

Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

Tesla's First Quarter Shows Continued Investment for the Very Long Term

Updated Forecasts and Estimates from 29 May 2015

David Whiston, CFA, CPA, CFE Strategist david.whiston@morningstar.com +1 (312) 384-5442

The primary analyst covering this company does not own its stock.

Research as of 06 May 2015 Estimates as of 29 May 2015 Pricing data through 05 Jun 2015 Rating updated as of 05 Jun 2015

Currency amounts expressed with "\$" are in U.S. dollars (USD) unless otherwise denoted

Contents

Investment Thesis	1
Morningstar Analysis	
Analyst Note	2
Valuation, Growth and Profitability	2
Scenario Analysis	3
Economic Moat	4
Moat Trend	5
Bulls Say/Bears Say	8
Financial Health	9
Enterprise Risk	9
Management & Ownership	11
Analyst Note Archive	12
Additional Information	-
Morningstar Analyst Forecasts	14
Comparable Company Analysis	18
Methodology for Valuing Companies	20

Investment Thesis 04 May 2015

Tesla has the momentum and charging infrastructure to be the dominant electric vehicle firm, but we do not see it having mass-market volume for at least another decade. Tesla's product plans for now do not mean an EV for every consumer who wants one, because the price points are too high. We think the Model X crossover due in the third quarter will start somewhere between \$60,000 and \$70,000, but will average much higher as consumers add options. The Model 3 sedan will start at about \$35,000, according to a 2014 interview with CEO Elon Musk, and begin selling in 2017 or 2018. This price is before any tax credits, but the \$7,500 U.S. federal tax credit only applies to the first 200,000 vehicles Tesla produces starting Jan. 1, 2010. We estimate Tesla's cumulative production since 2010 at nearly 65,000 units as of the end of 2014.

Tesla has said that when its gigafactory--a lithium-ion battery plant under construction in Nevada--is fully operational by 2020, it will be able to produce 500,000 vehicles a year at its sole assembly plant in Fremont, California. Without the gigafactory, Musk said on the July 2014 earnings call that the firm can make 200,000 vehicles "if you really push it." Even if demand exists for these vehicles, this quantity is quite small relative to total global auto production, which is likely to reach 100 million units in the next few years. Therefore, we think global mass adoption of pure electric vehicles is still a long way off. In the meantime, Tesla will have growing pains and perhaps more than one or two recessions to fight through before reaching mass-market volume. Even if industry forecasts of sub-1% market share for EVs prove far too conservative, it is important to keep the hype about Tesla in perspective relative to the firm's very limited production capacity. Tesla's mission is to make EVs increasingly more affordable in order to bring electric mobility to the world, which means more assembly plants must come on line to achieve annual unit delivery volume in the millions. This expansion will cost billions a year in capital spending and research and development, and will need to be done even during downturns in the economic cycle.

Vital Statistics				
Market Cap (USD Mil)				31,492
52-Week High (USD)				291.42
52-Week Low (USD)				181.40
52-Week Total Return %				20.4
YTD Total Return %				12.0
Last Fiscal Year End			31 [Dec 2014
5-Yr Forward Revenue CAGR %				53.9
5-Yr Forward EPS CAGR %				159.0
Price/Fair Value				1.28
Valuation Summary and Fored	asts			
Fiscal Year:	2013	2014	2015(E)	2016(E)

Valuation Summary and Forecasts											
Fiscal Year:	2013	2014	2015(E)	2016(E)							
Price/Earnings	192.9	NM	NM	70.2							
EV/EBITDA	149.0	223.1	156.2	39.2							
EV/EBIT	NM	NM	NM	105.6							
Free Cash Flow Yield %	0.0	-3.7	-3.6	-4.0							
Dividend Yield %	_	_	_	_							

Financial Summary and Forecasts (USD Mil)												
	Fiscal Year:	2013	2014	2015(E)	2016(E)							
Revenue		2,478	3,599	5,856	10,442							
Revenue YoY %		499.6	45.2	62.7	78.3							
EBIT		17	-104	-96	308							
EBIT YoY %		-104.2	-726.4	-7.7	-421.2							
Net Income, Adjusted		105	20	19	506							
Net Income YoY %		-130.5	-81.1	-2.8	2,527.5							
Diluted EPS		0.78	0.14	0.14	3.55							
Diluted EPS YoY %		-124.5	-82.2	-2.8	2,527.5							
Free Cash Flow		37	-1,079	-1,199	-1,382							
Free Cash Flow YoY %		-106.8	-3,015.9	11.1	15.3							

Historical/forecast data sources are Morningstar Estimates and may reflect adjustments. Analyst Note: Operating income includes stock based comp expense and pro-forma profit from residual guarantee program. EPS excludes stock option expense.

Profile

Founded in 2003 and based in Palo Alto, California, Tesla aims to drive the world's transition to electric mobility by bringing a full range of increasingly affordable electric vehicles to market. It also offers batteries for stationary energy storage for residential and commercial properties. The Tesla Roadster debuted in 2008 and the Model S sedan launched in 2012. Global deliveries in 2014 were 31,655, and the firm expects to deliver 55,000 Model S and Model X vehicles in 2015. Tesla went public in 2010 and employs more than 10,000 people.



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

Morningstar Analysis

Tesla's First Quarter Shows Continued Investment for the Very Long Term 06 May 2015

Tesla reported first-quarter results that continued to show the company burning cash and losing money as it invests for future growth. Management maintained its expectation of 2015 deliveries of about 55,000 vehicles and we see nothing in the results to merit a change to our fair value estimate or moat rating.

Tesla's adjusted EPS of a loss of \$0.36 beat consensus of negative \$0.50, while adjusted revenue increased by 55% from the prior year's guarter to \$1.1 billion, which slightly exceeded consensus. Free cash flow was a negative \$557.9 million compared with a negative \$455.1 million in the fourth quarter and a negative \$82.6 million in first-quarter 2014. Higher capital expenditures in the first quarter of 2015 of \$426.1 million compared with \$141.4 million in first-quarter 2014 and negative operating cash flow were the main drivers of this extra cash burn despite record deliveries of 10,045. Capital expenditure guidance for this year remains at \$1.5 billion. Management still expects positive free cash flow in the fourth quarter, aided by a full quarter's deliveries of the Model X. Tesla finished the first guarter with \$1.5 billion cash.

We continue to expect more losses in the second guarter as the company keeps investing in its supercharger network, increasing capacity, energy storage, and incurs Model X launch costs without any revenue because Model X deliveries are not expected to start until late in the third quarter. We like that on the call management repeatedly said it will focus on running the company for the long term and for what is best for customers rather than for quarters, and is seeking ways to achieve more scale. One example is reducing shipping costs in North America with more use of rail over truck for finished vehicles, and the company recently reduced Model S labor hours by 20% per unit. Management also said it hopes to unveil the Model 3 sedan in March 2016 and start production in late 2017.

On Tesla Energy, management often mentioned how overwhelming the demand is and that most demand will be on the commercial side rather than the residential Powerwall business. In one week, Tesla Energy sold out its capacity through mid-2016. Profit margin on these batteries is expected to be low but should improve once manufacturing moves to the gigafactory early next year. The gigafactory will eventually have about 30%, or 15 gigawatts, of its 50-gigawatt battery pack capacity used for storage production rather than automobiles; but seemed open to possibly reversing that ratio once it has more clarity on profitability for storage. For now, commentary on storage remains highly speculative because it is brand new. The company also clarified that the \$3,000 and \$3,500 price points for the two residential (Powerwall) batteries include the cost of DC/DC and that a separate inverter to alternating current is not necessary if a homeowner already has solar panels.

Another clarification comes with our concern in our May 1 note about the weather having an impact on the functionality of energy storage batteries. Tesla says that the actual possible temperature range is wider than the published temperature range of minus 4 degrees Fahrenheit to 110 degrees. The car works anywhere so the battery will also work anywhere, but actual amended temperature ranges were not given on the call.

Valuation, Growth and Profitability 04 May 2015

We are raising our fair value estimate to \$194 per share from \$174. The change is from modeling more revenue from energy storage than our previous valuation following Tesla's new battery presentation. Given the uncertain penetration rate of these batteries and no information on pricing for utilities and commercial customers' batteries, we are only modeling residential revenue at this time. Our model now has energy storage revenue over our 10-year explicit forecast period totaling \$31.9 billion, compared with \$5



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos



billion in our previous model. Our weighted average cost of capital remains 8.9%. The midcycle operating margin is 9%.

We model 2015 vehicle deliveries of 55,000 and 2016 deliveries of 100,000. We model capital expenditures of \$1.5 billion for 2015 and \$2 billion for 2016. When modeling Tesla in our standard discounted cash flow model, we keep an open mind regarding the disruptive potential of Tesla on the auto and utilities industry as well as focusing on what the company can achieve in 10 years. For a young company like Tesla, we think long-term potential is the more important question and the value driver.

Management's own long-term guidance since its 2010 IPO is for an operating margin in the low to mid-teens. This guidance is for a steady-state environment rather than one of massive reinvestment as it is today. The guidance is also non-GAAP, so it includes the residual value guarantee program revenue recognized immediately and excludes stock option expense, whereas we include stock option expense in EBIT so as to capture the cost of diluting shareholders. Tesla's guidance is also much higher than typical mid-single- to low-double-digit automaker EBIT

margins, but the firm has upside margin potential if it can reduce its battery costs and have a high-margin energy storage business. We model about \$59 million of storage revenue in 2015, with that figure growing to about \$6.5 billion by 2024. This revenue is about \$18 of the fair value estimate, or 9%.

Only Stage I is a detailed explicit forecast period, and we used 10 years instead of the more commonly used 5 in our methodology in order to give Tesla time to mature. With our model placing about 90% of Tesla's enterprise value in stages II and III of our model, we think investors today are paying almost entirely for potential. We model a 9% midcycle operating margin in our base-case scenario with Tesla delivering 3.8 million vehicles over our 10-year explicit forecast period.

Scenario Analysis

Total vehicles delivered over our 10-year explicit forecast period and midcycle operating margin including stock option expense are key drivers of our three scenarios. Our base-case fair value estimate of \$194 assumes a 9% EBIT margin and Tesla selling about 780,000 units in the last year of our 10-year explicit forecast period and 3.8 million in total over 10 years. Revenue in this case grows to about \$65 billion from about \$3.6 billion in 2014. We model volatile EBIT margins as Tesla ramps up growth and will sometimes have expenses for a product or service before it has the revenue. We model the same dollar spending of capital expenditure in all three scenarios. The base case models a midcycle operating margin that gives management the benefit of the doubt on its long-term guidance, which we assume is peak margin guidance, of low to mid-teens. Our bull case (\$320 fair value estimate) models revenue growing to about \$80.5 billion as well as better scaling of R&D, selling, general, and administrative, and stock option expense than the base case. Midcycle operating margin is 10.5% in this scenario, whereas it is only about 7% in the bear case, while vehicles delivered in the best case's



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

10-year forecast period total about 4.4 million.

The bear case (\$125 fair value estimate) models revenue of about \$61 billion in Year 10 but much less scale due to Tesla not executing well and instead generating margins typical of some other automakers. Vehicles delivered over our 10-year forecast period total about 3.4 million. This scenario is also the only one where we model a significant cash outflow for Tesla's bearing residual value risk in the RVG program. Tesla guarantees a resale price for consumers in the program comparable with an Audi, BMW, Mercedes, or Lexus. This guarantee means that if the Model S' resale value falls far below those competitors' values, Tesla will resell the used Model S vehicles returned by customers at much lower prices in the open market than what it paid the customers. Without this resale value risk, our bear-case valuation would increase to \$134. It is also important to note that in all three scenarios, we adjust GAAP revenue to match Tesla's pro forma reporting of the RVG. Tesla bears no credit risk from this program but does have residual value risk, which is only a material detractor to valuation in our bear-case scenario.

The rate at which Tesla generates economies of scale is also uncertain, and many execution risks remain as the company introduces new models through 2020 and beyond. If EVs fail to gain traction beyond enthusiasts, then the volume the company needs for scale may not materialize. If our bear case were to prove the reality, the market will go from treating Tesla like a tech stock with a celebrity CEO to an automaker struggling to achieve sufficient profit. We would not want to own the stock in that outcome.

Economic Moat

We do not see a moat yet because Tesla is still early in its life cycle. This dynamic creates huge uncertainty as to whether the firm will succeed in continuing to make great product at an affordable price and whether enough consumers will make the switch from internal combustion engine and hybrid vehicles. There is evidence suggesting Tesla will succeed, but if not. Tesla will remain an automaker for the wealthy. In a January 2014 Automotive News interview, Musk said in regard to Tesla making it, "I think we will, but this is not a bold assertion we unequivocally will. There is a possibility we may not."

Tesla's growth runway looks very lucrative, but this growth also requires constant substantial reinvestment in platforms, the gigafactory--for which Tesla is only spending about 40% of the cost while suppliers pay the rest--and annual assembly capacity, since the current plant in Fremont will eventually be limited to about 500,000 units. During this growth phase there will almost certainly be a recession or two. In times of economic uncertainty, it is difficult to say what Tesla's sales volume will be or what access, if any, the firm will have to capital markets.

For a narrow moat rating, a company must have excess normalized returns more likely than not be positive 10 years from today, and there must not be any substantial threat of major value destruction. All three of our valuation scenarios have returns on invested capital eventually good enough for a moat, with the metric averaging above our weighted average cost of capital of 8.9%, but we also see risk of major value destruction should EV adoption flop or occur much slower than any of our three 10-year forecast periods assume. For that reason, we wait for now to award Tesla a moat, but we see a positive moat trend as a result of the strengthening of the firm's brand and its cost structure.

Although we stress the uncertainty in investing in Tesla today, the company's competitive position is better than some may expect from a tech startup that makes automobiles. Looking at our five moat sources, we see a case for brand (intangibles) and cost advantage as sources of a moat in the future. Some may argue for efficient scale,



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

Morningstar Analysis

claiming that Tesla is the dominant pure EV firm. Although Tesla's long range gives it a huge advantage over pure EVs on the market (265 miles EPA range for the 85 kWh battery versus 84 miles for the Nissan LEAF, 150 miles for the BMW i3 with range extender, and 76 miles for the Ford Focus), we consider Tesla's competition to be the entire auto industry rather than just EVs. There are far too many automakers all over the world for us to claim that Tesla's market is effectively served by a small number of players.

Musk's own words do not support efficient scale. He wrote in a June 12, 2014, blog post announcing that Tesla would not sue companies that use its patented technology in good faith: "Given that annual new-vehicle production is approaching 100 million per year and the global fleet is approximately 2 billion cars, it is impossible for Tesla to build electric cars fast enough to address the carbon crisis. By the same token, it means the market is enormous. Our true competition is not the small trickle of non-Tesla electric cars being produced, but rather the enormous flood of gasoline cars pouring out of the world's factories every day."

Moat Trend

We see a positive trend due to Tesla's brand and possible cost advantages. We think Musk was very smart to not only design a great car, but then start selling Tesla vehicles at a premium price point. This created tremendous media publicity for Tesla beyond its customers, which we think creates a halo effect for Model 3 demand as well as demand for future Tesla vehicles at lower price points. We think that if Tesla had started with a mass-market vehicle, it probably would have failed, as not enough people would have known about the car nor been willing to pay for the brand.

We think Tesla's brand has the best chance among pure EV makers and energy storage makers to have its name be synonymous in those industries the way Coke is with soda or Google with search. If more and more consumers decide

to abandon ICE vehicles and place Tesla batteries in homes and offices for energy storage, then Tesla could very well build a moat around its brand. Tesla's network of Superchargers also supports the brand with their uniqueness. These very fast 480-volt charging stations enable Tesla drivers to take long trips beyond the range of the Model S battery; they can charge 80% of the battery in 40 minutes and 100% in 75 minutes (the charging rate has to decrease over time to help top off cells). However, those who regularly travel long distances may find the recharge time too long compared with the roughly 5-minute refueling time for an ICE vehicle.

Tesla has over 425 Supercharger stations globally and is increasing the number quickly. The company said in February that Superchargers are now accessible coast-to-coast and networks are also being built in Australia, China, Europe, and Japan. No other automaker is building its own charging stations, which cost Tesla \$100,000-\$300,000 to build. The electricity usage is free forever for customers. Tesla differentiates itself by having the longest-range pure electric vehicle available plus its own recharging network for long-range trips.

Other OEMs are offering long-range electric driving via systems such as the Chevrolet Volt's, in which a gas-powered generator runs an electric motor once the vehicle's all-electric 38-mile range ends, for a total range of 380 miles. Although the Volt's EPA-rated range is more than 100 miles further than a Model S, the Volt is not a gas-free vehicle, nor does it have the aesthetic appeal of a Tesla, in our opinion. Other automakers are relying on or hoping for governments and utilities to provide more charging stations. The Supercharger network gives people a reason to not only buy an EV, but to buy a Tesla, by mitigating range anxiety. Tesla also is a more high-tech vehicle with the ability to do drivetrain updates and other updates via Wi-Fi, and customers do not have to visit a store



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

Morningstar Analysis

for many service needs. Tesla will instead pick up the vehicle from home and often has it back the same day while providing a loaner for no charge. This experience is much easier compared with many other automakers' service and helps Tesla's brand equity.

The other possible moat source that is strengthening and justifies a positive trend is cost advantage. Tesla has told us that its batteries today cost \$200-\$300 per kWh and will be at or below \$150 per kWh once the gigafactory is fully operational in 2020. The factory is supposed to open around 2016 but will take time to ramp up to full utilization. On the July 2014 earnings call, Musk said he would be disappointed if it took another 10 years to get costs to \$100 per kWh. When asked if during that same time frame he would expect EVs to have cost parity with or even improve upon the cost of an ICE vehicle, his answer was simply "Yes."

Although this is a bold statement, we think it is reasonable, provided battery costs can come down. The gigafactory is a crucial part of that process, but Tesla's own R&D innovations in its proprietary cell technology and manufacturing process are also going to have to drive costs down. In 2014 we did calculations to compare Tesla's adjusted gross margin with BMW's automotive segment and Audi, which include highly profitable Rolls-Royce and Lamborghini, respectively. As Tesla is not yet scaling its R&D as well as a major OEM, its gross margin suffers. However, if we exclude R&D and option expense to see what Tesla's gross margin is from an operational point of view, the results are quite positive for Tesla, even though our math excludes sales of emission credits, which are 100% gross margin. Tesla's 25% gross margin at the time was nearly identical to BMW's and 20 basis points better than Audi's based on first-half 2014 numbers. Looking at gross margin including option expense, since labor is not free, Tesla's 24.5% was competitive with BMW and Audi.

We think Tesla's gross margin will have a negative mix shift over time as the cheaper Model 3 becomes the vast majority of volume, but battery costs will also decline significantly, with management saying the expected 30% battery cost reduction from the gigafactory is conservative. If Tesla meets its prediction of costs below \$100 per kWh, then even a high-end Model S 85 kWh battery cost will fall more than 60%. This type of cost advantage and adjusted gross margin data, along with Tesla's unique factory-owned stores enabling the firm to get retail pricing rather than wholesale pricing, suggest a cost advantage coming soon over other automakers and lays the ground for an economic moat once Tesla's volume allows more scale of its R&D and overhead expense. A similar scale argument can be made for the energy storage business.

The other cost advantage would come from the customer side via total cost of ownership, as the cost of electricity for a year versus the cost of gas is not even close. Model S owners' electric costs are only about 25% of what ICE owners pay for gas, per our calculations. Annual cost, defined as electricity or gas, insurance, and maintenance, still shows the Model S at about two thirds the cost per mile of an Audi or BMW.

Although the data shows that EVs have a much lower cost per mile compared with ICE vehicles, there are some practical logistic issues that we think raise the uncertainty of mass adoption by consumers. This uncertainty causes us to wait to award a moat. Some consumers may be afraid to not have their vehicle ready in an emergency if it is still charging, and range is another important matter beyond the numbers.

The Model S' EPA range rating of 270 miles for the 85 kWh battery is far less than the single tank range of the Camry, for example, which is 476 miles based on its 17-gallon tank, or the 21.1-gallon BMW 7 Series tank enabling a range of



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

Morningstar Analysis

485 miles. A diesel Volkswagen Passat gets about 800 miles on one tank. It is important to note too that driving conditions, outside temperature, and heat/air conditioning greatly affect a Tesla's range. Using the heater, for example, can reduce the Model S' range nearly 30%.

Although the Supercharger network mitigates range anxiety for some EV customers, a Tesla owner will have to stop more often to recharge on long trips than an ICE owner will to buy gas. It is uncertain how many consumers will be willing to put up with that until Tesla's range increases or charging times decline. There are only so many meal breaks someone can take before the 40-minute 80% charge (or 75 minutes for 100%) becomes inconvenient relative to a roughly 5-minute fill-up time for gas. A Tesla owner may take even longer to recharge if other customers have already filled all the Supercharger bays and those customers are not present at their vehicles because they're taking a meal break, for example. Tesla has done a media presentation showing it can swap two battery packs out in the time it takes to refill a car with gas, but this service is only available so far as a pilot location in California. We expect Superchargers to remain the primary means for most Tesla owners to recharge on long trips for the foreseeable future.

Recharging times at home, assuming a customer purchases a second onboard charger for \$1,500 (\$3,600 if bought after delivery) and a Tesla-made wall connector for maximum charging speed, can be as fast as 4 hours 35 minutes for a full battery charge. The numbers may not matter to some consumers, since they will place more value on never having to buy gas than the wait time to charge. However, other consumers may not want to wait or in some cases incur the extra up-front cost for 240-volt charging—which appears quite necessary as a 40-mile charge at home in a standard 110-volt outlet takes more than 12 hours. Bosch states that a 240-volt installation will cost on average \$1,200-\$1,500. Only time will tell on consumers' enthusiasm for a change

in how they get around, and we want to see more data before awarding a moat.



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

Bulls Say/Bears Say

Bulls Say

- Tesla has the potential to change the world with longrange EV technology and battery technology that can store solar energy.
- ► The cost advantage of recharging over gasoline is significant, and gas will probably never be able to catch up. Furthermore, the instant torque of EVs makes them fun to drive, as the vehicle is always at full power.
- Its unique Supercharger network makes Tesla the only automaker directly trying to alleviate the range anxiety of buying an EV.

Bears Say

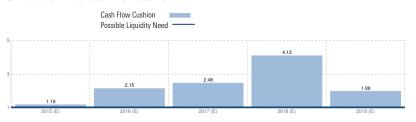
- Investing in Tesla carries tremendous uncertainty. The market has very high expectations for the stock, so a slowdown in growth could lead to a severe decline in the stock price.
- The success of Tesla's move into energy storage is highly uncertain.
- Mass EV adoption by consumers could be many more years away than Tesla expects. If demand does not materialize, the company is likely to struggle to recoup the costs of the gigafactory.



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

Five Year Adjusted Cash Flow Forecast (USD Mil)					
	2015(E)	2016(E)	2017(E)	2018(E)	2019(E)
Cash and Equivalents (beginning of period)	1,906	1,588	985	1,152	862
Adjusted Available Cash Flow	-874	-835	193	998	2,111
Total Cash Available before Debt Service	1,032	753	1,178	2,150	2,973
Principal Payments	-660	_	_	_	-920
Interest Payments	-120	-221	-271	-271	-271
Other Cash Obligations and Commitments	-90	-128	-204	-251	-300
Total Cash Obligations and Commitments	-870	-350	-475	-522	-1,491

Cumulative Annual Cash Flow Cushion



Adjusted Cash Flow Summary

		/0 UI
	USD Millions	Commitments
Beginning Cash Balance	1,906	51.4
Sum of 5-Year Adjusted Free Cash Flow	1,593	43.0
Sum of Cash and 5-Year Cash Generation	3,499	94.4
Revolver Availability	_	_
Asset Adjusted Borrowings (Repayment)	_	_
Sum of Cash, 5-Year Cash Generation, Revolver and Adjustments	3,499	94.4
Sum of 5-Year Cash Commitments	-3,708	_

Financial Health

Since its 2010 initial public offering, Tesla has used convertible debt financing as well as secondary equity offerings. We think that given low interest rates, management will prefer to issue more convertible notes than stock for future capital raises. However, the stock is so popular today that we think the company could dilute shareholders and the stock would not suffer for very long. The company has three convertible note issuances, issued in May 2013 and spring 2014, for principal balances totaling just below \$3 billion. The \$660 million 1.5% senior convertibles are due in 2018, the \$920 million 0.25% senior convertibles are due 2019, and the \$1.38 billion 1.25% senior convertibles mature in 2021. The 2018 notes are convertible at the holder's option starting March 1, 2018, and are convertible before then should Tesla's stock trade at a sufficient premium to the conversion price for a set amount of time. Holders of the 2019 notes can convert at their option Dec. 1, 2018, and holders of the 2021 notes can convert anytime starting Dec. 1, 2020. Holders of both notes can also convert before these dates should the stock trade at a sufficient premium to the conversion price for a set amount of time. The per share conversion prices on the 2018, 2019, and 2021 notes after bond hedging actions to offset actual dilution are \$184.48, \$512.66, and \$560.64, respectively.

Enterprise Risk

Investing in Tesla comes with tremendous uncertainties due to the future of electric vehicles and energy storage. Until at least when the Model 3 goes on sale, there is no way to know for sure if consumers in large volume are willing to switch to an EV and deal with range anxiety and longer charging times compared with using a gas station. Tesla is fighting a state-by-state battle to keep its stores factory-owned rather than franchised, which raises legal risk for Tesla and could one day stall growth. The energy storage market for solar is in its infancy, so there is very



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

high uncertainty as to whether Tesla's plans will succeed. If the company's growth ever stalls or reverses, we would expect a severe decline in the stock price because current expectations for Tesla are immense, in our opinion. With a young, growing company, there is always more risk of diluting shareholders or taking on too much debt to fund growth. Tesla also has customer concentration risk, with the U.S., Norway, and China constituting about 74% of 2014 GAAP revenue. We see immense key-man risk for the stock as Tesla's fate is closely linked to Musk's actions. Should he leave the company, we would not be surprised to see the stock fall dramatically. Also, Musk has more than 10 million Tesla shares as collateral for personal debt. Selling this block of shares quickly would cause a rapid fall in Tesla's stock price. In addition, Musk said in September 2014 that Tesla's stock price looks high and the short-term outlook on it is not clear. Another risk is to profits, since Tesla is not willing to raise prices in markets such as China solely for profit maximization so as to more easily facilitate the world's shift to EVs. Given the many uncertainties regarding investing in Tesla today, our fair value uncertainty rating will remain very high for some time.



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

Management & Ownership

Management Activity

Name MR. KIMBAL MUSK	Position Director	Shares Held 152,324	Report Date* 01 May 2015	InsiderActivity 6,401
MR. JEFFREY B. STRAUBEL	Chief Technology Officer	134,902	15 May 2015	10,000
MR. ANTONIO J. GRACIA	SDirector	90,993	07 Nov 2013	
Mr. Deepak ahuja	CFO/Chief Accounting Officer	7,270	02 Mar 2015	
IRA EHRENPREIS	Director	5,884	02 Sep 2014	
BRAD W. BUSS	Director	5,882	18 Feb 2015	_
JEROME M. GUILLEN	Vice President, Divisional	2,662	15 May 2015	16,250
GREGORY REICHOW	Vice Chairman, Divisional	110	11 May 2015	10,000

^{*}Represents the date on which the owner's name, position, and common shares held were reported by the holder or issuer.

Fund Ownership

Top Owners	% of Shares Held	% of Fund Assets	Change (k)	Portfolio Date
Fidelity® Contrafund® Fund	2.39	0.62	105	30 Apr 2015
T. Rowe Price Growth Stock Fund	1.83	0.98	589	31 Mar 2015
VA CollegeAmerica Growth Fund of America	1.59	0.28	_	31 Mar 2015
Vanguard Total Stock Mkt Idx	1.23	0.09	5	30 Apr 2015
Harbor Capital Appreciation Fund	1.29	1.18	459	31 Mar 2015
Concentrated Holders				
Market Vectors® Global Alt Energy ETF	0.03	11.72	_	04 Jun 2015
First Trust NASDAQ® Clean Edge® Grn Engy	0.03	9.08	_	04 Jun 2015
UniSector: Klimawandel	0.01	7.89	14	31 Dec 2014
ARK Industrial Innovation ETF	_	7.83	1	30 Apr 2015
Baron Focused Growth Fund	0.06	7.71	17	31 Mar 2015
Institutional Transactions				
Top 5 Buyers	% of Shares Held	% of Fund Assets	Shares Bought/ Sold (k)	Portfolio Date

Top 5 Buyers Susquehanr	na Securities	% of Shares Held 4.98	% of Fund Assets	Sold (k) 6,259	Portfolio Date 31 Dec 2014
T. Rowe Price	e Associates, Inc.	6.43	0.32	2,136	31 Mar 2015
Jennison As	ssociates LLC	3.48	0.76	1,146	31 Mar 2015
Baillie Giffo	rd & Co Limited.	5.56	2.51	995	31 Mar 2015
Capital Vent	tures International	0.61	_	764	31 Dec 2014
Top 5 Sellers					
Goldman, Sa	achs & Co.	1.11	0.14	-913	31 Mar 2015
Winslow Ca	pital Management, LLC	0.23	0.17	-897	31 Mar 2015
J&P(CHINA)	CAPITAL MANAGEMENT CO LTD	0.79	26.49	-860	31 Mar 2015
Fidelity Mar	nagement and Research Company	6.72	0.22	-655	31 Mar 2015
Marsico Cap	oital Management, LLC	0.34	0.69	-603	31 Mar 2015

Management 04 May 2015

We award Tesla a Standard stewardship rating as we see no major problems with its capital allocation. The company is growing, and we think it is right to refrain from paying a dividend or repurchasing stock. Reinvesting in the business is key for Tesla, and we think it is the best path for the company to eventually generate consistent economic profit. CEO Elon Musk, 43, is synonymous with Tesla, and the stock could suffer should he resign. Musk owns nearly 27% of the stock and also serves as chairman. His brother, Kimbal Musk, is also on Tesla's board, as is SolarCity CFO Brad Buss. Elon is chairman of SolarCity and owns about 21% of that firm. Other Tesla officers and directors are also on SolarCity's board and SolarCity's CEO, Lyndon Rive, is Elon's cousin. Musk has an immense amount of responsibility by serving as Tesla's CEO, SolarCity's chairman, and SpaceX's CEO, which raises the risk of being pulled in too many directions at once. Directors and officers own about 28% of Tesla's stock, so Elon's interests are aligned with Tesla's shareholders', but other shareholders are essentially along for the ride. The board is staggered, which is not our preferred practice. Each director serves a three-year term, and there are three classes of directors.

Tesla has various related-party transactions with SolarCity and SpaceX for solar panels on Supercharger stations, aircraft, and real estate use, but we see no alarming transactions in the proxy statement that could hurt shareholders. Toyota owns a small amount of Tesla's stock and was a Tesla customer. Toyota's relationship seems to have ended, however, as it is embracing hydrogen over electric propulsion for vehicles.



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

Analyst Notes

Tesla Energy Opens Up a Whole New Market for the Company 01 May 2015

Tesla finally gave some information on its long-awaited energy storage business Thursday night. After incorporating the pricing information from the new batteries into our valuation model, we plan to increase our fair value estimate to about \$194 and maintain our moat rating. We stress that this technology is still in its infancy and take rates by consumers, businesses, and utilities is highly uncertain and a function of how much penetration solar panels achieve over time. No pricing information was given for the commercial side of the business, called Tesla Energy, but electricity storage for residential, called the Tesla Powerwall, will have two batteries targeted to consumers for "load shifting, backup power and self-consumption of solar power generation."

A Powerwall battery can be mounted indoors or outdoors by an electrician and weighs 220 pounds. The 10 kWh unit will cost \$3,500 and the 7kWh will cost \$3,000. The batteries have a 10-year warranty and maximum number of batteries in one home per Tesla will be nine for either version. Deliveries will begin in late summer 2015. We think these batteries look expensive because prices do not include installation or the cost to convert flow to alternating current. A typical American home uses about 30 kWh a day so this extra cost still will not let a homeowner get off the grid. We also have concern that the Fahrenheit temperature range the batteries can operate is between negative 4 to 110, which at times will not be sufficient in certain cold weather states or in cities such as Phoenix in the summertime.

CEO Elon Musk's presentation made it clear that other entities will need to build more gigafactories over time if the whole world is to stop generating electricity and transportation from fossil fuels. Tesla will continue to leave its patents open. This product line has potential but we think the market continues to ignore the massive costs Tesla will

need to fund the growth priced into the stock.

Given our uncertainty on the mass market appeal of electric vehicles, we think Tesla should at some point consider stop making electric vehicles, or EVs, and just be a battery firm. If Tesla stopped making cars, then perhaps more automakers would be willing to buy batteries from Tesla as Tesla would no longer be a competitor. Large automakers have far deeper pockets to invest in EVs compared with Tesla's ability; which could in turn encourage more sales of EVs and make faster progress toward Tesla's goal of sustainable electric transport.

Tesla's Fourth Quarter Weak, but We Keep our Focus on the Long Term; Reducing Fair Value Estimate 11 Feb 2015 Tesla Motors' fourth-quarter results considerably missed consensus estimates. While we plan to reduce our fair value estimate to about \$193, we'll keep Tesla at its current nomoat rating. Adjusted fourth quarter diluted EPS came in at a loss of \$0.13 versus consensus of a profit of \$0.31. Revenue, adjusted to include the residual guarantee program, increased 43.9% from the prior year's quarter, to nearly \$1.1 billion, still short of the \$1.2 billion consensus figure.

Tesla worked very hard during the quarter, and met its annual Model S production goal of 35,000 vehicles in 2014. However, full-year deliveries came in at 31,655, short of the guidance call for 33,000. Tesla held back production for most of the quarter for the new top-of-the-line P85D performance model to meet Tesla's high quality standards. This delay meant that by the time Tesla made up the lost production, about 1,400 vehicles could not be delivered due to winter weather, customers on vacation, and problems with ocean shipping companies moving vehicles. Tesla doesn't book revenue until the vehicle is delivered to the customer. These types of bumps in the road are bound to happen as Tesla grows, but we still think it's important to focus on the company's margin potential far out into the future rather



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

Analyst Notes

than quarterly results when the company is so young. We see no reason to deviate from our expectation of about a 10% midcycle operating margin, including stock option expense.

Our fair value estimate change is a function of lower 2015 deliveries based on new guidance, as well as increasing our 2015 and 2016 capital expenditure expectations based on new guidance. In 2015, Model S and Model X (due in third quarter) deliveries are guided to a combined 55,000 while we had been modeling 75,000. Capital spending is guided to \$1.5 billion this year, up from \$970 million in 2014. We had been modeling \$1.2 billion for 2015 and \$1.5 billion for 2016, but now model \$1.5 billion and \$2 billion, respectively.

We still think there is immense uncertainty regarding Tesla's future margins. Even so, the potential for strong operating margin remains should the company achieve sufficient scale and considerably lower its battery costs once the gigafactory opens around 2016, and is in full production mode in 2020. Cash burn remains an issue, with the company generating negative free cash flow in full-year 2014 of \$1 billion. Management expects considerable improvement for that figure in 2015, but we model only a small improvement in that deficit for 2015. We think it is important to remember that auto manufacturing is a very capital-intensive business, and CEO Elon Musk is right to remind investors that there will be staggering amounts of capital expenditure. The company finished 2014 with \$1.9 billion in cash, and Musk remains confident that growth can be funded with only minimal-to-moderate dilution. We think this expectation would swing unfavorably for shareholders should the U.S. enter a recession.

In addition to the third-quarter launch of the Model X crossover, which should finally allow Tesla to have revenue to recoup development costs and thus boost operating margin in the second half of the year, other product

highlights to watch for are a fleetwide software update soon, and the unveiling of batteries for energy storage that consumers can use in their home and business in the next month or two. Production of these units is expected in about six months. Tesla's energy storage ambitions have not been disclosed yet, but the company is talking to utility companies now about future business. Management stressed, however, that utility firms' procurement cycles are very far out in time.



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

Morningstar Analyst Forecasts

Financial Summary and Forecasts							
Fiscal Year Ends in December						Forecast	
	3-Year						5-Year
Growth (% YoY) Revenue	Hist. CAGR 160.2	2012 102.3	2013 499.6	2014 45.2	2015 62.7	2016 78.3	Proj. CAGR 53.9
EBIT	100.2	56.8	-104.2	-726.4	-7.7	76.3 -421.2	23.9
EBITDA	_	55.8	-104.2 -133.6	-720.4 4.3	-7.7 63.0	-421.2 298.3	93.4
Net Income	_	55.0	-130.5	4.5 -81.1	-2.8	2,527.5	93.4 159.0
	_					•	
Diluted EPS	_	44.9	-124.5	-82.2	-2.8	2,527.5	159.0
Earnings Before Interest, after Tax	_	55.3	-114.3	-245.2	19.5	-421.2	_
Free Cash Flow		85.9	-106.8	-3,015.9	11.1	15.3	
	2.4						5.V
Profitability	3-Year Hist. Avg	2012	2013	2014	2015	2016	5-Year Proj. Avg
Operating Margin %	-32.5	-95.4	0.7	-2.9	-1.6	3.0	4.0
EBITDA Margin %	-26.6	-88.4	5.0	3.6	3.6	8.0	9.0
Net Margin %	-26.1	-83.1	4.2	0.6	0.3	4.8	5.9
Free Cash Flow Margin %	-53.7	NM	1.5	-30.0	-20.5	-13.2	-7.2
ROIC %	-26.6	-79.0	3.4	-4.0	-1.4	6.2	8.7
Adjusted ROIC %	-26.6	-79.0	3.4	-4.0	-1.4	6.2	8.7
Return on Assets %	-15.8	-43.4	1.9	-5.9	-3.7	1.2	4.0
Return on Equity %	-80.8	-227.2	7.0	-22.3	-20.7	9.0	23.7
Tiotam on Equity 70		227.2	7.0	22.0	20.7	0.0	
	3-Year						5-Year
Leverage	Hist. Avg	2012	2013	2014	2015	2016	Proj. Avg
Debt/Capital	0.64	0.79	0.45	0.68	0.79	0.81	0.73
Total Debt/EBITDA	7.55	-1.31	4.95	19.00	16.45	5.33	5.89
EBITDA/Interest Expense	-471.36	-1,438.81	19.79	4.95	1.74	3.75	6.35

Valuation Summary and F	Valuation Summary and Forecasts											
	2013	2014	2015(E)	2016(E)								
Price/Fair Value	_	1.11	_	_								
Price/Earnings	192.9	NM	NM	70.2								
EV/EBITDA	149.0	223.1	156.2	39.2								
EV/EBIT	NM	NM	NM	105.6								
Free Cash Flow Yield %	0.0	-3.7	-3.6	-4.0								
Dividend Yield %	_	_	_	_								
Key Valuation Drivers												

key valuation brivers	
Cost of Equity %	9.0
Pre-Tax Cost of Debt %	10.0
Weighted Average Cost of Capital %	8.9
Long-Run Tax Rate %	20.0
Stage II EBI Growth Rate %	7.0
Stage II Investment Rate %	20.0
Perpetuity Year	11

Additional estimates and scenarios available for download at http://select.morningstar.com.

Discounted Cash Flow Valuation			
	USD Mil	Firm Value (%)	Per Share Value
Present Value Stage I	2,516	9.2	17.69
Present Value Stage II	1,556	5.7	10.94
Present Value Stage III	23,317	85.1	163.95
Total Firm Value	27,389	100.0	192.58
Cash and Equivalents	1,906	_	13.40
Debt	-2,430	_	-17.09
Preferred Stock	_	_	_
Other Adjustments	-232	_	-1.63
Equity Value	26,633	_	187.27
Projected Diluted Shares	142		
Fair Value per Share (USD)	_		

The data in the table above represent base-case forecasts in the company's reporting currency as of the beginning of the current year. Our fair value estimate may differ from the equity value per share shown above due to our time value of money adjustment and in cases where probability-weighted scenario analysis is performed.



Last Price Fair Value Moat Trend™ **Consider Buy Consider Sell** Uncertainty Economic Moat™ Stewardship **Industry Group** 249.14 USD 194.00 USD 97.00 USD 339.50 USD Very High None Positive Standard Autos

Morningstar Analyst Forecasts

Income Statement (USD Mil) Fiscal Year Ends in December				For	ecast
FISCAL TEAL ETIUS III DECERTIDEL	2012	2013	2014	2015	2016 2016
Revenue	413	2,478	3,599	5,856	10,442
Cost of Goods Sold	381	1,934	2,617	4,301	7,363
Gross Profit	32	543	982	1,556	3,079
Selling, General & Administrative Expenses	129	246	527	773	1,204
Research & Development	247	196	402	644	1,149
Employee Compensation & Benefits	50	84	156	234	418
Depreciation & Amortization (if reported separately)	_	_	_	_	_
Operating Income (ex charges)	-394	17	-104	-96	308
Restructuring & Other Cash Charges	_	_	_	_	_
Impairment Charges (if reported separately)	_	_	_	_	_
Other Non-Cash (Income)/Charges		_	75		
Operating Income (incl charges)	-394	17	-179	- 96	308
Interest Expense	0	6	26	120	221
Interest Income	0	0	1	1	1
Pre-Tax Income	-394	11	-204	-215	88
Income Tax Expense	0	3	9	_	_
Other After-Tax Cash Gains (Losses)	_	_	_	_	_
Other After-Tax Non-Cash Gains (Losses)	-2	23	2	_	_
(Minority Interest)	_	_	_	_	
(Preferred Dividends)					
Net Income	-396	31	-211	-215	88
Weighted Average Diluted Shares Outstanding	107	134	142	142	142
Diluted Earnings Per Share	-3.69	0.23	-1.49	-1.51	0.62
Adjusted Net Income	-343	105	20	19	506
Diluted Earnings Per Share (Adjusted)	-3.20	0.78	0.14	0.14	3.55
Dividends Per Common Share	_	_	_	_	_
EBITDA	-365	123	53	209	830
Adjusted EBITDA	-365	123	128	209	830



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

Morningstar Analyst Forecasts

Balance Sheet (USD Mil)				_	
Fiscal Year Ends in December	2012	2013	2014	Fore 2015	<u>cast</u> 2016
Cash and Equivalents	202	846	1.906	1.588	985
Investments	_	_			_
Accounts Receivable	27	49	227	481	858
Inventory	269	340	954	1,060	1,815
Deferred Tax Assets (Current)		_	_	_	
Other Short Term Assets	33	37	124	124	124
Current Assets	530	1,272	3,210	3,254	3,783
Net Property Plant, and Equipment	552	738	1,829	3,025	4,503
Goodwill	_	_	_	_	_
Other Intangibles	_	_	_	_	_
Deferred Tax Assets (Long-Term)	_	_	_	_	_
Other Long-Term Operating Assets	10	5	77	77	77
Long-Term Non-Operating Assets	22	24	43	43	43
Total Assets	1,114	2,040	5,160	6,399	8,406
Accounts Payable	303	304	778	1,178	2,017
Short-Term Debt	55	8	611	611	611
Deferred Tax Liabilities (Current)	_	_	_	_	_
Other Short-Term Liabilities	181	271	526	526	526
Current Liabilities	539	583	1,916	2,316	3,155
Long-Term Debt	422	599	1,819	2,819	3,819
Deferred Tax Liabilities (Long-Term)	_	_	_	_	_
Other Long-Term Operating Liabilities	3	45	107	161	242
Long-Term Non-Operating Liabilities	25	58	173	173	173
Total Liabilities	989	1,286	4,015	5,469	7,389
Preferred Stock	_	_	_	_	_
Common Stock	0	0	0	0	0
Additional Paid-in Capital	1,190	1,807	2,345	2,345	2,345
Retained Earnings (Deficit)	-1,066	-1,052	-1,259	-1,474	-1,386
(Treasury Stock)	_	_	_	_	_
Other Equity	_	_	58	58	58
Shareholder's Equity	125	754	1,145	930	1,017
Minority Interest	_				
Total Equity	125	754	1,145	930	1,017



Last Price Fair Value Moat Trend™ **Consider Buy Consider Sell** Uncertainty Economic Moat™ Stewardship **Industry Group** 249.14 USD 194.00 USD 97.00 USD 339.50 USD Very High None Positive Standard Autos

Morningstar Analyst Forecasts

Cash Flow (USD Mil)					
Fiscal Year Ends in December				Fore	ecast
	2012	2013	2014	2015	2016
Net Income	-396	-74	-294	-215	88
Depreciation	29	106	232	305	522
Amortization	_	_	_	_	_
Stock-Based Compensation	50	81	156	234	418
Impairment of Goodwill	_	_	_	_	_
Impairment of Other Intangibles	_	_	_	_	_
Deferred Taxes	_	_	_	_	_
Other Non-Cash Adjustments	8	20	105	_	_
(Increase) Decrease in Accounts Receivable	-17	-22	-184	-255	-377
(Increase) Decrease in Inventory	-195	-463	-1,050	-107	-755
Change in Other Short-Term Assets	1	-18	-65	_	_
Increase (Decrease) in Accounts Payable	188	0	253	400	839
Change in Other Short-Term Liabilities	66	628	789	_	_
Cash From Operations	-266	258	-57	363	735
(Capital Expenditures)	-239	-264	-970	-1,500	-2,000
Net (Acquisitions), Asset Sales, and Disposals	_	_	_	_	_
Net Sales (Purchases) of Investments	25	_	-17	_	_
Other Investing Cash Flows	7	15	-4	54	81
Cash From Investing	-207	-249	-990	-1,446	-1,919
Common Stock Issuance (or Repurchase)	221	415	_	_	_
Common Stock (Dividends)	_	_	_	_	_
Short-Term Debt Issuance (or Retirement)	_	_	_	_	_
Long-Term Debt Issuance (or Retirement)	176	208	2,300	1,000	1,000
Other Financing Cash Flows	22	13	-192	-234	-418
Cash From Financing	420	635	2,108	766	582
Exchange Rates, Discontinued Ops, etc. (net)	_	_	_	_	_
Net Change in Cash	-53	644	1,060	-318	-602



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

Comparable Company Analysis

These companies are chosen by the analyst and the data are shown by nearest calendar year in descending market capitalization order.

Valuation Analysis																
		Price/Ea	rnings		EV/EBITD	Α		Price/Fre	ee Cash Flo	w	Price/Bo	ok		Price/Sa	les	
Company/Ticker	Price/Fair Value	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)
Toyota Motor Corp TM USA	1.03	11.7	11.8	10.5	10.3	12.4	11.0	8.4	16.5	12.9	1.4	1.9	1.7	0.8	1.0	1.0
Volkswagen AG VOW DEU	0.93	8.2	8.8	7.5	6.8	8.1	6.9	15.6	23.4	25.7	1.0	1.0	0.9	0.5	0.5	0.5
Daimler AG DAI DEU	1.09	10.9	10.6	9.5	10.3	9.7	8.8	27.8	37.3	19.3	1.7	1.8	1.6	0.6	0.7	0.6
Bayerische Motoren Werke AG BMW	1.00	10.2	10.2	9.9	10.0	10.5	10.0	15.7	35.8	43.5	1.6	1.6	1.4	0.8	0.8	0.7
Ford Motor Co F USA	0.67	13.4	9.5	7.7	17.7	14.8	11.5	44.3	109.0	20.6	4.4	3.6	3.0	0.5	0.4	0.4
Average		10.9	10.2	9.0	11.0	11.1	9.6	22.4	44.4	24.4	2.0	2.0	1.7	0.6	0.7	0.6
Tesla Motors Inc TSLA US	1.28	NM	NM	70.2	223.1	156.2	39.2	NM	NM	NM	24.4	33.9	31.0	7.8	5.4	3.0

Returns Analysis																
		ROIC %			Adjusted	ROIC %		Return o	n Equity %		Return o	n Assets %		Dividen	d Yield %	
Company/Ticker	Last Historical Year Total Assets (Mil)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)
Toyota Motor Corp TM USA	— JPY	23.6	27.1	27.9	23.6	27.1	27.9	13.9	14.8	15.2	7.5	8.2	8.8	2.2	2.2	2.3
Volkswagen AG VOW DEU	214,786 EUR	_	_	_	8.0	8.5	9.3	12.3	12.8	13.5	5.2	5.5	6.2	2.3	2.4	2.5
Daimler AG DAI DEU	112,415 EUR	_	_	_	12.5	14.2	14.8	15.6	17.7	17.5	6.2	7.0	7.4	3.3	2.8	2.9
Bayerische Motoren Werke AG BMW	86,393 EUR	13.7	16.9	15.7	13.7	16.9	15.7	16.0	16.2	15.1	7.1	7.1	6.9	2.9	2.9	3.0
Ford Motor Co F USA	89,582 USD	_	_	_	5.9	8.4	11.1	11.2	30.3	34.3	1.9	5.2	6.8	3.1	4.1	5.0
Average		18.7	22.0	21.8	12.7	15.0	15.8	13.8	18.4	19.1	5.6	6.6	7.2	2.8	2.9	3.1
Tesla Motors Inc TSLA US	5,160 USD	-4.0	-1.4	6.2	-4.0	-1.4	6.2	-22.3	-20.7	9.0	-5.9	<i>-3.7</i>	1.2	_	_	_

Growth Analysis																
	Last Historical Year Revenue	Revenue Growth %			EBIT Gro	EBIT Growth %		EPS Growth %		Free Cash Flow Growth %			Dividend/Share Growth %			
Company/Ticker	(Mil)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)
Toyota Motor Corp TM USA	24,343,613 JPY	16.2	7.0	5.0	96.9	18.4	9.9	89.3	19.0	12.3	56.4	168.7	27.5	108.2	50.0	5.0
Volkswagen AG VOW DEU	177,528 EUR	1.4	4.0	9.9	9.9	18.2	25.4	18.4	10.2	17.4	-32.3	-89.2	-176.2	4.0	21.4	6.9
Daimler AG DAI DEU	113,881 EUR	10.1	14.3	7.0	41.6	25.1	12.3	25.6	22.2	12.4	-8.9	-62.4	105.7	2.4	2.0	2.0
Bayerische Motoren Werke AG BMW	76,852 EUR	6.5	11.6	3.2	12.3	10.0	6.5	9.1	10.4	3.6	-42.1	21.3	-21.3	4.0	11.5	2.0
Ford Motor Co F USA	135,782 USD	-2.6	1.0	5.0	-51.5	53.5	52.6	-27.5	33.0	24.8	-12.6	-62.7	387.4	25.3	24.3	20.0
Average		6.3	7.6	6.0	21.8	25.0	21.3	23.0	19.0	14.1	-7.9	-4.9	64.6	28.8	21.8	7.2
Tesla Motors Inc TSLA US	3,599 USD	45.2	62.7	78.3	-726.4	-7.7	-421.2	-82.2	-2.8	<i>2,527.5</i> ·	3,015.9	11.1	15.3	-	_	_



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

Comparable Company Analysis

These companies are chosen by the analyst and the data are shown by nearest calendar year in descending market capitalization order.

Profitability Analysis																
	Last Historical Year Net Income	Gross M	argin %		EBITDA I	Margin %		Operatin	g Margin %	0	Net Mar	gin %		Free Cas	h Flow Ma	rgin %
Company/Ticker	(Mil)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)
Toyota Motor Corp TM USA	1,823,151 JPY	17.8	19.1	19.4	12.2	12.9	13.7	8.8	9.8	10.2	7.5	8.3	8.9	9.0	6.2	7.5
Volkswagen AG VOW DEU	10,938 EUR	29.3	30.3	31.6	13.0	13.8	14.8	6.1	6.9	7.9	6.2	6.6	7.0	3.1	2.4	2.0
Daimler AG DAI DEU	6,739 EUR	27.1	27.3	27.9	12.2	12.8	13.1	7.8	8.6	9.0	5.9	6.3	6.6	2.3	1.8	3.3
Bayerische Motoren Werke AG BMW	5,798 EUR	28.0	28.1	28.7	16.0	15.8	16.1	10.4	10.3	10.6	7.5	7.5	7.5	4.9	2.1	1.7
Ford Motor Co F USA	4,708 USD	9.5	10.6	12.0	5.3	6.1	7.5	2.0	3.0	4.4	3.5	4.6	5.4	1.0	0.4	2.0
Average		22.3	23.1	23.9	11.7	12.3	13.0	7.0	7.7	8.4	6.1	6.7	7.1	4.1	2.6	3.3
Tesla Motors Inc TSLA US	20 USD	27.3	26.6	29.5	3.6	3.6	8.0	-2.9	-1.6	3.0	0.6	0.3	4.8	-28.6	-19.4	-12.1

Leverage Analysis																
		Debt/Equ	Debt/Equity %			Debt/Total Cap %		EBITDA/Interest Exp.			Total Debt/EBITDA			Assets/Equity		
Company/Ticker	Last Historical Year Total Debt (Mil)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)
Toyota Motor Corp TM USA	1,245,522 JPY	9.8	9.1	8.1	8.9	8.3	7.5	110.0	128.0	143.2	0.4	0.4	0.3	1.8	1.8	1.7
Volkswagen AG VOW DEU	10,643 EUR	11.8	10.5	9.4	10.6	9.5	8.6	93.2	48.2	57.1	0.5	0.4	0.4	2.4	2.3	2.1
Daimler AG DAI DEU	16,523 EUR	37.8	33.0	27.0	27.5	24.8	21.3	38.9	36.8	42.1	1.2	1.0	0.8	2.6	2.5	2.3
Bayerische Motoren Werke AG BMW	5,183 EUR	13.9	15.0	15.6	12.2	13.0	13.5	92.5	67.6	60.3	0.4	0.5	0.5	2.3	2.2	2.1
Ford Motor Co F USA	13,824 USD	97.5	<i>69.2</i>	53.2	49.4	40.9	34.7	9.0	10.5	16.7	1.9	1.3	1.0	6.3	5.4	4.7
Average		34.2	27.4	22.7	21.7	19.3	17.1	68.7	58.2	63.9	0.9	0.7	0.6	3.1	2.8	2.6
Tesla Motors Inc TSLA US	2,430 USD	212.3	369.0	435.4	68.0	78.7	81.3	4.9	1.7	3.7	19.0	16.4	5.3	4.5	6.9	8.3

Liquidity Analysis																
	Market Cap	Cash pe	r Share		Current Ratio		Quick Ratio				Cash/Short-Term Debt			Payout Ratio %		
Company/Ticker	(Mil)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)	2014	2015(E)	2016(E)
Toyota Motor Corp TM USA	213,212 USD	1,003.50	1,182.41	1,640.98	1.27	1.37	1.57	1.00	1.08	1.28	4.43	5.21	7.19	24.3	30.2	28.0
Volkswagen AG VOW DEU	101,474 EUR	33.26	32.43	33.42	1.19	1.23	1.29	0.70	0.73	0.75	_	_	_	17.9	19.8	18.0
Daimler AG DAI DEU	87,563 EUR	7.80	7.55	7.69	1.88	1.91	1.96	1.28	1.28	1.31	1.35	1.28	1.28	35.7	29.8	27.1
Bayerische Motoren Werke AG BMW	65,380 EUR	8.76	10.04	10.64	1.27	1.34	1.37	0.94	0.98	1.01	1.77	2.03	1.86	29.4	29.7	29.3
Ford Motor Co F USA	58,756 USD	5.37	4.24	3.97	1.96	1.81	1.74	1.59	1.41	1.33	8.68	6.86	6.42	113.4	52.5	47.1
Average		211.74	247.33	339.34	1.51	1.53	1.59	1.10	1.10	1.14	4.06	3.85	4.19	44.1	32.4	29.9
Tesla Motors Inc TSLA US	31,492 USD	13.40	11.16	6.93	1.68	1.40	1.20	1.18	0.95	0.62	3.12	2.60	1.61	-	_	_



Research Methodology for Valuing Companies

Components of Our Methodology

- ► Economic MoatTM Rating
- ► Moat Trend™ Rating
- ► Moat Valuation
- ► Three-Stage Discounted Cash Flow
- Weighted Average Cost of Capital
- ► Fair Value Estimate
- ► Scenario Analysis
- ► Uncertainty Ratings
- ► Margin of Safety
- ► Consider Buying/Selling
- ► Stewardship Rating

The Morningstar Rating for stocks identifies companies trading at a discount or premium to our analysts' assessment of their fair value. A number of components drive this rating: (1) our assessment of the firm's economic moat, (2) our estimate of the stock's intrinsic value based on a discounted cash-flow model, (3) the margin of safety bands we apply to our Fair Value Estimate, and (4) the current stock price relative to our fair value estimate.

The concept of the Morningstar Economic Moat™ Rating plays a vital role not only in our qualitative assessment of a firm's investment potential, but also in our valuation process. We assign three moat ratings—none, narrow, or wide—as well as the Morningstar Moat Trend™ Rating—positive, stable, or negative—to each company we cover. There are two major requirements for firms to earn either a narrow or wide moat rating: (1) the prospect of earning above-average returns on capital; and (2) some competitive edge that prevents these returns from quickly eroding. The assumptions we make about a firm's moat determine the length of "economic outperformance" that we assume in the latter stages

of our valuation model. We also quantify the value of each firm's moat, which represents the difference between a firm's enterprise value and the value of the firm if no future net investment were to occur. Said differently, moat value identifies the value generated by the firm as a result of any future net new investment. Our Moat Trend Rating reflects our assessment of whether each firm's competitive advantage is either getting stronger or weaker, since we think of moats as dynamic, rather than static.

At the heart of our valuation system is a detailed projection of a company's future cash flows. The first stage of our three-stage discounted cash flow model can last from 5 to 10 years and contains numerous detailed assumptions about various financial and operating items. The second stage of our model—where a firm's return on new invested capital (RONIC) and earnings growth rate implicitly fade until the perpetuity year—can last anywhere from 0 years (for no-moat firms) to 20 years (for wide-moat companies). In our third stage, we assume the firm's RONIC equals its weighted average cost of capital, and we calculate a continuing value using a standard

Morningstar Research Methodology for Valuing Companies

Fundamental Analysis

Economic Moat™ Rating

Company Valuation

Fair Value Estimate Uncertainty Assessment **** *** ***

Analyst conducts company and industry research:

- Financial statement analysis
- ► Channel checks
- ► Trade-show visits
- Industry and company reports and journals
- ► Conference calls
- Management and site visits

Strength of competitive advantage is rated: None, Narrow, or Wide

Advantages that confer an economic moat:

High Switching Costs (Microsoft)

Cost advantage (Wal-Mart)

Intangible assets (Johnson & Johnson)

Network Effect (Mastercard)

Efficient Scale (Lockheed Martin)

Analyst considers past financial results and focuses on competitive position and future prospects to forecast future cash flows.

Assumptions are entered into Morningstar's proprietary discounted cash-flow model.

Analyst uses a discounted cash-flow model to develop a Fair Value Estimate, which serves as the foundation for the Morningstar Rating for stocks.

The analyst then evaluates the range of potential intrinsic values for the company and assigns an Uncertainty Rating: Low, Medium, High, Very High, or Extreme.

The Uncertainty Rating determines the margin of safety required before we would recommend the stock. The higher the uncertainty, the wider the margin of safety.

The current stock price relative to Morningstar's Fair Value Estimate, adjusted for uncertainty, determines the Morningstar Rating for stocks.

The Morningstar Rating for stocks is updated each evening after the market closes.



Research Methodology for Valuing Companies

Detailed Methodology Documents and Materials*

- ► Comprehensive Equity Research Methodology
- ► Uncertainty Methodology
- ► Cost of Equity Methodology
- ► Morningstar DCF Valuation Model
- Stewardship Rating Methodology
- Please contact a sales representative for more information.

perpetuity formula. In deciding on the rate at which to discount future cash flows, we ignore stock-price volatility. Instead, we rely on a system that measures the estimated volatility of a firm's underlying future free cash flows, taking into account fundamental factors such as the diversity of revenue sources and the firm's fixed cost structure.

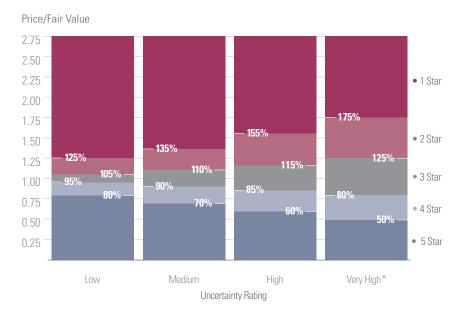
We also employ a number of other tools to augment our valuation process, including scenario analysis, where we assess the likelihood and performance of a business under different economic and firm-specific conditions. Our analysts typically model three to five scenarios for each company we cover, stress-testing the model and examining the distribution of resulting fair values.

The Morningstar Uncertainty Rating captures the range of these potential fair values, based on an assessment of a company's future sales range, the firm's operating and financial leverage, and any other contingent events that may impact the business. Our analysts use this range to assign an appropriate margin of safety—or the discount/premium

to a fair value we apply in setting our consider buying/consider selling prices. Firms trading below our consider-buying prices receive our highest rating of five stars, whereas firms trading above our consider-selling prices receive our lowest rating of one star.

Our corporate Stewardship Rating represents our assessment of management's stewardship of shareholder capital, with particular emphasis on capital allocation decisions. Analysts consider companies' investment strategy and valuation, financial leverage, dividend and share buyback policies, execution, compensation, related party transactions, and accounting practices. Corporate governance practices are only considered if they've had a demonstrated impact on shareholder value. Analysts assign one of three ratings: "Exemplary," "Standard," and "Poor." Analysts judge stewardship from an equity holder's perspective. Ratings are determined on an absolute basis. Most companies will receive a Standard rating, and this is the default rating in the absence of evidence that managers have made exceptionally strong or poor capital allocation decisions.

Morningstar Margin of Safety and Star Rating Bands



^{*} Occasionally a stock's uncertainty will be too high for us to estimate, in which case we label it Extreme



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos



© 2015 Morningstar. All Rights Reserved. Unless stated otherwise, this report was prepared by the person(s) noted in their capacity as Equity Analysts employed by Morningstar, Inc., or one of its affiliates. It has not been made available to the issuer prior to publication.

The Morningstar Rating for stocks identifies stocks trading at a discount or premium to their intrinsic value.

Five-star stocks sell for the biggest risk-adjusted discount whereas one-star stocks trade at premiums to their intrinsic value. Based on a fundamentally focused methodology and a robust, standardized set of procedures and core valuation tools used by Morningstar's Equity Analysts, four key components drive the Morningstar Rating: 1. Assessment of the firm's economic moat, 2. Estimate of the stock's fair value, 3. Uncertainty around that fair value estimate and 4. Current market price. Further information on Morningstar's methodology is available from http://global.morningstar.com/equitydisclosures.

This Research Report is current as of the date on the report until it is replaced, updated or withdrawn. This report may be withdrawn or changed at any time as other information becomes available to us. This report will be updated if events affecting the report materially change.

Conflicts of Interest:

- -No material interests are held by Morningstar or the Equity
 Analyst in the financial products that are the subject of the
 research reports or the product.
- -Equity Analysts are required to comply with the CFA Institute's Code of Ethics and Standards of Professional Conduct.
- -Equity Analysts' compensation is derived from Morningstar's overall earning and consists of salary, bonus and in some cases restricted stock.
- -Equity Analysts do not influence Morningstar's investment management group's business arrangements nor allow employees from the investment management group to participate or influence the analysis or opinion prepared by them. Morningstar will not receive any direct benefit from the publication of this report. Morningstar does not receive commissions for providing research and does not charge companies to be rated.
- -Equity Analysts use publicly available information.



Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat™	Moat Trend™	Stewardship	Industry Group
249.14 USD	194.00 USD	97.00 USD	339.50 USD	Very High	None	Positive	Standard	Autos

-Morningstar may provide the product issuer or its related entities with services or products for a fee and on an arms length basis including software products and licenses, research and consulting services, data services, licenses to republish our ratings and research in their promotional material, event sponsorship and website advertising.

-Further information on Morningstar's conflict of interest policies is available from http://global.morningstar.com/equitydisclosures.

If you wish to obtain further information regarding previous research reports and recommendations and our services, please contact your local Morningstar office.

Unless otherwise provided in a separate agreement, you may use this report only in the country in which its distributor is based.

Unless stated otherwise, the original distributor of this document is Morningstar Inc. The information contained herein is not represented or warranted to be accurate, correct, complete, or timely. This report is for information purposes only, and should not be considered a solicitation to buy or sell any security. Redistribution is prohibited without permission.

For Recipients in Hong Kong: The research is prepared and issued by Morningstar Investment Management Asia Limited, which is regulated by the Hong Kong Securities and Futures Commission to provide investment research, nondiscretionary investment consulting services. management services discretionary investment professional investors only. Neither Morningstar Investment Management Asia Limited, nor its representatives, are acting or will be deemed to be acting as an investment manager or advisor to any recipients of this information unless expressly agreed to by Morningstar Investment Management Asia Limited. For enquiries regarding this information, please contact a Morningstar Investment Management Asia Limited Licensed Representative at http://global.morningstar.com/equitydisclosures.

For Recipients in India: Research on securities as defined in clause (h) of section 2 of the Securities Contracts (Regulation) Act, 1956 ("Investment Research") is prepared by Morningstar Investment Adviser India Private Limited, which is registered with the Securities and Exchange Board of India. Investment Research is intended for educational purposes only; it is not intended to be an offer, solicitation, or call-to-action for the purchase or sale of a security. You should seek the advice of a financial professional before making an investment decision to ensure, among other things, that the security is suitable based on your particular needs and circumstances.