

# Executive Summary

## Ferrari (RACE)

Ferrari, renowned for its luxury and performance-driven brand characteristics, remains a powerhouse in the automotive industry. While the company's valuation may limit short-term gains, its strong financials, long-term-oriented strategy, and competitive advantage justify a 'Hold' rating. Our analysis suggests that investors maintaining exposure will benefit from the company's long-term growth trajectory while monitoring for improved valuation conditions, which could enhance its appeal.

## Current Performance

Since its capital markets day in 2022, Ferrari has been delivering 'as promised', following management's forward-looking guidance. The third quarter results for the current year are no exception. These reflect a strong alignment with the company's corporate strategy, and despite disappointing the market's highly ambitious and perhaps 'unrealistic' growth expectations, the company continues to deliver sound financial performance. As outlined by Morningstar Equity Analyst Rella Suskin CFA (Nov 5, 2024), "FactSet consensus was looking for third-quarter sales and earnings per share growth of 16% and 20% year on year, respectively, versus reported growth of 7% and 14%." This way, the implications for the following quarter entail closely tied results to full-year guidance. Therefore, revenue growth is expected to be 6%, and operating profit growth is expected to be 7%. Overall, Ferrari is expected to surpass its objectives slightly for the year, as it has done in previous periods.

## A 'Win' for Management & a Promising Future

Comments after third-quarter results by Benedetto Vigna, CEO of Ferrari, continue to affirm management's strategy. "The third quarter once again shows growing results for Ferrari, driven by a strong product mix and increased personalisations," Additionally, offering insight into the company's future, portraying confidence towards the next steps to follow. "It confirms our commitment to deliver on the promises we made at our Capital Markets Day in 2022, along with the exceptional order book visibility well into 2026, continuous product innovation – as evidenced by the F80 supercar just unveiled – and process innovation, with the strengthening of our in-house electrification expertise. The shutdown of the Maranello gas-fuelled trigeneration plant, ahead of target, also marks a further step towards our 2030 carbon neutrality goal".

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Stats	Returns
€421.7 Sh. Price	40.95% ROE
€76.2 bn Mkt Cap	20.09% ROA
€456,70 52W High	35.39% YTD Return

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# Company Overview

## Brand Heritage

Ferrari, founded in 1939 by Enzo Ferrari, is a well-established and prestigious Italian luxury brand. It is recognised worldwide for its high-performance sports cars and history in the motor-sport world. Ferrari's engineering excellence and exclusivity appeal to high-net-worth individuals and car enthusiasts globally. The brand aims to create a unique vehicle identity and promote a luxurious lifestyle focused on performance and comfort.

## Market Position

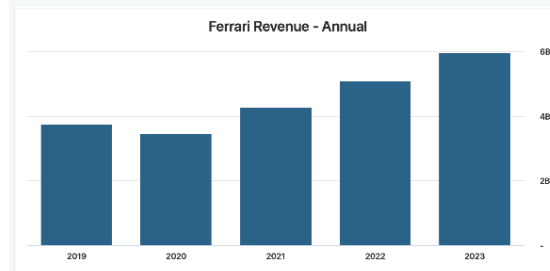
Ferrari maintains a unique market position by capping production volumes to preserve exclusivity, which grants the company a powerful price-setting ability. This limited production model allows the company to maintain a high demand among its customer base. This is demonstrated through the company's constant revenue growth, excluding pandemic years, which show an inevitable slight decrease. Respectively, with a -8.15% in 2020, 23.44% in 2021, 19.30% in 2022, and a 2023 revenue increase representing 18.6%.

Ferrari's primary revenue segment's growth, Cars and Spare Parts, was guided by higher unit sales, a more sought-after product mix putting forth more limited-edition models like the Daytona SP3, and a special attention to detail with many personalization options. In 2023, Ferrari shipped 13,663 cars, up by 3.3% from 2022, with the most significant growth in the EMEA region. Since 2020, Ferrari's production has steadily increased. In 2020, the company shipped 9,119 units, and in 2021, with a growth rate of 18.2%, shipped 11,155. In 2022, with an increase of 15.6%, 13,221 units were produced. Clearly, the company's limited production strategy is evidenced, specifically when compared to competitors' shipment volumes.

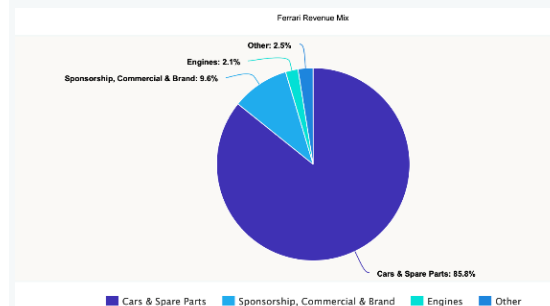
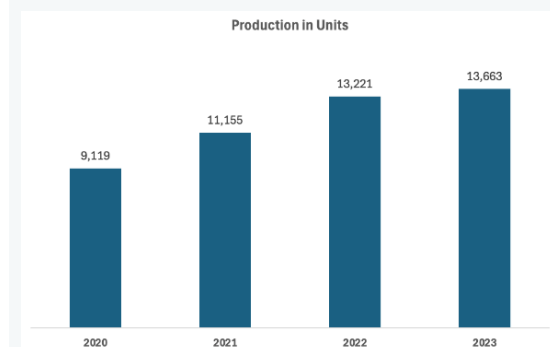
Cars and Spare Parts is the company's primary revenue source. This segment includes both high-performance luxury cars and aftermarket spare parts for maintenance/inventory, experiencing a 22% growth due to the increase in volume. Regarding engine production, Ferrari's manufacturing contract with Maserati ended in December 2023, leading to an 18.4% revenue decline in this segment. This section reflects Ferrari's focus on core automotive production. Sponsorship, Commercial, and Brand include Formula 1 sponsorship, brand licensing, and other ventures, growing 14.6% in 2023 to reach €572 million. Ferrari took full advantage of its Formula 1 legacy to inflate brand visibility, further increasing revenue. 'Other' includes financial services, the Mugello racetrack, and other offerings, which saw a 27.1% increase to €152 million. Ferrari's financing structure allows its distributors to frequently request financial aid to purchase stock and spare parts, and its racetrack in Mugello offers enthusiasts the opportunity to experience the thrill of F1, acting as another source of income for the company.

## Corporate Structure

After being appointed Vice Chairman and later Chairman of Fiat in 2004, Elkann was instrumental in steering the company out of insolvency and



\* This company reports financials in EUR.



restoring its global competitiveness. One of his most impactful moves was facilitating the 2021 merger of Fiat Chrysler Automobiles (FCA) with PSA Group, creating Stellantis, a powerhouse in the global car industry, and positioning it strongly within the electric vehicle market, gaining competitiveness and knowledge of the market not only for FIAT but for Ferrari as well. Elkann also played a key role in Ferrari's 2015 Initial Public Offering, enhancing its financial independence and elevating its brand prestige.

Elkann's engineering degree from the Polytechnic University of Turin has been a strategic asset throughout his career, providing him with a solid understanding of the technical aspects that drive the automotive industry. This technical insight has enabled him to communicate effectively with engineering and design teams at Ferrari and Stellantis, closing the gap between management and technical departments. Moreover, the analytical skills gained from a mathematical degree such as Engineering, have further helped his ability to manage the company's risks and therefore its decisions.

The Executive Chairman of Ferrari knows he can trust the intellectual prowess of his CEO, Benedetto Vigna. CEO of Ferrari since 2021, he brings a unique technological expertise that positions Ferrari to excel in the ever-changing automotive sector. With a background in Subnuclear Physics from the University of Pisa and a career of over 26 years at the company he founded, STMicroelectronics, Vigna has spear-headed advancements in microelectronics and sensor technology, which give Ferrari a notable advantage in the innovation and technological segments. His most sought-after creation is a three-dimensional motion sensor initially used in automotive airbags and later adapted for consumer electronics, a breakthrough that established his reputation for technological foresight and adaptability. For example, Nintendo Wii controllers used his company's sensors to create an interactive gaming experience that relied on players' physical movements.

Vigna's deep understanding of semiconductors and sensor technology is instrumental as Ferrari needs to transition toward electrification and advanced driver-assistance systems to maintain its market power and popularity. His hands-on experience with micro-electromechanical systems (MEMS) aligns perfectly with Ferrari's focus on delivering high-performing vehicles that will be able to include cutting-edge technology. Under Vigna's leadership, Ferrari is in a good place to discover new digital capabilities that can align with modern consumer expectations which merge technology and sustainability.

Ferrari N.V., Ferrari S.p.A's parent company, owns strategic subsidiaries that allow Ferrari to benefit from its presence in diverse market areas.

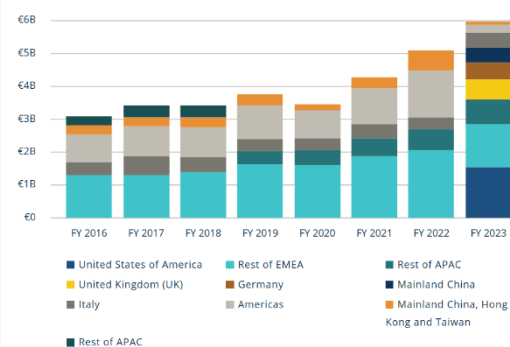
**Forward Integration through Controlled Distribution Network:** Ferrari's parent company, Ferrari N.V.'s ownership of importer and distributor entities in key markets, such as Ferrari North America Inc. and Ferrari Japan KK, enables it to maintain a consistent brand experience and service quality globally. This direct control over distribution strengthens Ferrari's luxury brand positioning and ensures high standards across dealerships.

**Backward Integration with Service and Manufacturing Entities:** With full ownership of entities involved in engineering, manufacturing, and servicing (e.g., Ferrari S.p.A. and Ferrari South West Europe S.a.r.l.), Ferrari maintains strict quality control over its production and service processes. This vertical integration allows Ferrari to optimise costs and



Ferrari (MIL: RACE)

Regional Revenue



Name	Country	Nature of business	At December 31, 2023		At December 31, 2022	
			Shares held by the Group	Shares held by NCI	Shares held by the Group	Shares held by NCI
<b>Directly held interests</b>						
Ferrari S.p.A.	Italy	Engineering, manufacturing and sales	100%	—%	100%	—%
New Business 33 S.p.A. <sup>(1)</sup>	Italy	Engineering, manufacturing and sales	100%	—%	100%	—%
<b>Indirectly held through Ferrari S.p.A.</b>						
Ferrari North America Inc.	USA	Importer and distributor	100%	—%	100%	—%
Ferrari Japan KK	Japan	Importer and distributor	100%	—%	100%	—%
Ferrari Australasia Pty Limited	Australia	Importer and distributor	100%	—%	100%	—%
Ferrari International Cars Trading (Shanghai) Co. Ltd.	China	Importer and distributor	80%	20%	80%	20%
Ferrari (HK) Limited	Hong Kong	Importer and distributor	100%	—%	100%	—%
Ferrari Far East Pte. Limited	Singapore	Service company	100%	—%	100%	—%
Ferrari Management Consulting (Shanghai) Co. Ltd.	China	Service company	100%	—%	100%	—%
Ferrari South West Europe S.a.r.l.	France	Service company	100%	—%	100%	—%
Ferrari Central Europe GmbH	Germany	Service company	100%	—%	100%	—%
G.S.A. S.A. in liquidation	Switzerland	Service company	100%	—%	100%	—%
Mugello Circuit S.p.A.	Italy	Race track management	100%	—%	100%	—%
Ferrari Financial Services, Inc.	USA	Financial services	100%	—%	100%	—%
<b>Indirectly held through other Group entities</b>						
Ferrari Auto Securitization Transaction LLC <sup>(2)</sup>	USA	Financial services	100%	—%	100%	—%
Ferrari Auto Securitization Transaction - Lease, LLC <sup>(3)</sup>	USA	Financial services	100%	—%	100%	—%
Ferrari Auto Securitization Transaction - Leasing, LLC <sup>(4)</sup>	USA	Financial services	100%	—%	100%	—%
Ferrari Financial Services Trusting Trust <sup>(5)</sup>	USA	Financial services	100%	—%	100%	—%
Ferrari Lifestyle North America, Inc. <sup>(6)</sup>	USA	Retail	100%	—%	100%	—%

enhance product reliability. In development-heavy areas for Ferrari, for example, the Asias, Ferrari Management Consulting (Shanghai), Ferrari holds service companies that study and analyse the market to understand how they can compete with cheaper and less exclusive brands.

Strategic Financial Services Integration: Ferrari's financial services entities in the USA, like Ferrari Financial Services Inc., allow it to offer tailored financing options, which improve accessibility for clients without diluting brand exclusivity. This integration supports Ferrari's high-value customer retention and increases customer loyalty.

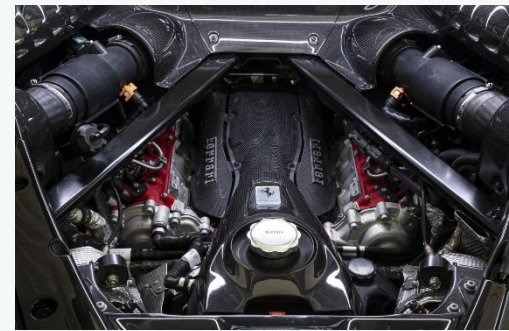
### Strategy 'in a Nutshell'

Regarding electrification and hybridisation, Ferrari aims to introduce fully electric vehicles by 2025, aligning with market demand and regulatory standards. Hybrid models made up 44% of Ferrari's 2023 shipments. Ferrari's investments in hybrid and electric technologies aim to support both environmental commitments and brand legacy. They also serve the company to grasp opportunities to strengthen weak markets such as the Asian market, which has a much stronger demand for EVs and much more regulation against ICE engines (internal combustion). As for sustainability, Ferrari has committed to achieving carbon neutrality by 2030. The company's Green Sustainability Steering Committee oversees efforts to reduce emissions, including the integration of renewable energy and sustainable materials in production, emphasising the company's long-term environmental goals. Furthermore, through lifestyle expansion, Ferrari is increasingly engaging broader audiences through branded luxury products and events. The strategy leverages Ferrari's iconic brand to develop a following and ensure that younger generations understand the brand like those who have seen its growth over the years. This can be seen in Ferrari's projects, like Abu Dhabi's Ferrari World, which are intended to extend international brand awareness.

### Competitive Advantage

Ferrari's competitive advantage lies in its iconic brand, exclusivity, and technical innovation. Its low-volume production model protects Ferrari from broader market trends and enables stable pricing power across all its markets. Ferrari's competitive advantage stems from a scarcity-driven pricing model, strong brand legacy, selective partnerships, and exceptional customer loyalty programs.

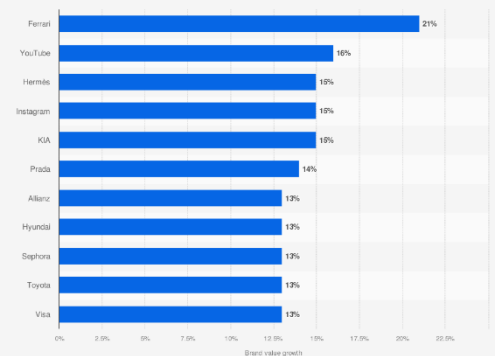
By limiting production, Ferrari maintains exclusivity and high demand, achieving premium prices and never seen before profit margins. In 2023, Ferrari's EBIT margin reached 27%, far above the industry average of 7.7%, with €1.6 billion in operating income. This strategy, pairing scarcity with brand prestige and a loyal customer base, enables Ferrari to sustain demand and high profitability despite lower unit sales compared to mass-market brands. Ferrari's price elasticity of demand is generally considered inelastic, meaning that price changes have a minimal impact on demand for its cars. This inelastic demand arises from Ferrari's status as a luxury brand with limited substitutes and its scarcity-driven model. Consumers in Ferrari's target market are willing to pay high prices due to the brand's exclusivity and the prestige associated with ownership.



Shipments<sup>(3)(4)</sup>

For the three months ended			Shipments (units)	For the twelve months ended			
December 31,	December 31,	Change		December 31,	December 31,	Change	
2023	2022			2023	2022		
1,493	1,527	(54)	(2%)	6,053	5,958	95	2%
884	831	53	6%	3,811	3,447	364	11%
360	478	(118)	(25%)	1,490	1,552	(62)	(4%)
508	491	17	3%	2,259	2,264	(5)	2%
3,245	3,327	(82)	(2%)	13,663	13,221	442	3%

Fastest-growing brands among best global brands worldwide in 2024, by brand value increase rate



Source: Euromonitor © Statista 2024  
Additional information: World Brand, as of October 16, 2024, among the top 100 most valuable brands.

“Ferrari will always deliver *one car less than the market demand.*”

Enzo Ferrari



# Industry Overview

## Industry growth prospects

### General figures

The growth prospects of the luxury car industry are generally positive and give hope to Original Equipment Manufacturers (OEMs) looking to increase their sales volume figures. Within the Luxury Car Segment (LCS), the steepness of the growth rate depends on several factors but is mainly defined by the price bracket in which models are located. For the sake of comparison and analysis, we may define luxury automobiles as those whose prices start at 80,000\$. According to a McKinsey study, cars selling at a price below this threshold (non-luxury) will see a Compound Annual Growth Rate (CAGR) of around 1% through the period of 2021-31, while those in the 150,000-299,000\$ bracket will grow at an average yearly rate of 10%, with cars in the 300,000-500,000\$ coming in at a whopping 9% CAGR. As a consequence, if Ferrari were to adequately adjust to the market headwinds, it would see its sales increase at around this rate.

Similar figures are reported by Oliver Wyman analysts, who estimate growth in the ultra-luxury segment will allow luxury OEMs to exceed the 50k sales volume mark for models in the 300,000-500,000\$ range and average a yearly growth rate of 14% for their state-of-the-art top-line <500,000\$ models. The problem with these ultra-high-end models is that exploiting profitability by scaling up production won't necessarily yield positive results as part of that profitability originates in the models' exclusivity, which would be reduced were production to increase.

### Where is this growth coming from?

This growth will mostly stem from Chinese consumers, which are expected to account for more than 48% of sales growth during the 2026-2031 period. Sales growth in Europe and the US will be considerably lower, with the latter compressing just 9% of the sales growth from 2026-2031 albeit currently representing 17% of the market for luxury vehicles. This situation is expected to leave China as the biggest market for luxury cars by 2026, overtaking Europe, traditionally the cornerstone of the luxury car segment.

This phenomenon is mostly explained by the current and expected meteoric rise in the number of High Net-Worth Individuals (HNWI) and Ultra High Net-Worth Individuals (UHNWI), who are the main drivers of demand for luxury cars. The number of HNWI and UHNWI grew at a 10% and 12% CAGR, respectively, during the 2016 to 2021 period (according to Oliver Wyman figures), setting the stage for the period of intense sales growth we have seen over the last couple of years.

Growth, however, is deemed to slow in the coming years with CAGR for HNWI and UHNWI in the period spanning 2023-2028 slowing down to 5% and 8%, respectively, from 6% and 10% in the period 2018-2023, according to BCG's 2024 wealth report. Europe will most likely underperform this CAGR, with a 4% and 6% expected yearly growth in HNWI and UHNWI while Asia is expected to outperform Europe, averaging yearly growth of 6,75% and 7,6%.

The luxury car segment will drive most market growth.

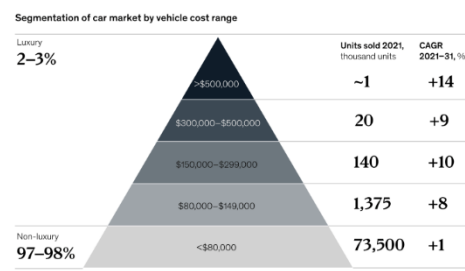
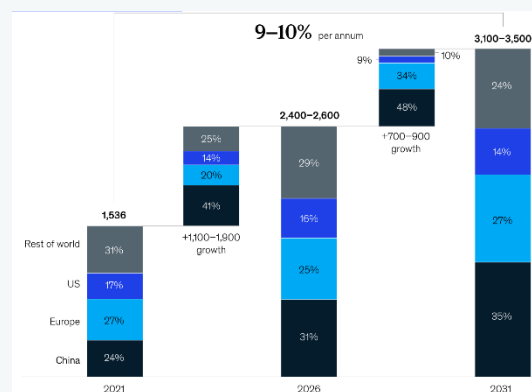


Exhibit 5: Global luxury and ultra-luxury vehicle sales volume by price band

	Luxury		Ultra-luxury	
	\$80k-\$149k	\$150k-\$299k	\$300k-\$500k	> \$500k
Sales volume (2021, k)	1,413	163	22	2.4
Sales volume (2031E, k)	3,664	485	57	8.8
CAGR (2021-31, %)	10	11.5	10	14

Source: Oliver Wyman analysis



High net-worth individuals (HNWI) and ultra-high-net-worth individuals (UHNWI) by geography

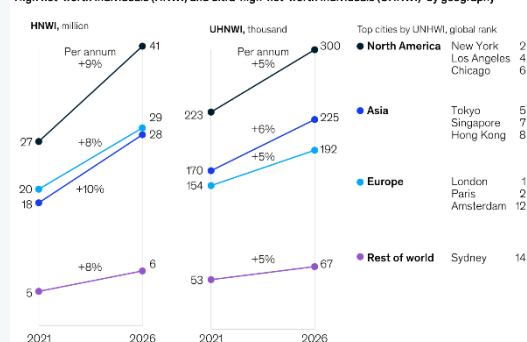
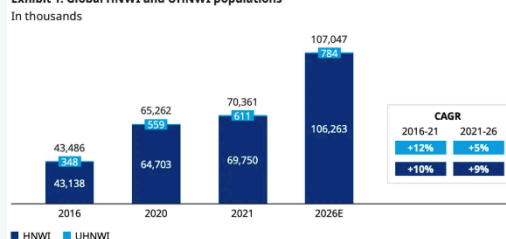


Exhibit 1: Global HNWI and UHNWI populations



## Change in customer preferences

### Electrification

Although the drive to make cars more ecologically sustainable has been more intense in the low-end spectrum of the market, luxury OEMs are also affected by the EV revolution, which is only expected to grow in the near future. While just 3% of the 2020 luxury car sales were picked up by Battery Electric Vehicles (BEVs), this segment is expected to comprise 50-60% of sales by 2030 and 44% of current Internal Combustion Engine (ICEs) luxury vehicle owners claim to plan to switch to an EV for their next purchase.

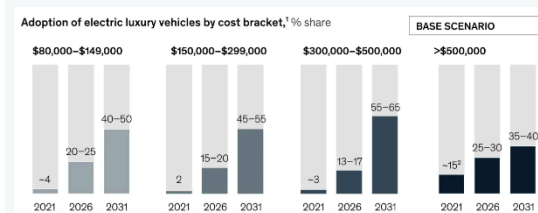
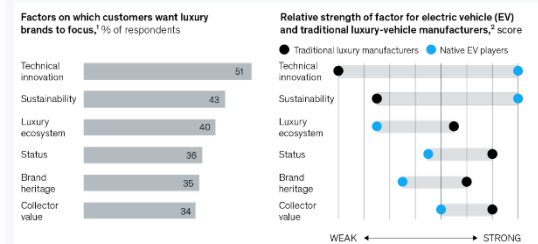
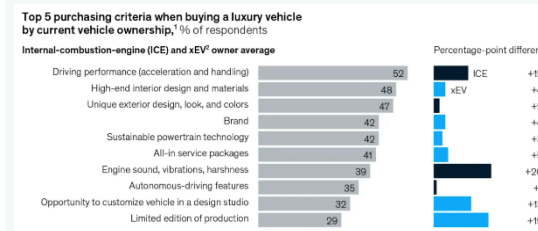
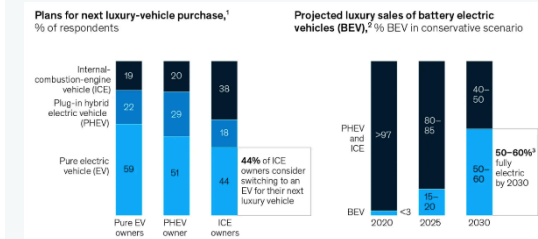
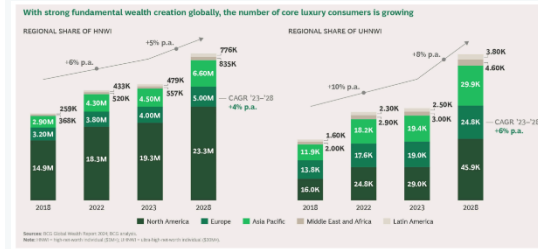
This is undoubtedly the industry's biggest trend and one that should not be ignored by luxury OEMs like Ferrari. According to FT Journalist Oliver Blanch "two clear sub-categories of buyer exist within the early adopters: those convinced by the merits of the green credentials of this new class of driving experience, and those who revel in being at the cutting edge of emerging technology". A December 2022 McKinsey survey shows these positions, as 52% of luxury car buyers pointed towards driving performance as one of their top 5 purchasing criteria while 42% had a sustainable powertrain technology within their top criteria. What's interesting is that while those who picked a sustainable powertrain among their top 5 were roughly evenly distributed between ICE and EV buyers (3% difference), those who picked driving performance were mostly ICE buyers. This could mean that there's still a considerable number of luxury ICE buyers that value driving performance over sustainability that Ferrari could cater to instead of adapting to the new wave.

This, however, doesn't seem to be a majority position within the market, which generally seems to put a bigger emphasis on technical innovation and sustainability than on other factors dominated by traditional luxury OEMs like status, brand heritage and collector value.

This transition, however, should be slower for luxury OEM's top line of models and hyper-cars, in which EV penetration will be about 15-30% lower than in the 300,000-500,000\$ range. This gives Ferrari an interesting opportunity to catch up with competing manufacturers like Porsche and Audi, which have already established themselves as strong EV players.

### The new luxury car buyer

According to a BCG study, the new luxury car buyer is gender-balanced, young, well-educated, urban and ready to transition from ICEs to electric powertrains. Oliver Wyman shares this view and attributes the recent growth of the luxury industry to Millennials and Gen Z, who currently account for more than 50% of total sales of luxury products. In the BEV market, this age group, which ranges from 18 to 35 years of age, comprises 70% of prospective buyers. This is quite relevant as the new generations have considerably different customer preferences. For instance, 'profound brand history with sustainability' is considered one of the top 5 priorities for Chinese luxury car buyers, 60% of Gen Z and millennial prospective buyers are open to Chinese brands and prioritise tech over brand heritage and 75% consider themselves passionate about technology. These preferences should worry traditional luxury



manufacturers, not quite known for their technological innovation but rather for status and brand heritage.

The modern luxury car buyer also seeks a more direct relationship with the manufacturer and a more continued service after purchase. Purchasing channels are also changing, and online platforms are gaining ground against the traditional leadership model. A survey by KPMG states that by 2030, 59% of sales will be conducted through non-dealership channels. According to a McKinsey survey, more than 40% of prospective luxury car buyers would purchase their next car online rather than through physical outlets while demand for online channels only increases in the discovery phase. As for the After Sales Service (ASS), however, luxury buyers are still inclined to go through the old-fashioned channels and demand personalised experiences and engagement as a consequence of how they're treated while buying other luxury products. Here, Ferrari has the upper hand over potential Chinese budget luxury OEMs as it closely controls and limits the number of dealerships that service and sell Ferrari cars, allowing for a more controlled and seamless customer experience.

### A preference for SUVs

Demand for Sports Utility Vehicles (SUVs) is expected to increase throughout the decade, while sports cars and sedans will likely see a decrease in their sales figures. This growth will be particularly steep in the ultra-luxury segment (prices above 500,000\$), in which SUVs are expected to account for 50% of sales by 2031, up from 15% in 2021, according to McKinsey. In the global luxury and ultra-luxury market, SUVs are expected to rise from comprising 64% of sales in 2021 to 70% in 2031, averaging a yearly growth rate (CAGR) of 11% during the period, according to (Zhang et al., 2022). This could be worrying for Ferrari, which currently only offers one SUV model, which has not yet experienced the sales level of competitors' models like the Lamborghini Urus.

### Independence of market forces

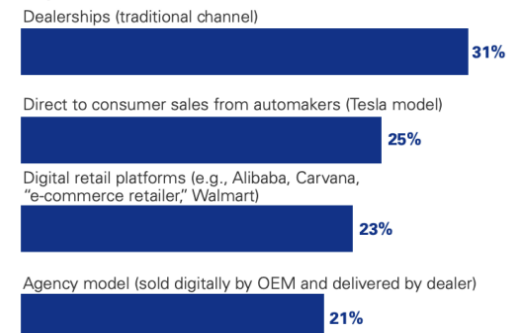
Over the last couple of years, the luxury sector's growth has consistently shown that it's relatively unaffected by market forces, which do, however, affect mass-market manufacturers. For instance, the period of monetary tightening, which would typically reduce sales volumes as a consequence of many car sales being mortgaged, didn't particularly affect the luxury sector, which widely outperformed the mass market's CAGR. This is because most HNWI and UHNWI don't typically externally finance their car purchases (as if they needed to, and they probably should not be paying that purchase altogether).

Similarly, this sector seems to be practically immune to subsidies towards competitors' cars. The recent wave of green subsidies originating from the US Inflation Reduction Act (IRA) and other direct grants, for example, made purchases of EVs much cheaper for the general public. However, we're talking about a market with a relatively low elasticity of demand whose customers certainly should not be greatly affected by the relatively low discount brought about by what is mainly absolute (and not proportional) subsidies. This is why luxury ICE car manufacturers weren't as affected by these government aids as laggards operating in the mass-market segment of the industry.

### In 2030, the industry expects more than two-thirds of sales to be non-dealer

In 2030, what percent of new cars will be sold directly to consumers by automakers or nontraditional channels in your home market?

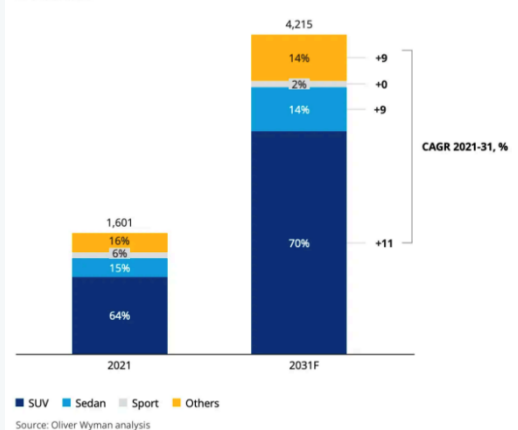
#### Projected distribution channels for new car sales in 2030



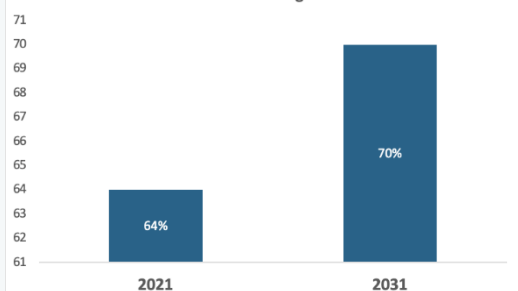
#### Preferred interaction channels by phase, % of respondents



#### Exhibit 7: Global luxury and ultra-luxury vehicle sales volume by body type



#### Ultra Luxury SUVs Forecasted Percentage of Sales





# Financial Analysis

## Profitability

Over the past five years (2019-2023), Ferrari's revenues have shown prominent and consistent growth, rising from €3.77 billion in 2019 to €5.97 billion in 2023 despite fluctuations in 2020 due to covid-19 pandemic. Correspondingly, the firm's sales have increased notably in recent years, growing 19.31% in 2022 and 17.2% in 2023. Regarding Ferrari's expenses, the firm's cost structure has enlarged relatively in line with its revenue growth. COGS increased from €1.8 billion in 2019 to €2.99 billion in 2023, including a 13.09% rise in 2023, mainly driven by growing production, raw material costs and Ferrari's increasing product mix. Ferrari's operating expenses increased from €1.05 Billion in 2019 to €1.36 billion in 2023, growing 11.26% in 2023 mainly due to the firm's elevated R&D investments to bolster Ferrari's recent strategies of innovation and electrification. Despite these cost increases, Ferrari has maintained strong profitability, with gross margins consistently above 49% over the past 5 years, although they decreased slightly from 52.07% in 2019 to 49.82% in 2023. However, operating profit (EBIT) grew 32% in 2023 compared to 2022, helping the firm improve its net operating profit margin from 24.09% in 2022 to 27.09% in 2023. Ferrari's net operating margin plummeted in 2020, a 5-year-low of 20.70%, mainly associated with the inconsistencies in gross and operating profit brought by the COVID-19 pandemic.

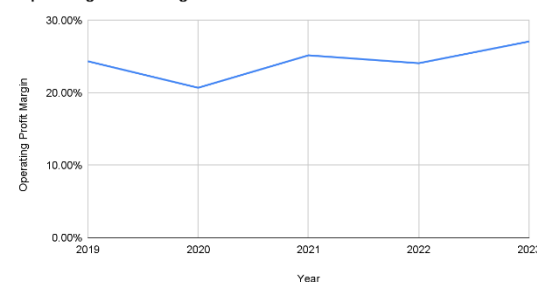
## Growing Research & Development Costs

Looking at Ferrari's consolidated income statement for the past 5 years, we see that R&D costs tend to increase relatively yearly. R&D costs for 2023 were €882 Million, an increase of 17% compared to €776 Million in 2022. The firm attributes this increase to higher amortisation of capitalised development costs, strategy to innovate and broaden the firm's product portfolio and racing activities, which led to a 14.8% decrease in net revenues for 2023. From our perspective, this accentuates Ferrari's willingness to hinder short-term profitability to bolster its growth and maximise its long-term shareholder value. Analysing the 5-year course, R&D costs have substantially increased from €699 Million in 2019 to €707 Million in 2020, €768 Million in 2021, €775 Million in 2022 and finally €882 Million in 2023, indicating a CAGR of 4.71%. This growth is attributed to Ferrari's commitment to maintaining a solid product portfolio and investing in advancing racing technology while, more recently, prepping for a potential transition to EVs. R&D is crucial for Ferrari's long-term development. That being said, compared to other (non-luxury) automakers, Ferrari might have lower R&D expenses due to their limited production volumes. Transitioning to EVs could give the firm a competitive edge by aligning with market trends in the evolution of consumer preferences.

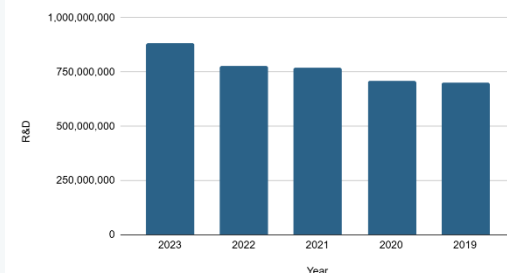
## Investments

Return on Assets (ROA) increased substantially to 20.09% in 2023 from 15.80% in 2022, following its improving and recovering trend from 11.44% in 2020. This strong recovery is apparent from the consistent ROA growth since the COVID-19 pandemic's unfavourable effects in

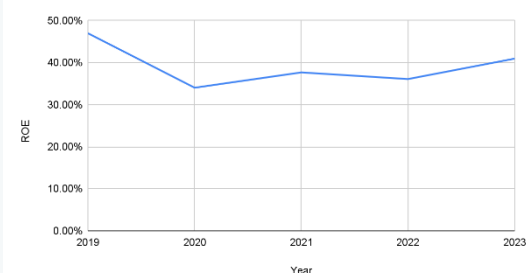
Operating Profit Margin Evolution



R&D Investments



ROE Evolution



2020, with a five-year average of 15.97% reflecting the firm's solid performance trajectory. This trend depicts Ferrari's consistent capability of utilising its assets to generate operating profits. Correspondingly, Return on Equity (ROE) grew from 34.03% in 2020 to 40.95% in 2023, depicting fruitful leverage utilisation to bolster shareholder payback. The solid combination of ROA and ROE suggests that Ferrari's assets are key to its profitability without over-counting on non-current debt, which is a good indicator for a luxury automaker like Ferrari to grow while keeping exclusivity. The alignment between both metrics highlights an optimal capital structure, giving high returns and low exposure to risk.

### Liquidity

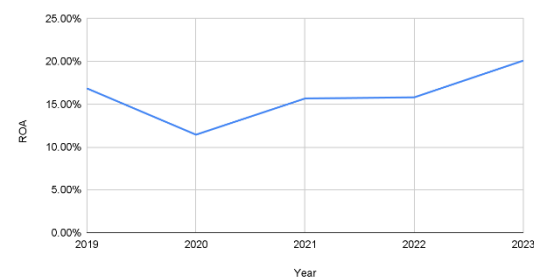
Strength in Ferrari's current assets relative to its short-term liabilities has allowed the company to keep enhancing its liquidity position throughout the years. Regarding this, Ferrari's working capital has increased from €1.51Bn in 2019 to €2.5Bn in 2023, suggesting an increased ability to fund current operations and maintain its liquidity despite growing costs. For 5 years, Ferrari's working capital has consistently grown, with €1.96Bn in 2020, €2.04Bn in 2021, and €2.55Bn in 2022. Apart from reflecting the firm's prudence in managing its short-term funds and obligations, it also assisted Ferrari while handling subsequent increases in production and R&D costs. As for the current ratio, it increased to 2.68 in 2023 from 2.34 in 2019. When we examine the factors in this increase, we can observe that inventories increased by 125% in 5 years. This increase in inventories is associated with natural increases in car volumes while maintaining a limited supply in the market. Production of new models enhanced the product mix to protect the Ferrari group's delivery plans. The quick ratio, which went from 1.97 in 2019 to 2.13 in 2021 and then slightly fluctuated to 2.04 in 2023, depicts that a substantial amount of Ferrari's current assets are increasingly tied and dependent on inventories, as observed by the 13% fall from 2022 to 2023.

Liquidity is a major factor for Ferrari to consider when diversifying into the EV market, mainly due to upfront investments in R&D and new manufacturing capabilities, which can substantially strain cash and its equivalents. Although Ferrari's cash ratio in 2023 of 0.75 was a slight decrease from previous years (from 0.80 in 2019 to peaking at 1.22 in 2020 and declining to 0.99 in 2022), it still illustrates the reliability of cash and cash equivalents to potentially ramp up its EV technology in the future and remain highly competitive

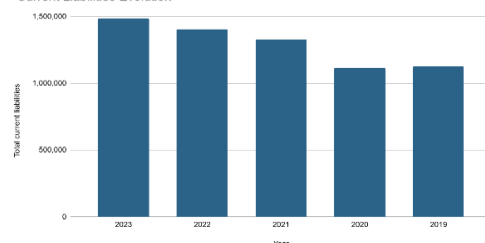
### Long-Term Debt Paying Ability

The automotive industry brings tons of capital-intensive business activities, explaining the tendency to have a high debt burden. Ferrari ended the fiscal year of 2023 with a total debt of €2.47Bn, a decrease of 13% compared to the year-end 2022. Ferrari's debt has been oscillating around €2.09Bn mark in 2019 and €2.72Bn in 2020, later peaking at €2.84Bn in 2022 and decreasing to €2.47Bn in 2023. With a debt ratio of 0.31, Ferrari's current capital structure suggests a more conservative approach with high stability, as 31% of the firm's overall assets are funded and financed through leverage. The debt ratio has gradually declined from 0.38 in 2019 to 0.31 in 2023, following fluctuations during the pandemic years, where it peaked at 0.44 in 2020. The 5-year average of the asset-based leverage is 0.38, which depicts that it's substantial for a luxury car brand like Ferrari, while being capital-intensive, to benefit from

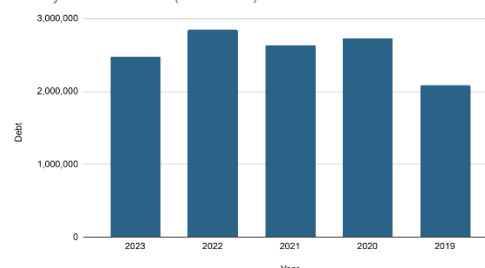
ROA Evolution



Current Liabilities Evolution



Yearly Debt Evolution (2019-2023)

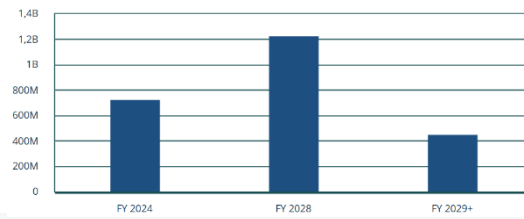


a profitable product line with high demand. Essentially, the current decrease in indebtedness enhances Ferrari's future capacity to take on additional debt to invest in EV development and R&D, amplifying the firm's opportunities to seek leverage to gain a competitive edge.

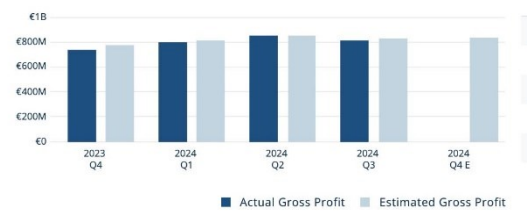
To some extent, Ferrari's moderate debt-to-equity ratio further justified this, decreasing to 0.81 since last year. D/E ratios within the automotive industry typically range between 1.0 to 2.0, and Ferrari's D/E ratio has substantially improved over the last 5 years, going from 1.41 in 2019 to 1.52 during the COVID-19 pandemic in 2020 before decreasing to 1.19 in 2021, 1.09 in 2022 and recently amounting to 0.81 in 2023. This progression highlights the firm's equity-based financial structure and deliberate de-leveraging efforts. Ferrari's D/E ratio of 0.81 shows the firm maintains a prudent balance between equity and debt, fostering financial stability and growth. While Ferrari's marginally normal ratio is technically an indicator of better-off solvency protection for creditors, from the investor's standpoint, shareholders benefit from the balanced approach, indicating consistent returns without excessive financial risk.

Nevertheless, when intangible assets are removed from the equation, we expect a heightened reliance on debt relative to tangible assets. In 2023, Ferrari's debt to tangible net worth dropped to 3.02, a 25% decrease compared to the previous year and a sharp contrast to the 5-year peak of 6.10 in 2019. Even though this value tends to decrease, it accentuates Ferrari's capital structure, in which intangible assets, drivers of the firm's valuation, compose 32% of Ferrari's non-current assets. This indicates that brand recognition, goodwill, trademarks and patents constitute a large portion of the firm's overall assets. This subsequently raises some questions concerning Ferrari's asset coverage ability and protection against solvency, as the firm's tangible assets are limited in the face of debt commitment. That being said, Ferrari's current Altman-Z Score of 8.79 indicates the firm's creditworthiness and strong financial stance against bankruptcy. This way, Ferrari's diversification initiatives, including electrification and hybridisation, have the challenge of following the growing electrification trend while maintaining the luxury brand qualification to avoid losing its brand prestige while maintaining competitiveness in the market.

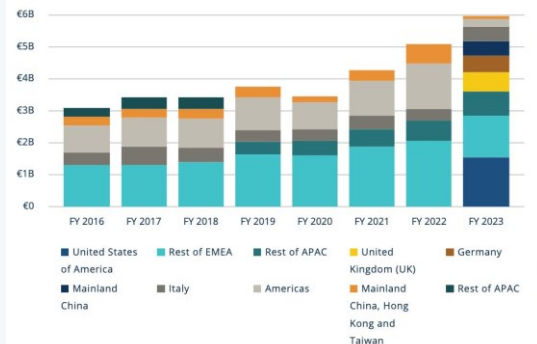
### DEBT MATURITY SCHEDULE



### GROSS PROFIT



### REVENUE PER REGION



# Valuation

When constructing our discounted cash flow (DCF) analysis for Ferrari, it is critical to recognise that the investment thesis must consider Ferrari's intrinsic limitations as a luxury brand with a restricted production model. While enhancing its brand value, Ferrari's deliberate approach to exclusivity constrains scalability and revenue expansion by simple volume matters. Additionally, the inherent challenges in accurately projecting long-term luxury demand drive our conservative assumptions over a 5-year forecast period. Three main scenarios were pursued: the "Constant", "Bear", and "Bull" cases. Across all scenarios, revenue growth is projected at a consistent CAGR of 18%-22% over the forecast horizon (2024-2028), reaching an estimated €16.8 billion in the Bull case, €13.8 billion in the Constant case, and €13.7 billion in the Bear case by 2028. Our projections, derived from these assumptions, yield an implied share price of 407.22 €. This outlook aligns with Ferrari's stable growth trajectory in the context of the luxury automotive industry.

We categorised key segments for Ferrari's revenue projections to align with its strategic focus. Core Automotive Sales, Ferrari's main automotive segment, remains the revenue driver, supported by its exclusive brand positioning and production constraints. A strong 5-year CAGR of around 20% reflects Ferrari's strategy to maintain exclusivity and brand prestige while facing limitations on scale. Revenue growth is expected to stem from steady demand for flagship and limited-edition models. As for Personalisation Services, this segment allows customers to customise their Ferrari experience. These are projected to grow at a lower rate of approximately 15%, reflecting Ferrari's ongoing efforts to expand options that enhance exclusivity. This way, appealing to high-net-worth customers but is limited by the number of customers. Lifestyle and Brand Extensions encompass branded merchandise, experiences, and partnerships. Given the discretionary nature of lifestyle spending, we project a moderate CAGR of 15% for this segment. While Ferrari's strong brand equity will continue to attract luxury consumers, we anticipate that economic volatility may temper growth in this sector, with lifestyle revenues providing complementary support to Ferrari's core business. Overall, this approach through the different segments emphasises Ferrari's commitment to brand value and limited production, with bull growth expectations that align with Ferrari's operational strengths and constraints.

In terms of costs, our model assumes a stable cost of goods sold (COGS) percentage, reflecting Ferrari's commitment to quality while recognising the limited scalability inherent in luxury manufacturing. Slight increases in SG&A and R&D expenditures are anticipated, aimed at supporting innovation and selective brand expansion, particularly in hybrid and electric vehicle (EV) technology.

Our margin projections account for Ferrari's ongoing investments in Research and Development. These are expected to provide relevant operational efficiencies over the next decade. Efficiencies are limited by Ferrari's high fixed costs and commitment to exclusivity, having a clear competitive priority of quality over cost. Moreover, ongoing CapEx investments in personalisation facilities and EV production align with Ferrari's long-term strategy but will likely maintain cost pressures. The previous, as the company navigates the transition to electric vehicles, complying with market trends.

## DCF BULL

Terminal Value	120,099
Present Value of Terminal Value	84,665
Enterprise Value	94,308
+ Cash	(1,121)
- Debt	(2,477)
Equity Value	92,852
Shares	100
Share Price	€ 515.89

## DCF BEAR

Terminal Value	54,057
Present Value of Terminal Value	42,722
Enterprise Value	50,481
+ Cash	(1,121)
- Debt	(2,477)
Equity Value	48,085
Shares	100
Share Price	€ 272.69

## DCF CONSTANT

Terminal Value	70,922
Present Value of Terminal Value	54,461
Enterprise Value	63,827
+ Cash	(1,121)
- Debt	(2,477)
Equity Value	62,509
Shares	100
Share Price	€ 347.23

## STOCK PERFORMANCE



Furthermore, on the R&D front, Ferrari is expected to continue substantial investments, particularly in hybrid and EV technology, to retain its competitive edge and comply with regulatory requirements. These efforts are crucial for Ferrari's reputation as a high-performance luxury brand. Yet, they contribute to the company's cost structure and underscore the high capital needs associated with staying competitive in a rapidly evolving automotive landscape. Our cost assumptions are tailored across Ferrari's revenue segments. Given that core automotive production remains central to Ferrari's brand and involves unique manufacturing processes, we project COGS as a decreasing rate of revenues as operation efficiencies are expected to improve. In contrast, Ferrari's lifestyle and brand extensions segment, which leans heavily on brand appeal rather than production efficiencies, is expected to maintain a higher COGS percentage, limiting potential margin improvements in that segment.

In discounting future cash flows, we applied a WACC of 8.28%, slightly higher than Ferrari's industry peers, accounting for the premium risks associated with the luxury sector. However, Ferrari's strong capital structure and limited debt contribute to a lower risk profile. We used a conservative perpetual free cash flow growth rate of 6%, aligned with Ferrari's stable long-term growth potential.

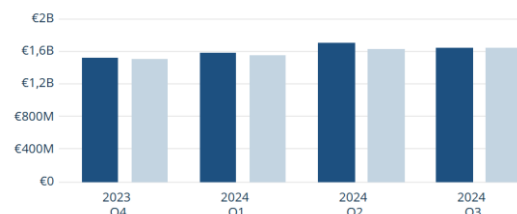
Based on our DCF analysis, we estimate a 12-month price target of 407.22€. The previous resulted from weighing the estimated prices obtained in the different cases by 0.1 for the bear, 0.4 for the bull and 0.5 for the constant case according to our assumptions. These prices specifically represent 515.85€ in a "Bull" case, 347.23€ in a "Constant" case, and 272.69€ in a "Bear" case. These figures align with Ferrari's constrained yet stable growth trajectory. While the Bull case reflects strong upside potential driven by global demand for high-end luxury vehicles, the Bear case underscores risks such as slowing demand or economic challenges. The constant case assumes moderate global luxury market expansion and provides a more balanced outlook. Together, these scenarios reinforce Ferrari's position as a premium luxury brand, but they also reveal the inherent limitations of its exclusivity-focused strategy in achieving exponential growth.

WACC			
WACC = (% Equity x Cost of Equity) + (% Debt x Cost of Debt x (1 - Tax rate))			
Cost of Equity = Risk Free Rate + (Beta x (Expected Market Return - Risk Free Rate))			
Debt	2,477	Value of capi	82,507
% Debt	3,0%		
Cost of Debt	0,93%		29,258 0,93%
Tax Rate	21,5%		
Equity Value	80,030 Diluted sha	179757	
% Equity	97%	Share price	446,2
Cost of Equity	10,8%		
Risk Free Rate	4,24%		
Beta	1,20		
Market Risk Premium	5,50%		
Debt + Equity			
<b>WACC</b>	<b>8,28%</b>		

### PV OF UNLEVERED FCF

Discount rate	%	8,28%	8,28%	8,28%	8,28%	8,28%
Discount period	#	1	2	3	4	5
Discount factor	#	0,92	0,85	0,79	0,73	0,67
Present Value of Unlevered Free Cash Flow	€	1,293	1,525	1,859	2,280	2,585

### REVENUE GROWTH





# Risks

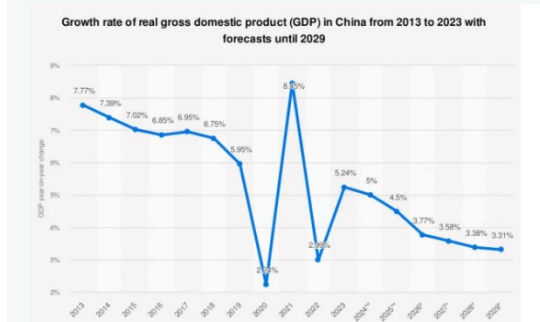
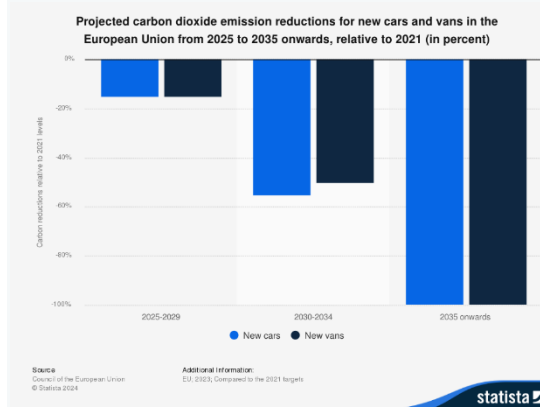
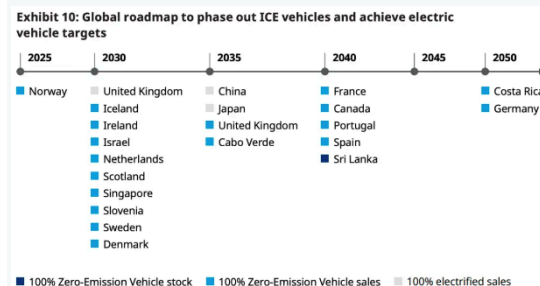
## CO2 emission regulations

One of the biggest threats affecting automakers worldwide (but especially in Europe) are the regulations on CO2 emissions and other environmental measures. Although, as we have seen, many manufacturers have started moving towards a more sustainable product offering, the stringent European regulations demand a complete standstill of emission-generating cars by 2035. Any new car sold after this date should be qualified as zero emissions. This doesn't apply to micro manufacturers (those selling less than 1,000 cars per annum) but will apply to Ferrari, which sold 5,958 units in the EMEA region in 2023. Since Ferrari sells less than 10,000 units in Europe, it will be entitled not to comply with the interim 2030 goal that does apply to mass-market manufacturers of reducing CO2 emissions by 55% in comparison to 2021 figures, which gives it an advantage over the general market. The 2035 goal will condition Ferrari to limit its European product offering to EVs by that time. Furthermore, the exemption of the interim 2030 rule could cap Ferrari's sales in Europe, as exceeding the 10,000 unit mark would mean that it would be subject to the imposition of reducing emissions by 55%. However, this should not be an issue for Ferrari, which currently produces about 15,000 vehicles globally.

Nevertheless, regulations on urban emissions may pose an even more significant threat to luxury car sales than those imposed by governing bodies and international organisations. This is because HNWIs and UHNWIs (which comprise the majority of luxury car buyers) typically live in cities, and if they aren't allowed to drive their cars within the city, then falling car sales seem inevitable. Many European cities like London, Oslo or Amsterdam have already announced citywide phase-outs of ICE vehicles by 2030 while others like Paris aim to phase out circulation of diesel vehicles by 2025.

## Transition costs

One of the new EV-focused brands' biggest advantages over traditional ICE OEMs is that their cost structures and assets are tailored towards EV manufacturing. Traditional OEMs, however, need to make big R&D and Capex investments to adapt to the new EV wave. A survey conducted by KPMG revealed that, on average, only 36% of OEMs were increasing R&D investments for ICE models, while when it came to BEVs and Hybrid Electric Vehicles (HEVs), this figure increased to 70% and 53%, respectively. However, as McKinsey has pointed out, these investments impact small-scale manufacturers even more acutely and make this transition slower and more costly for them. This is especially relevant for completely independent luxury OEMs like Koenigsegg or Aston Martin and much less of a risk for brands offering a more diversified (in terms of prices) catalogue of models. For instance, Mercedes can leverage its relatively large volume of production to spread out the cost of these R&D investments, while Bugatti, which is part of the Volkswagen group, could, perhaps, benefit from this by sharing the cost of R&D and assets with other brands within the group. Ferrari, on the other hand, is technically independent, but its major shareholder, the famed Exor group, also controls important stakes in other powerful OEMs like Stellantis and Iveco, which may allow Ferrari to cheapen this transition.



## Chinese disposable income

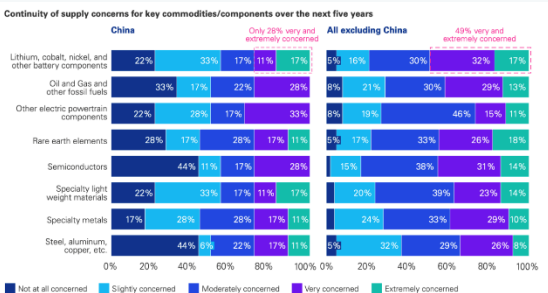
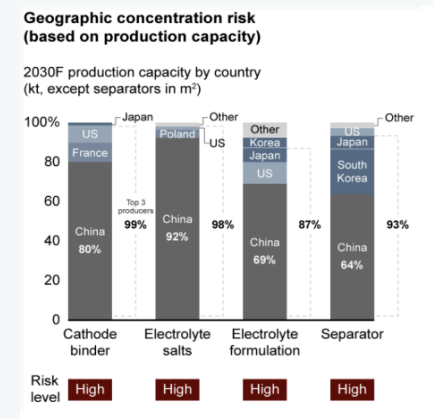
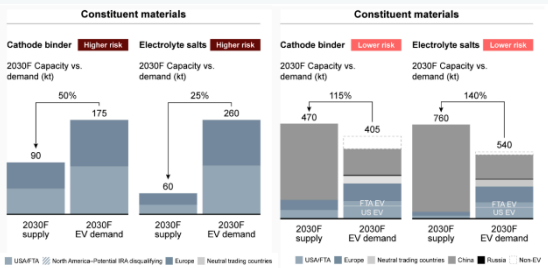
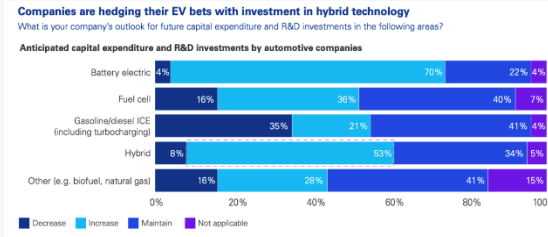
As we previously mentioned, a considerable amount of the expected growth in the luxury car sector will be driven by Chinese customers. However, if the economic situation of the Asian giant were to worsen, we may start seeing a decline in luxury goods sales. Tackling the issue of the growth potential of Chinese luxury, Morningstar pointed out how there was an intense correlation between equity prices and global luxury sales and, specifically in the case of China, one between the state of the real estate sector and the sale of luxury goods. This is partly attributable to the fact that "real estate accounts for 60-70% of savings among Chinese nationals.

Hence, given that the growth of real GDP in China is estimated to fall to 3,3% by 2029 (according to the IMF) and that credit limits granted to developers in China as a consequence of the Evergrande crisis are causing an intense decrease in building activity, we may see a sharp decline in the sale of luxury cars. This is worrying as China is supposed to drive the positive growth prospects we've previously outlined so if this were to happen, the sector overview would look very different. For further information about the Chinese economy and financial market, you can consult the ESFS economic research department's latest report, "The Chinese Stock Market".

## Supply chain disruptions

To exploit the market headwinds, OEMs need to have a continuous and reliable source of raw materials. Although according to Bain estimates, by 2030 global supply of key EV materials and components will be large enough to cover demand, the picture changes considerably when plotting those same calculations for American and European suppliers and consumers. Here, regional demand by 2030 would outstrip regional supply by a considerable margin.

This is mainly due to a dangerous concentration of supply in China could disrupt supply chains in the event of geo-political tensions, worsening trade relationships or natural disasters. This could increase production costs and slow down manufacturing, and while an increase in prices isn't especially worrying for Ferrari given its relatively inelastic demand, delays in manufacturing could hinder sales. As a response to this, production has shifted from a JIT model to a JIC one which, although safer with regards to continuous supply, undoubtedly implies an increase in costs which may further hinder profitability. These worrying supply chain issues don't seem to be affecting Chinese executives as much as their European and American peers as shown by a survey conducted by KPMG. According to the auditing firm, the continuity of supply of key materials like steel or lithium is not a concern to 44% and 22% of Chinese executives, while tranquillity in this regard for non-Chinese executives goes down to 5% for both lithium and steel (see graph).



# Thesis & Recommendation

Ferrari's constant delivery of results is in line with management's defined strategy and allows the company to portray a sense of confidence to investors. Therefore, promising to deliver long-term value through consistency. Despite current market prices reflecting overvaluation, a "hold" rating balances the solid financial fundamentals, regional growth opportunities, and market power with the perception of limited immediate upside. In other words, although our discounted cash flow model indicates that 'RACE' may be currently trading above intrinsic value, the company's strengths described in our extensive analysis suggest that retaining exposure may be a prudent decision for investors expecting returns in the longer term.

## Dominion

Ferrari's exclusivity-focused production model enables it to maintain pricing power, ensuring solid margins. Even during market downturns, despite limiting the company's volume, Ferrari's competitive advantage (its pricing strategy) mitigates demand sensitivity, making it less susceptible to broader economic & geopolitical challenges. This 'price-setting ability' comparable to that of OPEC and DeBeers makes Ferrari an investment for investors seeking companies with significant influence over their market that can thrive even in times of decreased economic activity.

## Overvaluation Concerns

The DCF analysis in the "Bear" and "Bull" scenarios evaluated resulted in an expected share price for the next 12 months of 227.41€ and 364.57€, respectively. These raise concerns about the immediate upside that can be generated by the company benefiting potential investors. Our rationale, expressed in the valuation and within the model, provides an insight into our assumptions that, although predominantly positive for the longer term, show significant threats to short-term profitability. This quantitative analysis was the main driver for determining that rather than a "Buy" impeded by our positive qualitative analysis, Ferrari is better represented with a "Hold" categorisation.

## Future-Proofed Strategy

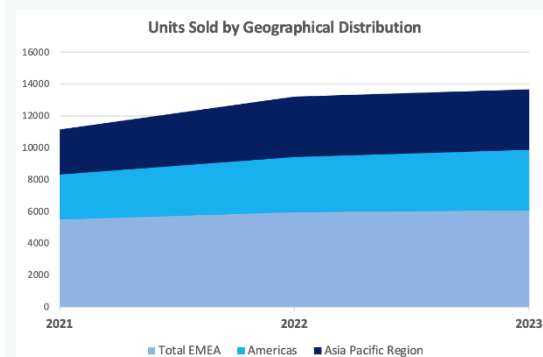
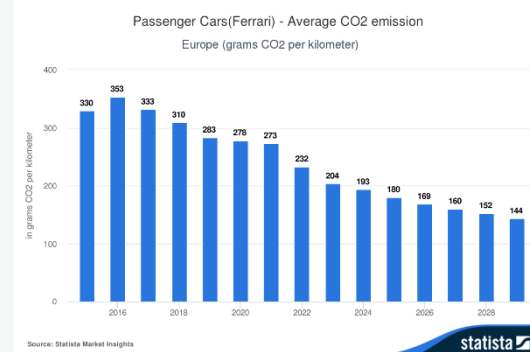
Ferrari's investments in electrification reflect its commitment to aligning with industry trends and regulatory demands. Its plan to transition to fully electric vehicles by 2025 ahead of schedule and ongoing R&D investments (€882M in 2023) ensure that this transition protects the brand legacy and could position it as the leader in sustainable luxury vehicles. In any case, management's forward guidance portrays a future-proofed strategic position for the company.

## Growth Opportunities

Rising demand in the Asia Pacific Region, particularly from high-net-worth individuals in China, presents significant opportunities for growth in terms of geographical distribution. Ferrari is adapting to shifts in consumer preferences, and the region is increasingly capturing a more significant fraction of revenues. The combination of the company's ability to reach target customers and market shifts towards Asia hints at the possibility of becoming Ferrari's main target market in the future.

### MARKET CONSENSUS ANALYST RECOMMENDATION

Buy	9
Outperform	3
Hold	10
Underperform	1
Sell	1
No Recommendation	0



# Appendix

## Income statement

Item (in thousand €)	2023	2022	2021	2020	2019
Net revenues	5,970,146	5,095,254	4,270,894	3,459,790	3,766,615
Cost of sales	2,995,877	2,648,953	2,080,613	1,686,324	1,805,310
<b>Gross Profit</b>	<b>2,974,269</b>	<b>2,446,301</b>	<b>2,190,281</b>	<b>1,773,466</b>	<b>1,961,305</b>
Selling, general and administrative costs	462,580	427,974	348,024	336,126	343,179
Research and development costs	881,559	775,572	768,104	707,385	699,211
Other expenses/(income), net	18,898	21,548	5,561	18,475	4,991
Result from investments	6,137	6,175	6,896	4,647	3,522
<b>Operating profit (EBIT)</b>	<b>1,617,369</b>	<b>1,227,382</b>	<b>1,075,488</b>	<b>716,127</b>	<b>917,446</b>
Financial expenses, net	15,015	49,616	33,257	49,092	42,082
<b>Profit before taxes</b>	<b>1,602,354</b>	<b>1,177,766</b>	<b>1,042,231</b>	<b>667,035</b>	<b>875,364</b>
Income tax expense	344,897	238,472	209,095	58,155	176,656
<b>Net profit</b>	<b>1,257,457</b>	<b>939,294</b>	<b>833,136</b>	<b>608,880</b>	<b>698,708</b>
<b>Net profit attributable to:</b>					
- Owners of the parent	1,252,048	932,614	830,767	607,817	695,818
- Non-controlling interests	5,409	6,680	2,369	1,063	2,890
Basic earnings per common share (in €)	6.91	5.11	4.5	3.29	3.73
Diluted earnings per common share (in €)	6.9	5.09	4.5	3.28	3.71

## Balance sheet

Item (in thousand €)	2023	2022	2021	2020	2019
<b>Assets</b>					
Goodwill	785,182	785,182	785,182	785,182	785,182
Intangible assets	1,419,699	1,307,388	1,138,173	979,290	837,938
Property, plant and equipment	1,575,200	1,457,825	1,353,165	1,226,630	1,069,652
Investments and other financial assets	67,671	59,534	54,509	42,841	38,716
Deferred tax assets	217,553	203,382	168,757	152,221	73,683
<b>Total non-current assets</b>	<b>4,065,305</b>	<b>3,813,311</b>	<b>3,499,786</b>	<b>3,186,164</b>	<b>2,805,171</b>
Inventories	948,514	674,662	540,575	460,617	420,051
Trade receivables	261,380	232,414	185,000	184,260	231,439
Receivables from financing activities	1,451,158	1,399,997	1,143,968	939,607	966,448
Tax receivables	11,616	16,054	14,306	12,438	21,078
Other current assets	130,228	153,183	122,224	76,471	92,830
Current financial assets	61,130	87,301	13,500	40,084	11,409
Cash and cash equivalents	1,121,981	1,388,901	1,344,146	1,362,406	897,946
<b>Total current assets</b>	<b>3,986,007</b>	<b>3,952,512</b>	<b>3,363,719</b>	<b>3,075,883</b>	<b>2,641,201</b>
<b>Total assets</b>	<b>8,051,312</b>	<b>7,765,823</b>	<b>6,863,505</b>	<b>6,262,047</b>	<b>5,446,372</b>
<b>Equity and Liabilities</b>					
Equity attributable to owners of the parent	3,060,888	2,592,857	2,205,898	1,785,186	1,481,290
Non-controlling interests	9,734	9,630	5,518	4,018	5,998
<b>Total equity</b>	<b>3,070,622</b>	<b>2,602,487</b>	<b>2,211,416</b>	<b>1,789,204</b>	<b>1,487,288</b>
Employee benefits	123,045	110,807	101,200	59,985	88,116
Provisions	187,276	180,694	150,868	155,335	165,572
Deferred tax liabilities	136,846	126,507	95,973	113,474	82,208
Debt	2,477,186	2,841,779	2,630,011	2,724,745	2,089,737
Other liabilities	1,022,967	952,025	726,775	687,462	800,015
Other financial liabilities	13,539	19,993	36,520	2,140	14,791
Trade payables	930,560	902,968	797,832	713,807	711,539
Tax payables	89,271	58,563	112,910	15,895	7,106
<b>Total equity and liabilities</b>	<b>8,051,312</b>	<b>7,795,823</b>	<b>6,863,505</b>	<b>6,262,047</b>	<b>5,446,372</b>
<b>Total current liabilities</b>	<b>1,486,556</b>	<b>1,402,706</b>	<b>1,326,107</b>	<b>1,117,704</b>	<b>1,128,655</b>
<b>Total liabilities</b>	<b>4,980,690</b>	<b>5,193,336</b>	<b>4,652,089</b>	<b>4,472,843</b>	<b>3,959,084</b>

## Ratio Analysis

Liquidity Ratios						
Working Capital		2,499,451	2,549,806	2,037,612	1,958,179	1,512,546
Quick Ratio		2.04	2.34	2.13	2.34	1.97
Current Ratio		2.68	2.82	2.54	2.75	2.34
Cash Ratio		0.75	0.99	1.01	1.22	0.80
Profitability Margins						
a) Sales						
Gross Profit Margin		49.82%	48.01%	51.28%	51.26%	52.07%
Operating Profit Margin		27.09%	24.09%	25.18%	20.70%	24.36%
Net Profit Margin		21.06%	18.43%	19.51%	17.60%	18.55%
b) Investments						
Return on Assets (ROA)		20.09%	15.80%	15.67%	11.44%	16.85%
Return on Equity (ROE)		40.95%	36.09%	37.67%	34.03%	46.98%
Debt Paying Ability Ratios						
Times Interest Earned		55.28	48.15	45.44	27.88	38.76
Debt Ratio		0.31	0.37	0.38	0.44	0.38
Debt to Equity		0.81	1.09	1.19	1.52	1.41
Debt to Tangible Net Worth		3.02	4.01	4.33	5.52	6.10
Allman Z-Score		8.79	6.27	7.51	6.35	6.2
Market ratios						
EPS		6.91	5.11	4.5	3.29	3.73
Diluted EPS		6.9	5.09	4.5	3.28	3.71

### DCF Bull

Ferrari NV (Bull case)		cellformat						
Ticker	RACE	Implied Share Price	€515.85	Today's Share Price	€405.10	Upside (Downside)	21.5%	
Date	20/11/2024							
<b>Assumptions</b>								
<b>Valuation Assumptions</b>								
WACC	8.3%							
TGR	6.0%							
<b>Income Statement</b>								
	2022	2023	2024	2025	2026	2027	2028	
Revenue	5,095	6,216	7,583	9,252	11,287	13,770	16,800	
% growth		22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	
EBIT	1,227	1,617	2,199	2,868	3,725	4,820	6,216	
% of sales	24.1%	26.0%	29.0%	31.0%	33.0%	35.0%	37.0%	
Taxes	239	345	379	494	642	831	1,072	
% of EBIT	19.5%	21.3%	17.2%	17.2%	17.2%	17.2%	17.2%	
<b>Cash Flow Items</b>								
	2022	2023	2024	2025	2026	2027	2028	
D&A	546.0	662.0	834.2	1,017.7	1,241.6	1,514.7	1,560.2	
% of sales	10.7%	10.7%	11.0%	11.0%	11.0%	11.0%	9.3%	
CapEx	824.0	911.0	1,002.1	1,102.3	1,212.5	1,333.8	1,467.2	
% of sales	16.2%	14.7%	13.2%	11.9%	10.7%	9.7%	8.7%	
Change in NWC	146.0	358.0	252.0	307.4	383.8	440.6	504.0	
% of sales	2.9%	5.8%	3.3%	3.3%	3.4%	3.2%	3.0%	
<b>DCF</b>								
	2024	2025	2026	2027	2028			
Revenue	7,094	8,371	9,878	11,656	13,754			
% growth	18.0%	18.0%	18.0%	18.0%	18.0%			
EBIT	1,951	2,428	3,013	3,730	4,718			
% margin	27.5%	29.0%	30.5%	32.0%	34.3%			
Taxes	355	419	494	583	688			
% of EBIT	18.2%	17.2%	16.4%	15.6%	14.6%			
<b>EBIAT</b>								
	1,820	2,374	3,083	3,989	5,144			
D&A	834	1,018	1,242	1,515	1,560			
% of sales	11.0%	11.0%	11.0%	11.0%	9.3%			
CapEx	1,002	1,295	1,580	1,928	2,352			
% of sales	13.2%	14.0%	14.0%	14.0%	14.0%			
Change in NWC	252	307	384	441	504			
% of sales	3.3%	3.3%	3.4%	3.2%	3.0%			
<b>Unlevered FCF</b>								
	1,400	1,789	2,360	3,135	3,848			
Present Value of FCF	1,293	1,525	1,859	2,280	2,585			
Terminal Value						120,099		
Present Value of Terminal Value						84,665		
Enterprise Value						84,208		
+ Cash						€1,123		
- Debt						€2,477		
Equity Value						92,854		
Shares						180		
Share Price						€ 515.85		

### DCF Bear

Ferrari NV (Bear case)		cellformat						
Ticker	RACE	Implied Share Price	€272.69	Today's Share Price	€405.10	Upside (Downside)	(32.7%)	
Date	20/11/2024							
<b>Assumptions</b>								
<b>Valuation Assumptions</b>								
WACC	8.3%							
TGR	4.0%							
<b>Income Statement</b>								
	2022	2023	2024	2025	2026	2027	2028	
Revenue	5,095	6,012	7,094	8,371	9,878	11,656	13,754	
% growth		18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	
EBIT	1,227	1,617	1,845	2,302	2,865	3,555	4,401	
% of sales	24.1%	26.9%	26.0%	27.5%	29.0%	30.5%	32.0%	
Taxes	239	345	355	419	494	583	722	
% of EBIT	19.5%	21.3%	19.2%	18.2%	17.2%	16.4%	16.4%	
<b>Cash Flow Items</b>								
	2022	2023	2024	2025	2026	2027	2028	
D&A	546.0	662.0	780.4	920.8	1,086.6	1,282.2	1,513.0	
% of sales	10.7%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	
CapEx	824.0	911.0	1,002.1	1,102.3	1,212.5	1,333.8	1,467.2	
% of sales	16.2%	15.2%	14.1%	13.2%	12.3%	11.4%	10.7%	
Change in NWC	146.0	358.0	252.0	297.4	335.9	373.0	412.6	
% of sales	2.9%	6.0%	3.6%	3.6%	3.4%	3.2%	3.0%	
<b>DCF</b>								
	2024	2025	2026	2027	2028			
Revenue	7,094	8,371	9,878	11,656	13,754			
% growth	18.0%	18.0%	18.0%	18.0%	18.0%			
EBIT	1,845	2,302	2,865	3,555	4,401			
% margin	26.0%	27.5%	29.0%	30.5%	32.0%			
Taxes	355	419	494	583	722			
% of EBIT	19.2%	18.2%	17.2%	16.4%	16.4%			
<b>EBIAT</b>								
	1,490	1,884	2,371	2,972	3,680			
D&A	780	921	1,087	1,282	1,513			
% of sales	11.0%	11.0%	11.0%	11.0%	11.0%			
CapEx	1,002	1,102	1,213	1,334	1,467			
% of sales	14.1%	13.2%	12.3%	11.4%	10.7%			
Change in NWC	252	297	336	373	413			
% of sales	3.6%	3.6%	3.4%	3.2%	3.0%			
<b>Unlevered FCF</b>								
	1,016	1,405	1,909	2,548	3,313			
Present Value of FCF	938	1,198	1,504	1,853	2,226			
Terminal Value						54,057		
Present Value of Terminal Value						42,722		
Enterprise Value						50,441		
+ Cash						€1,123		
- Debt						€2,477		
Equity Value						49,085		
Shares						180		
Share Price						€ 272.69		

### DCF Constant

Ferrari NV (Bull case)		cellformat						
Ticker	RACE	Implied Share Price	€347.23	Today's Share Price	€405.10	Upside (Downside)	(14.3%)	
Date	20/11/2024							
<b>Assumptions</b>								
<b>Valuation Assumptions</b>								
WACC	8.3%							
TGR	4.5%							
<b>Income Statement</b>								
	2022	2023	2024	2025	2026	2027	2028	
Revenue	5,095	6,012	7,094	8,371	9,878	11,656	13,754	
% growth		18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	
EBIT	1,227	1,617	1,951	2,428	3,013	3,730	4,718	
% of sales	24.1%	26.9%	27.5%	29.0%	30.5%	32.0%	34.3%	
Taxes	239	345	355	419	494	583	688	
% of EBIT	19.5%	21.3%	18.2%	17.2%	16.4%	15.6%	14.6%	
<b>Cash Flow Items</b>								
	2022	2023	2024	2025	2026	2027	2028	
D&A	546.0	662.0	780.4	920.8	1,086.6	1,282.2	1,402.9	
% of sales	10.7%	11.0%	11.0%	11.0%	11.0%	11.0%	10.2%	
CapEx	824.0	601.2	709.4	837.1	987.8	1,165.6	1,282.2	
% of sales	16.2%	10.0%	10.0%	10.0%	10.0%	10.0%	9.3%	
Change in NWC	146.0	358.0	252.0	276.3	296.3	314.7	330.1	
% of sales	2.9%	6.0%	3.6%	3.3%	3.0%	2.7%	2.4%	
<b>DCF</b>								
	2024	2025	2026	2027	2028			
Revenue	7,094	8,371	9,878	11,656	13,754			
% growth	18.0%	18.0%	18.0%	18.0%	18.0%			
EBIT	1,951	2,428	3,013	3,730	4,718			
% margin	27.5%	29.0%	30.5%	32.0%	34.3%			
Taxes	355	419	494	583	688			
% of EBIT	18.2%	17.2%	16.4%	15.6%	14.6%			
<b>EBIAT</b>								
	1,596	2,009	2,519	3,147	4,030			
D&A	780	921	1,087	1,282	1,403			
% of sales	11.0%	11.0%	11.0%	11.0%	10.2%			
CapEx	709	837	988	1,166	1,282			
% of sales	10.0%	10.0%	10.0%	10.0%	9.3%			
Change in NWC	252	276	296	315	330			
% of sales	3.6%	3.3%	3.0%	2.7%	2.4%			
<b>Unlevered FCF</b>								
	1,415	1,817	2,321	2,949	3,821			
Present Value of FCF	1,307	1,549	1,828	2,145	2,567			
Terminal Value						70,922		
Present Value of Terminal Value						54,461		
Enterprise Value						63,857		
+ Cash						€1,123		
- Debt						€2,477		
Equity Value						62,501		
Shares						180		
Share Price						€ 347.23		