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NOVA – School of Business and Economics.

A COMPANY REORGANIZATION
Recovering After the Restructuring Plan

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Abstract

The presented thesis concerns the valuation of Ford Motor Company through a DCF and comprehends a forecasted period from 2020 to 2031, being the purpose to reach a target stock price and to present a recommendation to investors.

The valuation includes the analysis of Ford financial statements since 2011 to the 2019 third quarter.

A multiples analysis was also performed and recalls on the same recommendation as the DCF result.

The conclusion regarding the DCF result is a buy recommendation that ends up in a price per share of 10,75\$ and in a potential total return for shareholders of 28,05%.

Keywords

Ford, WACC, DCF, Recommendation

FORD MOTOR COMPANY

AUTOMOTIVE

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COMPANY REPORT

3 JANUARY 2020

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A Company Reorganization

Recovering after the Restructuring Plan

- **Renewed Fleet:** The company is renewing its fleet and will launch at least 1 electric version of its best sellers in the next 2 years. Ford will have 40 electric vehicles until 2022.
- **Increasing Costs:** With the need to fulfill environmental requirements Ford is replacing steel by aluminum that is lighter but expensive. Commodity prices are expected to increase and will contribute to a decrease in margins. Ford automotive margin is expected to be 15,84% in 2020, its lowest margin ever.
- **Restructuring Plan:** Ford announced in 2017 a restructuring plan in order to eliminate areas on which profitability was considered low, by closing plants and firing employees mainly in Europe. This plan will allow the saving of 14\$bn that are being directed to invest in electric vehicles and to develop autonomous vehicles.
- **Recommendation:** Ford restructuring plan is expected to succeed as also its fleet renewal will improve auto sales, thus, a "BUY" position is recommended, and shareholders are expected to reach a 28,05% total return, including dividends.
- **High Dividends:** Ford despite the last years of losses mainly in China and Europe has since 2015 an appetizing fixed dividend on which at the minimum it pays 0,15\$ per share quarterly to which it can be added a special dividend in case of profit, and if the company decides to distribute it.

Company description

Ford was the inventor of the mass production method that allowed its Model-T to be the 8th most sold vehicle ever. The company had the 4th highest total revenues in 2018 across the automotive industry, corresponding to 160,34\$ Million.

Recommendation: Buy

Price Target FY20: 10.75 \$

Dividends p/ Share 2020F: 1.05\$

Price (as of 3-Jan-20) 9.21\$

Bloomberg: F US Equity

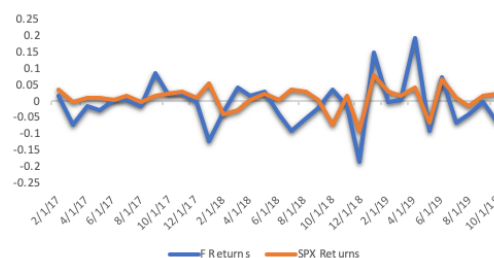
52-week range (\$) 7.65-10.45

Market Cap (\$m) 42 120

Outstanding Shares (m) 3 919

Source: Bloomberg & Own Estimations

Ford vs SPX Monthly Returns (2017-2019)



Source: Bloomberg

(Values in \$ millions)	2018	2019E	2020F
Revenues	160 338	157 142	163 750
EBITDA	20 227	20 354	20 284
Net Profit	3 270	-571	4 596
EPS	0.84	-0.15	1.17
P/E	9.14	-63.17	9.16

Source: Own Estimations

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(PLEASE REFER TO THE DISCLOSURES AND DISCLAIMERS AT END OF THE DOCUMENT)

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Executive summary

Ford Motor Company was the number four car manufacturer in terms of total revenues according with *Statista* 2018 data, with a total revenue of 160,34\$ Million. The company has lost dominance in the last years as its market share is decreasing since 2012, from 6,99% to have reached 6,35% in 2018.

In order to recover, Ford started a restructuring plan in 2017 that passed through fires of employees and closure of plants, being that globally concerning this restructuring plan it were fired 12 175 workers and 5 plants were closed. Although, the company will recover these employees in the future with the investment that is currently being made to open a new development center in Michigan in 2022 that will allow an increase of 15 783 workers, which means that costs with personnel are expected to rise in the future.

The automotive industry is on a transition to greener vehicles since due to environmental needs it is necessary to reduce CO2 emissions, what requires the use of lighter materials to build vehicles like aluminum that is expensive. Moreover, commodity prices are expected to increase in the future. Following the need of more environmental friendly automobiles, Ford is electrifying its best sellers to have one combustion and electrical version of them in the future, being that the company fleet is expected to account with 40 electrical vehicles until 2022. Batteries of electric vehicles today still represent a higher cost in terms of the total cost of an EV, which combined with higher costs to build vehicles is expected to lower the company's automotive margin from 16,53% in 2019 to 15,84% until 2024. Although, from 2025 onwards it is expected battery costs to lower and so costs to build vehicles will decrease, resulting on a margin that recovers to be 16,14% until 2031. Furthermore, it is expected Ford auto sales from 2019 to 2031 to grow at a CAGR of 1,19% (own estimations), which shows an increase on auto revenues comparatively with the last years. However, this increase on sales will not be enough for the company to recover its past market share of 6,99% of 2012 as in fact in the end of the forecasted period (2031) the company will see its market share reduced to 4,82%.

Regarding mobility services, it is believed that the company will comply with its plan to deliver food and ride-hailing services in 2021 in partnership with Domino's Pizza, Postmates and Lyft. As result of these projections, Ford will see its mobility services revenues increase from 38\$ Million in 2019 to 150\$ Million in 2031, representing a CAGR of 12,26%, which demonstrates the potential that this segment has. Thus, Ford mobility revenues will pass from have contributed

to 0,02% of the company total revenues in 2018, to account for 0,07% of Ford total revenues in 2031.

The target stock price for the company is 10,75\$ per share in 2020, while compared with its current price per share (9,21\$) will result on a total expected return for shareholders of 28,05% already accounting for dividends, and conducts to a buy recommendation that is an indicator that the company restructuring plan worked and that Ford will be on a better position to succeed, which is also a consequence from the new models launched, as Ford and its comparables like Volkswagen, Renault and Peugeot usually launch new model generations at each 7 years, being that Ford last new model's generations occurred in 2013, therefore, 2020 will be a year with a lot of new models, which is expected to boost the company performance and hence its stock price.

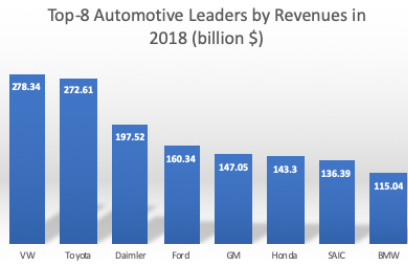
Company overview

Ford Motor Company is an American automobile manufacturer founded in 1903 by Henry Ford in Detroit. The company emerged from a partnership between Henry Ford and Alexander Malcomson after both had projected a car. However, in February of 1903 the firm had ordered a lot of vehicle parts to its supplier, John and Horace Dodge, that started demanding payment, which stressed out the need of Ford and Malcomson partnership to look for investors, culminating in June of 1903 with the establishment of Ford Motor Company with 1 000 shares split between 12 investors, being one of them John and Horace Dodge that accepted the shares in exchange of the company's debt with him. On the same year the firm almost spent all the investors' money in the production of its first model, the Original Model A, that started in July, although, it was a great success as by October it had already achieved a profit of 37 000\$.

It was in 1908 that Ford started the production of the famous Model T, a vehicle that is still today classified as the 8th most sold automobile ever fruit of the 16,5 million units sold until 1927, which also came from the result of Ford's revolutionary large scale manufacturing method introduced in 1913, the Fordism. This was the first time a car was produced in mass, reducing production time from 12,5 hours to 1 hour and 33 minutes, which was a great contribution not just for the automotive industry but essentially to the manufacturer process.

In the 1940s Ford had an important role regarding equipment provided to the US army and the WWII material, such as jeeps, planes, tanks and aircraft engines.

More recently, the company is responsible for iconic best sellers like the F-Series pickup-truck that is being a best seller in US trucks for 41 years and its best seller for the past 36 years. As also the Mustang, Fiesta and Focus.



Graph 1 - Top 8 Automotive Leaders by Total Revenues in 2018

Currently, the blue oval has lost some dominance, since it has losing market share in the last years, as from 2012 to 2018, its share decreased from 6,99% to 6,35%. Although, Ford is still one of the major players of the automotive industry, as in 2018 the company was part of the Top-8 auto manufacturers in terms of revenues globally, being on the 4th place with a revenue of 160,3\$ billion and a net income of 3,7\$ billion registered in 2018, with its revenues experiencing a CAGR of 1,75% since 2015, while the leader Volkswagen reached a 278,3\$ billion revenues and a CAGR of 2,55% for the same period, and with BMW closing the top with 115\$ billion revenues and a CAGR of 1,41%.¹

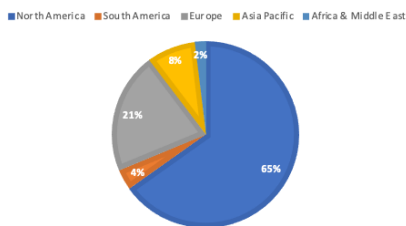
Resulting from the lost dominance phase, Ford is living a restructuring period following a plan to not lose more path for competitors, as also to not stay behind regarding electric vehicles and mobility services including autonomous vehicles. It is following a worldwide cutting plan until 2020 to save 14\$ billion in the future, although this plan will cost close to 11\$ billion to the company, being the majority of the cuts in Europe in plants on which Ford considered there was low profitability. These savings are being turned to areas like electric vehicles (11\$ billions) and mobility services including autonomous vehicles (4\$ billions). The target on electrics concerns a total of 40 vehicles until 2022 (16 battery and 24 hybrids), while currently Ford has just 2 hybrids on the market. On mobility services and autonomous vehicles, the goal is to start by using autonomous vehicles to deliver food in 2021 in partnership with Domino's Pizza and Postmates, as also to provide ride-hailing services in partnership with Lyft.

Business Plan

Ford Motor company comprehends 3 main segments: automotive, mobility services and financial services.

The automotive segment mainly comprises vehicle sales, but also the sale of parts and accessories, representing 92% of the company's revenues on the last 3 years. The company operates in all the regions of the globe, though, its most important market continues to be North America that contributes for 65% of the automotive revenues, followed by Europe that contributes with 21% for automotive revenues, Asia Pacific with 8%, South America with 4% and lastly Middle East and Africa accounting for 2% of automotive revenues. The firm has two vehicles' brands, Ford regarding more regular vehicles and Lincoln for luxury segment. Lincoln sales represent 4% of the company's automobile sales, while Ford sales the remaining 96%.

AUTO REVENUES BY LOCATION



Graph 2 - Automotive Revenues by Region, 2018

Concerning this sector, on a general basis, Ford is betting on electrifying its best seller vehicles, almost passing from just have combustion vehicles to provide at least a combustion vehicle and an electric version (hybrid, plug in hybrid or battery

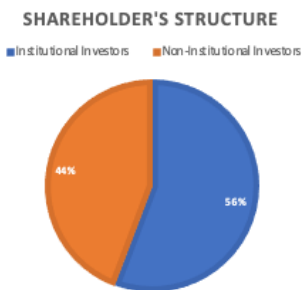
electric) of its automobiles. This "electrification" process will mainly happen in North America, Europe and Asia Pacific until 2022 with the launch of a great portion of electric vehicles. In North America, the company is changing its vehicles line-up discontinuing the majority of its sedans and moving to SUVs, crossovers and pickup trucks, as a response to Americans mass exodus from sedans. In Europe, following the cuts plan, it started by closing a manufacturer plant in 2018 in Bordeaux, France, followed by 3 plants' closures in 2019 in Russia, as also by a reorganization of employees in Germany, ending the plants' closure in 2020 with the exit from the Bridgend plant in the UK. All these cuts will represent a decrease of 7 775 employees and will outcome payments of more than 2,8\$ billions regarding special items in Europe until 2020. The cuts plan also covered South America, which in 2019 resulted in the closure of the São Paulo plant in Brazil culminating with the firing of 2 700 workers and on an expense of 460\$ millions regarding special items.

The financial services segment is responsible for vehicles financing solutions to dealers and distributors, as also by financing retail customers, being its aim to catalyze and support the sales of the automotive segment. As it is a non-operating segment its revenue weighted 8% of the company's revenues in the last 3 years and comes mainly from the interest charged by financing solutions offered to clients.

Mobility services focus will be on the development and production of autonomous vehicles to provide food delivery services and ride-hailing services by 2021 in partnership with Domino's Pizza, Postmates and Lyft respectively, as also in order to develop its micro-transit system and traffic management software, with the aim of connecting each new vehicle to the transportation mobility cloud (C-V2X).

Shareholders Structure

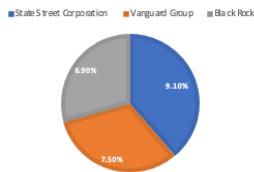
Ford common stock represents 60% of the voting power and consists of 3 919 million shares outstanding, belonging to 1 213 institutional investors, which corresponds to a majority portion of 55,74% (Source: *Company 2019 Proxy Statement*), being the remained held by non-institutional investors. From the part owned by institutional investors it is known that 3 of them have more than 5% of the outstanding common shares: State Street Corporation with 9,1% representing 356 million shares, The Vanguard Group with a 7,5% stake corresponding to 293 million shares, and BlackRock Inc. with a portion of 6,9% performing 269 million shares.



Graph 3 - Shareholder's Structure

Besides common stock, the company also has a Class B Stock matching 40% of the voting power, although this preferred stock just represents 2% of all outstanding shares, being these shares owned mainly by members of the Ford Family. Both stock classes share equally in dividends, residing the difference in the liquidation case, which in case of it entitles common stock to the first 0,5\$ available, being the next 1\$ available for Class B Stock, and thereafter with common stock and class B stock entitled to the next 0,5\$ available.

INSTITUTIONAL INVESTORS WITH MORE THAN 5% OF COMMON STOCK



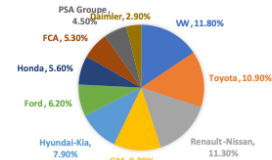
Graph 4 - Institutional Investors with more than 5% of Common Stock

The Sector

Industry Overview

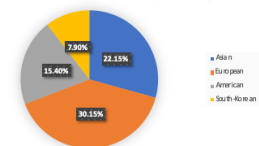
The Automotive Industry comprehends the manufacture and sale of vehicles and its components, as Financing and Mobility solutions to customers. Worldwide vehicle sales have been growing at a CAGR of 2,53% since 2012 (Source: Ford Annual Reports 2012 to 2018). Concerning Financing Solutions, accordingly with Business Insider and Experian, the level of vehicle's loans market financed through auto companies' Financial Services has stabilized around 28% since 2015 (which in Ford's case correspond to 8% of its revenues), contrarily to banks that lost 2% of the business. Mobility is the industry's most recent segment, including autonomous vehicles, intelligent connectivity networks, e-hailing and car-sharing, which is expected to account for 40% of industry profits in 2035². Regarding the Top-10 automakers market share by automotive sales, according with the 2018 records, it is European manufacturers that are leading the sector accounting with 30,15% of Top 10 carmakers market share, while Asian perform 22,15% of top-10 carmakers market share, American manufacturers with 15,4%, and South-Korean accounting with 7,9% of Top-10's carmakers market share in terms of auto sales. In terms of auto brands' market share by sales, it is Volkswagen that is leading the sector with 11,8%, while Ford lies on the sixth place with a market share of 6,2%³. Considering the Top-10 most sold cars by type, the market is being dominated by Sedans (40,11%), then SUVs (37,83%) and lastly Pickup-Trucks (22,06%), being that cars represent around 75% and commercial vehicles the remaining share.

MARKET SHARE OF TOP 10 AUTOMAKERS IN TERMS OF CAR SALES



Graph 5 - Market Share of Top10 Automakers in terms of car sales

Market Share of Top 10 Automakers in terms of car sales by Country



Graph 6 - Market Share of Top10 Automakers in terms of car sales by brand nationality

(Present and) Future Prospects

With the accelerated rise of new technologies, sustainability policies, and changing consumer preferences around ownership, it is possible to identify new entrants and new trends playing a significant role in the transformation of a renewed auto industry that are also pressuring Auto companies' R&D expense: the greening automotive transformation (fuel efficiency and regulations; electric

cars; demographics, public transports and shared-mobility), self-driving cars and connectivity.

The Greening Automotive Transformation

- Fuel Efficiency and Regulations:

In the European Union 12% of CO₂ emissions come from cars, thus EU has being set mandatory emission reduction targets for new cars, with the new regulation 2019/631 starting on the 1st January of 2020 and setting an average of 95gCO₂/Km, corresponding to a fuel consumption of 4,1l/100Km for petrol and 3,6l/100Km for diesel, while the average current level is 120,4gCO₂/Km, which points for the necessity of extra investment in this area. EU countries on a general basis had set 2030 as the year to ban combustion vehicles.

China has going further on this matter with its *China VI* new emissions standard starting to be applied by 2020, setting a target average fuel consumption of 4l/100Km and had prohibited investments in new ICE production plants since 2019, which following a *Goldman Sachs* study denotes an additional cost of 285\$ to 710\$ per car for manufacturers.

Trump's administration standards on vehicles' CO₂ emissions (EPA standards) after 2020 were frozen, passing from the 2025 target of 5,2l/100Km to 7,6l/100Km, ending up by relief manufacturer costs on which concerns CO₂ emissions, despite that some manufacturers still want to lower CO₂ emissions in order to not lose sight of European and Asian car makers. Ford's fleet has an average of 5,2l/100km which is in line with US requirements but still not leveled with EU future requirements. Moreover, in US, despite the Trump's setback on tightener fuel regulations, California will continue to have its own target aligned with the frozen one and aims to reach 5 million EVs by 2030.

All CO₂ emission standards issued target vehicles to be more fuel efficient, however, one important aspect to consider is the vehicle cost structure on which steel accounts for 22% of manufacturer's operating costs (*source: Marketrealist*). Also, being steel heavier than aluminum, and despite that aluminum is expensive, an industry trend is being the replacement of steel by aluminum allowing to reach fuel efficiency.

- Electric Cars:

Electric vehicles are another source to make the automotive industry cleaner and are already part of the sector's present, although it is still away from its full potential since they are more expensive for both producers and customers, as also as infrastructures are not completely ready, besides that there are still concerns about battery ranges, which made EVs represent 2,09% of 2018 vehicle global sales (*source: IEA and BMO*). Although, there is still space for EVs on the

market as accordingly with *Statista* it is expected a growth of 3,77% in terms of revenues from 2017 to 2025, being the period between 2025 to 2030 pointed as the one for EVs to mainstream globally. Electrics in use grown 28,14% since 2012 (*source: Statista*) which has been accompanied by a higher number of publicly available chargers that grown 42,07% on the same period. The manufacturers that are currently on the Top-5 of this niche in terms of sales are Tesla with 28,39%, BYD with 26,32%, BAIC with 19,09%, BMW with 14,98% and Nissan with 11,22%. Projections (*source: Statista*) point China to be the major producer with 51,96% between the Top-4 countries in terms of EVs production by 2021, US with 23,22% which also includes Ford that targeted itself to have 40 EVs by 2022, Germany with 17,06%, and Japan with 7,77%. The 2018 countries with more adherence to electrics were the European Northern ones like Norway, Sweden and Finland with 59% of the current EVs portion worldwide, Central European countries like the Netherlands, France, UK and Germany with 12,9%, China with 4,5% and US with 2,5%.

- Demographics, Public Transports and Shared Mobility:

With the continuous growth of cities, OECD predicts that 70% of the world's population will live in urban areas by 2050, what brings the urge need of find ways to move people and goods maximizing the use of space while minimizing social costs as pollution, which cannot be attained if everybody has a private-car since there will be not enough parking spots and traffic will hardly flow. This together with the ban of fossil fuel vehicles from cities shows that there is still space for Auto companies to take its slice, as we are asking for new solutions as more efficient and innovative public transports and shared mobility services.

In what concerns public transports, the current green solution are electric buses, while future solutions regard the hyperloop proposed by *SpaceX* capable of moving people at aircraft speeds for the price of a bus ticket. As a complement to public transportation and the turn to a greener environment, mobility services are the new trend. According with *Accenture*, mobility services revenues are projected to soar to almost 1,34\$ trillions, meaning a profit of nearly 245\$ billion until 2030. Examples of auto manufacturers already positioned in this new field are BMW and Daimler that recently joined to invest in a mobility global provider of services like *ChargeNow* for charging, *FreeNow* for e-hailing, *ParkNow* for parking and *ShareNow* for care-sharing. On this field, Ford is cooperating with Lyft, Domino's Pizza and Postmates in order to provide autonomous vehicles that will be a part of these mobility services by 2021, contributing to food delivery and ride-hailing services.

Self-Driving Cars and Connectivity

An autonomous vehicle transports a person to their destination without the need for driver oversight, while inside the vehicle there is all the entertainment, information and connection with the outside world. Self-driving cars are expected to start being available for widespread public on 2025 according with a *J.D.Power* survey. Ford has invested 16\$ billion into Argo AI startup since 2017, a company created by former leaders of Google and Uber for the creation of its autonomous vehicles that are expected to launch their first level-4 AVs by 2021.

Apart that connectivity is more linked with self-driving vehicles, it is already present on today's cars, being that 35% of new cars sold in 2015 already include internet connection, and that for 2020 98% of new cars sold will include this feature (*source: Statista*) which for the industry will represent a 141\$ billion market according with *Ignite* projections.

Connectivity focus is now in Infotainment and Telematics contents. Ford vehicles already include these features via its *SYNC* and *MyFordTouch* systems.

Infotainment core is to provide information and entertainment for drivers and passengers by using their voice or a touchscreen to make calls; play music, videos and games; adjust climate; use internet and social networks, and represents a new source of revenues for the sector with a potential to reach 37,62\$ billion in 2025 (*source: Cision*).

Telematics heart is the relation of customers with auto companies and their vehicles, providing emergency, diagnosis, maintenance and navigation services. This new branch is forecasted to contribute with 106,24\$ billion by 2022 (*source: Ignite*).

New Entrants

The disruption that is occurring in the Auto Industry mainly due to the paradigm shift to mobility as a service, as well as to a greener sector will pressure the industry incumbent players to compete with new entrants through heavier investments in R&D, which should allow them to offset the slower sales growth and catch some Mobility's revenue.

These new market players are mobility providers like Uber, tech giants like Apple and Google that is developing its autonomous vehicle trough Waymo, and an OEM, Tesla.

In 2018 Morgan Stanley attributed 90% of the car value to its hardware and pointed the car of tomorrow's hardware to account 40%, attributing 40% to software and 20% to applications, what brings software as the comparative advantage of the new entrants to be one of the most differentiating aspects of the business in the future.

Economic Set and Industry Sales

Based on IMF projections ⁴ the world's GDP grew at a rate of 3,01% in 2019 and is projected to grow at higher rates from 2020 onwards, converging to a rate of 3,62% until 2024. Besides GDP growth, the projected trends for the global economy are: inflation following an upwards trend in the globe as goods are becoming expensive in the main regions; the dollar is gaining strength versus the euro and the yuan mainly to the fact that FED started increasing interest rates earlier. Interest rate hikes in the US and Europe have been stopped, and so there is an alignment not in the magnitude of interest rates, but in the fact they will stay kind of flat in the near future; and the principal stock indexes of each region are all performing above the average since the last crisis.

Another important aspect in which the economy has a crucial impact regards commodity prices that affect automakers. One of the most significant for manufacturers is aluminum that is replacing steel in order to make vehicles lighter and so more fuel efficient, which according with *Knoema* ⁵ will see its price rising from 2020 to 2030.

GDP growth was weighted for each region according to the average of past industry sales on each country, by using each country OECD GDP growth forecast. This weighted GDP growth will be used to forecast industry sales as it will be explained ahead on this report, in the automotive revenues section. Although, it can be advanced that by applying this method, industry sales are expected to grow from 89,98 million units at 2019 to 127,95 million units at 2031, representing a CAGR of 2,98%.

North America

The major market in North America for Ford is US that has corresponded to 86% of the sales on this location in the last 3 years. At this region, it is expected GDP growth to evolve at an upwards trend from 1,85% at 2020 to 1,93% in 2031.

Inflation measured with CPI has been increasing since 2008 and is expected to continue on this path, meaning that goods and services are becoming more expensive. Short term interest rates were close to 0 after the financial crisis until 2016. Since 2016, they were gradually increased and are now above 2%. Also, the long-term interest rates were increased by FED, although, with the current slowdown of the economy FED had to drop them back ensuring that it is not expected more hikes for the next times. Moreover, S&P500 that suffered a decrease in December 2018 due to the trade war announcement and the US shut down recovered and is now with the highest value since the last crisis. Future economic events that can impact the state of the US economy regard the trade

war with China that seems to be now more controlled since some agreements are being met, Trump's impeachment and the elections scheduled for November of 2020. Given the above facts, it is expected car sales to evolve positively in the region over the next years but at lower rates.

In North America, following the industry sales forecast through GDP growth, industry sales will grow from 21,01 million units in 2019 to 26,2 million units in 2031, representing a CAGR of 1,86% (Tables 1 to 4).

Europe

Europe's GDP growth is expected to follow a growth between 1,28% to 1,39% until 2031. CPI is increasing since 2016, meaning that goods and services are expensive. The EuroStox50 has recovered since the 2018 suddenly fall, probably affected by the US shut down and the US-China Trade War, being now above the average value since the last crisis. Concerning interest rates, the ECB revealed there is no intention to change interest rates policy, continuing the short-term interest rates slightly negative, but close to 0. Long term rates are positive but really close to 0. Given the economic picture for Europe, it is foreseen a positive momentum for car sales on this region, although at lower rates.

In Europe, following the industry sales forecast through GDP growth, industry sales will grow from 19,97 million units in 2019 to 23,17 million units in 2031, representing a CAGR of 1,25% (Tables 1 to 4).

Asia Pacific

Asia most relevant market for Ford sales is China that has represented 75% of this region sales on the last 3 years.

Regarding GDP growth, it will denote a falling trend over the next years, going from 5,68% in 2020 to 3,28% in 2031, what is still a great growth rate that will make Auto sales in Asia still a great number.

China policymakers have been engineering a gradual slowdown of the economy intended to avoid a financial crisis by turning the economy from one based on investment and exports to one based on stimulating domestic consumption, what despite the US-China trade war and the recent currency depreciations is working as China's consumer confidence index is on the highest values of its last 10 years, at 123 index points ⁶. Short-term (2,7%) and long-term (3,1%) interest rates are with one of the lowest values since 2011, in line with the trial to boost economic activity by fostering credit expansion, what is also reflected through Chinese financial markets performance as the Shanghai Composite Index is above the average of the last 25 years.

In Asia Pacific, following the industry sales forecast through GDP growth, industry sales will grow from 41,6 million units in 2019 to 68,38 million units in 2031, representing a CAGR of 4,23% (Tables 1 to 4).

South America

In South America Ford operates in Brazil and Argentina, being that Brazil represented 64% of the company sales on the region in 2018.

In terms of GDP growth, it is projected a big jump in 2020 from 2,78% in 2019 to 4,78% in 2020 for the region, continuing the GDP to grow in the subsequent periods at higher rates than the ones verified in the last 5 years ⁷. Thus, being expected that auto sales in the region will spread, which is also a consequence of the political stability reached by Brazil after years of high inflation and corruption scandals that led the country to have 3 Presidents in the last 5 years. Inflation is predicted to remain at its 4% level until 2024, what together with the recent Central Bank interest rate cuts to the lowest values since 2015 (5,8%)⁸, is intended as a stimulus to consumption.

In South America, following the industry sales forecast through GDP growth, industry sales will grow from 4,21 million units in 2019 to 5,93 million units in 2031, representing a CAGR of 2,90% (Tables 1 to 4).

Africa and Middle East

Concerning this region, the most important markets for Ford sales are South Africa and Saudi Arabia.

In terms of GDP growth, it is projected a big jump in 2020 from 2,16% in 2019 to 3,35% in 2020 for the region, continuing the GDP to grow in the subsequent periods at higher rates than the ones verified in the last 4 years ⁷.

Regarding inflation, in both regions it is expected to remain at the same levels from 2020 to 2024, around 5,3% for South Africa and 2,09% for Saudi Arabia ⁹. Concerning interest rates, in Saudi Arabia they are at the lowest levels of the last years, 2,2%, while for South Africa they are at the lowest level since 2016, at 6,75%, which can be seen as a stimulus for the economy. Summing up, given the improvement of the economy on this region, car sales are expected to increase in the future.

In Africa and Middle East, following the industry sales forecast through GDP growth, industry sales will grow from 3,2 million units in 2019 to 4,28 million units in 2031, representing a CAGR of 2,44% (Tables 1 to 4).

Valuation

Ford Motor Company Common Shares are valued into 3 components: one considered as core operations that is mainly related with the automotive division and mobility services, a non-core operating segment that comprehends Ford financial services as other non-operating items, and a financial part on which it is essentially considered the company sources of financing.

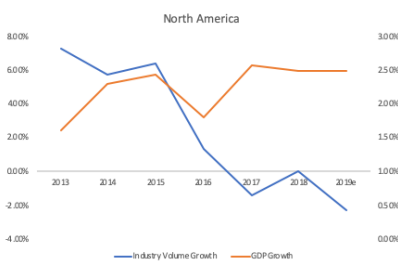
Concerning the core-operating section it is valued through a DCF being cash flows discounted accordingly with the computed WACC explained ahead on this report. The non-core division is valued at book values since due to disclosure constraints it was not possible to completely separate Financial Services segment as the company does not discriminate equity captions per segment. Finally, enterprise value is reached by joining the DCF result with the book value of non-core items, being the equity value obtained by subtracting the company sources of financing to its enterprise value, that is lastly divided by the company current number of shares outstanding in order to get the target price.

Relevant Captions

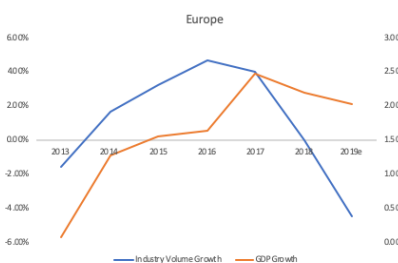
Automotive Revenues (Tables 1 to 4)

To forecast Ford vehicle sales, it was combined GDP growth on each region where Ford sell automobiles, inflation, as other potential economic events, and it was also taking into account the models the company will launch and the effect they had while launched in the past. GDP growth is considered as a good proxy to forecast industry auto sales since the automotive industry is a cyclical business, which is also according with some literature as *Michael Sivak* study demonstrated that the automotive industry sales growth usually tracks GDP growth, as also according with the European Automobile Manufacturer’s Association ¹⁰, and Graphs 7 to 11. Thus, GDP growth will be used to forecast industry sales growth, while inflation in US will be used as proxy to forecast the future average price growth of Ford vehicles, as the reported currency is in USD. The source for future inflation and GDP growth considered is from OECD predictions ⁷.

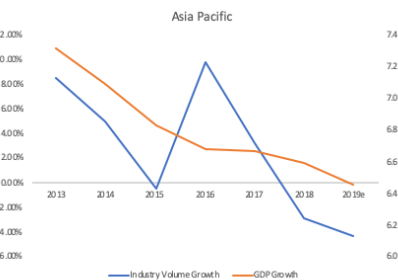
Furthermore, there is a relation between the company wholesales growth and the industry sales growth as shown per Graphs 12 to 16. Therefore, for regions like North America, Europe, Asia Pacific and South America, Ford wholesales growth is predicted by considering the proportion between past wholesales growth and past industry sales growth, that is then applied to the new industry sales growth projected via the GDP growth estimation.



Graph 7 - North America Industry Sales Growth vs GDP Growth



Graph 8 - Europe Industry Sales Growth vs GDP Growth



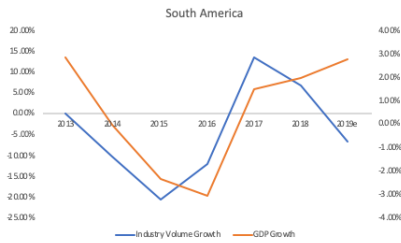
Graph 9 - Asia Pacific Industry Sales Growth vs GDP Growth

North America (Tables 1 to 4)

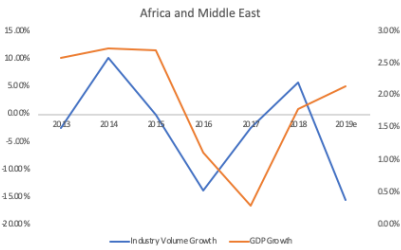
In 2020 Ford will launch in US new generations of 3 best seller models: the Escape, Explorer and Fusion. In 2013, the last time these vehicles were renewed Ford sales growth boomed in North America 1,6 times more than the industry sales growth. Although, it is expected an uncertain year for US due to Trump's impeachment and the 2020 elections, thus, it is foreseen that in 2020 Ford sales will grow at the same rate as GDP growth, 1,85%. The year of 2021 is expected to be calmer in terms of economic events that may affect the region. It is known that for this year it will be launched the so waiting first Ford's battery electric for this region, the Mustang Mach-E, although it is not expected to have a great impact on sales since due to battery constraints just 20 000 will be available for US in this period. Consequently, it is expected Ford sales to grow accordingly with the proportion derived between the past average of Ford sales growth and the past average of industry sales growth on this region, corresponding to 28% of industry sales growth, that then applied on the GDP growth prediction for 2021 results on a 0,48% growth for Ford sales. The US most sold vehicle of the last 41 consecutive years, the Ford F-Series will have a new generation on 2022. Hence, it is projected that sales will grow at the same proportion between wholesales growth and industry sales growth verified in 2015, the last time this vehicle was launched, which corresponded to a proportion 1,26 times higher than the growth of industry sales on the same period. What applied to the GDP growth prediction for 2022 results on wholesales growing at 2,22%. For the following years it is not known the launch of new vehicles, hence, it is expected Ford sales to grow accordingly with the proportion derived between the past average of Ford sales growth and the past average of industry sales growth on this region, corresponding to 28% of industry sales growth, that then applied on the GDP growth predictions from 2023 to 2031 results on Ford sales growing at an average of 0,52%.

In 2018 Ford had 13,40% of market share in North America, following that in 2019 according with the cumulative third quarter report it decreased to 13,28%. On the sequence of the above mentioned revenue forecast for North America, it is expected that Ford sustains its market share close to 13% during the years of new model launches, although, after this period as it is foreseen Ford sales to grow at a lower rate than the industry rate, Ford will see its market share decreasing to 11,68% in North America until 2031, continue the declining trend verified since 2014.

In North America, following the above described Ford sales forecast, the company sales will grow from 2,79 million units in 2019 to 3,06 million units in 2031, representing a CAGR of 0,77%.



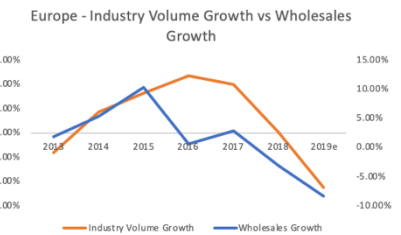
Graph 10 - South America Industry Sales Growth vs GDP Growth



Graph 11 - Africa & Middle East Industry Sales Growth vs GDP Growth



Graph 12 - North America Industry Sales Growth vs Ford Sales Growth



Graph 13 - Europe Industry Sales Growth vs Ford Sales Growth



Graph 14 - Asia Pacific Industry Sales Growth vs Ford Sales Growth



Graph 15 - South America Industry Sales Growth vs Ford Sales Growth

Europe (Tables 1 to 4)

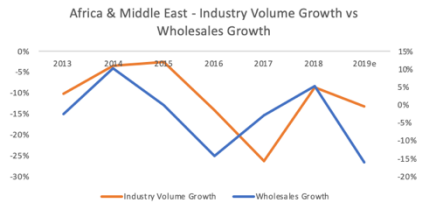
Concerning Europe, at 2020 it will be launched a new generation of the best seller Ford Kuga that had its last generation launched at 2013, however, 2013 was an outlier year since it occurred the Euro Zone debt crisis, which makes the proportion between Ford sales growth and industry sales growth of 2013 not being reliable to be applied for 2020. Thus, it is expected sales to grow in Europe for the forecasted period according with the proportion derived between the past average of Ford sales growth and the past average of industry sales growth on this region excluding the year of 2013, corresponding to 82% of industry sales growth. Being this proportion adjusted for 85% concerning the years of new model launches (2020 and 2022). With these proportions applied on the OECD GDP growth predictions, it is expected Ford sales to grow at an average of 1,03% over the forecasted period.

In 2018 Ford had 7,20% of market share in Europe, following that in 2019 according with the cumulative third quarter report it decreased to 7,03%. On the sequence of the above-mentioned revenue forecast for Europe, it is expected that Ford will see its market share decreasing to 6,14% at the end of the forecasted period, which may indicate that the new model launches will not be enough to sustain the past market share of 7%.

In Europe, following the above described Ford sales forecast, the company sales will grow from 1,4 million units in 2019 to 1,59 million units in 2031, representing a CAGR of 1,03%.

Asia Pacific (Tables 1 to 4)

Concerning Asia Pacific, at 2020 it will be launched a new generation of the best seller Ford Mondeo that was launched by the first time on the region in 2013 and contributed for the company sales growth to reach a proportion 3,73 times higher than the industry sales growth. However the situation of Ford in the region changed in the last years as the company market share decreased in 2016 from 3,7% to 1,86% in 2019, according with the third quarter cumulative report, what can be understood due to the higher adverse effect that the trade war had in China, that represents 75% of this region sales, as also due to the fact American brands lost 1,71% share to other countries' brands since 2016 ¹¹. Hence, due to these facts it is not expected the launch of new vehicles to make Ford sales growing at similar rates like the ones occurred in the past at this location. Therefore, Ford sales concerning the Asia Pacific region are expected to grow at the proportion between the average past of the company sales growth and the average past industry sales growth excluding these years of huge sales growth that are not expected to be repeated, as also the years of the trade war since due



Graph 16 - Africa & Middle East Industry Sales Growth vs Ford Sales Growth

Year End at 31st of December All Values in Millions	2 011	2 012	2 013	2 014	2 015
Revenues	\$ 128 168	\$ 126 567	\$ 139 369	\$ 135 782	\$ 140 566
Wholesales	5,70	5,67	6,33	6,32	6,64
Industry Volume	51,1	81,1	85	88,1	88,7
Market Share (%)	11,14%	6,99%	7,45%	7,18%	7,48%
Average Price (Unitary Price)	\$ 22 505	\$ 22 330	\$ 22 017	\$ 21 474	\$ 21 186
North America					
Wholesales (in millions)	2,69	2,69	3,01	2,84	3,07
Industry Volume (in millions)	17,80	17,80	19,10	20,20	21,50
Market Share (%)	14,80%	14,80%	15,20%	14,20%	14,00%
South America					
Wholesales (in millions)	0,51	0,50	0,54	0,46	0,38
Industry Volume (in millions)	5,4	5,9	5,90	5,30	4,20
Market Share (%)	9,30%	8,60%	8,90%	8,90%	9,60%
Europe					
Wholesales (in millions)	1,60	1,30	1,32	1,39	1,53
Industry Volume (in millions)	15,30	18,60	18,30	18,60	19,20
Market Share (%)	8,30%	7,40%	7,30%	7,20%	7,70%
Africa + Asia Pacific					
Wholesales (in millions)	0,90	1,18	1,47	1,63	1,65
Industry Volume (in millions)	30,4	38,8	41,7	44,00	43,80
Market Share (%)	2,70%	3,05%	3,52%	3,71%	3,77%
Africa					
Wholesales (in millions)		0,22	0,20	0,19	0,19
Industry Volume (in millions)		4	3,9	4,30	4,30
Market Share (%)		4,30%	5,00%	4,60%	4,40%
Asia Pacific					
Wholesales (in millions)		0,96	1,27	1,44	1,46
Industry Volume (in millions)		34,8	37,8	39,70	39,50
Market Share (%)		2,60%	3,30%	3,50%	3,60%

Table 1 – Automotive Revenues 2011 to 2015

Year End at 31st of December All Values in Millions	2 016	2 017	2 018	2019e	2020F
Revenues	\$ 141 546	\$ 145 653	\$ 148 294	\$ 144 709	\$ 150 984
Wholesales	6,65	6,61	5,98	5,35	5,46
Industry Volume	92,7	95	94,2	89,98	93,29
Market Share (%)	7,17%	6,95%	6,35%	5,95%	5,85%
Average Price (Unitary Price)	\$ 21 282	\$ 22 045	\$ 24 790	\$ 27 028	\$ 27 650
North America					
Wholesales (in millions)	3,02	2,97	2,92	2,79	2,84
Industry Volume (in millions)	21,80	21,50	21,50	21,01	21,40
Market Share (%)	13,90%	13,90%	13,40%	13,28%	13,28%
South America					
Wholesales (in millions)	0,33	0,37	0,37	0,29	0,30
Industry Volume (in millions)	3,70	4,20	4,50	4,21	4,41
Market Share (%)	8,80%	8,90%	8,30%	6,98%	6,87%
Europe					
Wholesales (in millions)	1,54	1,58	1,53	1,40	1,42
Industry Volume (in millions)	20,10	20,90	20,90	19,97	20,22
Market Share (%)	7,70%	7,50%	7,20%	7,03%	7,02%
Africa + Asia Pacific					
Wholesales (in millions)	1,77	1,69	1,16	0,87	0,90
Industry Volume (in millions)	47,10	48,40	47,30	44,80	47,27
Market Share (%)	3,75%	3,48%	2,46%	1,93%	1,90%
Africa					
Wholesales (in millions)	0,16	0,12	0,11	0,09	0,10
Industry Volume (in millions)	3,70	3,60	3,80	3,20	3,31
Market Share (%)	4,40%	3,80%	3,00%	2,96%	2,93%
Asia Pacific					
Wholesales (in millions)	1,61	1,57	1,06	0,77	0,80
Industry Volume (in millions)	43,40	44,80	43,50	41,60	43,96
Market Share (%)	3,70%	3,40%	2,50%	1,86%	1,82%

Table 2 – Automotive Revenues 2016 to 2020F

to Trump’s impeachment and the US elections of 2020, the trade war effect is believed to have a lower impact. Thus, being this proportion equal to 60% of industry sales growth. Concerning the years of new model launches (2020 to 2022), this proportion was adjusted to 65%. By applying these proportions on the OECD GDP growth predictions, it resulted on Ford sales growing at an average of 2,60% in Asia Pacific over the forecasted period. In 2018 Ford had 2,50% of market share in Asia Pacific, following that in 2019 according with the cumulative third quarter report it decreased to 1,86%. On the sequence of the above-mentioned revenue forecast for the region, it is expected that Ford market share will decrease to 1,54% during the forecasted period, meaning that it is not expected to recover its past position in Asia Pacific corresponding to a market share of 3,7%.

For this location, following the above described Ford sales forecast, the company sales will grow from 0,77 million units in 2019 to 1,05 million units in 2031, at a CAGR of 2,6%.

South America (Tables 1 to 4)

For South America, as on the last years this location experienced high inflation periods and negative GDP growth, and given that according to the used GDP growth projections of OECD this will be positive and will grow at stable levels, it were considered as outliers these past years of high inflation and negative GDP growth since it is something that is not expected to happen in the future. Thus, it is expected sales to grow in South America for the forecasted period according with the proportion derived between the past average of Ford sales growth and the past average of industry sales growth on this region excluding the outlier years, resulting on a proportion equal to 61% of industry sales growth for the years of no model launches, while for the years of new model launches (2020 and 2021), this proportion was adjusted to 65%. By applying both proportions on the GDP growth predictions, it is expected Ford sales to grow at an average of 1,81% through the forecasted period.

Year End at 31st of December All Values in Millions	2021F	2022F	2023F	2024F	2025F
Revenues	\$ 156 117	\$ 162 756	\$ 167 894	\$ 173 176	\$ 178 622
Wholesales	5,52	5,64	5,69	5,75	5,81
Industry Volume	96,46	99,57	102,66	105,75	108,87
Market Share (%)	5,73%	5,66%	5,55%	5,44%	5,34%
Average Price (Unitary Price)	\$ 28 258	\$ 28 880	\$ 29 487	\$ 30 106	\$ 30 738
North America					
Wholesales (in millions)	2,86	2,92	2,93	2,95	2,96
Industry Volume (in millions)	21,77	22,15	22,55	22,96	23,38
Market Share (%)	13,12%	13,18%	13,01%	12,84%	12,67%
South America					
Wholesales (in millions)	0,31	0,32	0,32	0,33	0,34
Industry Volume (in millions)	4,60	4,77	4,92	5,06	5,19
Market Share (%)	6,77%	6,67%	6,59%	6,52%	6,46%
Europe					
Wholesales (in millions)	1,43	1,44	1,46	1,47	1,49
Industry Volume (in millions)	20,45	20,66	20,89	21,14	21,39
Market Share (%)	7,00%	6,99%	6,98%	6,96%	6,95%
África + Asia Pacific					
Wholesales (in millions)	0,93	0,95	0,98	1,00	1,03
Industry Volume (in millions)	49,65	51,99	54,29	56,60	58,90
Market Share (%)	1,87%	1,83%	1,80%	1,77%	1,74%
Africa					
Wholesales (in millions)	0,10	0,10	0,10	0,10	0,10
Industry Volume (in millions)	3,41	3,50	3,59	3,66	3,74
Market Share (%)	2,89%	2,86%	2,82%	2,79%	2,76%
Asia Pacific					
Wholesales (in millions)	0,83	0,85	0,88	0,90	0,92
Industry Volume (in millions)	46,24	48,48	50,71	52,93	55,16
Market Share (%)	1,79%	1,76%	1,73%	1,70%	1,67%

Table 3 – Automotive Revenues 2021F to 2025F

Year End at 31st of December All Values in Millions	2026F	2027F	2028F	2029F	2030F	2031F
Revenues	\$ 184 053	\$ 189 639	\$ 195 383	\$ 201 292	\$ 207 365	\$ 213 604
Wholesales	5,87	5,93	5,99	6,05	6,11	6,17
Industry Volume	112,01	115,17	118,34	121,53	124,74	127,95
Market Share (%)	5,24%	5,15%	5,06%	4,98%	4,90%	4,82%
Average Price (Unitary Price)	\$ 31 353	\$ 31 980	\$ 32 619	\$ 33 272	\$ 33 937	\$ 34 616
North America						
Wholesales (in millions)	2,98	2,99	3,01	3,03	3,04	3,06
Industry Volume (in millions)	23,83	24,28	24,74	25,22	25,70	26,20
Market Share (%)	12,50%	12,34%	12,17%	12,00%	11,84%	11,68%
South America						
Wholesales (in millions)	0,34	0,34	0,35	0,35	0,36	0,36
Industry Volume (in millions)	5,31	5,44	5,56	5,68	5,80	5,93
Market Share (%)	6,40%	6,35%	6,29%	6,24%	6,19%	6,14%
Europe						
Wholesales (in millions)	1,50	1,52	1,53	1,55	1,57	1,59
Industry Volume (in millions)	21,67	21,95	22,24	22,54	22,85	23,17
Market Share (%)	6,93%	6,92%	6,90%	6,89%	6,87%	6,85%
África + Asia Pacific						
Wholesales (in millions)	1,05	1,07	1,09	1,12	1,14	1,16
Industry Volume (in millions)	61,20	63,51	65,80	68,09	70,38	72,65
Market Share (%)	1,71%	1,69%	1,66%	1,64%	1,62%	1,60%
Africa						
Wholesales (in millions)	0,10	0,11	0,11	0,11	0,11	0,11
Industry Volume (in millions)	3,82	3,91	3,99	4,08	4,18	4,28
Market Share (%)	2,72%	2,69%	2,66%	2,63%	2,60%	2,56%
Asia Pacific						
Wholesales (in millions)	0,94	0,97	0,99	1,01	1,03	1,05
Industry Volume (in millions)	57,38	59,60	61,81	64,01	66,20	68,38
Market Share (%)	1,65%	1,65%	1,65%	1,65%	1,65%	1,65%

Table 4 – Automotive Revenues 2026F to 2031F

In 2018 Ford had 8,30% of market share in South America, following that in 2019 according with the cumulative third quarter report it decreased to 6,98%. On the sequence of the above-mentioned revenue forecast for this location, it is expected Ford to see its market share decreasing to 6,14% until 2031, continuing losing market share on this location.

In South America, following the above described Ford sales forecast, the company sales will grow from 0,29 million units in 2019 to 0,36 million units in 2031, consisting on a CAGR of 1,8%.

Africa and Middle East (Tables 1 to 4)

Ford sales in Africa and Middle East allowed the company to reach a market share of 5% in 2013, however, the company wholesales have been decreasing through the last 8 years consecutively, having reached its minimum level ever, culminating in a market share of 2,96% in 2019. Thus, as the case of this location is different from the other regions and is a very particular one, since sales never recovered at any past year, it was taken into account the average growth of market share and it was applied to the future, resulting in market share decreasing at 1,2% per year. Which at the end results in a market share for Ford in Africa and Middle East equal to 2,56%, as it is not expected that the company will recover market share in this region in the future, also due to the fact that few information is available concerning company plans for this region, what may be perceived due to the fact that this region accounts for less than 2% of the company auto revenues, as also because the company is restructuring operations mainly in Europe that contributes for 20% of the automotive revenues.

In Africa and Middle East, following the above described Ford sales forecast, the company sales will grow from 0,09 million units in 2019 to 0,11 million units in 2031, representing a CAGR of 1,22%.

Overall (Tables 1 to 4)

In the sequence of the above referred revenue forecast, it comes that Ford will not be able to sustain its global market share around 6% as it happened in 2018, being predicted an overall market share of 4,82% at the end of 2031. This may indicate that Ford new models will not be able to capture more customers than in the past, ending the company by losing market share in the long-term. Concerning global wholesales, the company sales will grow from 5,35 million units in 2019 to 6,17 million units in 2031, representing a CAGR of 1,19%.

- **Automotive Cost of Sales, R&D and Gross Margin (Table 5)**

The automotive industry is on a transition from combustion vehicles to electrics following the purpose of complying with new fuel environmental regulations. In order to fulfill these requirements Ford is replacing steel by aluminum, that is lighter, however, this commodity price is projected to continue its upward trend and to be costlier in the future according with *World Bank* projections ⁵. Another important aspect is that the battery cost of electric vehicles today represents a higher cost in terms of an electric vehicle total cost, although, battery costs are predicted to decrease substantially from 2025 onwards according with *Bloomberg* ¹². Therefore, as cost of sales were estimated as percentage of revenues, by combining the two above mentioned effects, it is projected an increase regarding cost of sales as percentage of revenues from 88,25% in 2018 to 89,75% in 2019, and a change from 89,75% to 90,5% from 2020 to 2024, while from 2025 onwards it is expected to decrease to 89,5%.

In line with the above mentioned trends, R&D, that was estimated in percentage of cost of sales, is also expected to increase from 6,3% to 7% in the period from 2019 to 2024, and then to decrease back to 6,3%.

By combining the revenues projection with the cost of sales estimation, it is reached a reduction regarding automotive gross margin from 17,28% in 2018 to 16,53% in 2019 and then to 15,84% until 2024, followed by a recover to 16,14% until 2031. Thus, it can be perceived that despite the increase on cost of sales, due to the projected sales for the upcoming years Ford gross margin is not expected to suffer a great decline.

- **Selling, Administrative and Other Expenses Excluding Ford Credit (Table 6 and Graphs 17 to 18)**

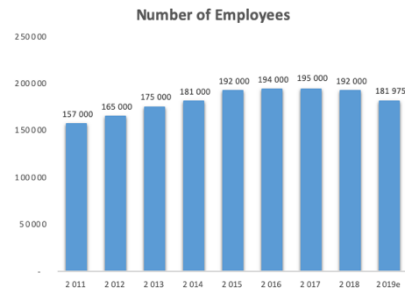
Selling, Administrative and Other Expenses Excluding Ford Credit is a key caption for the future Free Cash Flows of Ford due to: the restructuring plan the company is executing, the current increase of hires in US, and the construction of the new development center, as these will lead to a reorganization in terms of employees.

Year	Cost of Sales as % of Revenues	R&D as % of Cost of Sales	Gross Margin
2011	85,67%	4,83%	18,47%
2012	86,06%	5,05%	18,29%
2013	86,94%	5,28%	17,65%
2014	87,83%	5,62%	17,10%
2015	85,16%	5,60%	19,60%
2016	86,13%	5,99%	19,02%
2017	86,76%	6,33%	18,73%
2018	88,25%	6,27%	17,28%
2019e	89,75%	7,00%	16,53%
2020F	90,50%	7,00%	15,84%
2021F	90,50%	7,00%	15,84%
2022F	90,50%	7,00%	15,84%
2023F	90,50%	7,00%	15,84%
2024F	90,50%	7,00%	15,84%
2025F	89,50%	6,30%	16,14%
2026F	89,50%	6,30%	16,14%
2027F	89,50%	6,30%	16,14%
2028F	89,50%	6,30%	16,14%
2029F	89,50%	6,30%	16,14%
2030F	89,50%	6,30%	16,14%
2031F	89,50%	6,30%	16,14%

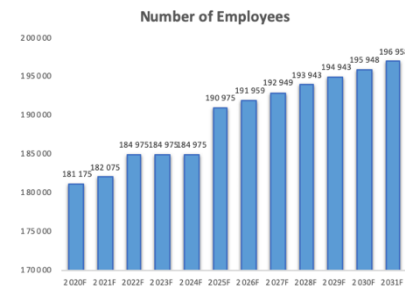
Table 5 - Automotive Cost of Sales, R&D and Gross Margin

Year	Closed Plant	New Plant	Fires	Hires	Employees	Plants
2019e	Russia (3), Brazil (1)		Russia (2775), Brazil (2700), Germany (5000)	US (450)	181 975	66
2020F	UK (1)		UK (1700)	US (900)	181 175	65
2021F				US (900)	182 075	65
2022F		US (1)		US (2900)	184 975	66
2023F					184 975	66
2024F					184 975	66
2025F				US (6000)	190 975	66
2026F				US (984)	191 959	66
2027F				US (990)	192 949	66
2028F				US (994)	193 943	66
2029F				US (1000)	194 943	66
2030F				US (1005)	195 948	66
2031F				US (1010)	196 958	66

Table 6 - Employees and Plants 2019e to 2031F



Graph 17 - Employees Number 2011 to 2019e



Graph 18 - Employees Number 2020F to 2031F

This caption main portion comprehends staff costs which was taken into account as a driver to estimate the caption value into the future.

Staff costs consist in cost per employee and in the number of workers, thus, it is expected future personnel salaries to be updated according with US inflation, as the reported currency is in USD. In 2019 the company had 181 975 employees, less 10 025 workers than in 2018 as the result of plants closure like what happened in Brazil and in Russia, as also due to fires in Germany, and few hires for Chicago that accounted with a new line assembly facility¹³. In 2020 as it was already announced by Ford, it will close the UK Bridgend plant which will result in less 1 700 workers¹⁴. Also, following the last hires for the Chicago and Louisville plants in US, it is expected that the plan to employ more 2 700 workers¹⁵ into the Michigan assembly plant between 2020 and 2022 will be met. The new development center that is already being build will open in 2022 with new 2 000 workers at a first stage and will receive another 6 000 in 2025¹⁶. However, the development center will have capacity for 20 000 people¹⁷, thus, it is expected to receive more hires in the future getting closer to its full capacity, being predicted the number of employees from 2026 onwards to grow at the lowest historical rate of 0,52% as it happened in 2017 after 6 years of increases regarding the number of employees. Summing up, in 2031 Ford will account with 196 958 workers regarding its non-credit segment, which combined with the salaries update will outcome Selling, Administrative and Other Expenses to increase at a CAGR of 2,76% from 2019 to 2031.

- **Net Property Excluding Ford Credit**

Net Property Excluding Ford Credit is a crucial caption regarding Ford future Free Cash Flows due to the company restructuring plan and its current investment in renewing some US plants, as also due to its new development center.

Net Property can be split into property per plant and number of plants and development centers. Regarding property per plant it has grown at a CAGR of 7,34% from 2011 to 2018. However as Ford is reducing its number of plants and is not expected to open new ones since it is preferring to renew some plants, this growth rate has lowered on the last years and is estimated to remain at this lower level until 2031, remaining at a 3,43% level. Concerning the number of plants as already mentioned in the previous relevant caption, in 2019 it were closed 4 plants outside US and opened 1 in US, what ended up by decrease the overall Net Property on this year by 1,07%. For 2020 with the closure of the UK Bridgend plant the overall Net Property growth will also suffer a reduction, although combining the reduction of the number of plants with the property per plant growth rate of 3,43%, it will outcome an overall Net Property 1,86% higher while compared with the previous year. In 2022 with the opening of the new

development center it is foreseen the overall Net Property to grow at 5,02% as effect of the combination between the 3,43% estimated Net Property growth rate and the increase on the number of plants and development centers. Considering next years as it is not expected new plants nor development centers to open it will be the 3,43% Net Property per plant growth rate to drive the overall Net Property caption.

- **Mobility Revenues**

In 2016 Ford acquired Chariot, a van-app mobility service that worked as the first test for the company in the mobility services area, although, it was closed in March of 2019 due to lack of adherence.

The company is expected to start in 2021 delivering mobility services like food delivery in US, as also ride-hailing with autonomous vehicles in partnership with Domino's Pizza and Postmates for food delivery, and ride-hailing services in partnership with Lyft. The purpose of Ford is the development of autonomous vehicles that will join the fleet of these partners in the future. Thus, as this is a completely new service since today there is no company offering it, the information available is really little, although it is foreseen that the revenue of Ford mobility services in the future will evolve in a way similar with future revenues of ride-hailing and food delivery services. Therefore, it was used a forecast of *Statista* concerning future revenues on ride-hailing and food delivery services for US ¹⁸. These *Statista* predictions were adjusted as explained next, and were weighted between ride-hailing and food delivery revenues according with each service revenue amount predicted by *Statista* for the future. As the company closed Chariot in 2019 and the new services will just start to be offered in 2021, it is expected that the company's mobility revenues will decrease in 2020, thus, it was estimated mobility revenues to decrease in 2020 to an intermediate amount, being it predicted to be in line with the value this revenue had in 2018 for Ford. Then, for 2021, as this is the first year the company will start offering these services, it is believed that mobility revenues will rise at a growth rate higher than the weighted growth of food delivery services and ride-hailing services, in line with the growth rate verified on Ford's mobility revenues from 2017 to 2018 that increased by 160%. For the years after 2021, this revenue is predicted to evolve at the weighted growth rate estimated through *Statista* predictions. Summing-up, it is expected Ford Mobility services' revenue to go from 38\$ Million in 2019 to 150,47\$ Million in 2031, growing at a CAGR of 12,26%, resulting in mobility revenues accounting for 0,07% of the overall

company revenues in 2031. Although, still not being material on the overall company revenues.

WACC

In order to reach the WACC it was estimated inputs as the firm’s cost of debt, its cost of equity and a target net debt to equity ratio. Regarding the cost of debt as this analysis is mainly considered for long-term investors and given the length of the forecasted period it was selected the company’s corporate bond that better matches the range of the forecasted period accordingly with the available ones. Therefore a 9 year to maturity bond was chosen and based on the disclosed inputs (table 7) it was achieved a yield to maturity of 5,32%. To determine the probability of default and loss given default it was considered Moody’s resources as the Ba1 rating comes from Moody’s which resulted in a probability of default equal to 0,82% and in a 46,10% loss given default. All combined it was attained a 4,94% cost of debt to Ford Motor Company (Table 7).

To estimate the cost of equity (table 8 and 9) it was regressed the excess returns of Ford and its competitors, designated by the company in its annual report: Fiat Chrysler, General Motors, Honda, Toyota, Volkswagen Group, Hyundai and Nissan, with the excess returns of the MSCI World Index obtaining raw betas that were then unlevered accordingly with the average of each competitor historical net debt to equity ratio from 2015 to 2019 and its statutory tax rate, resulting on an average of unlevered betas equal to 0,64.

ISIN	US345370BY59
Maturity	01/10/2028
Coupon	6,63%
Spread	0,15%
Coupon Frequency	2
Face Value	100%
Full Price	109,16%
Yield	5,32%
Rating	Ba1
Probability of Default	0,82%
Rank	Sr Unsecured
Recovery Rate	53,90%
Loss Given Default	46,10%
Cost of Debt	4,94%

Table 7 - Cost of Debt

Company	Raw Betas	Net Debt / Equity	Statutory Tax Rate	Unlevered Betas
Ford	1,02	247,97%	21,00%	0,34
Fiat-Chrysler	2,05	59,85%	21,00%	1,39
General Motors	1,31	118,51%	19,00%	0,67
Honda	1,19	87,91%	30,86%	0,74
Toyota	0,84	62,87%	30,86%	0,59
Volkswagen Group	1,53	291,82%	30,00%	0,50
Hyundai	0,90	144,42%	25,00%	0,43
Nissan	0,96	149,13%	30,86%	0,47

Table 8 - Cost of Equity

Concerning net debt, it was used book values of debt and it was excluded excess cash. While for equity it was considered its market value. The net to debt equity ratio of Ford is estimated to be targeted at the average of its historical value, 247,97%, as the company is reducing its current net debt equity ratio (333,99%) ,according with 2019 data, and given that the company credit rating was downgraded to the first level of non-investment grade in September of 2019. Regarding the levered beta, it was levered the previous mentioned average of competitors’ unlevered beta accordingly with Ford’s statutory tax rate and the net debt to equity ratio considered for the estimated period, resulting on a levered

Average Unlevered Betas	0,64
Statutory Tax Rate	21,00%
Net Debt / Equity	3,91
Levered Beta	1,90
Rf	1,66%
MRP	5,60%
Relevered Beta	1,90
Cost of Equity	12,31%

Table 9 - Cost of Equity

Statutory Tax R	21%
Rd	4,94%
Rd after tax	3,91%
Re	12,31%
D/E	2,48
E/(D+E)	28,74%
D/(D+E)	71,26%
WACC	6,32%

Table 10 - WACC

beta of 1,9. This levered beta seems to be too higher, although it is due to the highest net to debt equity ratio of the company while compared to its competitors, as the average net debt to equity ratio of the competitors was 130,98% from 2015 to 2019 and Ford's one was 247,97%, so, 1,89 times higher than competitors. The risk-free rate considered is 1,66% according with the US 10 Year T-Note most recent value at the date this research was conducted. For market risk premium it was considered a study of IESE Business School that computed the MRP departing from 1175 MRP estimations made by US professors and analysts, that resulted on an equity premium of 5,6%¹⁹. All together ends up in a cost of equity for the company of 12,31%.

Lastly, by combining the above-mentioned inputs according with the company capital structure, 71,26% of debt and 28,74% of equity, it was reached Ford's cost of capital, resulting on a WACC of 6,32% (table 10). The WACC ends up by being much closer to the cost of debt since the company capital structure consists in much more debt than equity.

DCF, Terminal Value and Share Price

To determine Ford share price for 2020 (table 11) it were forecasted all captions until that its Core Cash Flow stabilized, which was attained in 2031 after the Core FCF reached 4 years growing at really close growth rates: 2,61%, 2,51%, 2,44%, 2,29%, and matching a reinvestment rate of 52,34%. After the Core Cash Flow stabilization it was possible to compute the company's terminal value assuming a perpetuity on which the company core cash flow will grow at a 3,37% growth rate that is reasonable since the global gdp growth projections are of 3,6% according with IMF projections⁴. This growth rate was calculated by considering the company's reinvestment rate and its RONIC. The estimated firm's RONIC is 6,44% wich ends up by being really close to the company's WACC of 6,32% as it is supposed to happen in the long-term in order to be sustainable, otherwise new players will enter into the market. Finally, it was summed all WACC discounted core cash flows including the terminal value (39 176\$M) and added the non core items value (135 015\$M) in order to reach Ford's enterprise value of 174 191\$M from which it was deducted all sources of financing (132 071\$M) resulting on an equity value of 42 120\$M that was divided by the number of shares outstanding (3 919M) being obtained a share price of 10,75\$. By considering the expected capital gains derived from the predicted share price and the current one on the market (9,21\$) it is reached an expected capital gain of 16,70%. The expected cash gains for shareholders are of 1,05\$ per share, and correspond to 11,35%. What together with the expected capital

Terminal Value (Discounted)	\$ 30 889
PV Core DCFs	\$ 8 287
Sum DCF with TV	\$ 39 176
Non Core	\$ 135 015
Enterprise Value	\$ 174 191
Net Financial Assets	\$ 132 071
Equity	\$ 42 120
# Shares Outstanding (Millions)	3 919
Price per Share	\$ 10,75
Expected Capital Gain/Loss	16,70%
Net Transactions with Shareholders	\$ -4 097
Shareholders Cash In/Out p/ Share	\$ 1,05
Expected Cash Gain	11,35%
Total Shareholders Expected Return	28,05%
Recommendation	BUY

Table 11 - Ford Target Price

gain results in a total expected return of Ford stock to shareholders equal to 28,05%. Thus, following our guidelines recommendation, this is a “BUY” since the total expected returns for shareholders are above 10%. This result may indicate that the company restructuring plan worked and that Ford will be on a better position to succeed, which is also a consequence from the new models launched.

Scenario Analysis

As Ford revenues come essentially from North America, Europe and Asia Pacific, it was tested the model in order to check the response of Ford’s stock price to a possible crisis affecting North America and Europe, and another scenario concerning the end of the trade war with China. For both scenarios the changes were made through the forecasted proportion derived between the past average of Ford sales growth and the past average of industry sales growth. Although, these are only scenarios, and the expected one remains to be the one described into the valuation section of this report.

Crisis in Europe and in North America

As since 2018 some analysts are speaking about a new crisis to come and there is always this possibility, since Ford sales in North America and in Europe accounted for 85% of the company sales on the last 3 years, it is expected that a crisis in these regions will seriously affect the auto sales of Ford, as the GDP growth contracts and the automotive revenues were predicted based on GDP growth. Therefore, it will also affect negatively the stock performance of the company, as this is a cyclical business and sales are expected to contract in a period of crisis.

To test this scenario, it was changed the forecasted proportion derived between the past average of Ford sales growth and the past average of industry sales growth for Europe and for North America, being predicted Ford sales to grow at a lower growth rate than the one estimated on the valuation section for these regions, with the proportions respectively updated to 60% and 20%.

The results (table 12) outcome a stock price of 7,90\$ which represents a decrease of 26,50% comparatively with the DCF result, ending up in a sell recommendation that represents a loss for shareholders total return of -2,92% already including dividends. This result may indicate that in case of a crisis Ford will have to extend the restructuring plan of its operations, which will make the company take more time than it was expected to recover.

Terminal Value (Discounted)	\$	20 789
PV Core DCF's	\$	7 223
Sum DCF with TV	\$	28 012
Non Core	\$	134 894
Enterprise Value	\$	162 906
Net Financial Assets	\$	131 948
Equity	\$	30 957
# Shares Outstanding (Millions)		3 919
Price per Share	\$	7,90
Expected Capital Gain/Loss		-14,23%
Net Transactions with Shareholders	\$	-4 082
Shareholders Cash In/Out p/ Share	\$	1,04
Expected Cash Gain		11,31%
Total Shareholders Expected Return		-2,92%
Recommendation		SELL

Table 12 - Scenario Crisis Europe & North America

End of Trade War with China

As the impact of the trade war on Ford sales was highly felt, since in 2018 sales decreased by 33% and in 2019 by 27% in Asia Pacific, it is expected that the end of the trade war in China will bring higher earnings for the company, and so a better stock performance for Ford. Although, this scenario is quite unlikely to happen since only if Joe Biden won the 2020 US elections this scenario may be verified, as the majority of analysts predict a new victory for Donald Trump. Joe Biden’s position about the trade war is that it makes no sense, while for Donald Trump it must continue.

To test this scenario, it was changed the forecasted proportion derived between the past average of Ford sales growth and the past average of industry sales growth for Asia Pacific, being Ford sales predicted to grow at a higher growth rate than the one estimated on the valuation section in case of the end of the trade war, resulting on an estimated proportion of 71% for the years of no model launches and 75% for years of new model launches.

The results (table 13) outcome a stock price of 12,66\$ which represents an increase of 17,81% comparatively with the DCF result, ending up in a stronger “BUY” recommendation since it represents a gain of shareholders total return of 48,87%. Despite of this improvement in Asia Pacific sales in case of the end of the trade war, it is not expected Ford to recover its 3,5% past market share in Asia Pacific, as it will stay below 2%.

Terminal Value (Discounted)	\$ 37 706
PV Core DCFs	\$ 8 973
Sum DCF with TV	\$ 46 679
Non Core	\$ 135 133
Enterprise Value	\$ 181 812
Net Financial Assets	\$ 132 190
Equity	\$ 49 622
# Shares Outstanding (Millions)	3 919
Price per Share	\$ 12,66
Expected Capital Gain/Loss	37,48%
Net Transactions with Shareholders	\$ -4 112
Shareholders Cash In/Out p/ Share	\$ 1,05
Expected Cash Gain	11,39%
Total Shareholders Expected Return	48,87%
Recommendation	BUY

Table 13 - Scenario No Trade War with China

Multiples

In order to perform a relative valuation through multiples it was needed to select the adequate peers. The criteria used consisted on evaluating monthly historical data from 2015 to 2019 from 15 automotive manufacturers relative to: Revenues, Profitability, EBITDA, EBIT, EV/Sales, EV/EBITDA, P/E, and Return on Common Equity. These statistics can be checked on table 15. Whenever an indicator from a peer presented to be similar to Ford's values it was signed. At the end it was picked the peers with the highest sum of the signed indicators: GM, Fiat Chrysler, VW Group, Honda, Groupe PSA, Hyundai, Renault, Nissan.

Through the selected multiples it is possible to see that in all of them Ford is below the industry average (table 14), thus being undervalued, which corroborates the DCF result. This difference can be perceived due to the execution of the restructuring plan, as also due to the fact that Ford earnings for the 2019 year were revised downwards by the company at the third quarter results issuance ²⁰.

Multiple	Ford	Industry Average	GM	FiatChrysler	VW Group	Honda	Hyundai	Renault	Nissan	Groupe PSA
P/E	7,40	8,31	6,36	4,85	6,28	8,86	15,60	5,07	13,26	6,16
P/S	0,24	0,27	0,39	0,17	0,32	0,30	0,24	0,21	0,25	0,27
EV/Sales	0,20	0,39	0,37	0,16	0,40	0,63	0,86	0,30	0,21	0,20
EV/EBITDA	2,30	4,22	2,53	1,79	2,55	7,19	12,92	2,66	2,17	1,92

Table 14 - Multiples

COMPARABLES TABLE		Ford	GM	FiatChrysler	VW Group	Honda	Groupe PSA	Hyundai	Renault	Nissan
Revenues	Max	\$160 338	\$153 433	\$127 210	\$278 569	\$142 733	\$169 174	\$88 355	\$133 920	\$108 779
	Min	\$149 558	\$145 588	\$117 750	\$236 761	\$118 126	\$120 233	\$80 733	\$102 425	\$101 112
	Avg	\$154 618	\$149 607	\$122 622	\$253 539	\$131 089	\$135 585	\$83 903	\$118 416	\$105 619
Prof Margin	Max	4,90%	6,22%	3,37%	5,15%	6,79%	3,34%	7,04%	8,24%	6,87%
	Min	2,31%	-2,76%	0,28%	-0,73%	3,18%	0,72%	1,72%	6,01%	4,03%
	Avg	3,78%	3,77%	2,16%	2,97%	4,58%	2,57%	4,69%	6,76%	4,98%
EBITDA	Max	\$14 947	\$21 695	\$14 123	\$42 934	\$13 902	\$15 436	\$8 100	\$14 997	\$14 291
	Min	\$13 334	\$12 914	\$8 924	\$17 440	\$11 773	\$9 064	\$5 689	\$10 714	\$12 969
	Avg	\$14 125	\$18 479	\$12 286	\$32 921	\$12 873	\$12 147	\$7 079	\$13 376	\$13 364
EBIT	Max	\$6 981	\$8 661	\$7 976	\$16 515	\$7 538	\$9 010	\$5 631	\$8 299	\$6 514
	Min	\$3 203	\$4 445	\$2 915	-\$4 370	\$5 605	\$3 145	\$2 315	\$4 625	\$4 768
	Avg	\$5 213	\$6 643	\$5 605	\$8 886	\$6 635	\$6 125	\$4 113	\$6 764	\$5 731
EV/Sales	Max	0,34	0,34	0,27	0,33	0,90	0,23	0,86	0,52	0,35
	Min	0,18	0,26	0,14	0,21	0,70	0,14	0,80	0,30	0,23
	Avg	0,25	0,30	0,22	0,27	0,78	0,18	0,83	0,41	0,28
EV/EBITDA	Max	4,98	3,49	3,41	2,74	8,65	3,59	11,92	5,12	2,81
	Min	2,19	2,27	1,63	1,76	7,00	1,53	7,77	2,69	1,93
	Avg	3,11	2,63	2,30	2,22	7,86	2,20	9,58	3,68	2,19
P/E	Max	9,03	14,42	16,26	60,95	14,52	16,73	14,49	10,38	10,28
	Min	6,11	5,03	4,53	6,72	5,86	8,15	6,11	4,53	5,77
	Avg	7,45	7,65	8,34	22,10	10,76	11,10	9,04	6,97	7,86
P/S	Max	0,41	0,38	0,24	0,43	0,52	0,26	0,36	0,54	0,43
	Min	0,25	0,32	0,09	0,31	0,39	0,20	0,27	0,33	0,35
	Avg	0,32	0,36	0,15	0,35	0,43	0,24	0,32	0,44	0,38
Comm Eqty Ret	Max	25,44%	29,18%	16,35%	11,83%	12,75%	16,14%	9,02%	14,02%	14,79%
	Min	13,77%	-0,41%	3,11%	-0,10%	5,35%	-0,03%	2,56%	9,69%	10,66%
	Avg	18,17%	13,45%	10,50%	7,15%	9,11%	10,84%	6,00%	11,73%	12,35%

Table 15 - Multiples Statistics

Financial Statements

Income Statement

Consolidated Income Statement	2 011	2 012	2 013	2 014	2 015	2 016	2 017	2 018	2019e	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F
Revenues Automotive	\$ 128 168	\$ 126 567	\$ 139 369	\$ 135 782	\$ 140 566	\$ 141 546	\$ 145 653	\$ 148 294	\$ 144 709	\$ 150 984	\$ 156 117	\$ 162 756	\$ 167 894	\$ 173 176	\$ 178 622	\$ 184 053	\$ 189 639	\$ 195 383	\$ 201 292	\$ 207 365	\$ 213 604
Cost of Sales	\$ 104 500	\$ 103 423	\$ 114 770	\$ 112 564	\$ 113 009	\$ 114 617	\$ 118 369	\$ 122 669	\$ 120 783	\$ 127 076	\$ 131 396	\$ 136 984	\$ 141 308	\$ 145 754	\$ 149 795	\$ 154 349	\$ 159 034	\$ 163 851	\$ 168 807	\$ 173 899	\$ 179 132
Gross Profit Automotive	\$ 23 668	\$ 23 144	\$ 24 599	\$ 23 218	\$ 27 557	\$ 26 929	\$ 27 284	\$ 25 625	\$ 23 926	\$ 23 908	\$ 24 721	\$ 25 772	\$ 26 586	\$ 27 422	\$ 28 827	\$ 29 703	\$ 30 605	\$ 31 532	\$ 32 486	\$ 33 466	\$ 34 473
Gross Margin Automotive	18,47%	18,29%	17,55%	17,10%	19,60%	19,02%	18,73%	17,28%	16,53%	15,84%	15,84%	15,84%	15,84%	15,84%	16,14%	16,14%	16,14%	16,14%	16,14%	16,14%	16,14%
Revenues Mobility	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1	\$ 10	\$ 26	\$ 38	\$ -	\$ 26	\$ 68	\$ 74	\$ 80	\$ 87	\$ 94	\$ 102	\$ 110	\$ 119	\$ 129	\$ 139
Revenues Ford Credit	\$ 8 096	\$ 7 685	\$ 7 548	\$ 8 295	\$ 8 992	\$ 10 253	\$ 11 113	\$ 12 018	\$ 12 395	\$ 12 739	\$ 12 889	\$ 13 148	\$ 13 284	\$ 13 420	\$ 13 557	\$ 13 695	\$ 13 834	\$ 13 974	\$ 14 114	\$ 14 255	\$ 14 396
R&D	\$ 5 300	\$ 5 500	\$ 6 400	\$ 6 700	\$ 6 700	\$ 7 300	\$ 8 000	\$ 8 200	\$ 9 091	\$ 9 565	\$ 9 890	\$ 10 311	\$ 10 636	\$ 10 971	\$ 11 307	\$ 11 643	\$ 11 979	\$ 12 315	\$ 12 651	\$ 12 987	\$ 13 323
SG&A	\$ 8 985	\$ 8 789	\$ 8 568	\$ 8 317	\$ 10 010	\$ 8 975	\$ 11 299	\$ 10 205	\$ 7 039	\$ 7 169	\$ 7 363	\$ 7 645	\$ 7 806	\$ 7 970	\$ 8 101	\$ 8 232	\$ 8 363	\$ 8 494	\$ 8 625	\$ 8 756	\$ 8 887
Other Income/(Loss)	\$ 1 245	\$ 1 583	\$ 1 461	\$ 438	\$ 1 616	\$ 2 152	\$ 3 328	\$ 2 478	\$ 1 715	\$ 1 947	\$ 1 947	\$ 1 947	\$ 1 947	\$ 1 947	\$ 1 947	\$ 1 947	\$ 1 947	\$ 1 947	\$ 1 947	\$ 1 947	\$ 1 947
Equity in net income of affiliated companies	\$ 500	\$ 588	\$ 1 069	\$ 1 275	\$ 1 818	\$ 1 780	\$ 1 201	\$ 123	\$ 62	\$ 61	\$ 60	\$ 59	\$ 58	\$ 57	\$ 56	\$ 55	\$ 54	\$ 53	\$ 52	\$ 51	\$ 50
Operating and Other Expense Ford Credit	\$ 675	\$ 652	\$ 739	\$ 741	\$ 836	\$ 1 068	\$ 1 003	\$ 1 029	\$ 1 036	\$ 1 032	\$ 1 080	\$ 1 092	\$ 1 114	\$ 1 126	\$ 1 137	\$ 1 149	\$ 1 161	\$ 1 172	\$ 1 184	\$ 1 196	\$ 1 208
Provisions for Credit and Insurance Losses Ford Credit	\$ -33	\$ 86	\$ 208	\$ 305	\$ 417	\$ 672	\$ 711	\$ 609	\$ 615	\$ 632	\$ 640	\$ 653	\$ 659	\$ 666	\$ 673	\$ 680	\$ 687	\$ 694	\$ 701	\$ 708	\$ 715
EBITDA	\$ 18 582	\$ 17 973	\$ 18 762	\$ 17 163	\$ 22 020	\$ 23 100	\$ 21 923	\$ 20 227	\$ 20 354	\$ 20 284	\$ 20 712	\$ 21 300	\$ 21 740	\$ 22 201	\$ 22 683	\$ 23 180	\$ 23 689	\$ 24 201	\$ 24 714	\$ 25 228	\$ 25 742
Depreciations and Amortizations Excluding Credit	\$ 3 545	\$ 3 655	\$ 4 064	\$ 4 252	\$ 4 332	\$ 4 667	\$ 4 963	\$ 5 400	\$ 5 535	\$ 5 478	\$ 5 587	\$ 5 778	\$ 6 066	\$ 6 273	\$ 6 487	\$ 6 705	\$ 6 934	\$ 7 170	\$ 7 414	\$ 7 667	\$ 7 925
Depreciations and Amortizations Ford Credit	\$ 1 843	\$ 2 524	\$ 2 440	\$ 3 133	\$ 3 661	\$ 4 356	\$ 4 159	\$ 3 896	\$ 3 924	\$ 3 916	\$ 4 098	\$ 4 149	\$ 4 234	\$ 4 281	\$ 4 327	\$ 4 374	\$ 4 421	\$ 4 468	\$ 4 515	\$ 4 563	\$ 4 610
Interest Expense Ford Credit	\$ 3 614	\$ 3 115	\$ 2 860	\$ 2 699	\$ 2 454	\$ 2 808	\$ 3 231	\$ 3 929	\$ 3 958	\$ 4 003	\$ 4 040	\$ 2 386	\$ 2 023	\$ 1 783	\$ 1 783	\$ 1 783	\$ 1 783	\$ 1 783	\$ 1 783	\$ 1 783	\$ 1 783
Interest Expense Excluding Ford Credit	\$ 817	\$ 713	\$ 829	\$ 797	\$ 773	\$ 894	\$ 1 133	\$ 1 228	\$ 1 007	\$ 1 035	\$ 963	\$ 891	\$ 850	\$ 835	\$ 835	\$ 835	\$ 835	\$ 835	\$ 835	\$ 835	\$ 835
Special Items	\$ 82	\$ 246	\$ 1 568	\$ 1 940	\$ 548	\$ 3 579	\$ 2 89	\$ 1 429	\$ 4 444	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
EBIT	\$ 8 681	\$ 7 720	\$ 7 001	\$ 4 342	\$ 10 252	\$ 6 796	\$ 8 148	\$ 4 345	\$ 1 487	\$ 5 852	\$ 7 024	\$ 8 097	\$ 8 567	\$ 9 030	\$ 10 766	\$ 10 986	\$ 11 208	\$ 11 433	\$ 11 653	\$ 11 898	\$ 12 136
Taxes	\$ -11 541	\$ 2 056	\$ -147	\$ 1 156	\$ 2 881	\$ 2 189	\$ 520	\$ 650	\$ 47	\$ 1 229	\$ 1 475	\$ 1 700	\$ 1 799	\$ 1 896	\$ 2 261	\$ 2 307	\$ 2 354	\$ 2 401	\$ 2 449	\$ 2 498	\$ 2 549
Net Income	\$ 20 222	\$ 5 664	\$ 7 148	\$ 3 186	\$ 7 371	\$ 4 607	\$ 7 628	\$ 3 695	\$ 1 440	\$ 4 623	\$ 5 549	\$ 6 397	\$ 7 133	\$ 8 506	\$ 9 679	\$ 10 854	\$ 12 032	\$ 13 210	\$ 14 388	\$ 15 566	\$ 16 744
Less: Comprehensive Income/(Loss) attributable to noncontrolling interests	\$ 7	\$ -1	\$ -7	\$ -1	\$ -2	\$ 10	\$ 24	\$ 18	\$ 51	\$ 27	\$ 17	\$ 10	\$ 10	\$ 10	\$ 10	\$ 10	\$ 10	\$ 10	\$ 10	\$ 10	\$ 10
Other Comprehensive Income	\$ -4 423	\$ -4 120	\$ 4 623	\$ -1 802	\$ -992	\$ -757	\$ 52	\$ 407	\$ -1 960	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Income to Ford Motor Company	\$ 15 792	\$ 1 545	\$ 11 778	\$ 1 385	\$ 6 381	\$ 3 840	\$ 7 656	\$ 3 270	\$ -71	\$ 4 596	\$ 5 533	\$ 6 386	\$ 7 123	\$ 8 495	\$ 9 669	\$ 10 844	\$ 12 022	\$ 13 200	\$ 14 378	\$ 15 556	\$ 16 734

Balance Sheet

Consolidated Balance Sheet	2 011	2 012	2 013	2 014	2 015	2 016	2 017	2 018	2019e	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F
Assets																					
Cash, Cash Equivalents, Marketable Securities and Restricted Cash	\$ 36 446	\$ 36 287	\$ 36 754	\$ 31 150	\$ 35 176	\$ 38 827	\$ 38 927	\$ 34 140	\$ 34 623	\$ 7 551	\$ 7 809	\$ 8 142	\$ 8 399	\$ 8 663	\$ 8 936	\$ 9 208	\$ 9 487	\$ 9 775	\$ 10 071	\$ 10 375	\$ 10 688
Receivables Excluding Credit	\$ 4 219	\$ 5 361	\$ 5 641	\$ 5 789	\$ 5 173	\$ 4 457	\$ 4 051	\$ 3 698	\$ 3 453	\$ 3 724	\$ 3 851	\$ 4 015	\$ 4 142	\$ 4 272	\$ 4 407	\$ 4 541	\$ 4 679	\$ 4 821	\$ 4 967	\$ 5 117	\$ 5 271
Inventories	\$ 5 901	\$ 7 362	\$ 7 708	\$ 7 866	\$ 8 313	\$ 8 898	\$ 10 277	\$ 11 220	\$ 10 906	\$ 11 489	\$ 11 880	\$ 12 385	\$ 12 776	\$ 13 178	\$ 13 543	\$ 13 955	\$ 14 378	\$ 14 814	\$ 15 262	\$ 15 722	\$ 16 195
Automotive Receivable from Ford Credit	\$ 910	\$ -	\$ 724	\$ 497	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Of Held for Sale Operations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Finance Receivables Ford Credit	\$ 73 330	\$ 75 770	\$ 80 816	\$ 86 141	\$ 96 063	\$ 102 835	\$ 114 940	\$ 117 394	\$ 113 816	\$ 116 975	\$ 118 348	\$ 120 725	\$ 121 975	\$ 123 224	\$ 124 485	\$ 125 755	\$ 127 031	\$ 128 312	\$ 129 601	\$ 130 893	\$ 132 188
Net Property Excluding Credit	\$ 22 229	\$ 24 813	\$ 27 492	\$ 29 795	\$ 30 021	\$ 31 916	\$ 35 150	\$ 35 986	\$ 35 602	\$ 36 264	\$ 37 508	\$ 39 391	\$ 40 741	\$ 42 138	\$ 43 583	\$ 45 077	\$ 46 623	\$ 48 221	\$ 49 875	\$ 51 585	\$ 53 354
Net Investment in Operating Leases Excluding Credit	\$ 1 356	\$ 1 415	\$ 1 384	\$ 1 699	\$ 2 014	\$ 1 620	\$ 1 574	\$ 1 705	\$ 1 696	\$ 1 770	\$ 1 830	\$ 1 908	\$ 1 968	\$ 2 030	\$ 2 094	\$ 2 158	\$ 2 223	\$ 2 290	\$ 2 360	\$ 2 431	\$ 2 504
Net Intangible Assets Excluding Credit	\$ 100	\$ 87	\$ 85	\$ 133	\$ 124	\$ 198	\$ 213	\$ 178	\$ 178	\$ 187	\$ 194	\$ 202	\$ 208	\$ 215	\$ 197	\$ 203	\$ 209	\$ 216	\$ 222	\$ 229	\$ 236
Goodwill Excluding Credit	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Assets Excluding Credit	\$ 2 272	\$ 2 898	\$ 3 759	\$ 4 012	\$ 5 299	\$ 6 119	\$ 8 745	\$ 8 419	\$ 9 392	\$ 9 909	\$ 10 454	\$ 11 029	\$ 11 636	\$ 12 276	\$ 12 951	\$ 13 663	\$ 14 415	\$ 15 207	\$ 16 044	\$ 16 926	\$ 17 857
Equity in Net Assets of Affiliated	\$ 2 936	\$ 3 246	\$ 3 679	\$ 3 357	\$ 3 224	\$ 3 304	\$ 3 085	\$ 2 709	\$ 2 489	\$ 2 448	\$ 2 407	\$ 2 328	\$ 2 289	\$ 2 251	\$ 2 214	\$ 2 177	\$ 2 141	\$ 2 105	\$ 2 070	\$ 2 036	\$ 2 006
Deferred Income Taxes	\$ 14 127	\$ 14 531	\$ 12 533	\$ 12 884	\$ 10 872	\$ 9 014	\$ 10 158	\$ 9 815	\$ 10 065	\$ 7 951	\$ 7 851	\$ 7 899	\$ 7 774	\$ 7 688	\$ 7 646	\$ 7 556	\$ 7 465	\$ 7 374	\$ 7 283	\$ 7 192	\$ 7 101
Other Assets Ford Credit	\$ 1 314	\$ 2 966	\$ 2 657	\$ 3 091	\$ 2 708	\$ 2 434	\$ 2 720	\$ 2 543	\$ 3 631	\$ 3 740	\$ 3 852	\$ 3 968	\$ 4 087	\$ 4 210	\$ 4 336	\$ 4 466	\$ 4 600	\$ 4 738	\$ 4 880	\$ 5 026	\$ 5 177
Net Investment in Operating Leases Ford Credit	\$ 11 482	\$ 15 036	\$ 18 600	\$ 21 518	\$ 25 079	\$ 27 209	\$ 26 661	\$ 27 414	\$ 27 336	\$ 28 596	\$ 28 932	\$ 29 513	\$ 29 819	\$ 30 124	\$ 30 432	\$ 30 743	\$ 31 055	\$ 31 368	\$ 31 683	\$ 31 999	\$ 32 315
Accrued Uncollected Interest Receivable Ford Credit	\$ 180	\$ 183	\$ 196	\$ 191	\$ 209	\$ 223	\$ 240	\$ 264	\$ 265	\$ 257	\$ 260	\$ 266	\$ 268	\$ 271	\$ 274	\$ 277	\$ 279	\$ 282	\$ 285	\$ 288	\$ 291
Non Current Receivable from Automotive	\$ -	\$ 252	\$ 907	\$ 527	\$ 1 083	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Property Ford Credit	\$ 142	\$ 129	\$ 124	\$ 331	\$ 142	\$ 156	\$ 177	\$ 192	\$ 215	\$ 235	\$ 255	\$ 275	\$ 295	\$ 315	\$ 335	\$ 355	\$ 375	\$ 395	\$ 415	\$ 435	\$ 455
Total Assets	\$ 178 764	\$ 190 336	\$ 203 059	\$ 208 981	\$ 225 506	\$ 237 260	\$ 256 993	\$ 255 943	\$ 254 475	\$ 231 376	\$ 235 712	\$ 242 365	\$ 246 696	\$ 251 174	\$ 255 751	\$ 260 451	\$ 265 278	\$ 270 236	\$ 275 412	\$ 280 725	\$ 286 181
Liabilities																					
Payables Excluding Ford Credit	\$ 16 749	\$ 18 151	\$ 18 035	\$ 18 876	\$ 19 168	\$ 20 239	\$ 22 120	\$ 20 426	\$ 19 518	\$ 19 518	\$ 20 535	\$ 21 233	\$ 22 136	\$ 22 835	\$ 23 553	\$ 24 206	\$ 24 942	\$ 25 6			

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Buy	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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