

March 14, 2018 04:05 AM GMT

## Ford Motor Company

# A Cheap Call Option on Restructuring, Trucks, Data, and SOTP Potential: Upgrade to OW

📄 Stock Rating Overweight    
 👁 Industry View Cautious    
 📊 Price Target \$15.00

Ford's out-of-favor status has brought valuation to where the F-150 may be worth >150% of its EV. We believe consensus is bottoming and raise our underlying forecasts for the first time in >2 years. Restructuring and strategic redeployment could halt years of underperformance. Price target to \$15.

WHAT'S CHANGED	Ford Motor Company (F.N)	
	From	To
Price Target	\$10.00	\$15.00
Rating	Underweight	Overweight

**A window of opportunity has opened up on Ford.** We had been Underweight Ford since 2014, drawing investor attention to earnings risk stemming from its car-heavy product footprint, costs of switching to an aluminum bodied truck, financial services/credit exposure, rising development costs, and unprofitable foreign operations. Over the past year earnings momentum went from stall-speed to retrograde while sentiment reached a cyclical low. The company has made significant changes to senior management *but investors lack confidence in Ford's ability to address chronically loss-making businesses and its potential to pivot into areas of growth (shared, autonomous).*

**We believe the skew of negative sentiment has taken valuation to attractive levels...** levels where we calculate the value of the F-150 franchise may be worth more than 150% of the company's enterprise value. We also believe there are a few blind spots in the investment debate, mainly the optionality to: (a) continued US SAAR strength (a 5% change in US SAAR is worth 16% to Ford earnings. A 5% move in F-150 production is worth nearly 10% to Ford earnings) and (b) restructuring savings including the elimination of products and/or regions the management team determines are not capable of generating a sustainable return over a cycle.

**While Ford still has a lot of room to improve its performance vs. peers, we believe our estimates may have bottomed.** In fact, we are raising our underlying earnings forecasts by the greatest amount in nearly five years. The inflection to our forecast is driven by an upward revision in our US SAAR forecast and anticipated restructuring cost savings that we now expect in our base case. Our revised target gives Ford credit for adjusting its global portfolio to emphasize its

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### Ford Motor Company ( F.N, F US )

Autos & Shared Mobility / United States of America

Stock Rating	Overweight
Industry View	Cautious
Price target	\$15.00
Shr price, close (Mar 13, 2018)	\$10.78
Mkt cap, curr (mm)	\$43,177
52-Week Range	\$13.33-10.14

Fiscal Year Ending	12/17	12/18e	12/19e	12/20e
EPS (\$) **	1.90	1.44	1.26	1.33
Prior EPS (\$) **	-	1.40	1.06	1.07
Consensus EPS (\$) §	1.80	1.57	1.51	1.54
P/E	6.5	7.5	8.6	8.1
ModelWare EPS (\$) §	1.90	1.44	1.26	1.33

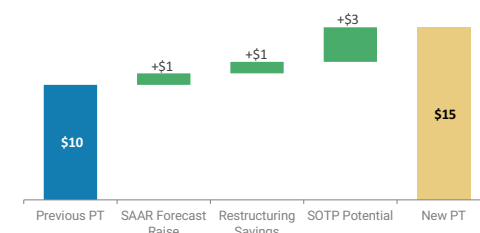
Unless otherwise noted, all metrics are based on Morgan Stanley ModelWare framework

\*\* = Based on consensus methodology

§ = Consensus data is provided by Thomson Reuters Estimates

e = Morgan Stanley Research estimates

**Exhibit 1:** The increase in our Ford price target is driven by our SAAR forecast change, estimates of restructuring savings, and consideration of SOTP potential



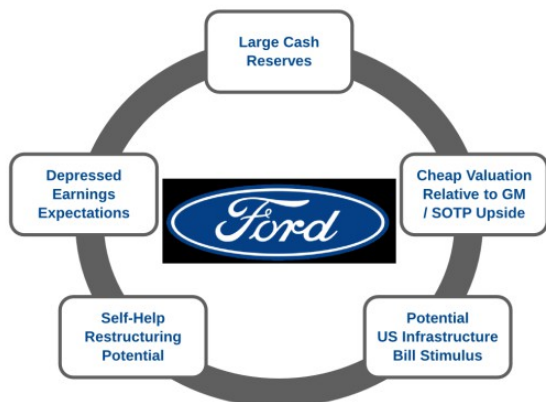
Source: Morgan Stanley Research

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strong position in US pickup trucks, where the company has outsized exposure.

**Exhibit 2:** Key Double Upgrade Drivers



Source: Morgan Stanley Research

### Key drivers of our double upgrade to OW:

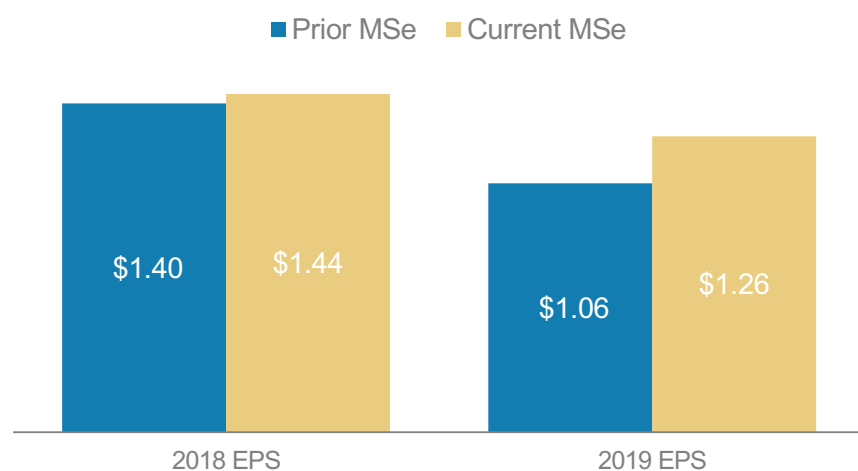
- 1. Estimates have come down significantly over the past few years.** 2018 consensus peaked at \$2.20 in 2016. Management has guided to a 2018 EPS range of \$1.45 to \$1.70 (at a 15% tax rate). We calculate the midpoint of this guidance implies an 11% YoY decline in adjusted EBIT - significantly worse than any other global OEM's guide this year. Estimates have been moving in a downward direction for years, contributing to the stock underperforming the S&P 500 by more than 150% since Jan 2011. (See [Exhibit 4](#))
- 2. Optionality to our upward US SAAR revision/potential infrastructure spending.** We estimate the F150 franchise to be worth 135% of the market cap of Ford. This product line is heavily weighted to the US market, where nonresidential construction accounts for as much 30% of demand. A recovery of the price of oil also boosts pickup truck demand more than investors may realize (Texas is the world's largest pickup truck market). Each 5% move in Ford's US pickup truck volume is worth 10% to Ford earnings (2018 base) on our estimates. Each 100 bps of US pickup truck pricing is worth 6% to earnings.
- 3. Optionality to company-specific actions, such as restructuring and strategic moves.** Ford management's presentation at the Detroit Auto Show did not calm investor concerns over the near-term or long-term direction of fundamentals, as the stock shed nearly 10% of its value in the three subsequent trading days. We have highlighted the potential for enhancing the core business (F-150), restructuring actions (20 to 40% reduction in costs), capital deployment (75% of the company's market cap is in cash and untapped liquidity), and Auto 2.0 strategy (potential spin of Ford Smart Mobility LLC) as actions substantially within the control of the Board that could change the narrative (and the valuation) of the stock.
- 4. Sentiment is extremely low.** Our discussions with investors suggest low confidence in Ford's earnings visibility and strategic vision. The product

portfolio is seen as dated and overexposed to passenger car segments. The company's Auto 2.0 strategy is not seen as cohesive and consistent. Our previous Underweight thesis highlighted risks to earnings, elevated exposure to auto credit, and a lack of strategic urgency. We believe the broader market has substantially caught up to this view and it is already discounted in the price.

**Where are we different on numbers? We're still below consensus but much less so than before. The company's 2018 guide down has substantially narrowed the gap to our forecasts.**

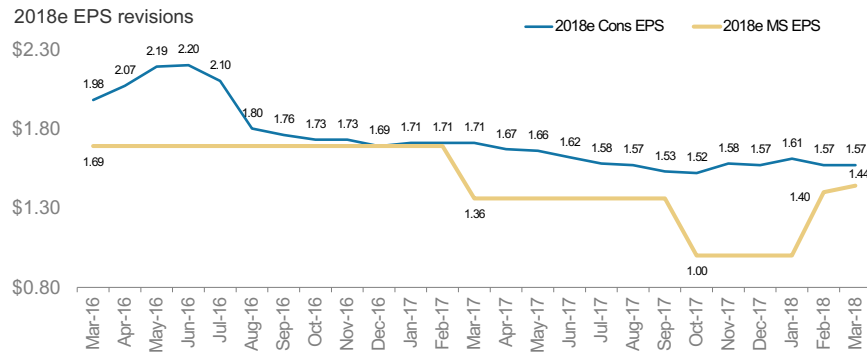
We're not trying to time the bottom of Ford's earnings estimates, but we take this opportunity to mark to market our US SAAR forecasts to include the impact of US tax reform and an auto credit environment that continues to be more supportive than we had feared over the past year. We are raising our US SAAR forecast by 2% (to 16.8mm) and 7% for each of 2019, 2020 and 2021 to 16.1mm, 16.0mm, and 16.1mm respectively. We are by no means SAAR bulls, but have become, at the margin, less bearish relative to the market. Our bull case for SAAR takes us to over 18mm units on the back of a stronger than expected economic cycle potentially helped by a larger than expected US infrastructure plan. Our bear case US SAAR takes us to 13mm units on a contraction in auto credit without any assistance from government scrappage programs.

**Exhibit 3:** We increase our earnings estimates on our SAAR forecast increase, tax reform impact, and more supportive than expected auto credit



Source: Morgan Stanley Research

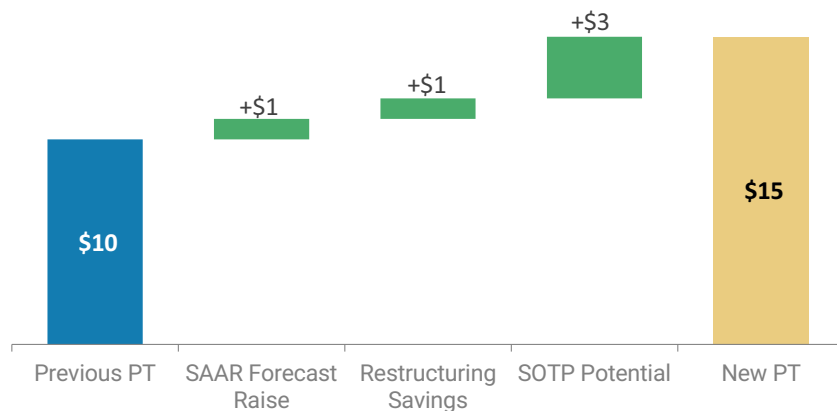
**Exhibit 4: EPS Evolution: The Gap Between our 2018 EPS and Consensus has Narrowed Meaningfully**



Source: Bloomberg, Morgan Stanley Research

**Where are we different on the multiple?** To our knowledge, investors are applying zero value to Ford on Auto 2.0. This contrasts sharply to GM, where market estimates range from a few billion dollars to many tens of billions of dollars of value for its efforts in shared, electric, and autonomous transport. Our base case fundamental valuation rises to \$12 from \$10 previously and is supported by both a 10-year DCF and a 5-year hypothetical LBO model. Of this improvement, \$1 is from our higher US SAAR forecast and \$1 is from margin improvement related to cost cutting. Our \$15 price target is derived from applying a 75% weighting to our \$12 base case and a 25% weighting to our \$25 SOTP bull case, which is unchanged. See [Exhibit 5](#). By comparison, our \$45 price target for GM is based on a 50/50 weighting between our base case and SOTP bull case while our FCA price target is entirely based on our SOTP model. Auto companies are showing an unprecedented willingness to make difficult portfolio decisions to enhance shareholder value. We see such potential emerging at Ford.

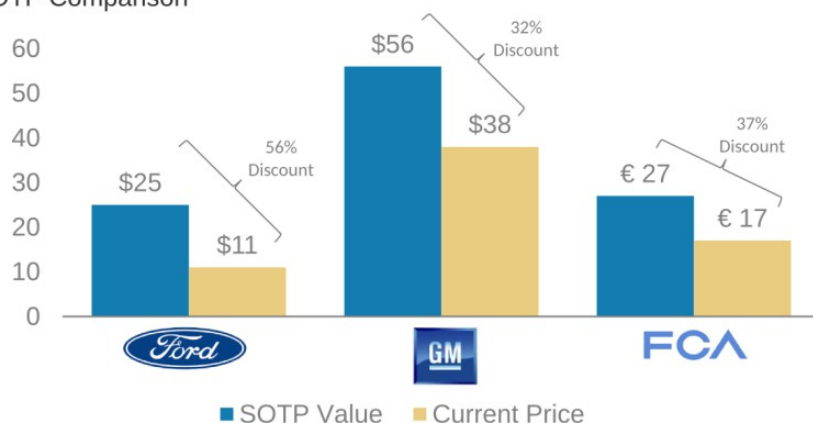
**Exhibit 5: The increase in our Ford price target is driven by our SAAR forecast change, estimates of restructuring savings, and valuation of SOTP potential**



Source: Morgan Stanley Research

**Exhibit 6: D3 SOTP vs. Current Share Price Comparison: Ford at Greatest Discount**

## SOTP Comparison



Source: Company websites, Morgan Stanley Research estimates

**Where are we different on the story?** We see Ford as an out-of-favor self-help story with room to surprise the market with cost-savings and profit repositioning potential. At its current depressed valuation level, the value of its commercial franchise (F-Series) represents a larger % of its firm value than any other OEM under our global coverage. We also believe there is potential for any US infrastructure spending to be an incremental positive for Ford, Ford has some attributes that make it arguably a **cheap machinery stock** with leverage to any infrastructure spending. Ford isn't out of the woods yet, but we think that the bar is pretty low here. Decisive strategic actions and a cessation of negative revisions can improve investor confidence in management from a low level. Some of the restructuring actions we have anticipated (including a dividend cut we have modeled as a base case) may unsettle short-term investors. All else equal, we'd be buyers of weakness.

**Key Catalysts for 2018:**

- **Restructuring actions.** These actions could include a reduction in nameplates, a rationalization of the physical footprint or an exit from certain markets (such as Latin America).
- **Strategic actions.** Greater financial transparency around Mobility. Announced partnerships with blue chip tech players could create external validation for the value of Ford's assets and data in the Auto 2.0 ecosystem.
- **Progress towards a US infrastructure bill.** While our public policy experts see a low probability of a signed bill before 2019, we see scope for the theme to enter the consciousness of investors far below completion, not unlike tax reform.

Exhibit 7: 2018 Catalyst Summary

	Potential Actions	Outcome
1 <b>Restructuring</b>	<ul style="list-style-type: none"> <li>• Headcount rationalization</li> <li>• Reduce plant footprint</li> <li>• Reduce vehicle nameplates</li> </ul>	<ul style="list-style-type: none"> <li>• Up-front cash cost</li> <li>• Higher earnings</li> <li>• Lower volatility</li> </ul>
2 <b>Repositioning</b>	<ul style="list-style-type: none"> <li>• Exit loss-making regions</li> <li>• Expand truck franchise</li> <li>• Expand commercial fleet capabilities</li> </ul>	<ul style="list-style-type: none"> <li>• Up-front cost</li> <li>• Smaller, more profitable company</li> <li>• More US-focused</li> </ul>
3 <b>Reorganization</b>	<ul style="list-style-type: none"> <li>• New reporting structure (trucks, FMC, Transport Solutions)</li> <li>• Spin-off of Ford data entity</li> </ul>	<ul style="list-style-type: none"> <li>• Unlock hidden value</li> <li>• Fosters technical collaboration and talent retention</li> <li>• Multiple expansion</li> </ul>

Source: Morgan Stanley Research

**Risks to our upgrade.** We retain our Cautious industry view on US autos as an expression of our concern about the risk-adjusted return of owning auto stocks nine years into the longest US auto cycle on record. Our concerns are compounded by our view of used car obsolescence (residual value and auto credit risks) and pressure on the business model from a move to shared, electric and autonomous transport, which can impair near-term earnings and the long-term multiple. Our upgrade of Ford to OW recognizes our view that Ford shares can outperform in a difficult environment due to low sentiment levels, self-help restructuring actions, and emerging strategic option value.

**Ford vs. GM and FCA.** We note that Ford and GM have overlapping exposures to the profitable US light truck and SUV segments. GM has substantially outperformed Ford over the past 12 months on superior earnings performance, rising expectations around its renewed pickup truck line, and a significant inflection in sentiment regarding GM's ability to derive value from Auto 2.0 initiatives. Late in 2017 we downgraded GM to EW from OW to reflect these higher expectations, which are largely discounted in the share price. We remain OW FCA on the company's demonstrated willingness to unlock sum-of-the-parts value through spin-offs but lower it on our ranking list to below Ford due to less upside to fair value. **Ford offers 40% upside to our price target with high risk. GM and FCA have 18% and 28% upside to our price targets and also feature high risk. Consequently, Ford is now our highest ranked US OEM stock and a top 3 US auto pick overall.**

## Ford Motor Company Risk Reward



Source: Thomson Reuters, Morgan Stanley Research

### Price Target **\$15**

Our price target of \$15 applies a 75% weighting to our \$12 base case valuation from our hypothetical LBO model using a 25% IRR, and a 3.5x exit EBITDA multiple plus the DCF value of the Chinese business. Our \$12 fundamental valuation is supported by a 10 year DCF with a 7.5% WACC, 4.0% exit pretax margin and 1% perpetual growth rate. From this point we adjust our base case value by applying a 25% weighting to our SOTP bull case of \$25 to reflect the potential we see for portfolio reconfiguration.

### Bull **\$25**

**10.4x Bull Case 2018e EPS of \$2.40**

**A Sum-of-the-Parts Story.** Strategic moves taken to seed a separate Auto 2.0 portfolio, Lincoln repositioned as a 'captive Tesla', potential exit or restructuring of loss-making passenger car operations.

### Base **\$12**

**8.3x Base Case 2018e EPS of \$1.44**

**US SAAR past peak, margins turn down materially and stay there.** Modest pressure on pricing from competition against new F-150. Financial sub faces pressure as credit losses rise. NorthAm margins down nearly 200 bps in 2018. Restructuring savings given back to the consumer through price-downs. Ford remains in loss-making foreign regions and gets no credit for Auto 2.0 business model monetization.

### Bear **\$6**

**10.0x Bear Case 2018e EPS of \$0.60**

**Economic and auto credit downturn: US SAAR falls below 15m by 2019 with Ford at ~15% share.** Significant pressure on pricing and mix overwhelm any incremental restructuring actions. Financial sub experiences modest asset write-downs on lease and loan portfolio. Negative European margins continue well past 2018 horizon. Ascribes zero value for Ford China.

## Why Overweight

- Earnings revisions nearing stabilization at levels materially below key peers like GM and FCA.
- Call optionality on restructuring actions create self-help potential to help offset cyclical pressure.
- Highly levered to US pickup trucks. Can see material upside from economic stimulus/US infrastructure spending.
- Cash and gross liquidity at a higher % of total market cap than any other global OEM.
- Investor sentiment is easily the lowest of any name under our US coverage.

## Potential Catalysts

- Restructuring actions. We expect Ford to announce restructuring that could shrink headcount by 10% and product portfolio by at least 20%.
- Housing starts. The correlation between US housing starts and pickup truck sales is 95% since 1990.
- Announcements of partnerships/JVs with Silicon Valley players in shared and autonomous mobility.

## Risks to Achieving Price Target

- The F-150 pickup truck leads to sustained market share gain for Ford in the pick up truck segment. Recovery of key oil-dependent end markets such as Texas.
- US SAAR resiliency near the 16 to 17mm unit level and quality of sales.
- Ford has the weakest cash flow profile of the US OEMs. Potential dividend cut could take sentiment to new lows.
- Visibility around timing and magnitude of restructuring, if any, is currently low due to lack of company guidance.

# Autos & Shared Mobility Ranking: Ford in Top 3

Exhibit 8: North America Autos & Shared Mobility Coverage Rankings - F now ranks #3 vs #16 previously

	Rank	Company	Market Cap (\$bn)	Current Price	MS PT	Upside to PT (%)	EPS (2018e)			Valuation (2018e)		Summary
							MS	Cons	% Difference	P/E	EV/EBITDA	
OW	1		6.8	28.35	43.00	52%	\$3.70	\$3.72	0%	7.7x	4.6x	
	2		7.8	44.85	54.00	20%	\$3.40	\$3.38	1%	13.2x	13.9x	
	3		42.1	10.78	15.00	39%	\$1.44	\$1.57	-8%	7.5x	2.4x	
	4		32.6	17.20	22.00	28%	€ 3.64	€ 3.24	12%	4.7x	1.6x	
	5		5.7	61.13	75.00	23%	\$9.17	\$7.69	19%	6.7x	6.4x	
	6		3.8	122.91	123.00	0%	\$6.90	\$6.53	6%	17.8x	20.2x	
	7		2.6	106.40	116.00	9%	\$8.61	\$10.45	-18%	12.4x	6.9x	
	8		4.3	48.95	57.00	16%	\$4.88	\$4.81	2%	10.0x	7.2x	
	9		4.7	50.94	49.00	-4%	\$3.64	\$4.90	-26%	14.0x	7.3x	
	10		4.0	46.91	50.00	7%	\$4.34	\$5.02	-14%	10.8x	7.7x	
	11		0.6	20.05	23.00	15%	\$1.91	\$2.28	-16%	10.5x	6.5x	
EW	12		57.8	341.84	379.00	11%	(\$6.30)	(\$6.43)	0%	NM	NM	
	13		53.2	38.01	45.00	18%	\$5.98	\$ 6.37	-6%	6.4x	2.8x	
	14		19.0	53.15	52.00	-2%	\$6.64	\$6.74	-1%	8.0x	5.1x	
LW	15		1.4	68.40	53.00	-23%	\$6.19	\$7.46	-17%	11.0x	7.0x	
	16		11.3	62.62	54.00	-14%	\$3.69	\$3.81	-3%	17.0x	10.9x	
	17		19.1	123.10	105.00	-15%	€ 3.29	€ 3.09	6%	30.5x	16.4x	
	18		12.8	191.28	149.00	-22%	\$18.56	\$19.31	-4%	10.3x	10.9x	
	19		1.7	20.47	13.00	-36%	(\$0.10)	(\$0.67)	0%	NM	9.1x	
	20		10.7	50.83	40.00	-21%	\$4.33	\$4.35	0%	11.7x	12.3x	
	21		24.1	90.90	64.00	-30%	\$5.12	\$5.17	-1%	17.8x	10.9x	
	22		1.6	74.73	53.00	-29%	\$7.29	\$9.37	-22%	10.3x	7.3x	
	23		2.9	55.45	46.00	-17%	\$7.41	\$7.61	-3%	7.5x	7.1x	
	24		1.7	15.44	16.00	4%	\$3.64	\$3.59	2%	4.2x	4.2x	

Source: Company Data, Thomson Reuters, Morgan Stanley Research



## What If Ford Were Run Like a Tech Company?

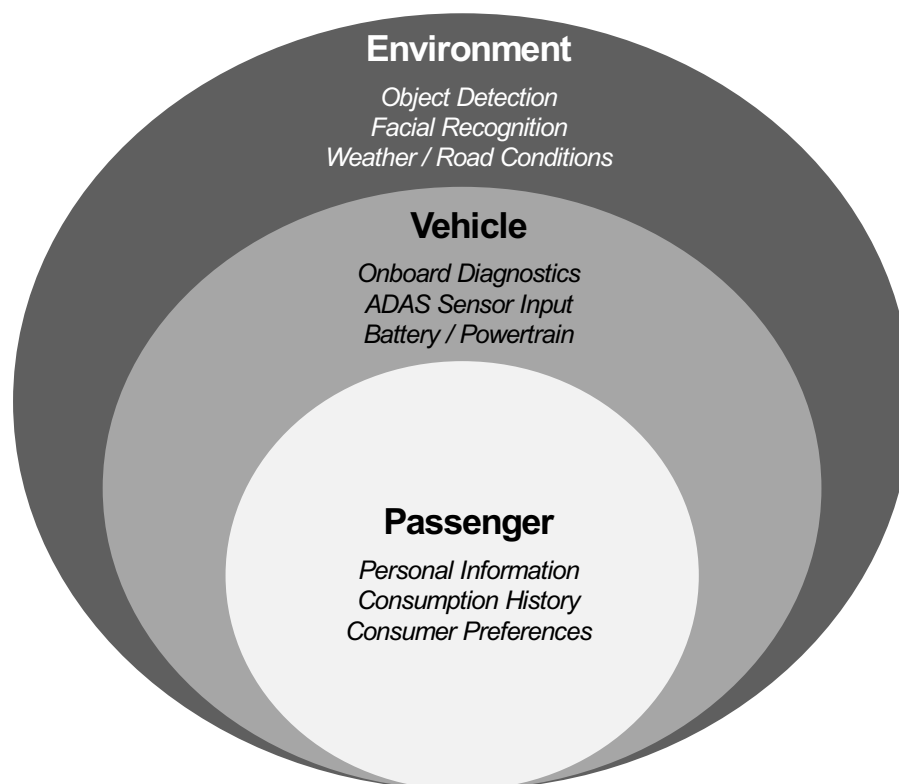
The following is adapted from our November 22, 2017 note, [What If Ford Were Run Like a Tech Company?](#)

During this time of rapid technology change and business model disruption, all OEMs are exploring areas where they may have a competitive advantage in Auto 2.0. While Ford has not garnered anywhere near the attention for its future mobility efforts as rival GM has (in part due to less management stability), we believe they have very similar levels of opportunity to capitalize upon over the next 3 to 5 years. The following addresses what in our opinion are the three most obvious and important conclusions:

- 1. Turn the car into a sensor, and harvest all the data.** Without this first step, nothing else can be done. Giving the cars the gift of intelligent data collection (a smart pipe) is the fundamental prerequisite to all adjacent monetization efforts. We estimate the cost of 'sensorizing' the car to be in the range of \$500 to \$1,000 per unit. The harder part is reengineering the complete electric architecture and operating system - a task not so difficult for players in tech land. The key here is that the OEMs own the data. Full stop.
- 2. Turn vehicle owners into service and experience subscribers.** Once Step One is complete, the OEM must then attach its data-harvesting terrestrial transport service devices to a network and a pricing mechanism based on a pay-as-you-go, application-based or monthly subscription model. Sound familiar? We estimate that an immersive transport service can yield annual income per car of \$300 to \$1,500 per year or more depending on the application. Income would be derived not so much from the transportation itself (likely executed at cost or a small loss), but through paid search, content and other areas. Payback periods can be as little as a few months to two or three years. Each 1 cent per passenger mile traveled is worth roughly \$50bn of revenue annually in the US (based on 5tr passenger miles) and \$150bn of revenue globally per annum. Our 2040 forecast of 32tr miles globally could represent 50 to 100tr passenger miles annually (depending on pooling and utilization rates), suggesting a sizeable revenue opportunity. We estimate that Ford's global fleet executes around 2bn miles per day, and GM's fleet executes in excess of 2.5bn miles per day.
- 3. Package the Auto 2.0 business in a new entity to foster growth, strategic partnerships, talent acquisition and retention.** One of the motivations for Google's creation of Alphabet (covered by Brian Nowak) was to bifurcate the monolith into operational units with more focused missions of disruption, whereby its associates could receive compensation attached to the core task at hand. We think that auto firms are beginning to get the message, as evidenced by Delphi's breakup, Autoliv's announced carve-out and the formation of legal entities by a number of auto OEMs in recent months/years. If OEMs were run like tech companies, we would imagine the need to address issues of human talent attraction, retention and motivation would be at the top of the list of human resource and corporate strategy. An Auto 2.0 Carve-out may prove essential to addressing such needs while improving financial/operational transparency and mitigating innovator's dilemma. See our September 29, 2017 report: [Auto 2.0 Carve-Out City: Why This?](#)

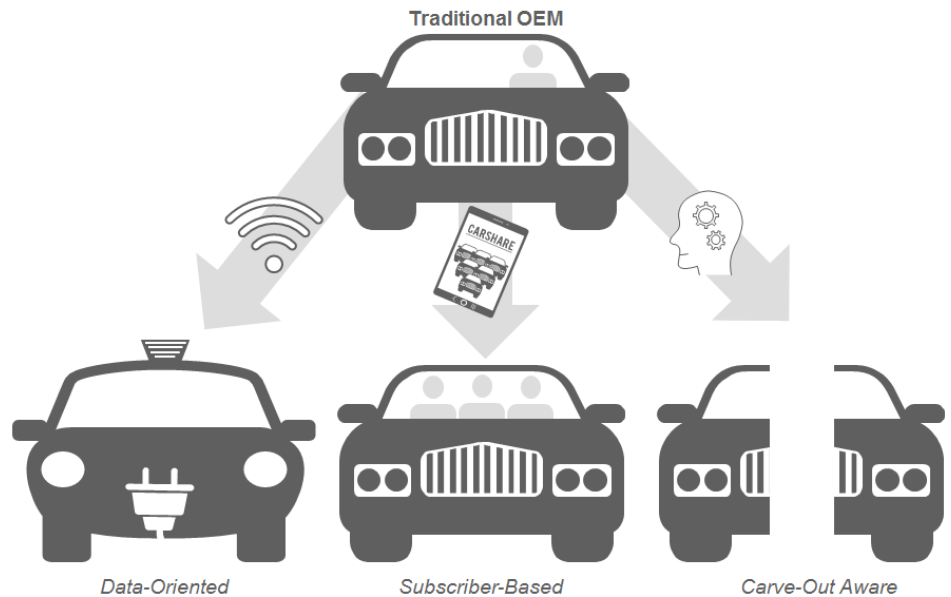
*Why Now?*

**Another thought... many internet retailers have a vested interest in driving the marginal cost of transport to zero.** Transportation is a significant cost, impacts the customer experience (speed, quality and reliability of delivery) and is ultimately a physical gating factor for the size of the addressable market for many retailers. We've seen evidence of some internet retailers wanting to bypass the last mile altogether (WMT and AMZN have made efforts in this area). As players address the last mile by itself, any effort to bring this (the most expensive part of the eCommerce supply chain) down to as close to zero cost as possible will involve drones, autonomous and electric vehicles (especially in rural areas). To quantify the magnitude of transportation opportunity, we estimate that the world's 1.2bn cars have, at any one time, a combined available package transportation volume capacity of 120bn cubic feet (1.2bn x 100 cubic feet). This is equal to the cubic volume of ~3,500 Empire State Buildings. While one may look at the world's passenger vehicle fleet as a highly underutilized transportation service, others may see it as a learning, crowd-sourced, 24-7 mobile, cloud-computing warehouse. Please see our note from October 20, 2017 for more thoughts on efforts to bring the marginal cost of transport to zero: [Amazon's EV Recharging Drone and Infrastructure](#)

**Exhibit 9:** Three Domains of Data

Source: Morgan Stanley Research

Exhibit 10: Three Steps Flow Chart



Source: Morgan Stanley Research

## Get Ready for Ford's Shared Autonomous Unit

**'Carve-out city' has become a dominant investor theme for US OEMs.** In our numerous discussions with investors on the topic, we can't help but notice a high degree of agreement that GM is far ahead of Ford in critical areas of shared mobility, and particularly, in autonomous technology. We have studied and written on the topic of IPO carve-outs for many years, and we share the following key thoughts on the topic as it pertains to Ford's next potential moves.

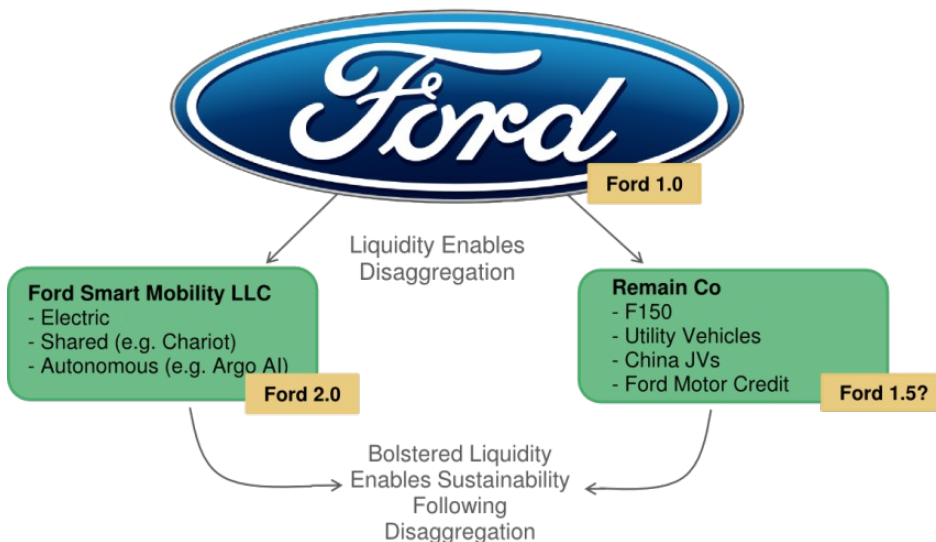
1. **Ford announced the creation of Ford Smart Mobility LLC (FSM LLC) on March 11, 2016, the same day GM announced that it bought Cruise Automation.** Ford and GM have pursued different paths to infuse their organizations with new technologies and business models, but both demonstrated broadly similar levels of awareness at around the same time.
2. **We expect Ford Smart Mobility LLC to make clear moves to increase financial transparency, emphasizing its independence within the Ford ecosystem.** Indeed, we see the very top of the organization as seeing the risks and opportunities facing Ford through the lens of its newest major legal entity. As we have written numerous times over the past 4 years, auto companies face significant challenges in attracting outside talent – a problem that can be addressed through the creation of new forms of liquidity within the organization. We believe that Ford may be making moves to specifically wall FSM LLC off from the rest of the organization.
3. **We believe the primary driver of the CEO change at Ford last May was the Board's motivation to better prepare the company for secular disruption – including execution of new business units, acquisition of talent and technology and external validation of Ford's place in the Auto 2.0 ecosystem.**
4. **In our view, Ford has a limited window of opportunity to bolster its financial fitness and align its financial, physical and human capital in a different way.** Ford is targeting \$14bn of cost reduction by 2022, which we expect will require decisive

action and up-front charges in the range of \$4-12bn. We expect Ford to take steps to bolster financial strength and de-risk the balance sheet ahead of the transition. We see an opportunity for Ford to infuse the company with even greater amounts of liquidity to derisk the transition plan during a highly uncertain economic time. Ford's bonds have rallied in recent weeks, creating an opportunity to enhance financial flexibility for a firm with over \$140bn of gross debt (including finco). We expect more details regarding the use of proceeds to generate a potential capital infusion with greater strategic and financial transparency around FSM LLC (Ford Smart Mobility LLC).

**5. We expect many (if not most) OEMs to have fleets of fully autonomous cars (with or without safety drivers) operating on public roads within the next 5 quarters.** We acknowledge Ford may be behind many OEMs, including GM, in terms of harvesting autonomous miles and developing proprietary technology today. However, one must also acknowledge that these are very early days, and the situation is extremely fluid. Many investors have ascribed billions of value for autonomous to GM (some of which may be deserved), but to our knowledge, have ascribed no value to Ford. We wonder if the stock market would still overlook value attribution to Ford if the company were to clearly isolate and capitalize an entity working in partnership with one or more third party tech/data player(s). There are 50 entities with self-driving car licenses in California alone. If Ford were to own one of Cruise Automation's competitors at a reasonable price with the right strategy, would the stock market look the other way?

**Cost and financial fitness increases in importance ahead of industry strategic disruption.** We are preparing for a more independent future for Ford Smart Mobility LLC (FSM LLC). It is our working assumption that most, if not substantially all, of the world's global auto companies are seeding captive entities focused entirely on shared, autonomous and electric mobility. More specifically, we see Ford's captive mobility company (FSM) as also potentially positioned to acquire talent, capital and pursue a business plan from outside the control of the parent company. While such a move may have its benefits, it can potentially increase the vulnerability of a 'remain co' without achieving a higher level of cost efficiency and financial fitness.

**Exhibit 11:** Transformation of Ford into Auto 2.0 Requires Strengthened Financial Position



Source: Morgan Stanley Research

**Key investment message:** We believe Ford is in the early phase of a series of steps to be taken to (1) address costs, (2) improve financial strength, and (3) strategically reposition the business. We view cost reduction, restructuring, liquidity enhancement and operational changes as all bonded together by strategic repositioning.

We continue to be left with the impression that Ford has high levels of awareness of the challenges ahead at both the board and senior management level. We expect Ford to take bold and decisive action to preempt the challenges before they become acute. While some investors may understandably be frustrated with the lack of details and transparency, in our view, the window of opportunity is still open for them.

## How Might Ford Deploy Its Fortress Balance Sheet?

**Given Ford's announced cost savings and commercial objectives, we await management's plan for liquidity deployment to help us gain a better understanding of Ford's long-term strategic direction.** Following the appointment of a new CEO, some key recent departures (including Ford's head of strategy, head of China and head of N. America), and continued share price underperformance, we believe that there is a certain level of urgency for Ford management to provide clarity about its strategic plans heading into 2018. Specifically, at the end of 2017, Ford had \$37bn of total automotive liquidity (\$26.5bn gross cash and \$10.9bn of available credit line). Ford has grown this number by roughly \$10bn over the past seven years. **We explore three high-level potential key uses of Ford's balance sheet below.**

### Three High-Level Potential Uses of Ford's Cash on the Balance Sheet:

- 1. Restructuring.** Should Ford conclude that restructuring actions are required to reposition the company's strategy and product portfolio, we estimate that Ford may need to take a restructuring charge in the range of \$4bn to \$12bn to execute longer-lasting improvements in the business. Within our \$8.5bn base case for restructuring charges, we estimate cash restructuring charges of approximately \$4bn, including \$2bn from headcount reduction (10% of global workforce), \$0.9bn of pension funding and \$1bn of other cash charges to address fixed costs. We note that at its recent investor day, Ford management said that its previously announced \$14bn of cost reduction targets (mostly cost avoidance of previous spending targets) would be achievable without restructuring actions. Nevertheless, we can envision scenarios in which restructuring actions might turn out to be desirable in order to address a broader scope of cost challenges and put Ford on a more secure long-term footing.
- 2. Auto 2.0 Funding.** It is our understanding that Ford is making moves to further compartmentalize the activities of Ford Smart Mobility LLC (FSM LLC). Ford's Auto 2.0 unit (founded in 2016), based in Palo Alto, California, is a wholly owned subsidiary of Ford Motor Company. Ford's CEO Jim Hackett remains chairman of FSM LLC. The unit's initiatives are focused on new business models in mobility, with an emphasis on autonomous transport solutions. Under the Ford parent, FSM LLC has a separate reporting structure, separate finance staff, and separate business development personnel. Having studied the capital needs of a number of autonomous car/new mobility startups, we understand the propensity for such businesses to consume cash, particularly when applied to high volume. For example, we estimate that GM's Cruise Automation vehicles (endowed with 40 sensors) may cost as much as \$250k to \$300k each to produce. Production of a few thousand of these makes the costs add up pretty fast. Amongst a very wide range of outcomes, we can imagine FSM LLC's investment needs (vehicles, operating costs, M&A needs, etc.) to total as much as several billion dollars. At a time when the market appears willing to re-rate companies with a clear and aggressive strategy on Auto 2.0, we expect that Ford could make moves to address this by early to mid 2018, which could result in a significant deployment of capital.
- 3. Margin of Safety.** We have expressed in our research some profound concerns

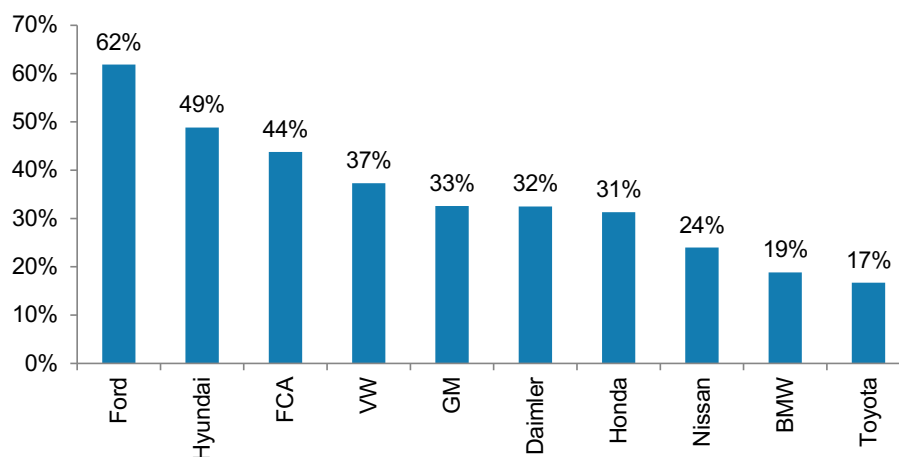
about the sustainability of the current auto credit cycle and the Auto 1.0 business model, pressuring returns in an unprecedented way. Ford Chairman William Clay Ford Jr. (the great grandson of founder Henry Ford) and many in his team have experience with existential challenges from the great financial crisis in 2008 and 2009. We are entering the ninth year of one of the greatest auto credit cycles on record, and we believe that a more challenging environment is ahead. With that in mind, and given the well-documented propensity for OEMs to absorb extremely large amounts of liquidity in a short amount of time during periods of cyclical downturn, it is no wonder that so many of the OEM management teams that we speak with project a desire to keep spare liquidity around to absorb economic volatility outside of their control. Our calculations indicate that, hypothetically, a company of Ford's size could consume as much as \$10bn of cash in a 12-18 month period in a severe economic downturn. In our view, Ford may want to hold off on a significant capital deployment during a time when uninterrupted strategic actions may be required over a multi-year period.

**Exhibit 12: Ford Automotive Gross Liquidity (2009-2017)**

Automotive Division		FY-2009	FY-2010	FY-2011	FY-2012	FY-2013	FY-2014	FY-2015	FY-2016	FY-2017
Gross Cash (in bn)		24.9	20.5	22.9	24.3	24.8	21.7	23.6	27.5	26.5
Unutilized Credit Line										
Revolving Credit Facility		0.2	6.9	8.8	9.5	10.7	10.1	10.3	10.2	10.3
Local lines available to foreign affiliates		0.5	0.5	0.7	0.7	0.7	0.6	0.6	0.6	0.6
Available Credit Line (in bn)		0.7	7.4	9.5	10.2	11.4	10.7	10.9	10.8	10.9
<b>Total Automotive Liquidity</b>		<b>25.6</b>	<b>27.9</b>	<b>32.4</b>	<b>34.5</b>	<b>36.2</b>	<b>32.4</b>	<b>34.5</b>	<b>38.3</b>	<b>37.4</b>

Source: Company Data, Morgan Stanley Research

**Exhibit 13: Peer OEM Comparison: Gross Cash as % of Market Capitalization**



Source: Company Data, Morgan Stanley Research

## Risks to Our Upgrade

Our change of view on Ford is intended to capture where expectations may be sufficiently low, where there may be overlooked call optionality to factors within the company's control (restructuring and strategic repositioning) and where there may be call optionality for factors outside of the company's control (i.e. better than expected economic growth, a larger than expected US infrastructure bill). That said, there are risks to our upgrade including:

- 1. US auto cycle risk.** Despite raising our forecasts for US SAAR modestly, we remain more cautious than the Street on both US industry volume as well as new and used car pricing. Our more cautious views on NA vehicle pricing and mix are driven by our concerns that used car values (currently at a peak) are cyclical and poised for a even more severe downturn than previous cycles due to the higher-than-ever starting point and an impairment in useful life of vehicles with internal combustion content without connectivity and automated features. Elevated R&D and capital expenditures required to manage the transition to Auto 2.0 also weigh on our Ford forecasts as they do for other OEMs.
- 2. Ford has materially higher exposure to financial services than either GM or FCA, which exacerbates our concerns around the sustainability of auto credit and the risk of used car obsolescence.** Ford has \$14.5bn of managed receivables in its financial service segment, an amount equal to 300% of its market cap. By comparison, GM's financial services assets are equal to 125% of its market cap. Ford's very large finco, while a benefit during many parts of the automotive cycle, could prove to be a burden if our forecasts for used car prices and auto consumer credit come to fruition.
- 3. Unlocking SOTP potential is likely to be more difficult for Ford than for its domestic peers.** While we introduce a Ford SOTP model to help identify the relative areas of potential value creation and erosion within the enterprise, Ford has not yet shown enough willingness to take the steps necessary to address areas of pain and to unlock areas of value. Compared to GM, which recently exited its long-struggling European operations (Opel), we believe Ford may have a more difficult time taking similar measures due to the fact that the Ford brand accounts for over 95% of its global volume (excluding Lincoln), a result of Ford's emphasis on global/European-originated platforms across its very large passenger car lineup.

**Our upgrade also gives the company some credit for improving its financial and operational fitness through decisive restructuring actions... leaving risk of non-action or execution risk that could adversely impact the share price vs. our expectations.** We see a roadmap for Ford to pursue a variety of restructuring moves to address the declining trend in earnings we have forecasted (see our [Ford Restructuring Roadmap](#) published October 16), which could turn sentiment positive in a material way. Highlighting hidden value in the firm through potential divestitures, acquisitions, joint-ventures or new partnerships is partially embedded in our \$15 target. We argue the current share price does not give Ford credit for successful execution in such areas.



## Valuation: Ford is Relatively Cheap on Multiples and our DCF/LBO Framework and Extremely Cheap on SOTP

**Our Ford Sum-of-the-Parts Model underpins our \$25 bull case.** While we have had to make a wide number of assumptions within our sum-of-the-parts model, we believe the exercise is useful to help identify areas where the company is performing well and others where it is struggling. **A few of the preliminary SOTP takeaways include:**

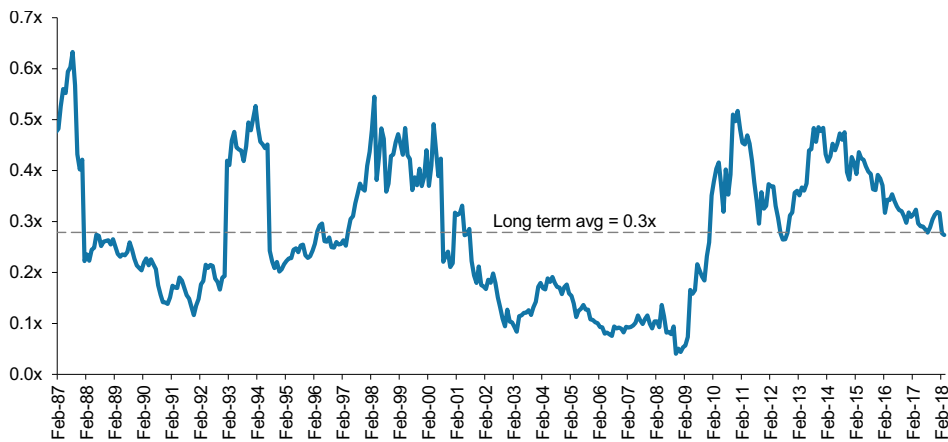
- **We value the F-Series franchise at \$16/share (est. 25% EBITDA margins at 6x EBITDA) or roughly 130% of Ford's entire market cap.** Adding in the value of Transit, Ranger and E Series (ex China) takes our estimate of Ford's broader truck business at nearly \$20 per share (before net cash and pensions) or 160% of Ford's market cap.
- **We value the Ford Europe, S. America and Asia Pacific (excluding China JVs, trucks and SUVs) at slightly less than zero.** Within Ford's international businesses, we value Ford Europe at negative \$2bn (before pension liability)... not too dissimilar a valuation to what GM crystalized when it exited Opel earlier in the year.
- **Ford Future (Argo AI, other autonomous tech, Chariot, EV assets/IP and Lincoln ex-China) valued at \$3bn or \$0.74 per Ford share.** We believe it is extremely difficult for investors to value a collection of businesses that do not yet have revenue. Similar to our inclusion of Cadillac in the GM Revolution (Auto 2.0) valuation in our SOTP, we believe Lincoln is well suited to serve as a working physical structure for Ford's advanced technology in a shared mobility model.
- **We solve for over 900k units of N. American volume that may be responsible for as much as \$5k or \$6k per unit loss on our 2018 forecasts.** We allow for charges and loss absorption of \$9bn (1.5x EBITDA) to be commensurate with these losses. \$9bn is a very rough estimate of the cash charges we believe may be necessary to address excess capacity in this area.

**On current year sales and EBITDA, Ford is attractively to fully valued vs. history.** The historical valuation charts we present include the Ford stock price as it actually traded, not adjusting for the spin offs of Visteon in 2000 and Associates First Capital in 1998. The charts also calculate enterprise value excluding the pension and healthcare (OPEB) liabilities. The valuation matrix on the following page includes pension and OPEB in the enterprise value on a tax adjusted basis.

- **Price/Sales:** Ford trades at 0.27x P/Sales (2018), in line with its historical average of 0.28x. We could argue for a premium vs. history due to lower legacy liabilities although Ford still has large pension liabilities and calls on cash (restructuring)
- **EV/Sales:** Ford trades at 0.21x EV/Sales (ex legacy liabilities) vs. an historical average of 0.24x.
- **EV/EBITDA:** Ford trades at 2.4x EV/EBITDA in 2018 before legacy vs. a historical average of 2.8x. These multiples are on earnings that are not depressed by historical standards but lagging many of its global peers in margin terms.

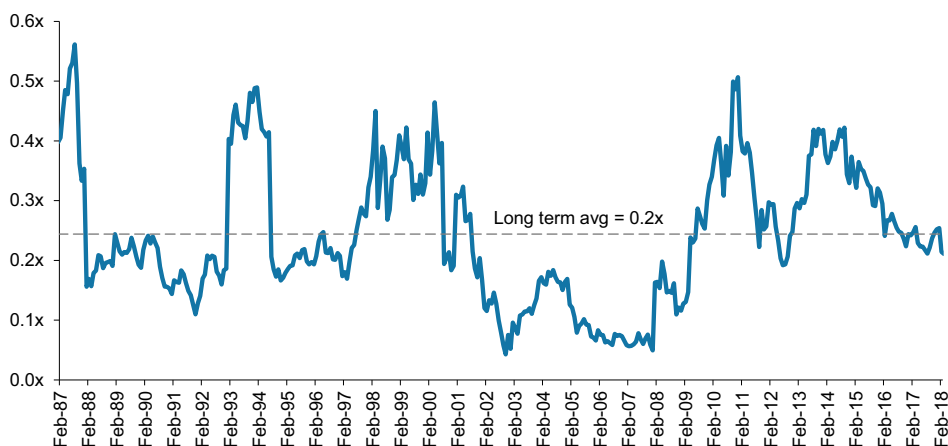
- Price/Earnings:** On a basic shares outstanding basis, Ford trades at 7.5x our 2018 EPS estimate, well under its long-term average of 10.4x (although its history of profit is admittedly patchy due to long periods of net losses).

**Exhibit 14:** Ford: Price/Sales, 1987 to 2018

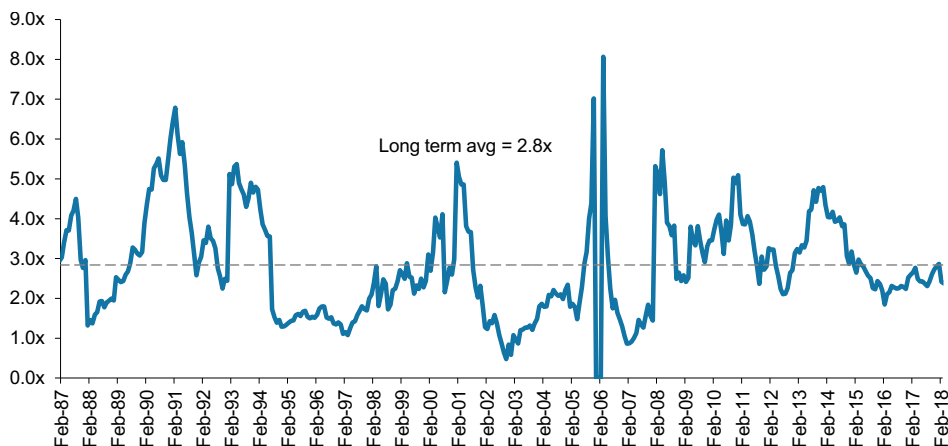


Source: Thomson Reuters, Morgan Stanley Research

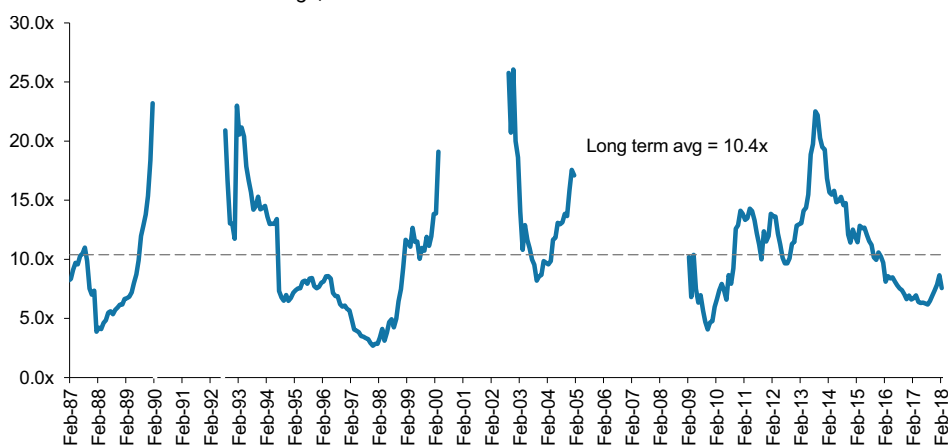
**Exhibit 15:** Ford: EV/Sales, 1987 to 2018



Source: Thomson Reuters, Morgan Stanley Research

**Exhibit 16: Ford: EV/EBITDA, 1987 to 2018**

Source: Thomson Reuters, Morgan Stanley Research

**Exhibit 17: Ford: Price/Earnings, 1987 to 2018**

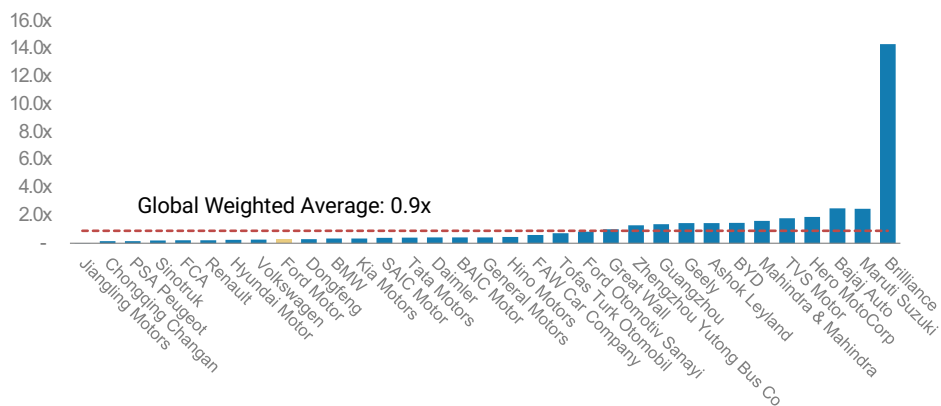
Breaks in the line indicate times of negative earnings and a NM Price/Earnings ratio.

Source: Thomson Reuters, Morgan Stanley Research

**Ford valuation is in line or cheaper than global auto company averages.** Ford appears priced to generate no more than \$1 of through-cycle EPS, implying a 3.0% global Auto OP margin and \$2bn of Finco EBIT. Even on our below consensus forecasts, Ford should earn well above this level through 2020.

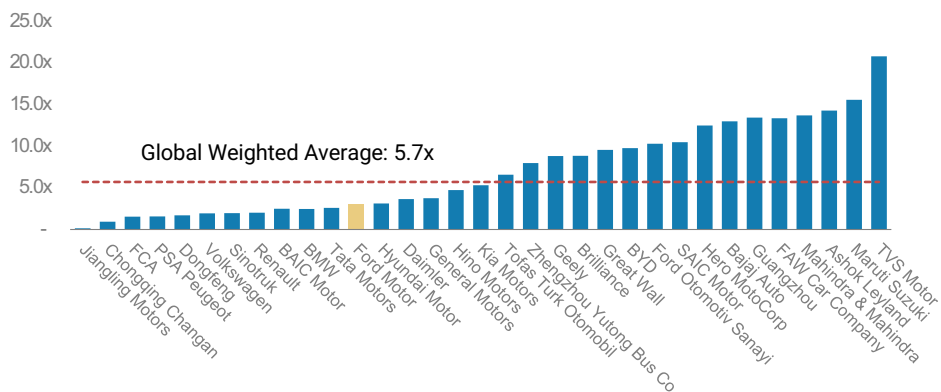
- **EV/Sales:** Ford's trades at 0.21x EV/Sales, compared to the European sector weighted average of 0.31x and North America at 0.26x.
- **EV/EBITDA:** Ford (at 2.4x) trades in line with European OEMs (at 2.6x) and cheaper than GM (2.8x), compared to a global weighted average of 5.7x.
- **Price/Earnings:** Ford (at 7.6x) appears cheaper (10.6x global average) on this metric due, in part, to the lowered US tax rate.

**Exhibit 18: Global OEMs EV/Sales, 2018e**



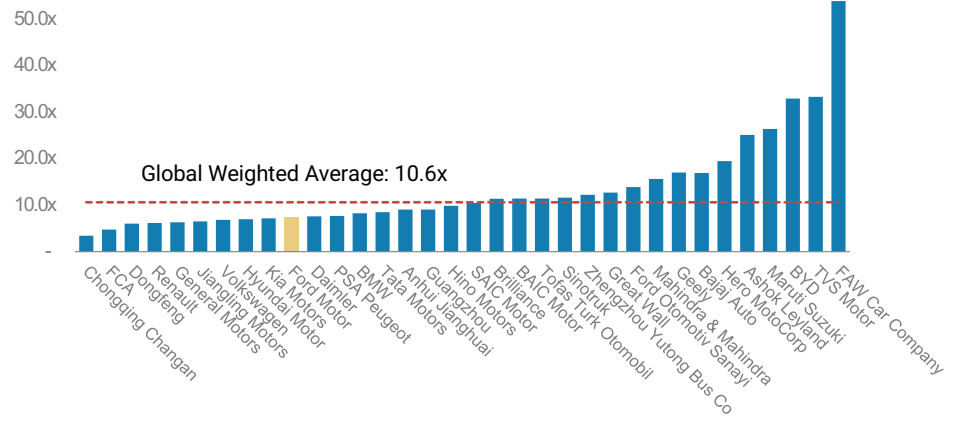
Source: Thomson Reuters, Morgan Stanley Research

**Exhibit 19: Global OEMs EV/EBITDA, 2018e**



Source: Thomson Reuters, Morgan Stanley Research

Exhibit 20: Global OEMs Price/Earnings, 2018e



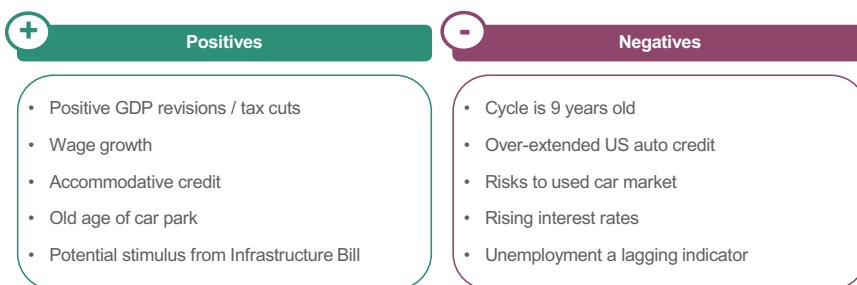
Source: Thomson Reuters, Morgan Stanley Research

## Leverage to US SAAR Forecast and Pickup Demand.

**We are adding nearly 1 million units to our US sales forecast annually through 2021 and raising estimates and price targets for exposed OEMs, suppliers, and dealers.** This upward revision represents slightly more than a 5% increase vs. our prior forecast. Please see our SAAR Forecast change note, published this morning, [Raising US SAAR Forecast: Falling to a Higher Baseline](#).

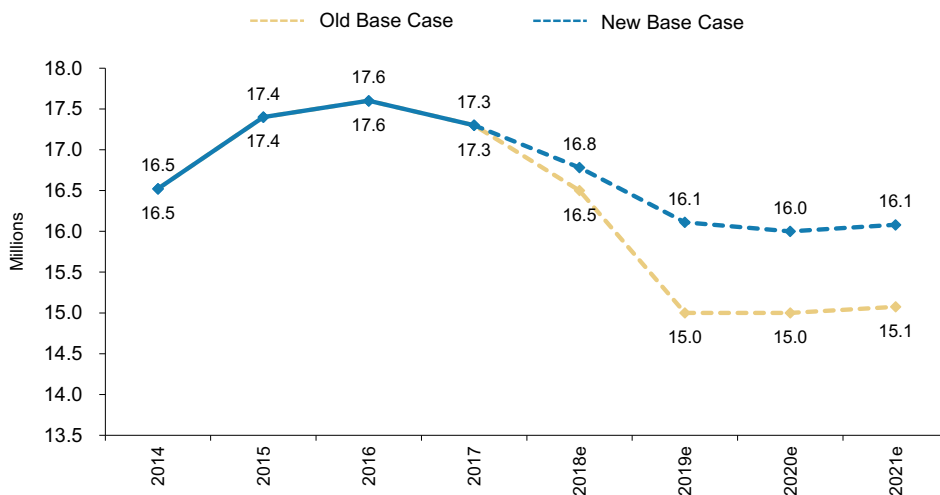
**Our average US SAAR forecast is still well below last year's 17.3mm units and is 8% below the cyclical high of 17.6mm achieved in 2016.** The last time we changed our US light vehicle forecast was June 2017. Our revised forecast is mainly an economic true-up for factors that have stimulated the overall economy.

**Exhibit 21: Key Drivers of US SAAR Outlook**



Source: Morgan Stanley Research

**Exhibit 22: Our new SAAR base case forecasts are an average of 850k units per annum higher than our prior forecasts through 2021**



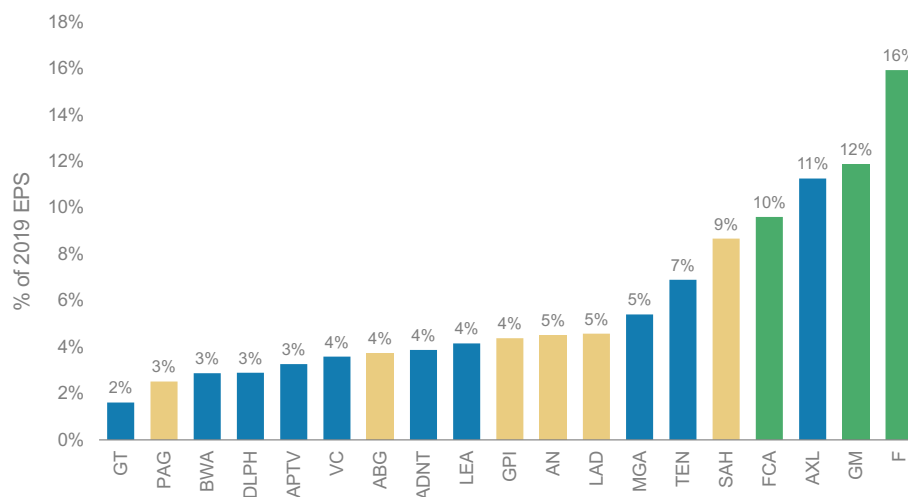
Source: Motor Intelligence, Morgan Stanley Research

Ford: Estimates rise materially from the most depressed base of the Detroit OEMs.

- **Exposure.** Ford derives 60% of revenues and over 100% of EBIT from N. America (including NA related financial services profit).

- Impact from higher US SAAR estimate.** Our US SAAR forecast change added 28k units to our 2018 forecast and around 85k units to each of 2019, 2020 and 2021 (higher base). At an average transaction price of \$32/unit in N. America, the change adds roughly \$2.8bn to our annual Ford NA revenue forecast from 2019 through 2021 on which we apply a 20% variable margin and nearly \$600mm to annual profit in the out years.
- Raw material inflation/Section 232.** Ford had already guided to a sizeable step-change inflation in raw material costs embedded in their full year outlook. Inflation from Section 232 would add further headwinds but mainly in 2019 and 2020 on our forecast. We have added a couple hundred million \$ of incremental headwind in each of 2019 and 2020. On aggregate, we forecast a combined \$2.5bn of combined materials and commodities headwinds hitting Ford profit from 2018 through 2020. That’s nearly 280bps of margin which we have not assumed is passed onto the consumer.
- Net impact on EPS.** Our 2018 EPS rises marginally to \$1.44 from \$1.40. Our 2019 and 2020 forecasts rise by roughly 20% from a depressed base as the impact of our higher volume forecast and incremental cost savings more than offsets incremental raw material inflation which we had already mostly factored into our estimates. Our 2021 EPS rises by nearly 40%. Again, law of small numbers at work and a taste of the operating leverage in the business. Our 2021 EBIT margin increased by no more than 100bps (from 4.1% to 5.1%). For perspective, even our 2021 group EBIT margin assumption is 100bps lower than what Ford achieved in 2017 and is 240bps lower than what Ford did in 2016.
- Net impact on price target.** The earnings changes from higher US volume and greater credit for cost savings net of raws drove our core company valuation to \$12 from \$10 previously. A first time layering the strategic premium from potential portfolio restructuring (25% weighting to bull case \$25 SOTP valuation) results in the \$15 target.

**Exhibit 23: US Autos & Shared Mobility coverage EPS Sensitivity to a 5% Change in US Auto Sales**

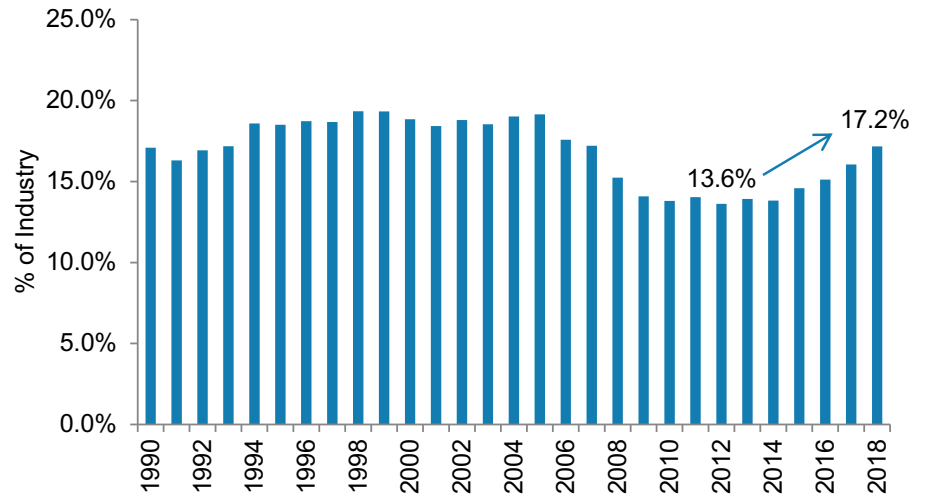


Source: Company filings, Morgan Stanley Research

**US pickup truck sales have recovered from a cyclical bottom over the past 8 years.** A high average age of US pickup trucks on the road (approximately 15 years) suggests

pent-up demand for a market that has a demonstrated historic precedent to remain in 15 to 20% range of total US light vehicle sales for many consecutive years.

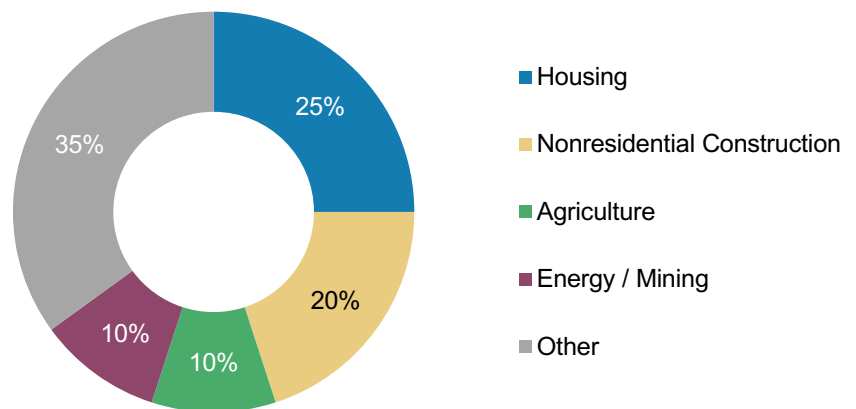
**Exhibit 24:** Historical US Pickup Truck Sales (1990 - 2018YTD)



Source: Morgan Stanley Research; Motor Intelligence Data

After US housing, nonresidential construction activity represents the largest end market for US pickup truck sales. Based on our discussions with OEMs, the biggest portion of the 'other' 35% of pickup demand is from life-style end markets which can be stimulated by underlying economic growth created by enhanced infrastructure spending.

**Exhibit 25:** US Pickup Truck Sales by End Market



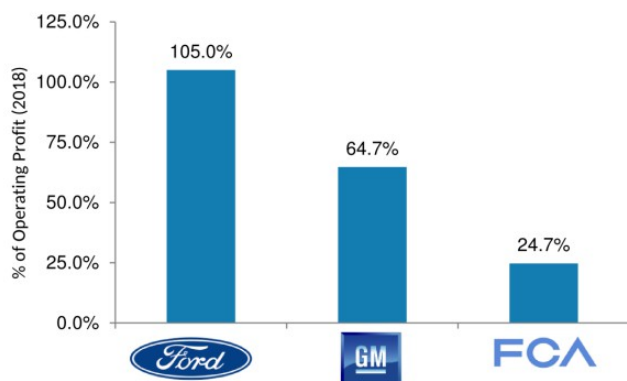
Source: Morgan Stanley Research estimates, D3 OEM data

**Many investors we speak with don't realize just how much pickup demand accounts for the profitability and value of the Detroit OEMs.** They are so exposed, in fact, that one could argue they are hybrid machinery companies, particularly when seen as a proportion of overall profit and relative to their market capitalization. Using our 2018 forecasts as a reference year, we estimate Ford's N. American F-series franchise accounts for more than 130% of its market value and nearly 170% of its enterprise value. For GM, we estimate the value of its Silverado and Sierra pickups account for more than one half



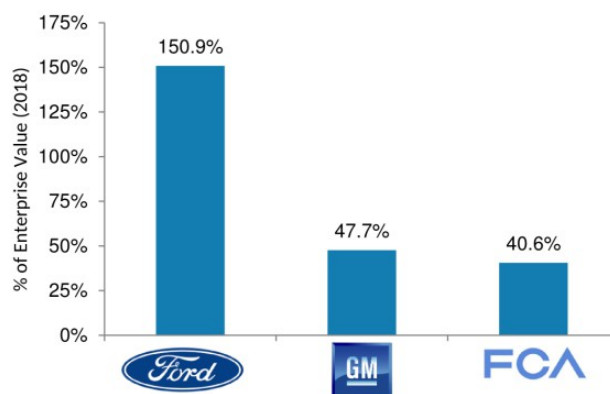
of its market cap. We estimate RAM accounts for nearly one third of FCA's market cap.

**Exhibit 26:** D3 Pickup Truck as a % of Total Operating Profit



Source: Morgan Stanley Research, IHS Data, Company Data

**Exhibit 27:** D3 Pickup Truck as a % of Total Enterprise Value



Source: Morgan Stanley Research, IHS Data, Company Data

**The potential earnings impact from any infrastructure spending on the OEMs is significant.** We have run an earnings sensitivity on incremental segment growth ranging from 10 to 20% (accumulated over a 3 to 5 year period). Given the multi-year nature of any infrastructure program, any benefit to auto companies will accrue over a period of time - not concentrated into any one given year. Incremental margins on pickups are comfortably in the 25 to 30% range or \$10k to \$12k per unit when considering average transaction prices of pickup trucks are at least 50% higher than the average full sized sedan. Each 10% move in NA pickup production is significantly accretive to Ford (19% on a 2018 EPS base), with material accretion to GM (12%) and FCA (7%).

**Exhibit 28:** D3 Pickup Truck Earnings Sensitivity Analysis

**Value of Move in US Pickup Truck Production**

	10.0%			15.0%			20.0%		
	F	GM	FCA	F	GM	FCA	F	GM	FCA
Volume	101,672	101,463	64,528	152,508	152,195	96,792	203,344	202,927	129,056
Revenue	4,270	4,059	2,080	6,405	6,088	3,121	8,540	8,117	4,161
Operating Profit	1,281	1,218	520	1,922	1,826	780	2,562	2,435	1,040
Incremental Margin (%)	30%	30%	25%	30%	30%	25%	30%	30%	25%
EPS (\$)	0.27	0.69	0.29	0.41	1.04	0.44	0.54	1.39	0.59
2018 EPS (\$)	1.45	5.98	4.52	1.45	5.98	4.52	1.45	5.98	4.52
<b>Accretion / Dilution (%)</b>	<b>18.7%</b>	<b>11.6%</b>	<b>6.5%</b>	<b>28.1%</b>	<b>17.4%</b>	<b>9.8%</b>	<b>37.4%</b>	<b>23.2%</b>	<b>13.0%</b>

Source: Morgan Stanley Research, IHS Data, Company Data

## Ford's Bull Case - SOTP Valuation

Exhibit 29: Ford Sum-of-Parts Model

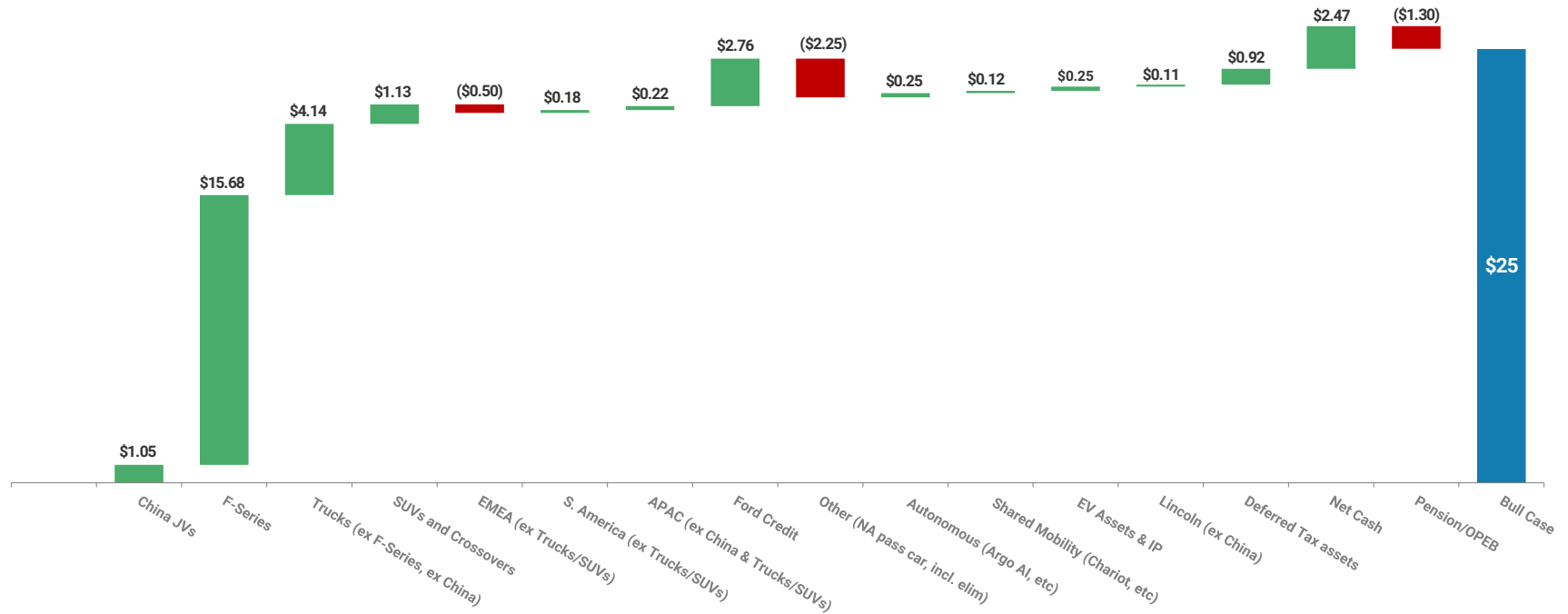
### Ford Sum-of-Parts Model

(\$mm except per share items)

	2018e			Multiple		Value	Value Per Share (\$)	
	Units	Sales	EBITDA	Sales (%)	EBITDA (x)			
<b>Ford Core</b>								
Ford China (JVs)	1,299,400			(DCF Model)		5,897	1.47	
Ford F-Series	997,090	41,878	10,469	150%	6.0	62,817	15.68	
Ford Transit, Ranger, E Series (ex China)	920,503	27,615	4,142	60%	4.0	16,569	4.14	
SUVs and Crossovers (Expedition, Explorer, Bronco, ex Ch)	357,938	10,738	1,289	42%	3.5	4,510	1.13	
Ford Europe + Middle East & Africa (ex Trucks/SUVs)	1,211,540	21,808	218	NM	NM	-2,000	-0.50	
Ford S. America (ex Trucks/SUVs)	317,463	4,762	143	15%	5.0	714	0.18	
Ford Asia Pacific (ex China JVs, ex Trucks/SUVs)	220,093	4,402	176	20%	5.0	880	0.22	
Ford Credit		8,233	2,000			10,400	2.60	
Other (NA pass car, including elim)	1,067,287	33,998	-4,520	NM	NM	-9,000	-2.25	
<b>Total Ford Core</b>	<b>6,391,313</b>	<b>153,434</b>	<b>13,917</b>			<b>90,787</b>	<b>22.66</b>	
<b>Ford Future</b>								
Ford Autonomous (Argo AI, etc)						1,000	0.25	
Ford Shared Mobility (Chariot, etc)						500	0.12	
Ford EV Assets & IP						1,000	0.25	
Lincoln (ex China)	114,962	4,598	92	10%	5.0	460	0.11	
<b>Total Ford Future</b>	<b>114,962</b>	<b>4,598</b>	<b>92</b>			<b>2,960</b>	<b>0.74</b>	
<b>Total Company</b>	<b>6,506,275</b>	<b>158,032</b>	<b>14,009</b>	59%	6.7	<b>93,747</b>	<b>23.40</b>	
						Net Cash	10,553	2.63
						Pension	-5,016	-1.25
						<b>Equity Value</b>	<b>99,284</b>	<b>24.78</b>
						Current Price		12.66
						Premium (discount) to SOTP		-48.9%

Source: Company Data, IHS, Morgan Stanley Research

Exhibit 30: Ford Bull Case Bridge



Source: Morgan Stanley Research

# Global OEM Comps

Exhibit 31: Global OEM Comps

Company	Currency	Price at 13-Mar	MS Price Target	Upside to PT (%)	MS Rating	Market Cap		MS EPS		Consensus EPS		Dividend Yield	P / E		EV / EBITDA <sup>(1)</sup>		EV / Sales <sup>(1)</sup>		P / B		
						LC	US\$	2018e	2019e	2018e	2019e		2018e	2019e	2018e	2019e	2018e	2019e	2018e	2019e	
<b>Europe<sup>(1)</sup></b>																					
Volkswagen	EUR	154.52	160.00	4%	EW	78.4	96.5	22.70	20.58	26.39	27.90	1.3%	6.8x	7.5x	2.0x	1.8x	0.3x	0.2x	0.7x	0.6x	
Daimler	EUR	67.71	72.00	6%	EW	72.4	89.2	8.94	8.46	9.46	9.61	5.3%	7.6x	8.0x	3.7x	3.7x	0.4x	0.4x	0.9x	0.8x	
BMW	EUR	84.63	90.00	6%	UW	50.9	62.8	10.24	9.60	11.09	11.50	4.7%	8.3x	8.8x	2.5x	2.5x	0.3x	0.3x	1.0x	0.9x	
PSA Peugeot	EUR	18.89	16.00	(15%)	UW	17.1	21.1	2.46	2.48	2.50	2.90	2.8%	7.7x	7.6x	1.6x	1.5x	0.1x	0.1x	1.2x	1.1x	
Renault	EUR	94.23	88.00	(7%)	UW	27.9	34.3	15.24	14.94	16.20	16.77	3.3%	6.2x	6.3x	2.0x	2.0x	0.2x	0.2x	0.8x	0.7x	
Europe Weighted Average												3.5%	7.3x	7.8x	2.6x	2.5x	0.3x	0.3x	0.9x	0.8x	
<b>North America</b>																					
General Motors	USD	38.01	45.00	18%	EW	53.2	53.2	5.98	5.05	6.37	6.39	4.0%	6.4x	7.5x	2.8x	3.1x	0.3x	0.3x	1.1x	0.9x	
Ford Motor	USD	10.78	15.00	39%	OW	42.1	42.1	1.44	1.26	1.57	1.51	5.6%	7.5x	8.6x	2.4x	2.4x	0.2x	0.2x	1.1x	1.0x	
FCA	EUR	17.20	22.00	28%	OW	26.5	32.6	3.64	3.14	3.24	3.39	N/A	4.7x	5.5x	1.6x	1.4x	0.2x	0.2x	1.0x	0.8x	
North America Weighted Average												4.7%	6.3x	7.3x	2.4x	2.5x	0.3x	0.3x	1.1x	0.9x	
<b>China</b>																					
SAIC Motor	CNY	36.92	40.00	8%	OW	431.4	68.2	3.52	3.77	3.32	3.60	4.4%	10.5x	9.8x	10.5x	9.6x	0.4x	0.4x	1.7x	1.6x	
Geely	HKD	26.50	30.00	13%	EW	237.8	30.3	1.56	1.91	1.54	2.01	0.5%	17.0x	13.9x	8.8x	6.9x	1.5x	1.1x	4.2x	3.2x	
Brilliance	HKD	19.70	30.00	52%	OW	99.4	12.7	1.73	2.12	1.48	1.93	0.5%	11.4x	9.3x	8.9x	7.2x	14.3x	13.6x	2.1x	1.6x	
BYD	HKD	76.55	51.50	(33%)	EW	70.0	8.9	2.33	3.18	2.39	3.01	0.3%	32.9x	24.1x	9.8x	7.9x	1.5x	1.1x	2.9x	2.7x	
Zhengzhou Yutong Bus C	CNY	24.18	26.00	8%	OW	53.5	8.5	1.98	1.75	1.90	2.00	4.1%	12.2x	13.8x	8.0x	8.6x	1.3x	1.3x	2.9x	2.6x	
Guangzhou	HKD	17.98	20.00	11%	EW	39.8	5.1	1.99	2.18	1.89	2.13	2.0%	9.0x	8.2x	13.4x	11.3x	1.4x	1.2x	1.5x	1.3x	
Dongfeng	HKD	10.08	12.00	19%	OW	28.8	3.7	1.67	1.75	1.65	1.71	2.5%	6.0x	5.8x	1.7x	1.1x	0.3x	0.2x	0.6x	0.5x	
Great Wall	HKD	8.94	12.00	34%	OW	27.7	3.5	0.70	0.78	0.86	0.96	4.4%	12.7x	11.5x	9.6x	8.6x	1.0x	1.0x	1.2x	1.1x	
Sinotruk	HKD	9.27	10.10	9%	EW	25.6	3.3	0.80	0.76	0.92	0.90	0.9%	11.6x	12.1x	2.0x	1.5x	0.2x	0.2x	0.9x	0.8x	
BAIC Motor	HKD	10.86	20.00	84%	OW	22.8	2.9	0.95	1.25	0.92	1.14	3.0%	11.4x	8.7x	2.5x	2.3x	0.4x	0.4x	1.5x	1.3x	
FAW Car Company	CNY	11.12	9.00	(19%)	UW	18.1	2.9	0.21	0.23	0.39	0.44	N/A	53.9x	48.2x	13.4x	12.3x	0.6x	0.6x	2.2x	2.1x	
Anhui Jianghuai	CNY	8.25	10.00	21%	UW	15.6	2.5	0.91	1.02	0.46	0.59	2.3%	9.0x	8.1x	NM	NM	NM	NM	0.9x	0.8x	
Chongqing Changan	HKD	8.50	15.00	76%	OW	7.7	1.0	2.49	2.61	1.88	2.15	N/A	3.4x	3.3x	0.9x	0.2x	0.1x	0.0x	0.5x	0.5x	
Jiangling Motors	HKD	15.10	15.00	(1%)	UW	5.2	0.7	2.33	2.63	1.77	2.63	N/A	6.5x	5.7x	0.2x	NM	0.0x	NM	0.7x	0.6x	
China Weighted Average												2.8%	13.9x	12.2x	9.3x	8.2x	1.9x	1.8x	2.3x	1.9x	
<b>Japan</b>																					
Hino Motors	JPY	1,370.0	1,730.0	26%	OW	787.2	7.4	138.66	163.07	116.39	132.25	2.0%	9.9x	8.4x	4.8x	4.0x	0.4x	0.4x	1.4x	1.3x	
Japan Weighted Average												2.0%	9.9x	8.4x	4.8x	4.0x	0.4x	0.4x	1.4x	1.3x	
<b>South Korea</b>																					
Hyundai Motor	KRW	153,500.00	190,000.00	24%	OW	33,812.4	31.7	22,074.53	24,039.21	18,411.24	20,177.98	2.6%	7.0x	6.4x	3.1x	2.6x	0.3x	0.2x	0.4x	0.4x	
Kia Motors	KRW	32,550.00	30,000.00	(8%)	EW	13,194.6	12.4	4,546.38	5,242.66	4,864.10	5,567.72	2.4%	7.2x	6.2x	5.3x	4.7x	0.3x	0.3x	0.5x	0.4x	
South Korea Weighted Average												2.6%	7.0x	6.3x	3.8x	3.2x	0.3x	0.2x	0.4x	0.4x	
<b>India<sup>(1)</sup></b>																					
Maruti Suzuki	INR	8,756.1	10,563.0	21%	OW	2,645.0	40.7	331.6	409.9	337.2	398.1	0.9%	26.4x	21.4x	15.6x	12.2x	2.5x	2.0x	5.4x	4.6x	
Tata Motors	INR	353.1	407.0	15%	EW	1,019.7	15.7	46.5	52.2	41.6	50.2	0.1%	8.5x	7.0x	2.6x	2.2x	0.4x	0.4x	1.4x	1.1x	
Bajaj Auto	INR	2,971.8	3,785.0	27%	OW	859.9	13.2	175.9	202.6	164.5	180.8	1.9%	16.9x	14.7x	13.0x	10.9x	2.5x	2.1x	4.6x	4.0x	
Hero MotoCorp	INR	3,701.2	2,795.0	(24%)	UW	739.2	11.4	189.9	220.5	201.2	218.8	2.3%	19.5x	16.8x	12.5x	10.6x	1.9x	1.6x	5.6x	5.0x	
Ashok Leyland	INR	149.9	151.0	1%	OW	438.8	6.7	6.0	8.1	6.0	7.7	1.1%	25.1x	18.5x	14.3x	10.7x	1.5x	1.2x	5.8x	5.0x	
Mahindra & Mahindra	INR	733.0	895.5	22%	OW	911.3	14.0	46.9	54.7	40.1	44.4	0.9%	15.6x	13.4x	13.7x	11.4x	1.6x	1.4x	2.8x	2.4x	
TVS Motor	INR	641.6	678.0	6%	EW	304.8	4.7	19.3	24.6	21.4	28.9	0.5%	33.3x	26.1x	20.8x	16.4x	1.8x	1.5x	8.5x	7.0x	
India Weighted Average												1.0%	20.6x	16.9x	12.9x	10.4x	1.9x	1.6x	4.6x	3.9x	
<b>Turkey</b>																					
Ford Otomotiv Sanayi	TRY	63.9	58.0	(9%)	EW	22.4	5.8	4.60	5.09	4.41	5.02	3.6%	13.9x	12.6x	10.3x	9.3x	0.8x	0.8x	4.8x	4.1x	
Tofas Turk Otomobil	TRY	28.9	40.0	39%	OW	14.4	3.8	2.53	2.63	2.69	2.79	5.5%	11.4x	11.0x	6.6x	6.0x	0.7x	0.6x	3.1x	2.7x	
Turkey Weighted Average												4.3%	12.9x	11.9x	8.9x	8.0x	0.8x	0.7x	4.2x	3.5x	
Global Weighted Average												2.9%	10.6x	9.9x	5.7x	5.0x	0.9x	0.8x	1.8x	1.5x	

Source: Thomson Reuters, Morgan Stanley Research

Notes: 1) For Renault EV calculation, Nissan and Volvo stakes are subtracted at 20% discount to their current market cap. (2) For Indian companies, 2016 and 2017 estimates refer to the fiscal years ending March 2017 and March 2018, respectively. (3) EV/EBITDA excludes the impact from pension and healthcare liabilities with the exception of Ford. Ford is calculated on an EV/EBITDAP and includes pension and healthcare liabilities. Notes: e = Morgan Stanley Research est; O = Overweight; E = Equal-weight; U = Underweight; NC = Not Covered. Valuation multiples are based on MS est. unless a company is restricted or NC, in which case cons. est. are used

# LBO and DCF Models

Exhibit 32: F: LBO 5-Year Valuation Model

## FORD MOTOR COMPANY (Ex Ford China)

LBO / Recapitalization Summary											
(\$ In Millions)											
Sources				Uses				Exit Metrics			
	Amount	Percent	Rate		Amount	Percent	Rate				
Cash	0	0.0%	2.000%	Buy Equity	42,496	99.0%		Agg. Consid. Paid		42,496	
Equity Stakes	0	0.0%		Fees/Other	425	1.0%	1.000%	Current Share Price		10.78	
New Debt	30,045	70.0%	6.875%					Price Paid Per Share		10.60	
New Equity	12,876	30.0%						Premium to Current Price		-1.7%	
								Aggregate Consideration Multiples			
								2017 EBITDA		2.4	
								2018 EBITDA		2.4	
								2017 Price/Sales		0.27	
								2018 Price/Sales		0.27	
<b>Total Sources</b>	<b>42,921</b>	<b>100.0%</b>		<b>Total Uses</b>	<b>42,921</b>	<b>100.0%</b>		Exit EBITDA Multiple (x)			
								Aggregate Value		67,866	
								Equity Value		54,703	
								5-Year Returns		34%	
										25%	
										14%	

	Projected											
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
<b>FINANCIALS</b>												
Sales	156,776	158,032	158,929	163,539	167,827	171,183	171,183	171,183	171,183	171,183	171,183	
EBITDA	13,676	13,148	13,082	13,902	14,717	14,721	14,721	14,721	14,721	14,721	14,721	
Cost Savings/Synergies	0	0	0	0	0	0	0	0	0	0	0	
EBIT	8,676	7,271	6,878	7,357	7,837	7,703	7,703	7,703	7,703	7,703	7,703	
Existing Interest Expense (Income)	1,189	1,115	1,150	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	
New Interest	2,066	2,066	1,966	1,923	1,788	1,596	1,405	1,205	993	771	537	
Total Gross Interest	3,255	3,181	3,116	3,123	2,988	2,796	2,605	2,405	2,193	1,971	1,737	
Pretax Income	5,421	4,091	3,763	4,234	4,849	4,907	5,098	5,299	5,510	5,732	5,966	
Tax	1,301	982	903	1,016	1,164	1,178	1,223	1,272	1,322	1,376	1,432	
Net Income	4,120	3,109	2,860	3,218	3,685	3,729	3,874	4,027	4,188	4,357	4,534	
D&A	5,000	5,876	6,203	6,544	6,880	7,018	7,018	7,018	7,018	7,018	7,018	
Chg. in Working Cap.	1,765	-1,685	-2,201	-1,333	-1,518	-1,549	-1,549	-1,549	-1,549	-1,549	-1,549	
Capital Expenditures	-7,049	-7,558	-7,946	-8,177	-8,056	-8,217	-8,217	-8,217	-8,217	-8,217	-8,217	
Other	1,434	1,709	1,701	1,719	1,794	1,794	1,794	1,794	1,794	1,794	1,794	
Free Cash Flow	1,740	1,452	617	1,971	2,786	2,776	2,921	3,074	3,234	3,403	3,581	
Cash	26,484	25,840	25,705	26,630	28,227	28,227	28,227	28,227	28,227	28,227	28,227	
Working Capital	-2,406	-2,242	-1,141	-1,398	-1,359	190	1,739	3,288	4,836	6,385	7,934	
Existing Debt	15,931	15,931	15,931	15,931	15,931	15,931	15,931	15,931	15,931	15,931	15,931	
New Debt	30,045	28,593	27,976	26,005	23,219	20,443	17,522	14,448	11,214	7,811	4,229	
Total Debt	45,976	44,524	43,907	41,936	39,150	36,374	33,453	30,379	27,145	23,742	20,160	
Net Debt	19,492	18,683	18,202	15,306	10,923	8,147	5,226	2,152	-1,082	-4,485	-8,066	
Equity	12,876	15,985	18,845	22,063	25,748	29,477	33,352	37,378	41,566	45,923	50,457	
Total Capitalization	58,852	60,509	62,752	63,999	64,898	65,851	66,804	67,758	68,711	69,664	70,617	
<b>CREDIT STATISTICS</b>												
EBIT Margin	5.5	4.6	4.3	4.5	4.7	4.5	4.5	4.5	4.5	4.5	4.5	
EBITDA / Interest	4.2	4.1	4.2	4.5	4.9	5.3	5.7	6.1	6.7	7.5	8.5	
(EBITDA - Capex) / Interest	2.0	1.8	1.6	1.8	2.2	2.3	2.5	2.7	3.0	3.3	3.7	
(EBITDA - Capex - W/C) / Interest	2.6	1.2	0.9	1.4	1.7	1.8	1.9	2.1	2.3	2.5	2.9	
EBIT / Interest	2.7	2.3	2.2	2.4	2.6	2.8	3.0	3.2	3.5	3.9	4.4	
Free Cash Flow / Debt (%)	3.8	3.3	1.4	4.7	7.1	7.6	8.7	10.1	11.9	14.3	17.8	
Net Debt / EBITDA (x)	1.4	1.4	1.4	1.1	0.7	0.6	0.4	0.1	NM	NM	NM	
Net Debt / Book Cap (%)	33.1	30.9	29.0	23.9	16.8	12.4	7.8	3.2	NM	NM	NM	
<b>DEBT PAYDOWN</b>												
New Debt	Retired In >10.0	100.0%	179.5%	175.6%	163.2%	145.7%	128.3%	110.0%	90.7%	70.4%	49.0%	

Source: Company Data, Morgan Stanley Research

Exhibit 33: Ford DCF Valuation (including China)

Ford Motor Company (F) DCF Valuation (\$mm)													
ModelWare Period	2015-FY	2016-FY	2017-FY	2018-FY	2019-FY	2020-FY	2021-FY	2022-FY	2023-FY	2024-FY	2025-FY	2026-FY	2027-FY
Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Year Ending	Dec-15	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	Dec-22	Dec-23	Dec-24	Dec-25	Dec-26	Dec-27

Assumptions	
Risk Free Rate	2.7%
Levered Beta	1.2
Unlevered Beta	1.1
Market Premium	5.0%
Cost of Equity	8.0%
Cost of Debt	6.0%
Equity / Capital	85.0%
Debt / Capital	15.0%
Tax Rate	24.0%
WACC	7.5%
Terminal Growth	1.0%

Standalone Fair Value	
Last Reported Year	2017-Q4
NPV	44,269
Net Debt (Net Cash)	(10,553)
Pension Liability	5,016
Equity Value	49,806
Sharecount	3,998
Fair Value	\$12

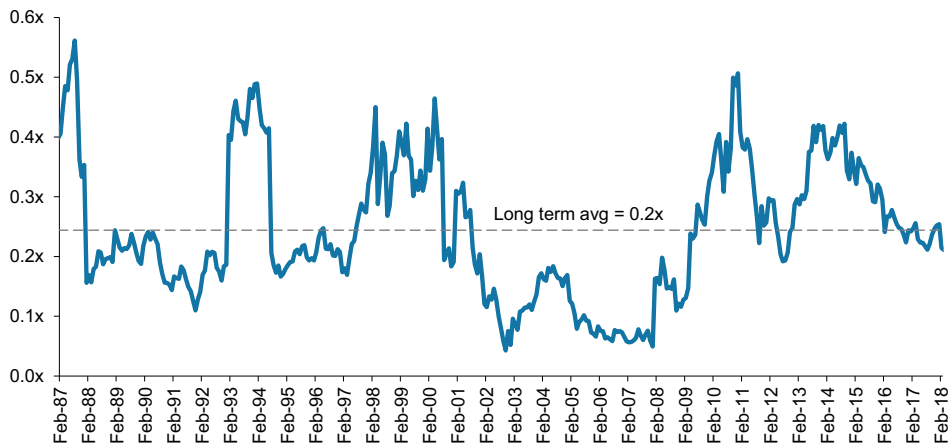
DCF Analysis	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Revenue	151,800	156,776	158,032	158,929	163,539	167,827	169,455	170,302	171,154	172,009	172,869	#####
		3.3%	0.8%	0.6%	2.9%	2.6%	1.0%	0.5%	0.5%	0.5%	0.5%	0.5%
Pretax Income	6,796	8,148	6,817	6,312	6,654	7,134	6,778	6,812	6,846	6,880	6,915	6,949
Pretax Margin	4.5%	5.2%	4.3%	4.0%	4.1%	4.3%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Income margin	(2,189)	(520)	(1,023)	(1,262)	(1,331)	(1,427)	(1,627)	(1,635)	(1,643)	(1,651)	(1,660)	(1,668)
Tax Rate	31.9%	6.4%	15.0%	20.0%	20.0%	20.0%	24.0%	24.0%	24.0%	24.0%	24.0%	24.0%
D&A	9,023	5,000	5,876	6,203	6,544	6,880	7,625	7,664	7,702	7,740	7,779	7,818
Change in Working Capital	2,954	1,765	(1,685)	(2,201)	(1,333)	(1,518)	(81)	(42)	(43)	(43)	(43)	(43)
Other OCF	(1,350)	(1,600)	(1,762)	(1,700)	(1,746)	(563)	(568)	(571)	(574)	(577)	(580)	(582)
Capital Expenditure	(6,992)	(7,049)	(7,558)	(7,946)	(8,177)	(8,056)	(8,473)	(8,515)	(8,558)	(8,600)	(8,643)	(8,687)
Free Cash Flow	8,242	5,744	666	(594)	612	2,451	3,655	3,712	3,731	3,750	3,768	3,787
Terminal Value												59,066
PV of Cash Flows		5,744	620	(514)	493	1,836	2,548	2,408	2,251	2,105	1,969	30,552

Source: Company Data, Morgan Stanley Research

Exhibit 34:

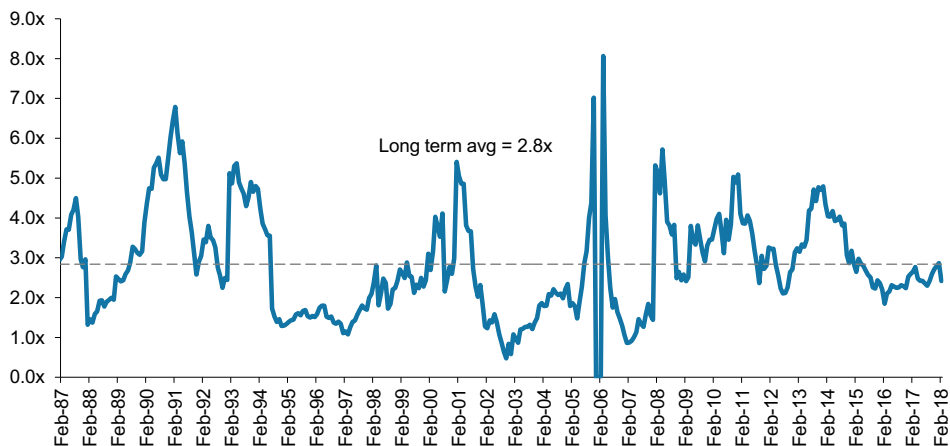


**Exhibit 37: Ford: EV/Sales, 1987 to 2018**



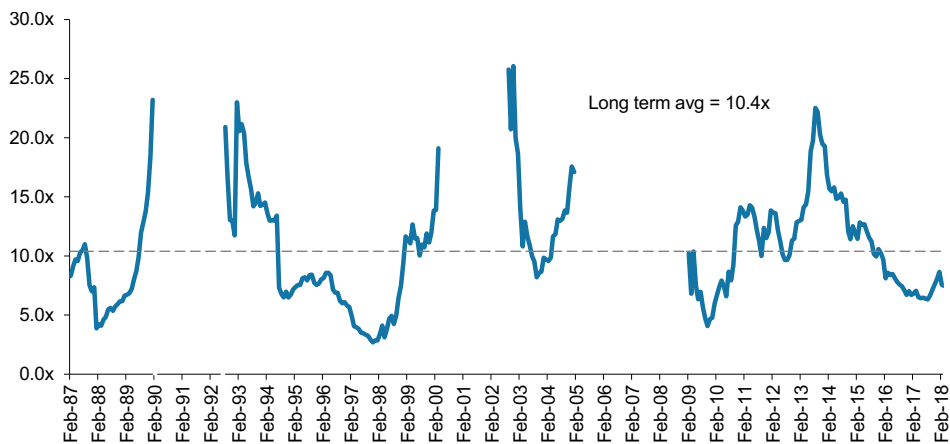
Source: Thomson Reuters, Morgan Stanley Research

**Exhibit 38: Ford: EV/EBITDA, 1987 to 2018**



Source: Thomson Reuters, Morgan Stanley Research

**Exhibit 39: Ford: Price/Earnings, 1987 to 2018**



Breaks in the line indicate times of negative earnings and a NM Price/Earnings ratio  
Source: Thomson Reuters, Morgan Stanley Research



# Financials

Exhibit 40: Income Statement

Income Statement	FY 2013	FY 2014	FY 2015	FY 2016	1Q17	2Q17	3Q17	4Q17	FY 2017	1Q18E	2Q18E	3Q18E	4Q18E	FY 2018E	FY 2019E	FY 2020E	FY 2021E
<b>Revenues</b>																	
Automotive	139,369	135,782	140,566	141,546	36,475	37,113	33,646	38,419	145,653	36,644	37,264	34,008	38,996	146,912	147,698	152,196	156,370
Financial Services	7,548	8,295	8,992	10,253	2,669	2,738	2,802	2,904	11,113	2,722	2,793	2,858	2,747	11,120	11,231	11,343	11,457
Other	-	-	-	1	2	2	3	3	10	-	-	-	-	-	-	-	-
<b>Total revenues</b>	<b>146,917</b>	<b>144,077</b>	<b>149,558</b>	<b>151,800</b>	<b>39,146</b>	<b>39,853</b>	<b>36,451</b>	<b>41,326</b>	<b>156,776</b>	<b>39,367</b>	<b>40,056</b>	<b>36,866</b>	<b>41,743</b>	<b>158,032</b>	<b>158,929</b>	<b>163,539</b>	<b>167,827</b>
Growth	10.0%	-1.9%	3.8%	1.5%	3.8%	0.9%	1.4%	6.9%	3.3%	0.6%	0.5%	1.1%	1.0%	0.8%	0.6%	2.9%	2.6%
<b>Cost of sales</b>	<b>(124,470)</b>	<b>(122,623)</b>	<b>(123,343)</b>	<b>(123,005)</b>	<b>(32,732)</b>	<b>(33,108)</b>	<b>(30,071)</b>	<b>(35,032)</b>	<b>(130,943)</b>	<b>(33,462)</b>	<b>(34,048)</b>	<b>(31,336)</b>	<b>(35,481)</b>	<b>(134,327)</b>	<b>(136,679)</b>	<b>(140,644)</b>	<b>(145,170)</b>
CoS / Sales	84.7%	85.1%	82.5%	81.0%	83.6%	83.1%	82.5%	84.8%	83.5%	85.0%	85.0%	85.0%	85.0%	85.0%	86.0%	86.0%	86.5%
Selling, administrative, and other expenses	(12,451)	(13,314)	(10,502)	(12,196)	(2,764)	(2,756)	(2,919)	(3,088)	(11,527)	(2,913)	(2,964)	(2,728)	(3,089)	(11,694)	(11,125)	(11,448)	(11,748)
SG&A / Sales	8.5%	9.2%	7.0%	8.0%	7.1%	7.0%	7.0%	7.0%	7.4%	7.4%	7.4%	7.4%	7.4%	7.4%	7.0%	7.0%	7.0%
Financial Services interest, operating, and other expenses	(3,068)	(3,004)	(7,368)	(8,904)	(2,232)	(2,217)	(2,273)	(2,382)	(9,104)	(2,086)	(2,123)	(1,954)	(2,212)	(8,376)	(8,423)	(8,668)	(8,895)
Others / Sales	2.1%	2.1%	4.9%	5.9%	5.7%	5.6%	6.2%	5.8%	5.8%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%
Other adjustments, reconciliations to Adj. EBIT	-	-	1,650	3,630	1,094	1,026	1,084	1,220	4,424	1,186	1,494	1,051	766	4,498	4,960	5,274	6,520
Other adjustments / Sales	-	-	-1.1%	-2.4%	-2.8%	-2.6%	-3.0%	-3.0%	-2.8%	-3.0%	-3.7%	-2.9%	-1.8%	-2.8%	-3.1%	-3.2%	-3.9%
<b>Company Adjusted EBIT</b>	<b>6,928</b>	<b>5,136</b>	<b>9,995</b>	<b>11,325</b>	<b>2,512</b>	<b>2,798</b>	<b>2,272</b>	<b>2,044</b>	<b>9,626</b>	<b>2,092</b>	<b>2,415</b>	<b>1,899</b>	<b>1,726</b>	<b>8,133</b>	<b>7,662</b>	<b>8,054</b>	<b>8,534</b>
Margin	4.7%	3.6%	6.7%	7.5%	6.4%	7.0%	6.2%	4.9%	6.1%	5.3%	6.0%	5.2%	4.1%	5.1%	4.8%	4.9%	5.1%
Interest on Debt	(829)	(797)	(773)	(950)	(293)	(291)	(298)	(307)	(1,189)	(279)	(279)	(279)	(279)	(1,115)	(1,150)	(1,200)	(1,200)
Non-Financial Services other income/(loss), net	1,092	1,002	1,038	1,356	712	658	709	981	3,060	(264)	(313)	(236)	(210)	(1,023)	(1,262)	(1,331)	(1,427)
Financial Services other income/(loss), net	348	348	372	438	22	74	45	66	207	(50)	(50)	(50)	(50)	(200)	(200)	(200)	(200)
Special items pre-tax	-	-	(548)	(3,579)	24	(248)	(217)	152	(289)	292	292	292	292	1,166	1,094	1,014	1,065
Equity in net income of affiliated companies	1,069	1,604	1,818	1,780	346	273	316	266	1,201	292	292	292	292	1,166	1,094	1,014	1,065
<b>Income before income taxes</b>	<b>6,099</b>	<b>4,339</b>	<b>8,674</b>	<b>6,796</b>	<b>2,243</b>	<b>2,259</b>	<b>1,757</b>	<b>1,889</b>	<b>8,148</b>	<b>1,763</b>	<b>2,087</b>	<b>1,571</b>	<b>1,397</b>	<b>6,817</b>	<b>6,312</b>	<b>6,654</b>	<b>7,134</b>
Margin	4.2%	3.0%	5.8%	4.5%	5.7%	5.7%	4.8%	4.6%	5.2%	4.5%	5.2%	4.3%	3.3%	4.3%	4.0%	4.1%	4.3%
Provision for/(Benefit from) income taxes	(2,022)	(1,909)	(3,086)	(2,189)	(649)	(209)	(186)	524	(520)	(264)	(313)	(236)	(210)	(1,023)	(1,262)	(1,331)	(1,427)
Effective Tax Rate	33.2%	44.0%	35.6%	32.2%	28.9%	9.3%	10.6%	-27.7%	6.4%	15.0%	15.0%	15.0%	15.0%	15.0%	20.0%	20.0%	20.0%
<b>Net income</b>	<b>4,077</b>	<b>2,430</b>	<b>5,588</b>	<b>4,607</b>	<b>1,594</b>	<b>2,050</b>	<b>1,571</b>	<b>2,413</b>	<b>7,628</b>	<b>1,498</b>	<b>1,774</b>	<b>1,335</b>	<b>1,188</b>	<b>5,795</b>	<b>5,050</b>	<b>5,323</b>	<b>5,707</b>
Income/(Loss) attributable to noncontrolling interests	7	1	2	(11)	(7)	(8)	(7)	(4)	(26)	(2)	(3)	(2)	(2)	(10)	(8)	(9)	(9)
Noncontrolling interests / Net Income	-0.2%	-0.0%	-0.0%	0.2%	0.4%	0.4%	0.4%	0.2%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
<b>Adj Net Income from Cont Ops</b>	<b>4,084</b>	<b>2,431</b>	<b>5,590</b>	<b>4,596</b>	<b>1,587</b>	<b>2,042</b>	<b>1,564</b>	<b>2,409</b>	<b>7,602</b>	<b>1,496</b>	<b>1,771</b>	<b>1,333</b>	<b>1,186</b>	<b>5,785</b>	<b>5,041</b>	<b>5,315</b>	<b>5,698</b>
Extraordinary Items	589	(4,154)	(343)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Income from Discontinued Operations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dividends from Preference shares	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Net income attributable to Ford Motor Company</b>	<b>4,673</b>	<b>(1,723)</b>	<b>5,247</b>	<b>4,596</b>	<b>1,587</b>	<b>2,042</b>	<b>1,564</b>	<b>2,409</b>	<b>7,602</b>	<b>1,496</b>	<b>1,771</b>	<b>1,333</b>	<b>1,186</b>	<b>5,785</b>	<b>5,041</b>	<b>5,315</b>	<b>5,698</b>
Wavg Basics Shares O/S	3,935	3,912	3,969	3,973	3,976	3,977	3,972	3,973	3,975	3,982	3,982	3,982	3,982	3,982	3,982	3,982	3,982
Wavg Diluted Shares O/S	4,087	4,034	4,002	3,998	3,999	3,996	3,996	4,000	3,998	4,009	4,009	4,009	4,009	4,009	4,009	4,009	4,009
Basic EPS	\$1.19	(\$0.44)	\$1.32	\$1.16	\$0.40	\$0.51	\$0.39	\$0.61	\$1.91	\$0.38	\$0.44	\$0.33	\$0.30	\$1.45	\$1.27	\$1.33	\$1.43
Diluted EPS Reported	\$1.14	(\$0.43)	\$1.31	\$1.15	\$0.40	\$0.51	\$0.39	\$0.60	\$1.90	\$0.37	\$0.44	\$0.33	\$0.30	\$1.44	\$1.26	\$1.33	\$1.42
<b>Diluted EPS</b>	<b>\$1.00</b>	<b>\$0.60</b>	<b>\$1.40</b>	<b>\$1.15</b>	<b>\$0.40</b>	<b>\$0.51</b>	<b>\$0.39</b>	<b>\$0.39</b>	<b>\$1.90</b>	<b>\$0.37</b>	<b>\$0.44</b>	<b>\$0.33</b>	<b>\$0.30</b>	<b>\$1.44</b>	<b>\$1.26</b>	<b>\$1.33</b>	<b>\$1.42</b>

Source: Company Data, Morgan Stanley Research

Exhibit 41: Balance Sheet

Balance Sheet	FY 2013	FY 2014	FY 2015	FY 2016	1Q17	2Q17	3Q17	4Q17	FY 2017	1Q18E	2Q18E	3Q18E	4Q18E	FY 2018E	FY 2019E	FY 2020E	FY 2021E
<b>Assets</b>																	
Cash and cash equivalents	14,468	10,757	14,272	15,905	17,823	16,223	17,589	18,492	18,492	17,159	17,629	17,459	17,398	17,398	16,941	16,214	16,275
Marketable securities	22,100	20,393	20,904	22,922	22,166	22,886	20,492	20,435	20,435	20,435	20,435	20,435	20,435	20,435	20,435	20,435	20,435
Financial Services finance receivables, net	77,481	81,111	45,137	46,266	48,605	49,888	49,541	52,210	52,210	53,379	53,448	53,589	53,731	53,731	54,831	56,421	57,900
Trade and other receivables,	9,828	11,708	11,042	11,102	10,685	10,159	10,277	10,599	10,599	10,614	10,628	10,656	10,684	10,684	10,668	10,753	11,035
Inventories	7,708	7,870	8,319	8,898	10,535	11,092	11,263	10,277	10,277	10,334	10,408	10,507	10,543	10,543	12,357	12,716	13,125
Other	1,034	1,347	2,913	3,368	3,414	3,291	3,570	3,889	3,889	3,889	3,889	3,889	3,889	3,889	3,889	3,889	3,889
<b>Total Current Assets</b>	<b>132,619</b>	<b>133,186</b>	<b>102,587</b>	<b>108,461</b>	<b>113,228</b>	<b>113,539</b>	<b>112,732</b>	<b>115,902</b>	<b>115,902</b>	<b>115,810</b>	<b>116,437</b>	<b>116,535</b>	<b>116,680</b>	<b>116,680</b>	<b>119,121</b>	<b>120,428</b>	<b>122,659</b>
Financial Services finance receivables, net	-	-	45,554	49,924	50,694	51,551	54,323	56,182	56,182	56,261	56,334	56,483	56,632	56,632	56,954	58,606	60,142
Net investment in operating leases	19,984	23,217	27,093	28,829	27,914	28,597	28,714	28,235	28,235	28,235	28,235	28,235	28,235	28,235	28,235	28,235	28,235
Net Property	27,616	30,126	30,163	32,072	32,668	33,794	34,760	35,327	35,327	35,745	36,141	36,672	37,009	37,009	38,752	40,384	41,560
Equity in net assets of affiliated companies	3,679	3,357	3,224	3,304	3,642	3,241	3,344	3,085	3,085	3,085	3,085	3,085	3,085	3,085	3,085	3,085	3,085
Net intangible assets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Deferred income taxes	13,468	14,024	11,509	9,705	10,055	10,145	10,359	10,973	10,973	10,973	10,973	10,973	10,973	10,973	10,973	10,973	10,973
Other Assets	4,813	4,705	4,795	5,656	5,893	6,602	7,041	8,104	8,104	8,115	8,126	8,147	8,169	8,169	8,215	8,454	8,675
<b>Total Assets</b>	<b>202,179</b>	<b>208,615</b>	<b>224,925</b>	<b>237,951</b>	<b>244,094</b>	<b>247,469</b>	<b>251,273</b>	<b>257,808</b>	<b>257,808</b>	<b>258,224</b>	<b>259,331</b>	<b>260,130</b>	<b>260,782</b>	<b>260,782</b>	<b>265,335</b>	<b>270,165</b>	<b>275,329</b>
<b>Liabilities</b>																	
Accounts Payable	19,531	20,035	20,272	21,296	23,257	23,568	23,566	23,282	23,282	23,315	23,345	23,407	23,469	23,469	24,166	24,867	25,519
Other liabilities and deferred revenue	16,537	17,912	19,089	19,316	18,790	19,958	19,612	19,697	19,697	19,697	19,697	19,697	19,697	19,697	19,697	19,697	19,697
Automotive debt payable within one year	1,257	2,501	1,779	2,685	3,100	2,911	3,551	3,356	3,356	3,356	3,356	3,356	3,356	3,356	3,356	3,356	3,356
Financial Services debt payable within one year	36,806	36,671	41,196	46,984	46,157	47,862	47,623	48,265	48,265	48,265	48,265	48,265	48,265	48,265	48,265	48,265	48,265
<b>Total Current Liabilities</b>	<b>74,131</b>	<b>77,119</b>	<b>82,336</b>	<b>90,281</b>	<b>91,304</b>	<b>94,299</b>	<b>94,352</b>	<b>94,600</b>	<b>94,600</b>	<b>94,633</b>	<b>94,663</b>	<b>94,725</b>	<b>94,787</b>	<b>94,787</b>	<b>95,484</b>	<b>96,185</b>	<b>96,837</b>
Other liabilities and deferred revenue	24,349	26,120	23,457	24,395	24,583	24,840	24,819	24,711	24,711	24,711	24,711	24,711	24,711	24,711	24,711	24,711	24,711
Automotive Long Term Debt	14,426	11,323	11,060	13,222	13,110	13,277	12,633	12,575	12,575	12,575	12,575	12,575	12,575	12,575	12,575	12,575	12,575
Financial Services long-term debt	62,199	68,676	78,819	80,079	83,610	81,959	85,305	90,091	90,091	90,091	90,091	90,091	90,091	90,091	90,091	90,091	90,091
Deferred Taxes	598	570	502	691	749	735	804	815	815	815	815	815	815	815	815	815	815
<b>Total Long-Term Liabilities</b>	<b>101,572</b>	<b>106,689</b>	<b>113,838</b>	<b>118,387</b>	<b>122,052</b>	<b>120,811</b>	<b>123,561</b>	<b>128,192</b>	<b>128,192</b>	<b>128,192</b>	<b>128,192</b>	<b>128,192</b>	<b>128,192</b>	<b>128,192</b>	<b>128,192</b>	<b>128,192</b>	<b>128,192</b>
Redeemable noncontrolling interest	331	342	94	96	97	97	97	98	98	98	98	98	98	98	98	98	98
<b>Equity</b>																	
Capital stock																	
Common Stock	39	39	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Class B stock	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Additional Paid in Capital	21,422	21,089	21,421	21,630	21,637	21,735	21,804	21,843	21,843	21,843	21,743	21,743	21,743	21,743	21,743	21,743	21,743
Retained Earnings	23,386	9,422	14,414	15,634	16,992	18,437	19,405	21,218	21,218	21,601	22,778	23,515	24,106	24,106	27,961	32,090	36,602
Accumulated OCI	(18,230)	(5,265)	(6,257)	(7,013)	(6,929)	(6,716)	(6,759)	(6,959)	(6,959)	(6,959)	(6,959)	(6,959)	(6,959)	(6,959)	(6,959)	(6,959)	(6,959)
Treasury Stock	(506)	(848)	(977)	(1,122)	(1,122)	(1,253)	(1,253)	(1,253)	(1,253)	(1,253)	(1,253)	(1,253)	(1,253)	(1,253)	(1,253)	(1,253)	(1,253)
<b>Stockholders Equity</b>	<b>26,112</b>	<b>24,438</b>	<b>28,642</b>	<b>29,170</b>	<b>30,619</b>	<b>32,244</b>	<b>33,238</b>	<b>34,890</b>	<b>34,890</b>	<b>35,273</b>	<b>36,350</b>	<b>37,087</b>	<b>37,678</b>	<b>37,678</b>	<b>41,533</b>	<b>45,662</b>	<b>50,174</b>
Non-controlling Interests	33	27	15	17	22	18	25	28	28	28	28	28	28	28	28	28	28
<b>Total Liabilities &amp; Shareholders' Equity</b>	<b>202,179</b>	<b>208,615</b>	<b>224,925</b>	<b>237,951</b>	<b>244,094</b>	<b>247,469</b>	<b>251,273</b>	<b>257,808</b>	<b>257,808</b>	<b>258,224</b>	<b>259,331</b>	<b>260,130</b>	<b>260,782</b>	<b>260,782</b>	<b>265,335</b>	<b>270,165</b>	<b>275,329</b>
<b>Check</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Other Financial Data</b>																	
Gross Debt	114,688	119,171	132,854	142,970	145,977	146,009	149,112	154,287	154,287	154,287	154,287	154,287	154,287	154,287	154,287	154,287	154,287
Cash and Equivalents	36,568	31,150	35,176	38,827	39,989	39,109	37,485	38,331	36,343	36,479	37,467	37,296	37,236	34,926	36,182	35,454	35,515
<b>Net Debt</b>	<b>78,120</b>	<b>88,021</b>	<b>97,678</b>	<b>104,143</b>	<b>105,988</b>	<b>106,900</b>	<b>111,627</b>	<b>115,956</b>	<b>117,944</b>	<b>117,808</b>	<b>116,820</b>	<b>116,991</b>	<b>117,051</b>	<b>119,361</b>	<b>118,105</b>	<b>118,833</b>	<b>118,772</b>
Automotive Debt	15,683	13,824	12,839	15,907	16,210	16,188	16,184	15,931	15,931	15,931	15,931	15,931	15,931	15,931	15,931	15,931	15,931
Automotive Cash	25,116	21,702	23,567	27,462	28,028	28,428	26,144	26,484	26,484	25,230	25,773	25,751	25,840	25,840	25,705	26,630	28,227
<b>Automotive Net Debt (Cash)</b>	<b>(9,433)</b>	<b>(7,878)</b>	<b>(10,728)</b>	<b>(11,555)</b>	<b>(11,818)</b>	<b>(12,240)</b>	<b>(9,960)</b>	<b>(10,553)</b>	<b>(10,553)</b>	<b>(9,299)</b>	<b>(9,842)</b>	<b>(9,820)</b>	<b>(9,909)</b>	<b>(9,909)</b>	<b>(9,774)</b>	<b>(10,699)</b>	<b>(12,296)</b>

Source: Company Data, Morgan Stanley Research

Exhibit 42: Cash Flow Statement

Cash Flow	FY 2013	FY 2014	FY 2015	FY 2016	1Q17	2Q17	3Q17	4Q17	FY 2017	1Q18E	2Q18E	3Q18E	4Q18E	FY 2018E	FY 2019E	FY 2020E	FY 2021E
<b>Operating Cash Flows</b>																	
Net income	4,666	(1,724)	5,245	4,607	1,594	2,050	1,571	2,413	7,628	1,498	1,774	1,335	1,188	5,795	5,050	5,323	5,707
Depreciation and amortization	6,504	7,385	7,993	9,023	1,200	1,200	1,300	1,300	5,000	1,466	1,491	1,360	1,560	5,876	6,203	6,544	6,880
Net Changes in WC	(5,273)	(405)	70	2,954	(6,582)	(1,107)	(89)	9,543	1,765	(1,208)	(126)	(207)	(143)	(1,685)	(2,201)	(1,333)	(1,518)
Net change in wholesale and other receivables	(3,044)	(2,208)	(5,090)	(1,449)	(3,109)	(1,283)	347	3,209	(836)	(1,169)	(69)	(141)	(142)	(1,521)	(1,100)	(1,590)	(1,479)
Provision for deferred income taxes	(848)	(94)	2,120	1,478	(292)	(104)	(145)	309	(232)	-	-	-	-	-	-	-	-
Decrease/(Increase) in accounts receivable and other asse	(2,040)	(2,896)	(3,563)	(2,855)	417	526	(118)	(3,122)	(2,297)	(15)	(14)	(28)	(28)	(85)	16	(85)	(282)
Decrease/(Increase) in inventory	(572)	(936)	(1,155)	(815)	(1,637)	(557)	(171)	1,406	(959)	(57)	(74)	(99)	(35)	(266)	(1,815)	(358)	(409)
Increase/(Decrease) in accounts payable and accrued and	1,231	5,729	7,758	6,595	(1,961)	311	(2)	7,741	6,089	33	30	62	62	187	697	701	652
Others	4,547	9,251	2,862	3,208	8,124	3,472	2,216	(10,109)	3,703	(11)	(11)	(21)	(22)	(65)	(46)	(238)	(222)
Net Cash From Operations	10,444	14,507	16,170	19,792	4,336	5,615	4,998	3,147	18,096	1,745	3,127	2,467	2,583	9,921	9,006	10,296	10,847
<b>Investing Cash Flows</b>																	
Capital Spending	(6,597)	(7,463)	(7,196)	(6,992)	(1,706)	(1,558)	(1,672)	(2,113)	(7,049)	(1,884)	(1,886)	(1,891)	(1,896)	(7,558)	(7,946)	(8,177)	(8,056)
Acquisitions of finance receivables and operating leases	(45,822)	(51,673)	(57,217)	(56,007)	(13,467)	(13,912)	(15,675)	(16,300)	(59,354)	(79)	(73)	(149)	(149)	(450)	(322)	(1,652)	(1,536)
Collections of finance receivables and operating leases	33,966	36,497	38,130	38,834	10,695	10,941	11,352	11,653	44,641	-	-	-	-	-	-	-	-
Purchases of equity and debt securities	(119,993)	(48,694)	(41,279)	(31,428)	(8,878)	(8,053)	(3,619)	(7,017)	(27,567)	-	-	-	-	-	-	-	-
Net acquisitions of daily rental vehicles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sales and maturities of equity and debt securities	118,247	50,264	40,766	29,354	9,551	7,355	6,047	6,945	29,898	-	-	-	-	-	-	-	-
Settlements of derivatives	(217)	281	134	825	156	(156)	62	38	100	-	-	-	-	-	-	-	-
Elimination of cash balances upon disposition of discontinued/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds from sale of business	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds from sales of retail and other finance receivables an	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net investing activity with Financial Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cash paid for acquisitions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	190	(336)	500	62	10	160	(175)	(56)	(61)	-	-	-	-	-	-	-	-
Net Cash from Investing	(20,226)	(21,124)	(26,162)	(25,352)	(3,639)	(5,223)	(3,680)	(6,850)	(19,392)	(1,963)	(1,959)	(2,040)	(2,046)	(8,008)	(8,268)	(9,829)	(9,592)
<b>Financing Cash Flows</b>																	
Cash dividends	(1,574)	(1,952)	(2,380)	(3,376)	(795)	(597)	(596)	(596)	(2,584)	(1,115)	(597)	(597)	(597)	(2,907)	(1,195)	(1,195)	(1,195)
(Purchases)/Sales of Common Stock	(213)	(1,964)	(129)	(145)	-	(131)	-	-	(131)	-	(100)	-	-	(100)	-	-	-
Net changes in short-term debt	(2,927)	(3,870)	1,646	3,864	658	(586)	1,827	(670)	1,229	-	-	-	-	-	-	-	-
Proceeds from issuance of other debt	40,543	40,043	48,860	45,961	13,253	7,214	10,090	15,244	45,801	-	-	-	-	-	-	-	-
Principal payments on other debt	(27,953)	(28,859)	(33,358)	(38,797)	(11,911)	(8,041)	(11,426)	(9,392)	(40,770)	-	-	-	-	-	-	-	-
Net financing activity with Automotive	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	257	25	(317)	(49)	(85)	(17)	(22)	(27)	(151)	-	-	-	-	-	-	-	-
Net Cash from Financing	8,133	3,423	14,322	7,458	1,120	(2,158)	(127)	4,559	3,394	(1,115)	(697)	(597)	(597)	(3,007)	(1,195)	(1,195)	(1,195)
Effect of Exchange Rate on Cash	(37)	(517)	(815)	(265)	101	166	175	47	489	-	-	-	-	-	-	-	-
Cumulative correction of Financial Services prior period error	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Restatement of Cash	495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Change in Cash	(1,191)	(3,711)	3,515	1,633	1,918	(1,600)	1,366	903	2,587	(1,333)	471	(171)	(60)	(1,094)	(457)	(727)	61
Cash at Beginning of Period	15,659	14,468	10,757	14,272	15,905	17,823	16,223	17,589	15,905	18,492	17,159	17,629	17,459	18,492	17,398	16,941	16,214
Cash at End of Period	14,468	10,757	14,272	15,905	17,823	16,223	17,589	18,492	18,492	17,159	17,629	17,459	17,398	17,398	16,941	16,214	16,275
Check	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Automotive Free cash flow</b>																	
Automotive: Net cash provided by/(used in) operating activities	7,738	8,764	12,294	11,045	3,262	2,486	(173)	-	-	-	-	-	-	-	-	-	-
Automotive Capital spending	(6,566)	(7,360)	(7,147)	(6,948)	(1,696)	(1,546)	(1,659)	(2,113)	(7,014)	(1,884)	(1,886)	(1,891)	(1,896)	(7,558)	(7,946)	(8,177)	(8,056)
<b>Free Cash Flow</b>	<b>3,847</b>	<b>7,044</b>	<b>8,974</b>	<b>12,800</b>	<b>2,630</b>	<b>4,057</b>	<b>3,326</b>	<b>1,034</b>	<b>11,047</b>	<b>(139)</b>	<b>1,241</b>	<b>576</b>	<b>686</b>	<b>2,363</b>	<b>1,059</b>	<b>2,119</b>	<b>2,792</b>

Source: Company Data, Morgan Stanley Research

## Valuation Methodology and Risks

### **Fiat Chrysler Automobiles NV (FCA), Overweight**

#### *Valuation Methodology:*

Price target of €22 (~\$26 PT for FCAU.N) is based on a Sum-of-the-Parts (SOTP) analysis that is comprised mainly of our valuation for the Jeep business (~€20.0/share at 4.0x EBITDA) and the Ram franchise (€7.0/share at 3.5x EBITDA). Our SOTP model includes a valuation for Alfa Romeo at -€2bn, Dodge at -€1bn, Chrysler at -€1.5bn, Fiat at €0, Fiat Professional at €2.9bn, Maserati at €6.9bn and Components at €5.7bn. After adjusting for ~€2.4bn in net industrial debt, €5.3bn in legacy liabilities (after-tax) and €2bn in intercompany eliminations, we apply a 20% discount to our SotP for a PT of €22. EUR/USD of 1.20 for US-listed FCAU.N shares.

#### *Risks to Achieving Price Target:*

- US cycle 'value of SAAR' is peaking, deflation reigns. FCA gets 75% of global profit from N. America.
- Limited content opportunity in world of shared, autonomous electric vehicles. New entrants (TSLA, AAPL, GOOG) compete for precious human resources especially in tech and software development.
- European business still structurally challenged. Even with major cost improvements, we estimate FCA makes little more than a 0% margin in EU long term.
- Key man risk. Execution of turnaround strategy highly dependent on CEO Sergio Marchionne.

### **Ford Motor Company (F), Underweight**

#### *Valuation Methodology:*

Our price target of \$15 applies a 75% weighting to our \$12 base case valuation from our hypothetical LBO model using a 25% IRR, and a 3.5x exit EBITDA multiple plus the DCF value of the Chinese business. Our \$12 fundamental valuation is supported by a 10 year DCF with a 7.5% WACC, 4.0% exit pretax margin and 1% perpetual growth rate. From this point we adjust our base case value by applying a 25% weighting to our SOTP bull case of \$25 to reflect the potential we see for portfolio reconfiguration.

#### *Risks to Achieving Price Target:*

- US SAAR resiliency near the 16 to 17mm unit level and quality of sales.
- Ford has the weakest cash flow profile of the US OEMs. Potential dividend cut could take sentiment to new lows.
- Visibility around timing and magnitude of restructuring, if any, is currently low due

to lack of company guidance.

### **General Motors Company (GM), Equal-weight**

#### *Valuation Methodology:*

Price target of \$45 is the mid-way point between our \$35 base case derived from our LBO model and our \$56 SOTP bull case: We see reasonable scope for GM management to take steps towards more radical structural change in its group to address issues plaguing its multiple and to attract the talent, capital and business/technical partners required to be relevant in Auto 2.0. We interpret the unexpected step of exiting the Opel/Vauxhall business as a sign of potentially even more change to come.

#### *Risks to Achieving Price Target:*

- We are very concerned about the value of used vehicle prices in the US market given unprecedented technological change. Risk of impaired consumer credit and a potential buyers' strike is high.
- Capacity appears to be growing faster than demand and the consumer is of a lower credit quality. Rising supply of off-lease vehicles add pressure to the used market--an important store of consumer credit.
- The strategic initiatives implied by our price target to unlock hidden value may not come to fruition either due to external factors (the cycle) or management execution.

*For valuation methodology and risks associated with any price targets referenced in this research report, please contact the Client Support Team as follows: US/Canada +1 800 303-2495; Hong Kong +852 2848-5999; Latin America +1 718 754-5444 (U.S.); London +44 (0)20-7425-8169; Singapore +65 6834-6860; Sydney +61 (0)2-9770-1505; Tokyo +81 (0)3-6836-9000. Alternatively you may contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY 10036 USA.*

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The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Adam Jonas, CFA.

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### Global Stock Ratings Distribution

(as of February 28, 2018)

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Equal-weight and Not-Rated to hold and Underweight to sell recommendations, respectively.

STOCK RATING CATEGORY	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC)	
	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY	COUNT	% OF TOTAL OTHER MISC
<b>Overweight/Buy</b>	<b>1175</b>	<b>37%</b>	<b>315</b>	<b>41%</b>	<b>27%</b>	<b>555</b>	<b>39%</b>
<b>Equal-weight/Hold</b>	<b>1369</b>	<b>43%</b>	<b>357</b>	<b>47%</b>	<b>26%</b>	<b>643</b>	<b>45%</b>
<b>Not-Rated/Hold</b>	<b>53</b>	<b>2%</b>	<b>5</b>	<b>1%</b>	<b>9%</b>	<b>7</b>	<b>0%</b>
<b>Underweight/Sell</b>	<b>552</b>	<b>18%</b>	<b>87</b>	<b>11%</b>	<b>16%</b>	<b>222</b>	<b>16%</b>
<b>TOTAL</b>	<b>3,149</b>		<b>764</b>			<b>1427</b>	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

### Analyst Stock Ratings

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

### Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

### Stock Price, Price Target and Rating History (See Rating Definitions)

Fiat Chrysler Automobiles NV (FCHA.MI) - As of 3/13/18 in EUR  
 Industry : Autos & Shared Mobility



Stock Rating History: 3/1/15 : 0/C; 6/11/15 : NA/C; 8/24/15 : 0/C; 8/31/15 : NA/C; 2/24/16 : 0/C

Price Target History: 1/27/15 : 17; 6/11/15 : NA; 8/24/15 : 16; 8/31/15 : NA; 2/24/16 : 10; 10/13/16 : 11;  
 1/31/17 : 13; 4/27/17 : 14; 6/8/17 : 13; 7/31/17 : 14; 8/23/17 : 15; 10/26/17 : 16; 2/2/18 : 22

Source: Morgan Stanley Research      Date Format : MM/DD/YY      Price Target ---      No Price Target Assigned (NA)  
 Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) ■  
 Stock and Industry Ratings (abbreviations below) appear as ♦ Stock Ratings/Industry View  
 Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)  
 Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

Effective January 13, 2014, the stocks covered by Morgan Stanley Asia Pacific will be rated relative to the analyst's industry (or industry team's) coverage.

Effective January 13, 2014, the industry view benchmarks for Morgan Stanley Asia Pacific are as follows: relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.



Fiat Chrysler Automobiles NV (FCAU.N) - As of 3/13/18 in USD  
Industry : Autos & Shared Mobility



Stock Rating History: 3/1/15 : 0/C; 6/11/15 : NA/C; 8/31/15 : NA/C; 2/24/16 : 0/C

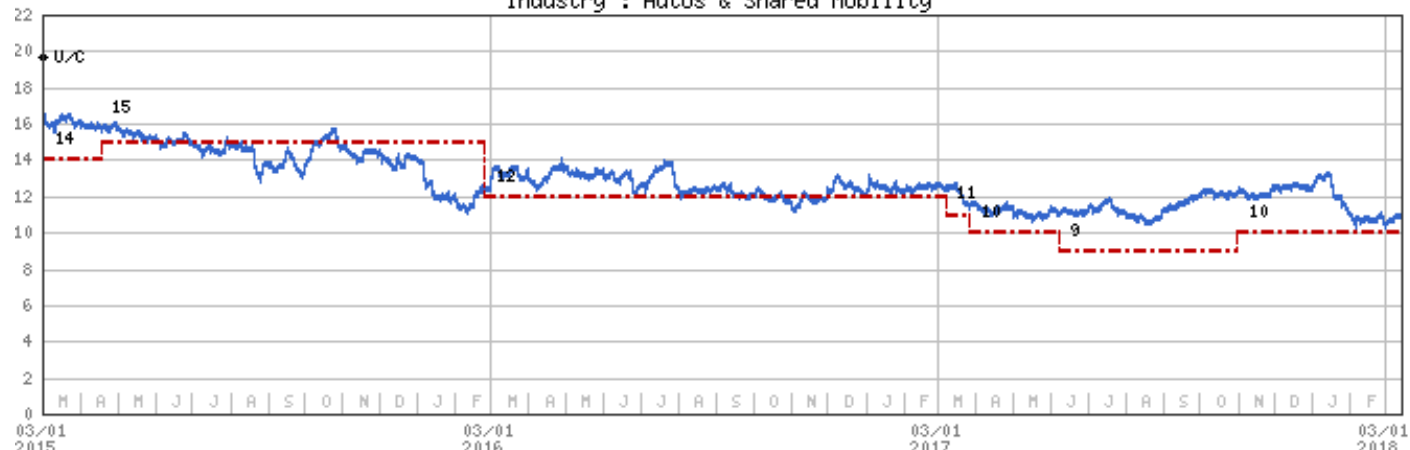
Price Target History: 1/27/15 : 19; 6/11/15 : NA; 2/24/16 : 11; 1/31/17 : 14; 4/27/17 : 15; 6/8/17 : 14; 10/26/17 : 18; 2/2/18 : 26

Source: Morgan Stanley Research      Date Format : MM/DD/YY      Price Target ---      No Price Target Assigned (NA)  
 Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) ■  
 Stock and Industry Ratings (abbreviations below) appear as ♦ Stock Rating/Industry View  
 Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)  
 Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

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Effective January 13, 2014, the industry view benchmarks for Morgan Stanley Asia Pacific are as follows: relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Ford Motor Company (F.N) - As of 3/13/18 in USD  
Industry : Autos & Shared Mobility



Stock Rating History: 3/1/15 : U/C

Price Target History: 10/8/14 : 14; 4/17/15 : 15; 2/24/16 : 12; 3/7/17 : 11; 3/27/17 : 10; 6/8/17 : 9; 10/31/17 : 10

Source: Morgan Stanley Research      Date Format : MM/DD/YY      Price Target ---      No Price Target Assigned (NA)  
 Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) ■  
 Stock and Industry Ratings (abbreviations below) appear as ♦ Stock Rating/Industry View  
 Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)  
 Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

Effective January 13, 2014, the stocks covered by Morgan Stanley Asia Pacific will be rated relative to the analyst's industry (or industry team's) coverage.

Effective January 13, 2014, the industry view benchmarks for Morgan Stanley Asia Pacific are as follows: relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

General Motors Company (GM.N) - As of 3/13/18 in USD  
Industry : Autos & Shared Mobility



Stock Rating History: 3/1/15 : NA/C; 3/17/15 : U/C; 5/28/15 : E/C; 6/11/15 : NA/C; 8/24/15 : U/C; 8/31/15 : NA/C;  
2/24/16 : U/C; 5/6/16 : E/C; 9/19/16 : O/C; 2/14/17 : NA/C; 3/28/17 : NA/C; 6/28/17 : O/C; 10/25/17 : E/C  
Price Target History: 2/10/15 : NA; 3/17/15 : 28; 6/11/15 : NA; 8/24/15 : 27; 8/31/15 : NA; 2/24/16 : 26;  
4/27/16 : 28; 5/6/16 : 29; 9/19/16 : 37; 11/1/16 : 40; 1/25/17 : 42; 2/14/17 : NA; 6/28/17 : 40; 9/21/17 : 43;  
2/13/18 : 44

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target -- No Price Target Assigned (NA)  
Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) ■  
Stock and Industry Ratings (abbreviations below) appear as ♦ Stock Rating/Industry View  
Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)  
Industry View: Attractive (A) In-line (I) Cautious (C) No Rating (NR)

Effective January 13, 2014, the stocks covered by Morgan Stanley Asia Pacific will be rated relative to the analyst's industry (or industry team's) coverage.

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## INDUSTRY COVERAGE: Autos &amp; Shared Mobility

COMPANY (TICKER)	RATING (AS OF)	PRICE* (03/13/2018)
<b>Adam Jonas, CFA</b>		
Adient PLC (ADNT.N)	O (02/21/2017)	\$61.13
American Axle & Manufacturing Holdings Inc (AXL.N)	U (09/08/2011)	\$15.44
Aptiv Plc (APT.V.N)	U (12/05/2017)	\$90.90
Asbury Automotive Group Inc (ABG.N)	U (09/12/2012)	\$68.40
AutoNation Inc. (AN.N)	O (07/13/2015)	\$50.94
Avis Budget Group Inc (CAR.O)	++	\$48.37
BorgWarner Inc. (BWAN)	U (10/19/2015)	\$50.83
Carmax Inc (KMX.N)	U (02/01/2017)	\$62.62
Delphi Technologies PLC (DLPH.N)	O (12/05/2017)	\$48.95
Ferrari NV (RACE.N)	U (09/07/2017)	\$123.10
Fiat Chrysler Automobiles NV (FCHAM)	O (02/24/2016)	€17.20
Fiat Chrysler Automobiles NV (FCAU.N)	O (02/24/2016)	\$21.13
Ford Motor Company (F.N)	O (03/14/2018)	\$10.78
General Motors Company (GM.N)	E (10/25/2017)	\$38.01
Goodyear Tire & Rubber Company (GT.O)	O (06/01/2017)	\$28.35
Group 1 Automotive, Inc (GPI.N)	U (10/08/2013)	\$74.73
Harley-Davidson Inc (HOG.N)	O (05/06/2013)	\$44.85
Hertz Global Holdings Inc (HTZ.N)	U (09/14/2017)	\$20.67
Lear Corporation (LEA.N)	U (06/08/2017)	\$191.28
Lithia Motors Inc. (LAD.N)	O (10/15/2014)	\$106.40
Magna International Inc. (MGAN)	E (08/28/2017)	\$53.15
Mobilitye NV (MBBYF.PK)	E (02/01/2017)	\$62.72
Penske Automotive Group, Inc (PAG.N)	O (09/06/2011)	\$46.91
Sonic Automotive Inc (SAH.N)	O (09/29/2014)	\$20.05
Tenneco Inc. (TEN.N)	U (09/23/2010)	\$55.45
Tesla Inc (TSLA.O)	E (05/15/2017)	\$341.84
Visteon Corporation (VC.O)	O (05/12/2017)	\$123.52

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\* Historical prices are not split adjusted.