

Ferrari	
Ticker	RACE
Price (EUR)	97.06
P/E Ratio 2018E	28.31
EV/EBITDA	7.03

Source: Bloomberg;

Price and Performance (€)	
Price	97.06
52 week high	129.50
52 week low	83.10
YTD	11.0%
Average daily volume (un)	649,197
Market Capitalization (mn)	18,325
Beta	0.97

Source: Bloomberg;

Analysts Consensus (last 3 months)	
Buy	12
Hold	9
Sell	3

Source : Bloomberg;

Financial Data	
Sales (EUR mn)	3,417
EBITDA (EUR mn)	1,036
Number of Employees	3,380
ROA	16.8%
ROE	78.0%

Source: Bloomberg;

Notes:

All quotes were updated in Bloomberg at 08h29 of January 14th, 2019.

Relevant Information:

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<https://www.big.pt/InformacaoMercado/s/TradingIdeas/Index/-1>

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Ferrari: Growth of revenues and margins

▲ **Description**

Ferrari is a luxury company. It manufactures a limited number of vehicles (8398 in 2017), maintaining this way the brand's exclusivity and a waiting period of one year for each client's order. Its market share in luxury car sales is around 20%, except in Asia where it achieves 25%.

Ferrari trades in the Italian stock exchange with a market capitalization of EUR 18.3 bn and employs more than 3,300 employees. It also has an ADR in NYSE.

▲ **Investment Case**

Luxury brand: The exclusivity and the limited number of cars implies a higher level of predictability of revenues even in adverse macroeconomic conditions. It also allows the brand to increase prices and margins as it happened in the last 3 years when EBIT margin rose from 16% in 2015 to 19% in 2016 and 23% in 2017. Ferrari expects to achieve an EBIT of between EUR 1.8bn and EUR 2bn in 2022, representing a growth of more than 100% vs 2017's EBIT of EUR 776 mn. In addition, Ferrari has a very loyal customer base, so in 2017 more than 65% of the new cars were sold to Ferrari owners.



Source: Company's data

Notes: Sales in top 22 countries, and comparison with luxury cars with more than 500hp and retail price above EUR 150,000 sold by Aston Martin, Audi, Bentley, Ferrari, Ford, Honda/Acura, Lamborghini, McLaren, Mercedes, Porsche and Rolls Royce.

Sales growth: Ferrari produces less than 10,000 vehicles per year in order to maintain exclusivity and to comply with an environmental restriction which limits the production to manufacturers of high emission vehicles as is the case of the sport cars brands. In 2017 the brand manufactured 8398 units (+5% yoy), and it is expected that the number continues to increase at this rythm until the company introduces more hybrid models (which it expects to represent around 60% of the production in 2022). These hybrid models will decrease the emissions average of the company and consequently allow it to surpass the 10,000 units per year limit. The brand will however maintain its exclusivity as it increases car sales as the richer segment of population increases, especially in Asia and other emerging markets.

▲ **Calendar**

January 31 2019: 4Q 2018 earnings

April 15, 2019: Dividend ex-date

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Source: Company's data

▲ **Sport models**

488 GTB: This two seat model has a 670hp (horse power) mid-rear mounted turbo-charged V8 engine. It was launched in March 2015. Thanks to the new aerodynamic design it has more 50% downforce than the previous model 458. The price in UK is around £200,000. There is a convertible version called 488 Spider. According to our estimates this model category (V8 sport) represents around 50% of total car and parts revenues. The Pista special version costs around £250,000 in UK and was launched in 2018 with 710 hp.

812 Superfast: With a front mounted 800hp V12 engine, the two seater 812 Superfast has several technological evolutions like EPS (Electric Power Steering), PCV system (four wheel steering system) and an evolution of Side Slip Control. It was unveiled in 2017 Geneva Motor Show. This is the replacement model for F12. Its price is around £260,000 in UK.

▲ **GT models**

Portofino: This model is the successor of California T and was launched in September of 2017. It is 80kg lighter and its V8 reaches 600 hp. Its price is around £166,000 in UK.

GTC4 Lusso: This is a four seat four-wheel drive GT model with a V12 engine that delivers 690hp. It started to be sold in the third quarter of 2016 for around £240,000 in UK. The GTC4 Lusso T version was launched in 2016 with a V8 with 600hp which its priced around £200,000 in UK.

Purosangue: This will be a model to be launched close to 2022, which may resemble the SUV categories but that Ferrari says it will be unique. There are still no images or prototype for this model.

▲ **Hypercars**

LaFerrari: The LaFerrari is the Enzo replacement. It has a rear wheel V12 engine which together with an hybrid one, achieves a total of 963hp. Despite being an hybrid, there is no option to drive without the combustion engine, as its hybrid motor is used to give an extra boost. Its aerodynamics are controlled by 27 different systems which manage the rear wing and the wings on the car roof. Its price is around £1,000,000 in UK. The Aperta edition was launched in 2016 as an open top version of LaFerrari and will be sold until 2018.

▲ **Icona**

Monza SP1 and SP2: These models were presented in September's 2018 investor day. Their design is inspired in 1940s open top "barchetta" racing model. Less than 500 units will be produced and will be sold only to eligible Ferrari clients. It has the most powerful engine of Ferrari's history, a V12 with 810hp which is capable of reaching 100km/h in just 2.9 seconds. These models will be sold for around £1,600,000 in UK prices.

▲ **Fuoriserie**

J50: There were only 10 examples produced of this car which was announced in December 2016 to celebrate the 50 years presence of Ferrari in Japan. It uses the same rear V8 engine of Ferrari 488.

Ferrari also develops and sells race cars for certain trophies, and F1 race engines for other teams.

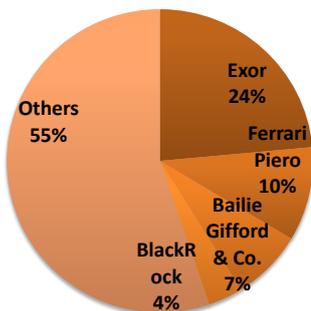
Income Statement (EUR mi)	2017	2016	2015
Cars and Spare Parts	2456	2180	2080
Engines	373	338	219
Sponsorship, Commercial, brand	494	488	441
Other	94	99	114
Revenues	3417	3105	2854
Cost of sales	1651	1580	1499
Selling General & Admin.	329	295	339
Research & Development	657	614	562
Other costs	7	25	11
Result from investments	2	3	0
Operational Costs	2644	2513	2410
EBIT	776	595	444
Financial costs	29	28	10
EBT	746	567	434
Taxes	209	168	144
Net Income	538	400	290
EPS	3	2	2

Free Cash Flow (EUR mi)	2017	2016	2015
Operational CF	663	1005	707
EBT	746	567	434
Depreciation & Amortization	261	248	275
Working Capital	-178	396	63
Others	-166	-206	-65
Investment CF	-379	-320	-317
Property, plant and machinery	-185	-173	-184
Intangible Assets	-203	-166	-171
Others	8	19	38
Financial CF	-85	-411	-351
Debt changes	36	-308	-289
Dividends	-1	-17	-54
Others	-120	-86	-9
Change in FCF	198	274	39
Changes in FX	-8	1	10
Final Cash & Equivalents	648	458	183

Balance Sheet	2017	2016
Assets	4141	3850
Cash & Equivalents	648	458
Receivables	239	244
Financial receivables	733	790
Property Plant & Equipment	710	669
Inventories	394	324
Intangible Assets & Goodwill	1226	1140
Other Assets	191	225
Liabilities	3357	3520
Debt	1806	1848
Payables	608	615
Provisions	197	215
Other liabilities	746	842
Total Shareowner's Equity	784	330
Total Equity and Liabilities	4141	3850

Source: Company's data

Shareholders



Source: Bloomberg



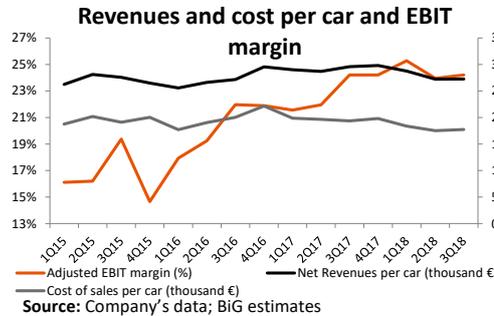
Source: Company's Data

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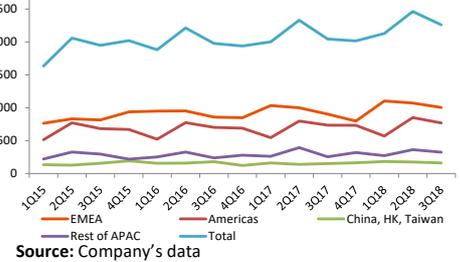
Income Statement

Ferrari has 3 main sources of revenues: sale of road cars and parts (72% of total revenues), engines that sells to Maseratti and rents to F1 teams (11%) and Sponsorship, commercials and brand revenues mainly from the F1 activity (14.5%). The other revenues comprise the financial income from the financial subsidiary and revenues from the Fiorano racetrack. Regarding the cost of sales, the aluminium is the most significant cost, which Ferrari tends to hedge using longer term purchase contracts.



Source: Company's data; BiG estimates

Shipments (units)



Source: Company's data

Free Cash Flow

Ferrari may choose to capitalize some R&D costs which will be registered as intangible assets investments in FCF, if these contribute to future revenues. In 2017 EUR 185 mn development costs were capitalized, EUR 141 mn in 2016 and EUR 154 mn in 2015. Regarding sharebuybacks, Ferrari approved in February 2018, a program to repurchase from time to time a maximum of EUR 100 mn. As of April 2018, Ferrari bought around EUR 30 mn in shares at an average price of €97.6. In 2016, operating cash flow had an extraordinary inflow of €405 mn due to the sale of FFS GmbH to FCA Bank.

Balance Sheet

In 2017, net debt was around EUR 1,158 mn, while industrial net debt (net debt minus the funded portion of the self-liquidating financial receivables portfolio) reached only EUR 473 mn. Debt: Ferrari has an undrawn credit line of EUR 500 mn in case there is a liquidity need higher than estimated.

First 9 months earnings of 2018

In the first 9 months of the year, Ferrari reached 6,853 units shipped vs 6,381 in the same period in 2017, growing by 7%. Revenues however did grow only 2% as there was a 5% negative impact of exchange rates in cars and spare parts revenue and a drop of 22% in engine sales to Maseratti. The mix of cars sold had a lower revenue per car as the ratio of V8 vs V12 cars (more expensive) was higher and the limited edition LaFerrari Aperta was ending. EBIT however, increased by 8% to EUR 630 mn as cost efficiency was improved. Net profit increased due to an extraordinary tax benefit of EUR 141mn due to an agreement with Italian Revenue Agency.

For the complete 2018 year Ferrari expects to surpass 9,000 unit shipments (vs 8398 in 2017), net revenues of more than EUR 3.4bn (vs EUR 3.4bn in 2017), adjusted EBITDA of EUR 1.1bn (vs 2017 EUR 1bn), net industrial debt of less than EUR 350mn (vs EUR 372mn in 3Q18) and capital expenditures of EUR 650mn (vs EUR 387mn in 2017).

Management

Louis Camilleri (CEO): After the death of Marchionne, Camilleri took the position as CEO, while remaining as Chairman in Philip Morris International. He was Chairman and CEO of Philip Morris International from 2008 to 2013, and before, worked in Altria as Chairman and CEO. He comes from a Maltese family which lived in Egypt. He received a degree in economics from HEC Lausanne in Switzerland. Camilleri has 3 kids and divorced in 2004, dating since July 2017, the model Naomi Campbell.

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Comparative Analysis

Ferrari is a luxury company and so it is not directly compared with BMW or Daimler, as its margins are much higher. When compared with Aston Martin it is visible that the EBITDA margin is higher, it has less debt, however P/E ratios are higher which is justified by the higher predictability of demand and business of Ferrari vs Aston Martin. Compared with other luxury brands as Kering or LVMH its higher P/E is justified by the higher EBITDA margin and more stable revenues, that are not significantly dependent on one specific geography or country as China, like these companies are.

Name	Country	Market Cap	Currency	P/E 2018E	P/E 2019E	EV/ EBITDA	Net Debt /EBITDA	EBITDA Margin
KERING	FRANCE	49,615	EUR	17.6	15.6	17.2	0.8	25.5
LVMH MOET HENNESSY LOUIS VUI	FRANCE	134,051	EUR	20.8	19.1	13.2	0.6	25.9
ASTON MARTIN LAGONDA GLOBAL	BRITAIN	3,431	GBP	26.0	17.0	n.a.	3.3	26.8
FERRARI NV	ITALY	18,325	EUR	28.3	27.4	21.8	1.0	32.2
Average exc. Ferrari				21.5	17.2	15.2	1.6	26.1

Source: Bloomberg; BiG Research

Risks

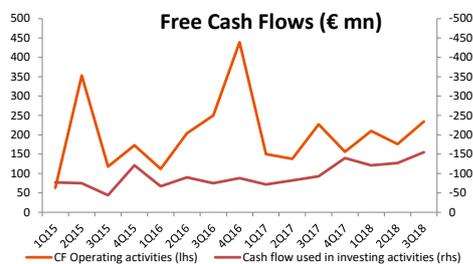
Marchionne's replacement: Sergio Marchionne was elected as CEO of Fiat in 2004 and since then he led its restructuring from bankruptcy and losses of almost EUR 6 bn a year to profits in only 3 years. This restructuring entailed cost cuts, layoffs, cancellation of GM's alliance, the introduction of new models and the decrease of the production time for a car from 4 years to 18 months. Marchionne also made the IPO of the company, the Chrysler acquisition and its restructuring as well as the Ferrari's spin off and subsequent IPO. Marchionne had a great influence in Ferrari's strategy and his death leaves a huge gap in the company that Louis Camilleri expects to fill. The risk is if Camilleri objectives and strategy do not meet the "aspirational goals" (as described by Camilleri) set by Marchionne. However until now the guidance did not change materially as the company still expects to achieve a 2022 adj. EBITDA between EUR 1.8bn and EUR 2bn.

Transition to Hybrid vehicles: Ferrari has confirmed it is aiming for a 60% hybrid cars production by 2022. Currently only has the LaFerrari model which does not run only on the electric motor. This transition will imply higher development costs, as guided by the company, and may have an impact on margins, however if emissions are reduced may enable Ferrari to surpass the 10,000 units a year limit imposed by regulators.

Regulation: There are several regulations of safety and emissions that Ferrari has to comply, or otherwise pay fines or legal suits as it happened with the Takata airbags problems that forced the recall of several vehicles, for which Ferrari provisioned around EUR 35 mn. In 2014 Ferrari paid a USD 3.5 mn civil penalty in US related to failing to oblige to reporting requirements of incidents.

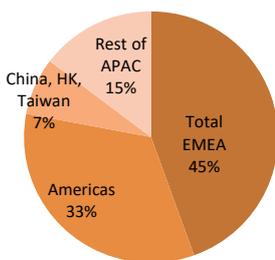
Foreign Exchange risk: Most of Ferrari costs are in euros while revenues are around 25%. This way, an euro appreciation will impact negatively the company's margins. Ferrari hedges partially this risk through derivatives.

Trade War: Despite being currently off the table, there the possibility that US imposes tariffs on imports of European cars. Ferrari said it would be able to pass the majority if not all of this possible tariff to US customers.



Source: Company's Data

Units sold by geography



Source: Company's Data

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Source: Company's Data

Other topics

Formula 1 team: Ferrari has been racing in F1 since the first series in 1950, having won 15 driver's championships and 16 constructor's championships, more than any other team. Besides being a marketing tool (in 2017 registered more than 350mn tv viewers), the F1 team is also a way to develop new technologies which are later introduced to road cars, such as the kinetic Energy Recovery System which is now used in LaFerrari models. The development costs from F1 cannot be capitalized. Besides the revenues from the championship results and sponsors, Ferrari also earns revenues in the renting of engines to two F1 teams: Sauber and Haas. In February 2018, Ferrari extended its long term partnership with Philip Morris International. F1 capex is higher in the 1Q and 4Q.

Production Process: All production is done in Italy at Maranello and Modena facilities. Ferrari employs more than 1350 engineers, technicians and other personnel. Usually each car takes between 30 and 45 days to be manufactured, and is shipped in 3 to 6 days to Ferrari's dealers. This way Ferrari receives payments for cars between 30 and 40 days after being shipped and only after has to pay most suppliers (which are paid between 90 and 105 days after Ferrari receives the raw materials and parts). There are also advance payments made from customers to reserve the models and consequently decrease the risk of a liquidity problem for Ferrari.

Partnership with Maseratti: Ferrari used to own Maseratti. They developed some engines in partnership, which are still manufactured by Ferrari and sold to Maseratti. In 2017, 340 V8 turbo and 2,530 V8 naturally aspirated engines were sold. In 2011 Ferrari begun the production of an exclusive V6 engine to Maseratti, and in 2017 sold 43,000 units. The revenue from the sale of these engines reached around EUR 302 mn in 2017. Ferrari has a take-or-pay kind of contract with Maseratti and is working with variable costs so its covered in the event of a lower demand than expected. When asked in the conference call regarding a possible acquisition of another brand, Marchionne clearly stated that it was a "huge distraction" to own other brand and that they tried it with Maseratti but then opted for selling it back to FCA in order to focus on Ferrari.

Financial Services: Ferrari Financial Services (FFS) offers retail client financing in major markets and dealer financing in US. In November 2016 FCA Bank acquired a majority stake in the FFS European subsidiary and provides now financing options to European clients. At December 31, 2017, FFF's financial receivables of €733 mn were almost entirely from Americas.

Emissions regulations: In Europe car manufacturers have to comply with a limit on fleet average greenhouse gas emissions for new passenger cars of 130 grams of CO2 per kilometer and until 2021 reduce gradually to only 95 grams. Thanks to being a small manufacturer Ferrari does not have to comply with this rule but instead has to meet yearly CO2 emission targets. Ferrari had its CO2 targets approved by EU to reach a target of 277 grams per kilometer in 2021. From 2020 onwards even companies with less than 10,000 vehicles sold globally will have to comply with European limits of other pollutants such as nitrogen oxides, carbon monoxide, hydrocarbons and particulates.

In **United States** there are 2 main agencies regulating environmental impact of fuel consumption, EPA and NHSTA. Both demanded that in 2016 the average combined fuel economy level equals to 156 grams of CO2 per km. For 2025 the limit will be gradually decreased to 102 grams per km. EPA allows manufacturers with less than 5,000 yearly unit sales in US to petition for a less stringent standard which Ferrari did. Ferrari also petitioned for less stringent limits to NHTSA as an independent manufacturer of less than 10,000 vehicles produced globally, and is waiting for a reply.

In **China** the regulator provides flexibility of emission limits to imports of less than 2,000 cars per year. Ferrari sold only 617 units to China, HK and Taiwan in 2017.



Source: Company's Data

Engine units sold	2017
Maseratti	
V8 turbo	340
V8 naturally aspirated	2530
V6	43000
Total Maseratti	45870
Total Revenues from Maseratti (€mn)	302
Revenues per engine	6584

Source: Company's Data; BiG Estimates

Emissions estimate	2017	2016	2015
Per car, CO2 grams per km			
V8	260	260	260
V12	350	350	350
Average emissions per year of new cars sold	281	277	278

Source: Company's Data; BiG Estimates

Ferrari emissions: According to several websites specialized in the matter, the Ferrari V8 produce on average 260 grams of CO2 per km while the V12 produce 350. We estimate that Ferrari average emissions of CO2 on its total sales in 2017 was around 280 grams per km.

Penalties: If Ferrari fails to comply with emission limits it may have to pay for the excess emissions as it happened in 2015 in Europe, when Ferrari had to pay EUR 411,000.

Shareholder yield: Ferrari announced in the capital markets day that intends to have a dividend payout of 30% until 2022, resulting this way on a dividend yield close to 1% at current prices. The company usually buys back shares when it finds the price undervalued. Until 2022, the company showed that is available to buy up to EUR 1.5 bn in shares.

Chart



Source: BiGlobal Trade (partner Saxo Bank); BiG Research

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▲ Past models



F12tdf: This edition of the F12 tour-de-france was launched in October 2015 with a 780hp V12 engine. It achieves a speed of 100km/h in just 2.9 seconds and 200km/h in 7.9 seconds. Only 799 cars were produced and its price in UK is around £340,000. This Ferrari, as all models Ferrari currently produces, has carbon ceramic brakes.

California T: The California is a GT series that was launched in 2009, and this new model, California T, in 2014. It has a V8 turbo engine with 560 hp and is a 4 seater. Its price is around £160,000 in UK.

Source: Company's Data

Model / Year of delivery	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
SPORT RANGE																
F430																
F430 Spider																
599 GTB Fiorano																
458 Italia																
458 Spider																
F12berlinetta																
488 GTB																
488 Spider																
812 Superfast																
GRAN TURISMO RANGE																
612 Scaglietti																
California																
FF																
California 30																
California T																
GTC4Lusso																
GTC4Lusso T																
Portofino																

Model / Year of delivery	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
SPECIAL SERIES																
Superamerica																
F430 Scuderia																
Scuderia Spider 16M																
599 GTO																
SA APERTA																
458 Speciale																
458 Speciale A																
F12tdf																
488 Pista																
488 Pista Spider																
ICONA																
Ferrari Monza SP1																
Ferrari Monza SP2																

Model / Year of delivery	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
HYPERCAR																
LaFerrari																
LaFerrari Aperta																
TRACK CARS																
FXX K TM																
FXX-K EVO TM																
FUORISERIE																
F60 America TM																
J50 TM																

Source: Company's Data

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 - Accumulate, expected absolute return between +5% and +15%;
 - Keep/Neutral, expected absolute return between -5% and +5%;
 - Reduce, expected absolute return between -5% and -15%;
 - Sell, expected absolute return below -15%;
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PSI20 Notes in the last 12 months as of 31st of December of 2018:

	Number of Recommendations	%
Accumulate/Buy	2	66.7%
Keep/Neutral	1	33.3%
Reduce/Sell	0	0.0%
Total	3	100.0%

Source: BiG Research

Trading Ideas in the last 12 months as of 31st of December of 2018:

	Number of Recommendations	%
Profit Taking	9	56.3%
Stop Loss	7	43.8%
In Place	0	0.0%
Total	16	100.0%

Pair Trades in the last 12 months as of 31st of December of 2018:

	Number of Recommendations	%
Profit Taking	0	0%
Stop Loss	0	0%
In Place	0	0%
Total	0	0%

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