974	1 974	1 974
Capitalization			0.0	11 914	1 712	2 269	2 269	2 269
Restated Net debt	628	691	568	966	782	960	1 164	1 206
Minorities (fair value)	5.0	7.6	10.2	14.1	16.3	19.5	22.7	25.9
Financial fixed assets (fair value)	2.7	9.1	2.7	11.2	15.8	15.8	15.8	15.8
Provisions								
Enterprise Value								
P/E (x)			294	ns	ns	ns	ns	ns
P/CF (x)			132	55.6	ns	54.7	15.5	11.0
Net Yield			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FCF yield			ns	ns	ns	ns	ns	ns
P/B incl. GW (x)			42.07	7.20	1.46	3.83	4.90	5.84
P/B excl. GW (x)			52.14	9.88	1.64	4.47	6.01	7.48
EV/Sales (x)								
EV/EBITDA (x)								
EV/Current EBIT (x)								
(*) historical average price								
PROFIT AND LOSS (£m)	**12/16**	**12/17**	**12/18**	**12/19**	**12/20**	**12/21e**	**12/22e**	**12/23e**
Sales	593	876	1 097	981	612	1 169	1 385	1 502
EBITDA	101	207	247	119	-70.1	161	266	327
Depreciations	-133.2	-82.0	-100.4	-128.8	-154.8	-255.0	-280.0	-275.0
Current EBIT	**-32.3**	**125**	**147**	**-9.9**	**-224.9**	**-93.5**	**-14.0**	**52**
Published EBIT	-32.3	149	73	-52.0	-322.9	-93.5	-14.0	52
Net financial income	-130.5	-64.3	-141.0	-67.6	-143.1	-135.0	-135.0	-135.0
Corporate Tax	15.2	-7.7	11.1	2.0	56	36.4	22.4	12.5
Net income of equity-accounted companies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Profit/loss of discontinued activities (after tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minority interests	-0.3	-2.6	-5.6	-8.8	-8.8	-3.2	-3.2	-3.2
Attributable net profit	-147.9	74	-62.7	-126.4	-419.3	-195.3	-129.9	-74.1
Adjusted attributable net profit	**-147.9**	**67**	**63**	**-86.5**	**-285.6**	**-195.3**	**-129.9**	**-74.1**
BALANCE SHEET (£m)	**12/16**	**12/17**	**12/18**	**12/19**	**12/20**	**12/21e**	**12/22e**	**12/23e**
Goodwill	0.0	84.8	84.8	85.4	85.4	85.4	85.4	85.4
Other intangible assets	707	846	987	1 098	1 251	1 235	1 210	1 190
Tangible fixed assets	196	244	313	432	461	491	525	556
WCR	-110.9	-239.6	-264.9	-283.7	-193.6	-257.5	-210.7	-264.4
Financial assets	34.8	46.2	34.8	56.9	122	159	181	194
Ordinary shareholders equity	67.7	129	439	316	788	592	463	389
Minority interests	5.0	7.6	10.2	14.1	16.3	19.5	22.7	25.9
Shareholders equity	72.7	136	449	330	804	612	485	414
Non-current provisions								
Net debt	**628**	**691**	**568**	**966**	**782**	**960**	**1 164**	**1 206**
CASH FLOW STATEMENT (£m)	**12/16**	**12/17**	**12/18**	**12/19**	**12/20**	**12/21e**	**12/22e**	**12/23e**
EBITDA	**100.9**	**206.5**	**247.3**	**118.9**	**-70.1**	**161.5**	**266.0**	**326.6**
Change in WCR	74.3	148.3	45.0	-68.5	-108.8	63.9	-46.9	53.7
Interests & taxes	-31.5	-47.4	-45.9	-59.5	-89.2	-120.0	-120.0	-120.0
Others	-1.4	-10.1	-61.8	-18.5	-10.5	0.0	0.0	0.0
Operating Cash flow	142.3	297.3	184.6	-27.6	-278.6	105.4	99.1	260.3
CAPEX	-192.4	-294.0	-310.5	-310.2	-260.7	-268.8	-288.1	-286.9
Free cash-flow	**-50.1**	**3.3**	**-125.9**	**-337.8**	**-539.3**	**-163.4**	**-189.0**	**-26.6**
Acquisitions / disposals	0.0	-50.1	0.0	0.0	0.0	0.0	0.0	0.0
Dividends	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net capital increase	0.0	0.0	1.6	0.0	812.5	0.0	0.0	0.0
Others	-643.3	-9.9	241.8	-66.2	-87.2	-15.0	-15.0	-15.0
Change in net cash	-685.2	-63.5	120.2	-398.2	184.3	-178.4	-204.0	-41.6
GROWTH MARGINS PRODUCTIVITY	**12/16**	**12/17**	**12/18**	**12/19**	**12/20**	**12/21e**	**12/22e**	**12/23e**
Sales growth	-	47.6%	25.2%	-10.6%	-37.6%	91.0%	18.5%	8.4%
Lfl sales growth	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Current EBIT growth	-	ns	18.0%	ns	ns	ns	ns	ns
Growth in adjusted EPS	-	ns	-6.1%	ns	ns	ns	ns	ns
Net margin	-24.9%	7.6%	5.7%	-8.8%	-46.7%	-16.7%	-9.4%	-4.9%
EBITDA margin	**17.0%**	**23.6%**	**22.6%**	**12.1%**	**-11.5%**	**13.8%**	**19.2%**	**21.7%**
Current EBIT margin	**-5.4%**	**14.2%**	**13.4%**	**-1.0%**	**-36.8%**	**-8.0%**	**-1.0%**	**3.4%**
CAPEX / Sales	-32.5%	-33.6%	-28.3%	-31.6%	-42.6%	-23.0%	-20.8%	-19.1%
WCR / Sales	-18.7%	-27.4%	-24.2%	-28.9%	-31.6%	-22.0%	-15.2%	-17.6%
Tax Rate	9.3%	9.1%	16.3%	1.7%	11.9%	15.9%	15.0%	15.0%
Normative tax rate	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%
Asset Turnover	-	1.0	1.1	0.8	0.4	0.7	0.9	0.9
ROCE post-tax (normative tax rate)	**-**	**10.8%**	**10.7%**	**-0.6%**	**-11.5%**	**-4.4%**	**-0.7%**	**2.4%**
ROCE post-tax hors GW (normative tax rate)	-	11.4%	11.7%	-0.7%	-12.2%	-4.7%	-0.7%	2.6%
ROE	-	68.2%	22.1%	-22.9%	-51.8%	-28.3%	-24.6%	-17.4%
DEBT RATIOS	**12/16**	**12/17**	**12/18**	**12/19**	**12/20**	**12/21e**	**12/22e**	**12/23e**
Gearing	ns	ns	ns	ns	97%	ns	ns	ns
Net Debt / Market Cap			ns	0.08	0.46	0.42	0.51	0.53
Net debt / EBITDA	**6.22**	**3.35**	**2.30**	**ns**	**ns**	**5.95**	**4.38**	**3.69**
EBITDA / net financial charges	0.8	3.2	1.8	1.8	-0.5	1.2	2.0	2.4

Sources: ODDO BHF Securities, SIX

Ferrari

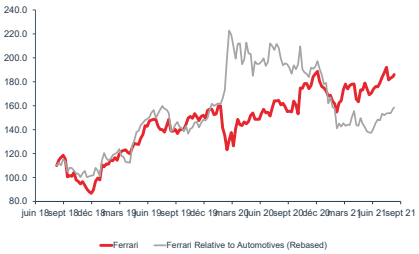
Outperform ➔ | Target 221 €

Price (07/09/2021): 186.05 € | Upside: 19 %

Revision	2021e	2022e
EPS	ns	ns

Still a winning horse

Wednesday 08 September 2021



Capital	
RACE IM | RACE.MI	
Market Cap (€m)	34 416
Enterprise value (€m)	35 015
Extrema 12 months (€)	151.9 - 192.1
Free Float (%)	ns

Performance (%)	1m	3m	12m
Absolute	-0.8	3.2	14.2
Perf. rel. Country Index	-1.4	-1.0	-11.1
Perf. rel. Automotives	3.8	14.3	-19.8

P&L	12/21e	12/22e	12/23e
Sales (€m)	4 337	4 655	5 059
EBITDA (€m)	1 567	1 711	1 950
Current EBIT (€m)	1 087	1 167	1 340
Attr. net profit (€m)	839	901	1 037
Adjusted EPS (€)	4.52	4.85	5.59
Dividend (€)	1.36	1.46	1.68
P/E (x)	41.1	38.3	33.3
P/B (x)	14.3	11.2	9.0
Dividend Yield (%)	0.7	0.8	0.9
FCF yield (%)	1.0	1.6	2.8
EV/Sales (x)	8.07	7.44	6.70
EV/EBITDA (x)	22.3	20.3	17.4
EV/Current EBIT (x)	32.2	29.7	25.3
Gearing (%)	13	-2	-22
Net Debt/EBITDA (x)	0.2	ns	ns

Next Events	
02/11/2021	Earnings Release

(Limited) hitch after a flawless run

Ferrari had enjoyed excellent momentum before COVID-19 hit. The company had continued to post robust earnings growth (2015-2019 CAGR for sales of 9% and 20% for EBIT), seemingly immune to the automotive sector downturn ongoing since 2018. Ferrari has managed to consistently demonstrate its mastery of the luxury carmaker business model, achieving steady volume growth while controlling exclusivity and desirability of its vehicles, enabling it to post margins worthy of a major luxury goods player. Ferrari's flawless run came to an end in 2020, when COVID-related lockdowns forced it to close its factory for seven weeks, leading to the first sales decline since 2009. While the damage was in the end very limited given the context (sales decline of 8% in 2020, of which only -3% for cars, 370bp deterioration in the EBIT margin to 20.7%), the group's cautious approach led it to defer projects and to push its 2022 targets back by one year.

But we expect a rapid recovery that should beat expectations as of 2021

The 2020 disruption should be quickly left in the rear-view mirror, with a return to positive indicators for demand (record backlog, waiting list >12 months, residual values recovery) as well as supply (factory reopening, new product launches), leading to 2021 sales and EBIT 15% and 19% above 2019 figures, respectively. Momentum in 2021 and 2022 will be supported by mix, as well as the ramp-ups of the numerous models presented or introduced in 2020 (SF90 Stradale & Spider, Roma, Portofino M, 488 GT Modificata). While we still have few details on 2023 at this stage, the launch of the group's first SUV, the Purosangue, should at the very least support this momentum, and at best enable Ferrari to move up a gear, especially in China. We forecast a 2020-2023e CAGR of sales of 14% (8%for 2019-2023e) and 23% for EBIT (10% for 2019-2023e), placing us, respectively, 7%/6%/3% above 2021/22/23 consensus EPS forecasts. In particular, the group's 2021 guidance seems overly cautious in our view given the strong H1 performance and, with many indicators pointing towards a robust recovery in the luxury car market, we think that there is a clear chance of an upward revision to 2021 targets (we remind that Ferrari frequently upgraded its guidance before 2020). We are actually very close to the group's initial guidance for 2022 EBIT (>€ 1.2bn) and even think that this is still achievable in a best-case scenario.

Fears surrounding electric vehicles seem overplayed and valuation now offers a good entry point

Ferrari's share price has underperformed major luxury goods players by 46% over the last year, whereas the stocks had displayed strong correlation until then (Ferrari even underperformed the Stoxx Auto & Parts index by 37% vs strong outperformance previously). This can be partly attributed to a less favourable earnings momentum, but the de-rating appears excessive (2022-2023 consensus EPS reduced by 0% and -2%) and reflects, in our view, concerns over the mid- to long-term impact of electrification. We believe, however, that Ferrari should be able to leverage its strong positioning (best-in-class brand, pricing power, and profitability) and track record (2 PHEVs already developed, F1 technology learnings, flawless operational track-record) to rise to the challenge once again. On investments, we estimate additional capex needs of € 300-500m in the upcoming Ferrari BEV (expected 2025) which should be well amortised over the current investment cycle (2% of cumulative sales over the period). Lastly, we have a positive view on the recent appointment to the post of CEO of Benedetto Vigna, whose experience as a former BU head at STM Microelectronics should bring relevant technological expertise. The upcoming CMD (June-2022) should help to dissipate doubts and restore the share price's favourable long-term momentum.

We are initiating coverage on Outperform with a target price of € 221

Our valuation (historical discount of 15% on the Hermès multiple) implies a target price € 221 and an Outperform recommendation.

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An exemplary track-record and limited damage in 2020

Steady sales growth driven by vehicle sales

The bulk of Ferrari's sales stem from the sale of vehicles (**Cars and Spare Parts 82%** of sales in 2020) and optional extras (which generally represent 15-20% of the vehicle's price). The contribution from the sale of spare parts is minimal given that the group offers a free 7-year warranty on each vehicle purchased).

In addition to cars, the group has three other revenue streams:

- **Sponsorship, commercial and brand** (11% of 2020 sales) – Essentially covering revenues generated from Ferrari's participation in F1 (sponsors + commercial agreements on revenue sharing with the Formula One organization) as well as other commercial and licensing activities such as its two museums, two theme parks (Ferrari World in Abu Dhabi and Ferrari Land in Portaventura close to Barcelona) and even a recently launched Esports activity.

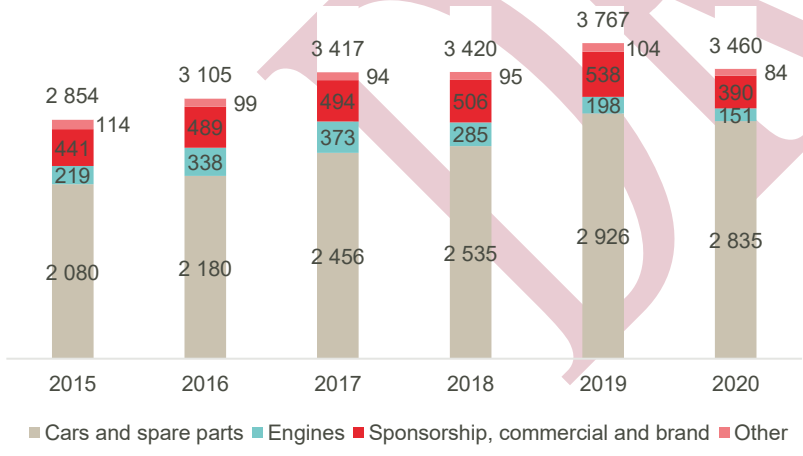
- **Engines (4%) –** This division includes the sale of engines to Maserati (V8 since 2003 and V6 since 2011) as well as revenues generated by the leasing in F1 of Ferrari engines to the Haas and Alfa Romeo-Sauber racing teams.

- **Other** – This category includes the Financial Services business, operation of the Mugello racetrack, and other activities linked to automotive sports.

Despite the decline in the automotive sector since 2018, sales at Ferrari continued to grow at a sustained pace until 2019. The impact of the seven-week closure of the group's factories in H1 2020 was not made up in H2 and led to an, albeit limited, 8% decline in sales, and only 3% for car and spare parts sales.

Sales trends at Ferrari over recent years have been primarily driven by the vehicle sales activity.

Trend in Ferrari's sales by division (€ m)

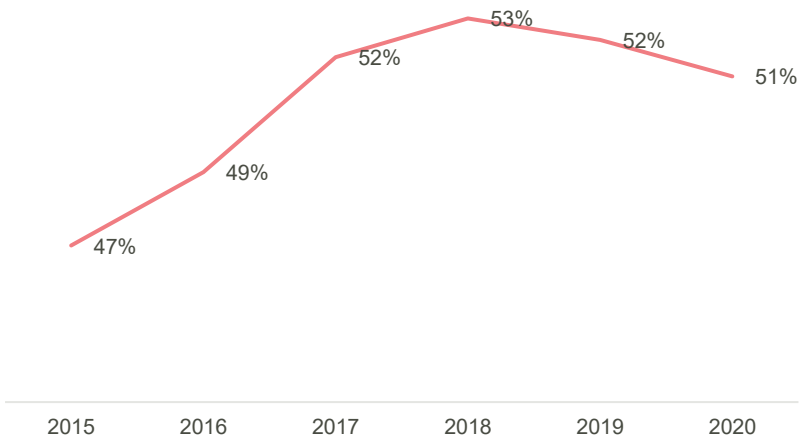


Source: ODDO BHF Securities

Profitability strong and growing prior to the crisis

While the group provides no breakdown for margins by division, we know that engine sales to Maserati are dilutive. The decline at this activity as well as favourable pricing explain the improvement in the gross margin out to 2018. In 2019, the division began to feel the impact of an increase in amortisation (included in the cost of sales for fixed tangible assets, according to Ferrari's definition).

Trend in the gross margin at Ferrari



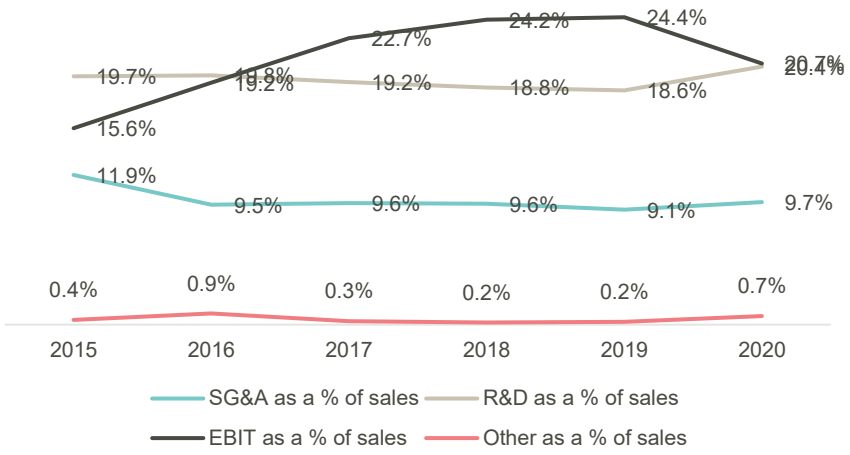
Source: ODDO BHF Securities

With regards to fixed costs, we note:

- **SG&A costs** (9.1% of 2019 sales) – evenly split between the sales and marketing costs linked to product promotion and administrative costs.
- **R&D costs** (19% of 2019 sales) – This item can be divided between
    - non-capitalised R&D (~75% of R&D costs) – this primarily regroups investment in Formula 1.
    - The amortisation of capitalised R&D (-25% of R&D) – This item has increased in recent years with the rise in investment.

The increase in the gross margin and more effective amortisation of SG&A costs enabled Ferrari to achieve a record EBIT margin in 2019 (24.4%). The group managed to limit the damage in 2020 with a sequential deterioration of just 370bp to 20.7%.

Trend in indirect costs and the EBIT margin at Ferrari



Source: ODDO BHF Securities

Outlook remains bright

Robust sales growth driven by car sales

Positive trend for vehicle sales in 2021 and 2022 thanks to product ramp-up and mix

After a decline of just -3% in 2020, the vehicle sales activity should return to a strong pace of growth over the duration of our scenario.

- **Dynamic volumes in 2021 and 2022 on the back of new model introduction** - Growth should remain underpinned by the ramp-up of the numerous models unveiled or launched in 2020 (SF90 Stradale & Spider, Roma, Portofino M, 488GT Modificata, 296 GTB), more than offsetting the exit of the 812 Superfast (the only series model that is set to exit the portfolio over the duration of our scenario). The contribution from these models in 2022 should help to buoy up the favourable momentum.

Ferrari's models in ramp up

Model	First deliveries (est.)
812 Competizione Aperta	Q4 2022*
812 Competizione	Q1 2022*
296 GTB	Q1 2022**
488 GT Modificata	Q3 2021*
Portofino M	Q3 2021
SF90 Spider	Q3 2021**
Roma	Q4 2020
SF90 Stradale	Q4 2020**
812 GTS (Spider)	Q2 2020
F8 Spider	Q2 2020

Sources: company, ODDO BHF Securities

**Limited series*

***PHEV*

- **Mix will also be a tailwind,** primarily thanks to the continued delivery of the very-limited Icona series (Monza SP1 & SP2) but also the SF90 (Stradale & Spyder) and 488 GT Modificata. In 2022, only a few Monzas SP1 & SP2 should be left, but deliveries of the 812 Competizione and 812 Aperta limited series (less expensive but in larger numbers) will take over.

- **Somewhat distorted reading into 2023 with the postponement of projects, but significant levers remain –** It is difficult to establish precise estimates for vehicle sales beyond 2022 because there are still 3 models yet to be unveiled and the group has not issued detailed sales guidance out to this date (simply saying that the initial guidance for 2022 sales of <€ 5bn should be achieved that year). That said, we already know that the first deliveries of the Purosangue should arrive in 2023, which should help to underpin continued volumes momentum. Moreover, the 812 Competizione and Compeitzione Aperta (which, as a reminder, have been pre-sold) should also continue to be a good source of volumes growth as well as mix.

We therefore forecast 2020-2023e CAGR for sales of cars and parts of 15%. This might appear high when we consider that the group needs to preserve its exclusivity, but note that it corresponds to a 2019-2023e CAGR of 10%, i.e. in line with historic levels (2015-2019 CAGR of 9%).

Scenario for cars and parts sales

€ m	2019	2020	2021e	2022e	2023e
Cars and parts sales	2 926	2 835	3 672	3 912	4 295
Growth	15%	-3%	30%	7%	10%
o/w series models sales		2 521	3 296	3 527	3 809
Growth			31%	7%	8%
o/w limited series sales		314	376	385	486
Growth			19%	3%	26%

Source: ODDO BHF Securities

Sponsorship, Commercial and Brand – Still in recovery mode before mid-term expansion

- **F1 activity** should rebound in 2021 thanks to a return to a 23-race programme vs the 17 races held in 2020. Revenues should nonetheless remain impacted this year due to limits on spectator numbers. Beyond the rebound, Ferrari signed in August 2020 the Concorde agreement with the FIA and Formula One organization which oversees the attribution conditions for F1 commercial rights until 2025 (but which does not cover sponsorship revenues). At the same time, the body has placed a declining budget cap for racing teams as of 2021 ($ 147m for 2021, $ 142m for 2022, $ 137m for 2023). That said, note that this limit excludes some of the major F1 cost items such as engine development and the salaries of the drivers and the top three highest paid team members. Whilst the details of the new revenue and cost mechanisms for F1 have not been disclosed, Ferrari estimates that the new regulations should ultimately have a relatively neutral impact on the P&L (the reduction in costs imposed by budget cap offset by lower revenues due to the new Concorde agreement and the relegation of Ferrari in the rankings).

- **Other licensing activities** – These activities were hard hit by COVID (closure of the museums, theme parks, restaurant, etc.) and should gradually begin to recover in 2021, and even more so in 2022. For the medium term, in November 2019, Ferrari presented a new strategy for the extension of its branding/licensing activities which aims for the more effective control of distribution licences (a 50% reduction in agreements and licences and on 30% of Ferrari's brands) in order to better control and operate its brand image. The group targets a 10% contribution to group EBIT from these activities within 7-10 years. The first expression of this strategy was unveiled on 13 June with a ready-to-wear catwalk show, which aimed to demonstrate the group's ability to address new luxury segments and appeal to a different client base (women and the young). The impact of this new

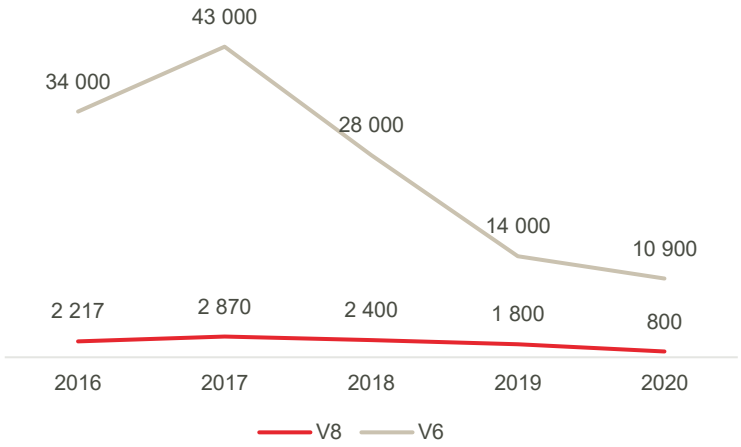
business on overall group sales is likely to remain fairly limited in the next couple of years in our view.

Continued decline in Engines with the end of the agreement with Maserati

Engines sales to Maserati have been steadily declining since 2017, in line with the latter's faltering vehicle sales. In 2019, Maserati announced that it would not be renewing its agreement with Ferrari as it focused on electrification and development of its own V6, first applied in its MC20 supercar. Ferrari's engine sales business is therefore set to continue its decline out to 2023.

Ferrari no longer provides detailed information on what part of its Engines business is made up of sales to Maserati (with the remainder made of engine leasing to other F1 teams), but we know these peaked in 2017 at ~€ 300m (45,870 engines of which 2,870 V8s) and therefore presumably represent a significantly lower amount today, with 2020 volumes standing almost 75% below peak levels (11,700 engines in 2020, of which 800 V8). We estimate a c.2% impact on sales from the loss of the Maserati engine sales business. Note that this activity has a dilutive impact on Ferrari's profitability, meaning that exiting it will have a slightly accretive impact on margins. Ferrari should also be able use the resources dedicated to the production of engines for Maserati for its own vehicle production.

Sales of engines to Maserati (in units)



Source: ODDO BHF Securities

We forecast a 2020-2023e CAGR of sales of 14%

Sales scenario					
€ m	**2019**	**2020**	**2021e**	**2022e**	**2023e**
Sales - Ferrari	**3 767**	**3 460**	**4 337**	**4 655**	**5 059**
Growth	10%	-8%	25%	7%	9%
Guidance			4 300		
Cons.			4 289	4 598	5 047
ODDO BHF vs cons.			1,1%	1,2%	0,2%
Cars and parts sales	**2 926**	**2 835**	**3 672**	**3 912**	**4 295**
Growth	15%	-3%	30%	7%	10%
Engines	**198**	**151**	**180**	**150**	**90**
Growth	-30%	-24%	19%	-17%	-40%
Sponsorship, commercial and brand	**538**	**390**	**395**	**494**	**568**
Growth	6%	-28%	1%	25%	15%
Other	**104**	**84**	**90**	**100**	**106**
Growth		-19%	8%	10%	7%

Source: ODDO BHF Securities

We are forecasting robust profitability ahead of expectations

Profitability still buoyed volumes and mix

Regarding costs, we expect the following developments:

- **Cost of sales –** will mainly reflect the aforementioned mix impact
- **R&D** - These costs break down between:
  - **Non-capitalised R&D** – F1 costs will likely remain at a high level in 2021 in preparation for the new car for 2022 (which requires more investment than usual as it is a new model year including changes at the engine level), before falling in the coming years in line with the new budget caps and engine freeze;
  - **The amortisation of capitalised R&D** – This item will continue to increase alongside the rise in investment.
  - **SG&A –** After having fallen since 2020 due to lockdown measures and shift to online marketing events, SG&A will move back up with the gradual easing of pandemic restrictions.
  - **Taxes –** Ferrari continues to benefit from the Patent Box mechanism in Italy with an effective tax rate of around 20%

2020-2023e EBIT CAGR of 23% – our estimates are above those of the consensus and guidance

We are forecasting 2020-2023e EBIT CAGR of 23%, i.e. 10% over the 2019-2023e period.

EBIT scenario for Ferrari

€ m	2019	2020	2021e	2022e	2023e
Sales	**3 767**	**3 460**	**4 337**	**4 655**	**5 059**
Growth		-8%	25%	7%	9%
Sales - consensus			4 289	4 598	5 047
ODDO BHF vs consensus			1%	1%	0%
Cost of sales	-1 805	-1 686	-2 082	-2 281	-2 479
As a % of sales	-48%	-49%	*-48%*	*-49%*	*-49%*
Gross margin	1 961	1 773	**2 255**	**2 374**	**2 580**
As a % of sales	52%	51%	*52%*	*51%*	*51%*
SG&A	-343	-336	-360	-414	-435
As a % of sales	-9%	-10%	*-8%*	*-9%*	*-9%*
R&D	-699	-707	-795	-778	-789
As a % of sales	-19%	-20%	*-18%*	*-17%*	*-16%*
Other	-1	-14	-13	-14	-15
As a % of sales	0%	0%	*0%*	*0%*	*0%*
EBIT	**917**	**716**	**1 087**	**1 168**	**1 341**
As a % of sales	24,4%	20,7%	*25,1%*	*25,1%*	*26,5%*
EBIT - consensus			1 035	1 131	1 330
ODDO BHF vs consensus			5%	3%	1%
Financial costs	-42	-49	-35	-37	-40
As a % of sales	-1%	-1%	*-1%*	*-1%*	*-1%*
Tax	-177	-58	-211	-226	-260
Effective tax rate	-20%	-9%	*-20%*	*-20%*	*-20%*
Minority interests	-3	-1	-3	-3	-3
Net profit	**696**	**608**	**839**	**901**	**1 038**
As a % of sales	18%	18%	*19%*	*19%*	*21%*
Net profit - consensus			788	851	1 005
ODDO BHF vs consensus			7%	6%	3%

Source: ODDO BHF Securities

Note that we are above consensus and above the company's guidance for 2021 and 2022. The guidance for a 2021e EBIT margin between 22.6%-23.7% (issued in February at the time of the annual results and then confirmed in H1) seems overly cautious, in our view, in light of the strong H1 performance (EBIT margin of 26.4%), even after integrating an increase in R&D and SG&A expenses with the gradual lifting of travel restrictions as well as a slight negative mix effect (introduction of the Portofino in Q3, but somewhat offset by the SF90 Spider...). The guidance implies a H2 margin of 20%, a level the group has not seen since H2 2016 (excluding Q2 last year). With a number of indicators pointing to a strong recovery for the market in 2021 (see comments from luxury car peers), we believe that there is clearly a chance that the targets might be revised upward (for a company which until 2020 had a good track-record of beating expectations). Note also that we are very close to the company's initial EBIT guidance for 2022 (>€ 1.2bn) and even believe that it is still within reach in an optimistic scenario.

Capex more than offset by growth

At the cash level:

- **Capex** breaks down equally between:
  - **Intangible capex** which essentially represents capitalized R&D in product development.
  - **Tangible capex,** which essentially represents investment in the production facilities and tools.
  - **WCR** has the characteristic of being strongly impacted by the down payments that Ferrari requests from its customers for its most exclusive models. They generally correspond to one third of the vehicle's value.

Capex increase in absolute terms, but reduce as a percentage of sales

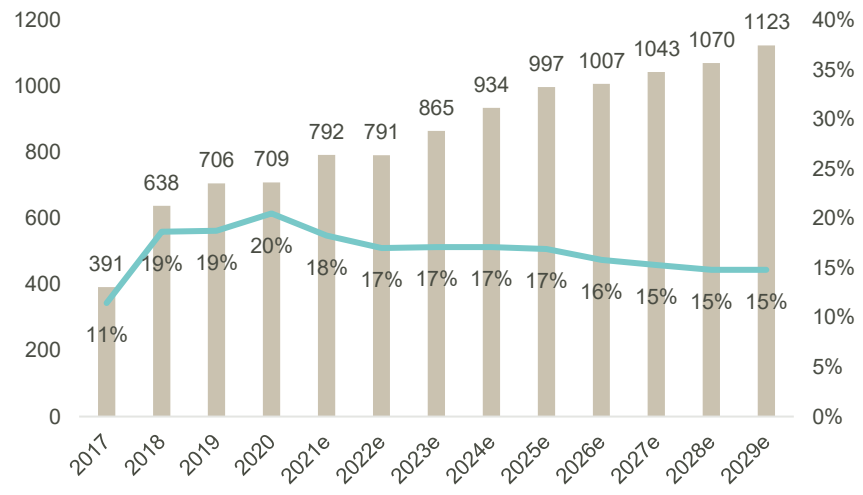
As indicated in our section on electric vehicles, we do not think that the future investments in electric vehicles will have an excessive impact on Ferrari's investment needs. Indeed, we estimate that the BEV should add in total some € 300-500m to current projects by 2025, i.e. ~2% of cumulative sales over the period, more than offset by growth. We also reiterate that:

- Part of the investments has already been made thanks to the work on hybrid but also non-recurring investments in land (€ 60m in 2020). The group has guided on a capex level of € 800m in 2021, a record level, but which should not prevent it from reaching an EBIT margin close to (or even potentially above) historical highs;

- A drop in investment in other models is likely after the launch-rich years of 2020-2021.

We conservatively estimate an annual increase in capex from 2020-2023e of 8% (i.e. higher than initially provided for by the company in its 2018 mid-term plan), but this still results in a decreasing capex rate. Note that we still expect capex to fall in the medium term thanks to the learning curve of the first electric model and the relative simplicity of the electric motor compared to the combustion engine. We believe that Ferrari should be able to return to a capex level closer to 15% by 2028, already well above the group's historical average (13% of sales over 2012-2019).

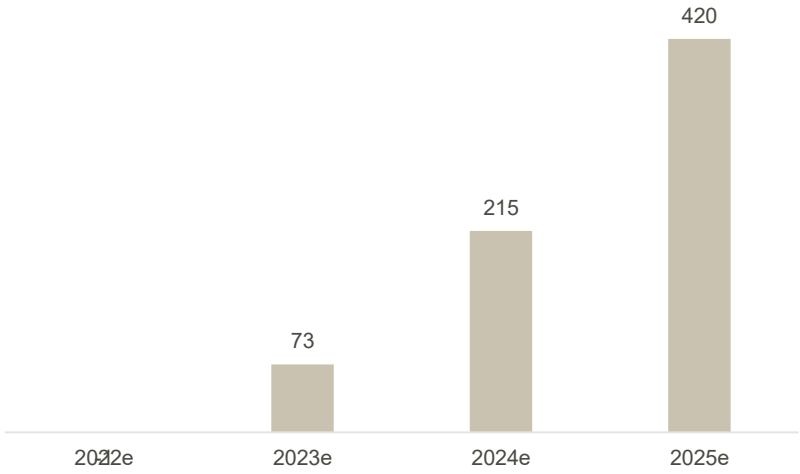
Growth in capex (€ m)



Source: ODDO BHF Securities

These estimates imply € 420m of incremental capex by 2025 from the already high level of 2021, an amount in line with our estimate of €300-500m BEV capex requirement (and assuming no reduction in investment in other products).

Cumulative incremental capex vs 2021 (€ m)



Source: ODDO BHF Securities

Working capital will be penalised by deposits in 2021 before a marked inversion, but probably not before 2023

Deliveries of Monza SP1 & SP2 will continue to impact WCR in 2021. Conversely, the next Icona (Ferrari's most exclusive product category) will bring in significant cash, (price/volume undisclosed but could be >€ 250m by our estimate). We assume that the FCF guidance postponement means that this amount will be recognised in 2023 rather than 2022.

FCF scenario

Ferrari's FCF should therefore increase sharply over the timeframe of our scenario (2020-2023e CAGR of 83%, i.e. 12% over 2019-2023e) and regain pre-crisis FCF/sales levels despite the increase in investment. Note however that we are below the group's free cash flow target for 2023 (€ 1.1-1.25bn), but it is unclear whether this stems from caution on capex or WCR (potentially higher contribution from the next Icona if more units were distributed or if the price was higher).

FCF scenario for Ferrari

€ m	2019	2020	2021e	2022e	2023e
CFO before WCR	1 246	1 060	1 273	1 402	1 613
WCR	60	-221	-153	-75	220
o/w Other (incl. Deposits	146	-137	-100	-55	-55
Total capex	-706	-709	-792	-791	-865
As a % of sales	*-18,7%*	*-20,5%*	*-18,3%*	*-17,0%*	*-17,1%*
Restatement Ferrari Financial Services	75	42	120	80	82
Industrial FCF Ferrari	675	171	448	615	1 049
As a % of sales	*18%*	*5%*	*10%*	*13%*	*21%*
FCF consensus			413	680	973
ODDO BHF vs consensus			9%	-9%	8%

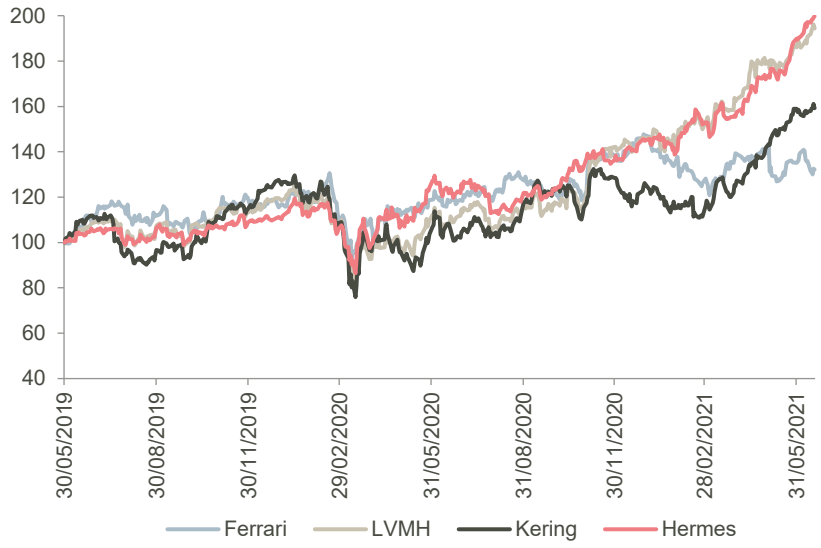
Source: ODDO BHF Securities

Our valuation implies a target price of € 221, we initiate at Outperform

A derating vs luxury goods peers that offer a rare discount

Ferrari's share price has historically moved in line with those of the big luxury goods players, especially Hermès, until a sharp deviation since 2021.

Share performances over 2 years



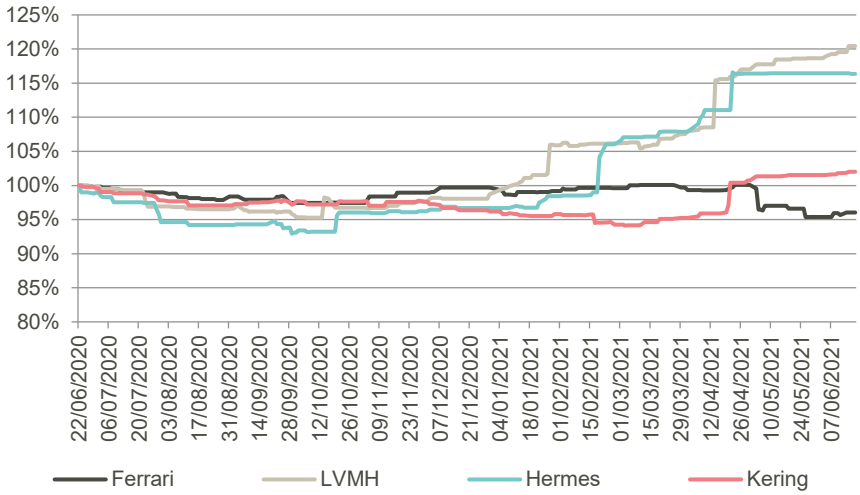
Sources: FactSet

Share performances over 5 years

Sources: FactSet

Part of this correction is attributable to less favourable earnings momentum, with downward revisions for Ferrari vs upward revisions for the major luxury players, reflecting a heavier impact of the COVID crisis on Ferrari's business. Indeed, with its production capacities regrouped in Maranello, Italy, the group has been more penalised by lockdowns than traditional luxury players with a global footprint. In addition, Ferrari's underexposure the faster growing Chinese market may limit its rebound prospects relative to traditional luxury players. However, note that Ferrari's earnings revision trend has started to recover since the H1 release, which should lead to a continued catch-up of the share. Conversely, it is possible that it will now be the other luxury goods players who suffer from downward revisions in the wake of the Chinese government's new policy which aims to reduce income inequality in the country and which could potentially impact the sale of luxury goods (which would also impact Ferrari, but to a lesser extent as the group generates ~6% of its sales in the country vs 30-35% on average for traditional luxury players).

Trend in 2022e EPS consensus forecasts



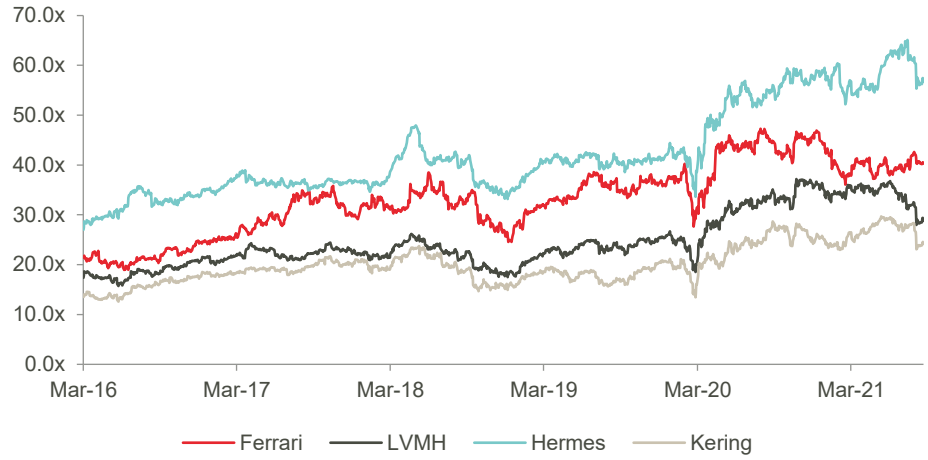
Source: FactSet

We believe that Ferrari's recent underperformance also almost certainly reflects fears over the impact of the group's transition to electric powertrains. However, as explained above, we believe these fears are overblown and think that the good results we expect for 2021 and the CMD in 2022 should restore the share's good long-term momentum.

Target price of € 221

Given the link between Hermès and Ferrari, on both the stock market and operational fronts (leadership positioning in the high-end segment, strategy to control volumes to maintain exclusivity, best-in-class pricing power/profitability) we have opted to use Hermès multiples to value Ferrari. We have applied a discount of 15%, which is close to long-term average, even though the multiples of the two groups had converged before Ferrari's recent fall.

Trend in 12-month forward P/E multiples



Source: FactSet

Our valuation points to a target price of € 221, i.e. upside of 19% to the current share price, justifying our Outperform rating on the stock.

Ferrari valuation

€ m	2022e
Sales	4 655
EBITDA	1 711
EBIT	1 168
Net profit	901
Hermès multiples	
EV/sales (x)	13
EV/EBITDA (x)	31
EV/EBIT (x)	35
P/E (x)	54
Premium/discount	15%
Adjusted target price	2022e
EV/EBITDA	244
EV/EBIT	193
P/E	225
Average target price()	**221**
Current price (€)	186
Upside (downside)	19%

Source: ODDO BHF Securities

RACE IM | RACE.MI — **Outperform** — **Price 186.05EUR**
Automotive | Italy — **Upside 18.79%** — **TP 221.00EUR**

PER SHARE DATA (€)	12/16	12/17	12/18	12/19	12/20	12/21e	12/22e	12/23e
Adjusted EPS	2.31	2.82	4.14	3.71	3.28	4.52	4.85	5.59
Reported EPS	**2.31**	**2.83**	**4.16**	**3.73**	**3.29**	**4.54**	**4.87**	**5.60**
Growth in adjusted EPS	37.5%	22.3%	46.7%	-10.3%	-11.7%	38.1%	7.3%	15.1%
Net dividend per share	0.00	0.00	0.71	1.03	1.13	1.36	1.46	1.68
FCF to equity per share	3.53	1.46	1.58	3.24	0.70	1.78	2.89	5.23
Book value per share	1.72	4.12	7.15	7.93	9.65	13.05	16.56	20.71
Number of shares market cap (m)	188.92	188.95	188.61	186.77	184.98	184.98	184.98	184.98
Number of diluted shares (m)	188.95	189.76	189.39	187.54	185.58	185.58	185.58	185.58
VALUATION (€m)	**12/16**	**12/17**	**12/18**	**12/19**	**12/20**	**12/21e**	**12/22e**	**12/23e**
12m highest price (€)	56.55	104	128	155	189	192		
12m lowest price (€)	41.56	55.05	85.56	85.60	116	155		
(*) Reference price (€)	49.44	80.00	106	131	156	186	186	186
Capitalization	9 340	15 116	19 899	24 550	28 901	34 416	34 416	34 416
Restated Net debt	693	475	382	352	545	306	-57.6	-836.9
Minorities (fair value)	4.8	5.3	5.1	6.0	4.0	7.0	10.0	13.0
Financial fixed assets (fair value)	33.9	30.0	32.1	38.7	42.8	42.8	42.8	42.8
Provisions	319	293	308	336	329	329	329	329
Enterprise Value	**10 323**	**15 858**	**20 562**	**25 205**	**29 735**	**35 015**	**34 654**	**33 878**
P/E (x)	21.4	28.4	25.5	35.4	47.7	41.1	38.3	33.3
P/CF (x)	9.1	20.9	22.8	18.7	33.9	30.6	25.6	18.8
Net Yield	0.0%	0.0%	0.7%	0.8%	0.7%	0.7%	0.8%	0.9%
FCF yield	7.1%	1.8%	1.5%	2.5%	0.5%	1.0%	1.6%	2.8%
P/B incl. GW (x)	28.74	19.41	14.75	16.57	16.19	14.25	11.23	8.99
P/B excl. GW (x)	ns	ns	35.31	35.27	28.90	21.12	15.11	11.30
EV/Sales (x)	3.32	4.64	6.01	6.69	8.59	8.07	7.44	6.70
EV/EBITDA (x)	11.7	15.3	18.5	19.9	26.0	22.3	20.3	17.4
EV/Current EBIT (x)	**16.3**	**20.5**	**24.9**	**27.5**	**41.5**	**32.2**	**29.7**	**25.3**
(*) historical average price								
PROFIT AND LOSS (€m)	**12/16**	**12/17**	**12/18**	**12/19**	**12/20**	**12/21e**	**12/22e**	**12/23e**
Sales	3 105	3 417	3 420	3 767	3 460	4 337	4 655	5 059
EBITDA	880	1 036	1 114	1 269	1 143	1 567	1 711	1 950
Depreciations	-247.7	-260.6	-288.7	-351.9	-426.6	-480.0	-543.9	-609.8
Current EBIT	**632**	**775**	**826**	**917**	**716**	**1 087**	**1 167**	**1 340**
Published EBIT	632	775	826	917	716	1 087	1 167	1 340
Net financial income	-27.7	-29.3	-23.6	-42.1	-49.1	-34.7	-37.2	-40.5
Corporate Tax	-167.6	-208.8	-16.3	-176.7	-58.2	-210.6	-225.9	-259.9
Net income of equity-accounted companies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Profit/loss of discontinued activities (after tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minority interests	-1.0	-2.0	-1.9	-2.9	-1.1	-3.0	-3.0	-3.0
Attributable net profit	436	535	784	696	608	839	901	1 037
Adjusted attributable net profit	**436**	**535**	**784**	**696**	**608**	**839**	**901**	**1 037**
BALANCE SHEET (€m)	**12/16**	**12/17**	**12/18**	**12/19**	**12/20**	**12/21e**	**12/22e**	**12/23e**
Goodwill	785	785	785	785	785	785	785	785
Other intangible assets	354	440	646	838	979	1 168	1 372	1 602
Tangible fixed assets	669	710	851	1 070	1 227	1 350	1 393	1 419
WCR	-673.5	-556.6	-446.0	-741.9	-643.3	-541.5	-475.7	-713.7
Financial assets	207	172	208	224	315	295	270	243
Ordinary shareholders equity	325	779	1 349	1 481	1 785	2 415	3 064	3 830
Minority interests	4.8	5.3	5.1	6.0	4.0	7.0	10.0	13.0
Shareholders equity	330	784	1 354	1 487	1 789	2 422	3 074	3 843
Non-current provisions	319	293	308	336	329	329	329	329
Net debt	**693**	**475**	**382**	**352**	**545**	**306**	**-57.6**	**-836.9**
CASH FLOW STATEMENT (€m)	**12/16**	**12/17**	**12/18**	**12/19**	**12/20**	**12/21e**	**12/22e**	**12/23e**
EBITDA	**879.8**	**1 036.0**	**1 114.3**	**1 269.4**	**1 142.8**	**1 567.5**	**1 710.7**	**1 949.9**
Change in WCR	-15.9	-60.9	62.6	-9.1	-14.7	-3.9	-18.5	4.0
Interests & taxes	-271.6	-247.3	-99.1	-72.8	-143.4	-245.3	-263.2	-300.4
Others	413.0	-65.0	-143.7	118.6	-146.5	-197.9	-102.4	179.0
Operating Cash flow	1 005.3	662.8	934.0	1 306.1	838.2	1 120.5	1 326.7	1 832.6
CAPEX	-339.1	-387.7	-636.9	-701.1	-708.0	-792.0	-791.4	-865.1
Free cash-flow	**666.2**	**275.1**	**297.1**	**605.0**	**130.2**	**328.5**	**535.3**	**967.5**
Acquisitions / disposals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dividends	-104.1	-121.2	-135.1	-194.8	-211.0	-209.7	-251.8	-270.2
Net capital increase	1.4	0.0	-100.1	-386.7	-129.8	0.0	0.0	0.0
Others	167.7	116.2	-47.7	-86.0	58.1	0.0	0.0	0.0
Change in net cash	751.1	270.0	15.1	-61.7	-157.9	118.8	283.5	697.3
GROWTH MARGINS PRODUCTIVITY	**12/16**	**12/17**	**12/18**	**12/19**	**12/20**	**12/21e**	**12/22e**	**12/23e**
Sales growth	8.8%	10.0%	0.1%	10.1%	-8.1%	25.4%	7.3%	8.7%
Lfl sales growth	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Current EBIT growth	33.5%	22.7%	6.5%	11.1%	-21.9%	51.9%	7.3%	14.9%
Growth in adjusted EPS	37.5%	22.3%	46.7%	-10.3%	-11.7%	38.1%	7.3%	15.1%
Net margin	14.0%	15.7%	22.9%	18.5%	17.6%	19.3%	19.3%	20.5%
EBITDA margin	**28.3%**	**30.3%**	**32.6%**	**33.7%**	**33.0%**	**36.1%**	**36.7%**	**38.5%**
Current EBIT margin	**20.4%**	**22.7%**	**24.1%**	**24.4%**	**20.7%**	**25.1%**	**25.1%**	**26.5%**
CAPEX / Sales	-11.0%	-11.5%	-18.7%	-18.7%	-20.5%	-18.3%	-17.0%	-17.1%
WCR / Sales	-21.7%	-16.3%	-13.0%	-19.7%	-18.6%	-12.5%	-10.2%	-14.1%
Tax Rate	27.7%	28.0%	2.0%	20.2%	8.7%	20.0%	20.0%	20.0%
Normative tax rate	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Asset Turnover	2.8	2.7	2.1	2.0	1.6	1.7	1.6	1.6
ROCE post-tax (normative tax rate)	**45.3%**	**49.3%**	**41.1%**	**38.8%**	**26.7%**	**34.1%**	**32.0%**	**34.8%**
ROCE post-tax hors GW (normative tax rate)	ns	ns	80.3%	66.2%	42.0%	49.2%	43.8%	46.6%
ROE	ns	97.0%	73.7%	49.2%	37.2%	40.0%	32.9%	30.1%
DEBT RATIOS	**12/16**	**12/17**	**12/18**	**12/19**	**12/20**	**12/21e**	**12/22e**	**12/23e**
Gearing	ns	61%	28%	24%	30%	13%	-2%	-22%
Net Debt / Market Cap	0.07	0.03	0.02	0.01	0.02	0.01	0.00	-0.02
Net debt / EBITDA	**0.79**	**0.46**	**0.34**	**0.28**	**0.48**	**0.20**	**ns**	**ns**
EBITDA / net financial charges	31.7	35.4	47.3	30.2	23.3	45.2	45.9	48.2

Sources: ODDO BHF Securities, SIX

- **Valuation method**

  Our target prices are established on a 12-month timeframe and we use three valuation methods to determine them. First, the discounting of available cash flows using the discounting parameters set by the Group and indicated on ODDO BHF' website. Second, the sum-of-the-parts method based on the most pertinent financial aggregate depending on the sector of activity. Third, we also use the peer comparison method which facilitates an evaluation of the company relative to similar businesses, either because they operate in identical sectors (and are therefore in competition with one another) or because they benefit from comparable financial dynamics. A mixture of these valuation methods may be used in specific instances to more accurately reflect the specific characteristics of each company covered, thereby fine-tuning its evaluation.

- **Sensitivity of the result of the analysis/ risk classification:**

  The opinions expressed in the financial analysis are opinions as per a particular date, i.e. the date indicated in the financial analysis. The recommendation (cf. explanation of the recommendation systematic) can change owing to unforeseeable events which may, for instance, have repercussions on both the company and on the whole industry.

- **Our stock market recommendations**

  Our stock market recommendations reflect the RELATIVE performance expected for each stock on a 12-month timeframe.

  Outperform: performance expected to exceed that of the benchmark index, sectoral (large caps) or other (small and mid caps).

  Neutral: performance expected to be comparable to that of the benchmark index, sectoral (large caps) or other (small and mid caps).

  Underperform: performance expected to fall short of that of the benchmark index, sectoral (large caps) or other (small and mid caps).

- **The prices of the financial instruments used and mentioned in this document are the closing prices.**
- **All publications by ODDO BHF concerning the companies covered and mentioned in this document are available on the research site: Web lien** www.securities.oddo-bhf.com

Recommendation split				
		Outperform	Neutral	Underperform
Our whole coverage	(594)	57%	33%	10%
Liquidity providers coverage	(92)	60%	36%	4%
Research service coverage	(41)	63%	32%	5%
Investment banking services	(37)	78%	16%	5%

Investment banking and/or Distribution	
Has ODDO BHF SCA or its affiliates managed or co-managed in the last 12 months a public offering of securities for the subject company/ies?	No
Has ODDO BHF SCA or its affiliates received compensation for investment banking services from the subject company/ies in the last 12 months or expects to receive or intends to seek compensation for investment banking services from the subject company/ies in the last 12 months?	No
Research contract between ODDO group & the issuer	
Have ODDO BHF SCA or its subsidiary ABN AMRO – ODDO BHF B.V. and the subject company/ies agreed that ABN AMRO - ODDO BHF B.V. or one of its parent companies will produce and disseminate investment recommendations on the subject company/ies as a service to the the subject company/ies?	No
Liquidity provider agreement and market-making	
At the date of the distribution of this report, does ODDO BHF SCA or its affiliates act as a market maker or has ODDO BHF SCA or its affiliates signed a liquidity provider agreement with the subject company/ies?	No
Significant equity stake	
Does ODDO BHF SCA or its subsidiary ABN AMRO – ODDO BHF B.V. own 1% or more of any class of common equity securities of the subject company/ies?	No
One or more affiliates of ODDO BHF SCA, other than ABN AMRO – ODDO BHF B.V., from time to time may own 1% or more of a class of common equity securities of the subject company/ies.	
Does ODDO BHF SCA or its subsidiary ABN AMRO – ODDO BHF B.V., own a net long or short position of 0.5% or more of any class of common equity securities of the subject company/ies?	No
Does the subject company beneficially own 5% or more of any class of common equity of ODDO BHF SCA or its subsidiary ABN AMRO – ODDO BHF B.V.?	No
Disclosure to Company	
Has a copy of this report; with the target price and/or rating removed, been presented to the subject company/ies prior to its distribution, for the sole purpose of verifying the accuracy of factual statements ?	No
Have the conclusions of this report been amended following disclosure to the company/ies and prior its distribution?	No
Additional material conflicts	
Is ODDO BHF SCA or its affiliates aware of any additional material conflict of interest?	No
Personal conflicts of interest	

Have those responsible for the drafting of the present document acquired securities from the issuer concerned by the present financial analysis?	No
Have those responsible for the drafting of the present document received remuneration directly linked to investment firm service transactions or any other kind of transaction they carry out or any trading commissions they, or any legal person who is part of the same group, receive?	No

Risk of conflict of interest:

Statement of conflict of interests of all companies mentioned in this document may be consulted on ODDO BHF: lien web www.securities.oddo-bhf.com

Recommendation history over the last 12 months for the company analysed in this report

Company	Date	Reco	Price	
Aston Martin Lagonda	07/09/2021	Neutral	22.92	Anthony Dick
Ferrari	07/09/2021	-	186.05	Anthony Dick

Target price history over the last 12 months for the company analysed in this report

Company	Date	Price Target	Price	Analyst
Aston Martin Lagonda	07/09/2021	23.22 GBP	1974.00	Anthony Dick
Ferrari	07/09/2021	221.00 EUR	186.05	Anthony Dick

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