Daimler and its stake in Tesla[1]

Daimler, the German car manufacturer, had acquired a stake in Tesla for USD 50 million in May 2009. The investment in Tesla had been motivated strategically, as Daimler wanted to cooperate with the sole manufacturer in North America and Europe selling battery-driven vehicles capable of covering long distances. The two companies intended to collaborate in the development of batteries, electric drives, and specific vehicle models. The share price of Tesla had increased during 2013 and had reached USD 242.68 on September 30th of 2014 (Figure 1). At that time, Daimler held a 3.97 % stake in Tesla with a market value of about USD 1.2 billion.

Hans Mueller had started his career at Daimler right after he completed his MBA at a German university. He first worked as a trainee in the accounting department before working his way up the ranks within the finance department. After 6 years, Hans was in charge of the financial investments of Daimler. Now, at the end of September 2014, he was still impressed by the price of Tesla shares.

He was wondering: 'Is there any significant upside potential left for the share price? If not, are there strategic reasons to be considered which could discourage a sale?' As both financial and strategic issues were to be considered, he knew that he would need input not only from Finance but also from R&D, Marketing, and Strategy. Hans concluded that the next step would be to prepare a presentation for his boss who reported directly to the CFO of Daimler. It would contain strategic arguments in favour and against being invested in Tesla and also a financial basis for making the decision. It would also be necessary to compare the market value of Tesla with its fundamental value based upon cash flow forecasts.

Figure 1: Share price Tesla (USD)

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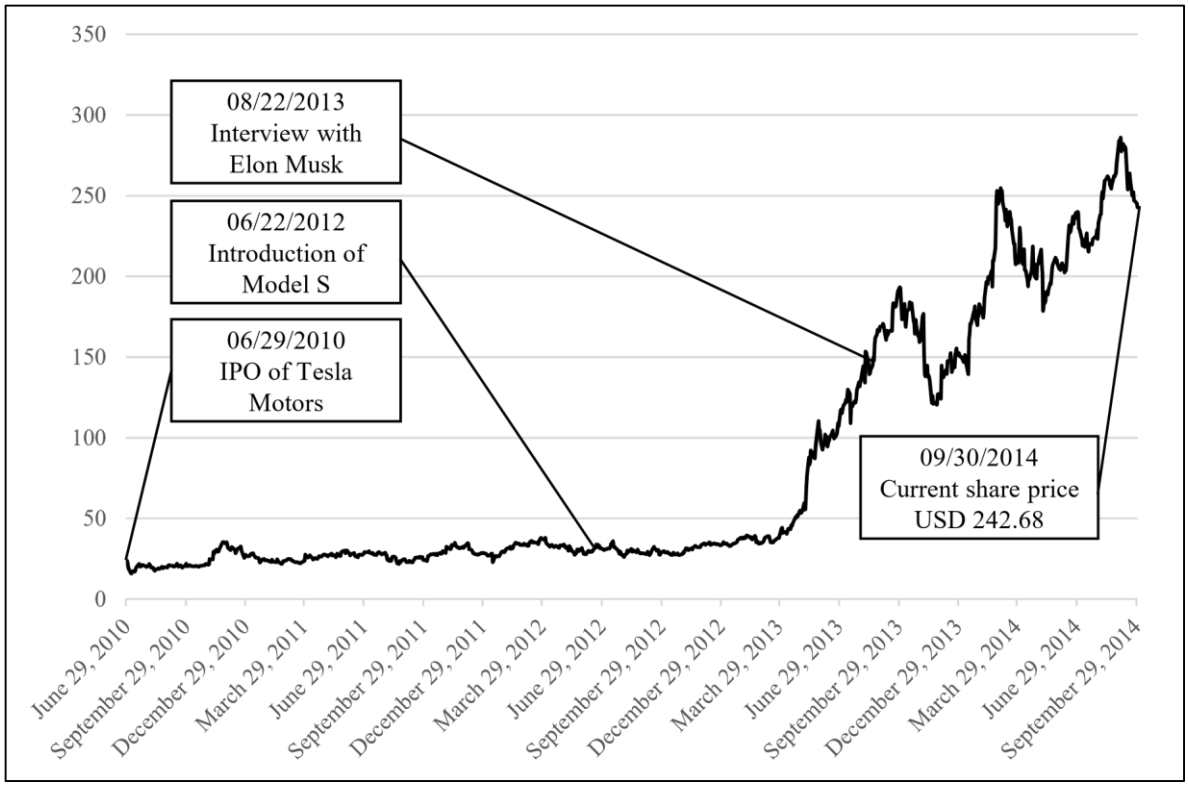


Source: Thomson Reuters Eikon

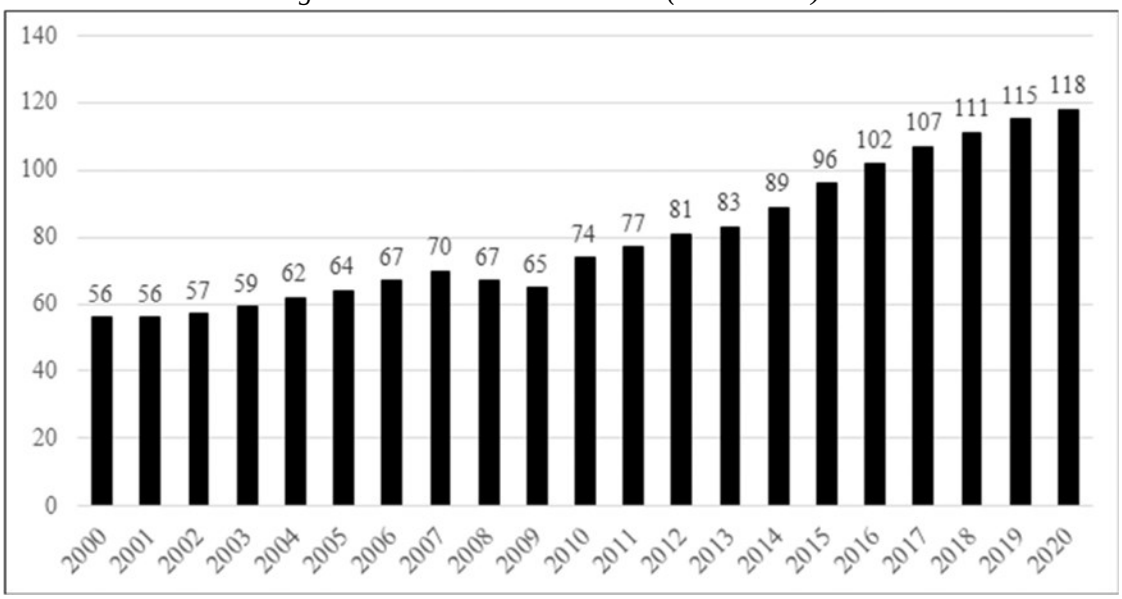
Tesla

Tesla was founded in 2003 by Elon Musk, Martin Eberhard, Marc Tarpenning, Jeffrey Brian Straubel, and Ian Wright. The company's headquarters was in Palo Alto, California. The mission of Tesla was to move from a compression-ignition engine towards electric engines for the mass market in order to increase energy efficiency and environmental friendliness. Different from other carmakers, Tesla had no history apart from electric powertrains, which consist of the engine, the transmission, the axis, and the wheels. The company focused on the development of electric vehicles and components from the beginning. Even though Tesla was still highly dependent on Elon Musk as major shareholder and charismatic leader, its strategic relationships had a crucial impact on Tesla. The company was cooperating with Daimler, Toyota, and Panasonic. These multinationals were investors, partners, and customers for Tesla. Panasonic was the main supplier of lithium-ion batteries until at least 2017. For both Daimler and Toyota, Tesla performed research and development services and produced electric powertrains and battery packs. Tesla conducted an initial public offering (IPO) on NASDAQ, June 29th of 2010, with an initial offer price of USD 23.9. The year 2013 showed a significant increase in share price. Elon Musk, in an interview with CNBC on August 22nd of 2013, stated that the share price, which was USD 157.10 on that day, was 'generous' and 'more than we deserve'. On September 30th of 2014 the share price was USD 242.68 with 125,366,171 shares outstanding. Elon Musk held 28,371,342 shares, or a stake of about 22 % of Tesla Motors.

Market environment and market outlook

For preparing his decision, Hans started with an analysis of the current and expected market situation. Except during the financial crisis in 2008 and 2009, global automotive sales of passenger cars grew continuously. Automotive sales of passenger cars reached 83 million in 2013. According to a study by KPMG, sales of 89 million were expected for 2014 and 118 million for 2020 (Figure 2).

Figure 2: Global automotive sales (million cars)



Source: KPMG (2013)

Both developed markets (US, Germany, France, and the United Kingdom) and emerging markets (China, India, and Brazil) were important for automakers. Analysts expected low future growth in developed markets (even negative growth for Japan), but emerging markets offered growth opportunities. For example, the Chinese market was expected to increase from 21 million vehicles sold in 2013 to 34.7 million in 2020.

Studies by KPMG and Deloitte showed that carmakers faced demographic, ecological, and economic challenges. For example, urbanisation allowed consumer to replace driving with public transportation. Those who kept their cars could save money by choosing fuel-efficient cars that benefit from lower taxes, energy, and insurance costs.

As a response to these challenges, carmakers had several motivations for researching and commercializing alternative powertrains. First, the new powertrains reduced cars' carbon footprints. Second, they were less expensive to operate. Oil prices had increased over decades. In combination with taxation based on the carbon footprint, which had been introduced by several European countries already, the demand for alternative powertrains increased.

In order to accelerate the supply of models with alternative powertrains, some governments began granting subsidies to increase demand. For instance, the Norwegian government was incentivizing consumers to opt for electric driving. Thus, Norway became a frontrunner in the electric vehicle markets with sales of electric vehicles larger than those in the German market: In 2013, 7,598 electric vehicles were sold in Germany, whereas 10,769 were sold in Norway. Goals, such as the German government's, to have one million electric vehicles on German streets in 2020, were ambitious. This provided evidence that governments and regulators could impact the future automotive market development significantly.

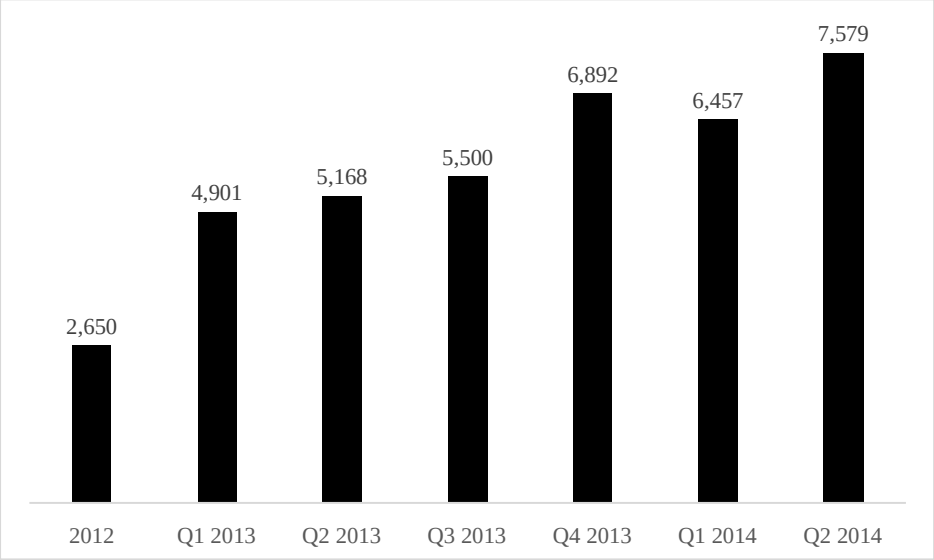
Not only was the global automotive market expected to grow slower in the future (Figure 2), but also to change significantly towards economically and ecologically friendly cars. HIS (Information Handling Services) projected that the number of electric vehicles would grow considerably from an estimated market share in 2013 of 0.3 %, to 1.8 % in 2020, and to 6.4 % in 2030.

Tesla's product portfolio

In preparing his decision, Hans continued by reviewing the development and current state of Tesla's product portfolio. The first model built was the Tesla Roadster. From 2008 to 2012 Tesla produced 2,500 units. The car was manufactured under a supply agreement with Lotus and was based on the body of the Lotus Elise. A problem common to electric cars was limited range because of limited battery capacity. Batteries had always been the crucial issue specific to electric cars. While batteries allowed only for a limited range, using more powerful batteries increased the weight and space needed, thus increasing energy consumption and consequently decreasing range. By using the Lotus Elise (a lightweight sports car) as a basis for the Tesla Roadster, Tesla managed to partially solve this weight issue by using carbon-fibre and aluminium bodies for later models. The Roadster managed to accelerate from 0 to 60 miles per hour (mph) in 3.7 seconds, but had to be limited to a maximum speed of 120 mph. With a single charge, the car had a range of 245 miles. The Tesla Roadster competed with gasoline-fuelled cars like the Audi R8, BMW M6, MercedesBenz SLK-Class, Porsche 911, and Porsche Boxster S. During the production time of the roadster, there were no electrically powered competing cars.

In 2012, Tesla launched its first internally developed car, the Tesla Model S. In contrast to the Roadster, it was a 4-door full-size executive sedan for everyday life, competing against luxury sedans like the Audi A8, BMW 7 series, Lexus LS, Mercedes-Benz S-Class, and Porsche Panamera. Tesla offered several versions of the Model S with different battery packages (60 kilowatt hours [kWh] and 85 kWh). The car had quick acceleration (0 to 60 mph in 4.2 seconds), and had a range of 208 miles (60 kWh) or 265 miles (85 kWh), which was higher than that of other electric vehicles like both models of the he Nissan Leaf (84 miles/ 24 kWh/ USD 29,010; 107 miles/ 30 kWh/ USD 34,200), the BMWi3 (81 miles/ 21 kWh/ USD 42,400) or even the Renault Zoe (150 miles/ 22kWh/ USD 29,800; only available in Europe), which was introduced later. Furthermore, features such as radio, air-conditioning, heated seats, and power windows used low voltage electric systems to reduce energy consumption.

Sales of the Model S grew considerably, as is evident in Figure 3. In order to leverage the Model S-platform, Tesla aimed to extend its model range in 2015 with the Model X. This sports utility vehicle (SUV) was planned to be priced similarly to the Model S, but increased Tesla's efficiency by using common components across several car models. According to Tesla, the Model X was supposed to offer the styling of an SUV and the space of a minivan with seating for up to seven people. It would use the same battery packs as the Model S (60 and 85 kWh), and would offer nearly comparable performance. Prices for the models are shown in Table 1. *Figure 3: Sales of Model S*



Source: Tesla annual and quarterly reports

Table 1: Volumes and revenues per model

	2014	2015	2016	2017	2018	2019
Price						
Model S	97,750	93,267	89,633	86,333	85,667	85,667
Model X		97,500	90,000	83,500	84,370	84,370
Gen III				49,600	49,200	49,200
Volumes						
Model S	39,756	60,187	74,798	64,148	64,753	65,838
Model X		9,913	31,195	47,967	58,571	60,108
Gen III				17,350	42,667	91,267
Total Volume	39,756	70,100	105,993	129,465	165,991	217,213

Source: analyst reports by Barclays, Credit Suisse, Morgan Stanley, MLV; author's assumptions

Tesla planned to launch a third model, called Gen III, in 2017. It was planned as a mid-size sedan, priced significantly lower than the Models S and X. This model was necessary for Tesla in order to compete in the mass market and thereby gain additional market share and increase economies of scale. The Gen III had still to be economically attractive for Tesla, although its price tag of estimated USD 49,600 (Table 1) would be considerably lower than that of the other Tesla models. Competing models like the Audi A4, BMW 3 Series, Mercedes-Benz C-Class, and Jaguar XE were offered at about the same price tag, but were not electric vehicles.

Another crucial investment for Tesla was the Gigafactory. The Gigafactory was planned to produce lithium-ion batteries in cooperation with Panasonic using a manufacturing process based on renewable energy. Tesla reported that its share of the investment would be USD 2 billion over 5 years, starting in 2014. With that factory Tesla and Panasonic were aiming at a significant reduction in battery production cost. The ground for the factory was broken in June 2014 and production was expected to commence in 2016. Full production was expected by 2020.

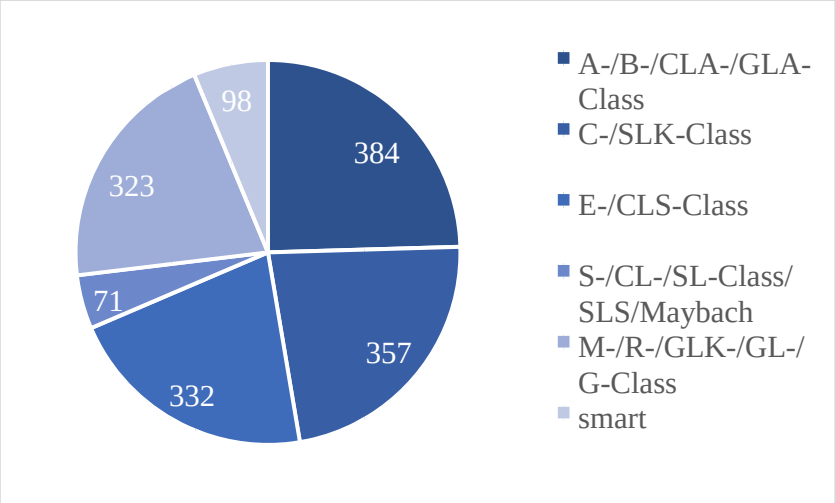
Tesla also provided supercharger stations. The supercharging stations charged about 16 times as fast as public charging stations. That means it was possible to recharge 50 % of a 60 kWh battery within 20 minutes and 100 % in 70 minutes. Customers of a Tesla Model S or X could use these stations for free. In September 2014, there were 119 standard Tesla supercharger stations operating in United States, 76 in Europe, and 26 in Asia.

Daimler's product portfolio and partnerships

As both companies were part of the same industry, Daimler always thought of its investment in Tesla as being strategic as well as financial. Daimler wanted to collaborate with Tesla, the only manufacturer in North America and Europe selling battery-driven vehicles capable of covering long distances. Thus, Hans was well aware of the strategic advantages of cooperating with Tesla, and he wondered whether selling the shares would end the cooperation or even lead to fiercer competition between Daimler and Tesla.

He analysed the product portfolio of Daimler, the collaboration with Tesla and others, and Daimler's product development with other alternative powertrains. In doing so he had several meetings with managers from R&D, Marketing, and Strategy. The product portfolio of Daimler consisted of Mercedes-Benz cars, Daimler trucks, Mercedes-Benz vans, and Daimler buses (Figure 4).

Figure 4: Mercedes-Benz sales per 1,000 units (2013)

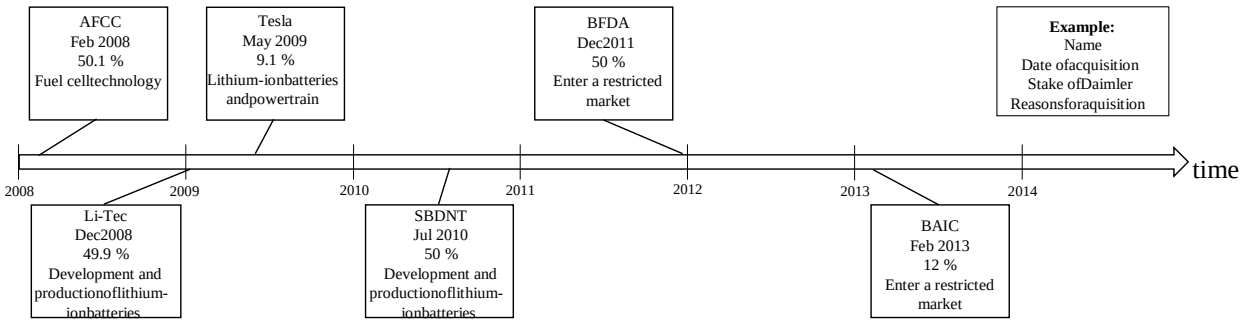


Source: Daimler (2013)

A-, B-, C-, E- and S-Class are sedans; CLA-, CLS- and C-Class are coupés; SLK- and SL-Class are roadsters; M-, GLK-, GL- and G-Class are SUVs, R-Class is a mini-van.

Hans started to collect information about Daimler's initiatives in alternative powertrains and found out that Daimler followed a diversification strategy regarding both partners and technologies (Figure 5). In terms of technologies, Daimler was involved in research on electric batteries, compressed natural gas (CNG), and fuel-cells. Cars based upon fuel cells would generate energy from the conversion of hydrogen. Partners included companies such as Tesla, Bosch, BYD, and Li-Tec. A car manufacturer like Daimler had to respect environmental concerns more than ever. In fall 2014, Daimler aimed at establishing electric drives and hybrid powertrains throughout a variety of models. Daimler began its cooperation with Tesla in 2009. Besides Tesla, Daimler also held investments in companies, such as EADS, Li-Tec, SBDNT (Shenzhen BYD Daimler New Technology, a joint-venture with the Chinese car maker Build Your Dream), BBAC (Beijing Benz Automotive Co Ltd.), BFDA (Beijing Foton Daimler Automotive), and BAIC (Beijing Automotive Industry Holding) Motor. All of these investments were strategic in nature. The investments in BBAC, BFDA, and BAIC Motor allowed Daimler to enter restricted markets, such as China for instance, whereas investments in SBDNT and Li-Tec were related to energy-issues, such as the development and production of lithium-ion batteries (Li-Tec). Daimler bought a stake of 49.9 % in Li-Tec in 2008 and acquired the remaining 50.1 % in April 2014 in order to get sole ownership.

Figure 5: Time table of the strategic investments of Daimler



In 2014, the main result of the collaboration with Tesla was the introduction of the B-Class electric vehicle. For this model, Daimler used the know-how regarding the powertrain developed at Tesla along with parts supplied by Tesla. Production started in Q2 2014. Additional models were planned in all car segments, from Smart electric drive and A-Class models to the SLS model with electric drive, in addition to trucks, such as the Freightliner with an electric cell.

Daimler also worked on powertrains based upon a fuel cell. In 2008, Daimler, Ford, and Ballard founded the joint-venture Automotive Fuel Cell Corporation (AFCC) in which Daimler still held 50.1 % of the shares. In 2013, Daimler signed an agreement with Ford and Nissan with plans to commercialize the fuel cell. The first planned fuel-cell model was the B-Class F-Cell.

Tesla's financial development and current situation

For preparing the decision from a financial point of view, Hans analysed the financial development of Tesla over the last years until the end of Q2 2014.

The revenues of Tesla resulted from automotive and powertrain sales and from development services for companies like for Toyota and Daimler. Launching the Tesla Roadster in 2008 resulted in automotive revenues of around USD 15 million (Table 2). In the first full year of production (2013), automotive revenues reached USD 2 billion. 2014 showed further growth in revenues. While this overall revenue growth was impressive, it was a consequence of Tesla's starting from scratch in 2008.

In line with the revenue development, cost of goods sold also significantly increased over the 20082013 period. Whereas those costs outpaced revenues in 2008, the launch of the Model S raised revenues and decreased the cost as a percentage of revenues. After the launch of the Model S this cost-revenue ratio had decreased, resulting in an average gross margin of 26 % of revenues during the first half of 2014. This was higher than Daimler's 2013 gross margin of 22 %.

R&D and SG&A (selling, general and administrative) expenses both increased between 2008 and 2013 significantly. The R&D expense increase–was a result of Tesla's continuous R&D efforts, including the costs to launch the Model S and the Model X, and to prepare for the launch of the Gen III. Expanding the model range not only increased administration costs, but also required growing the network of stores and service locations, all of which increased SG&A.

Tesla, like many young companies, granted millions of stock options to managers. This led to noncash stock-based compensation expenses, which are mainly part of R&D and SG&A expenses. The non-cash part of these R&D and SG&A expenses must be subtracted when deriving the cash flow forecasts. If one assumed for simplicity-that the non-cash stock-based compensation expenses of USD 72.8 million during the first half of 2014 were equally split between R&D and SG&A, the R&D and SG&A expenses shown on the income statement needed to be lowered by USD 36.4 million each. The adjusted expense ratios would be 11 % for R&D and 15.5 % for SG&A.

To summarize the development of revenues and costs, growth had been impressive and cost as a percentage of revenues had recently decreased. However, EBIT was still negative in the first half of 2014.

Next, Hans began work on the cash flow analysis. To gain a better understanding of net working capital (NWC), Hans considered the cash cycle to be helpful (see the balance sheets in Table 3). Hans thought focusing on 2013 was appropriate, since that was the first year that Tesla operated as a significant market player. Its first own model, Model S, was sold the entire year 2013 after having been introduced in 2012. Hans considered days in inventory and the receivables conversion period both with reference to revenues and the payables conversion period with reference to the costs of goods sold to be an appropriate assumption for planning future levels of NWC.

A focus on the situation in 2013 seemed suitable also for the customer deposits (as a percent of revenues), prepaid expenses plus other current assets minus accrued liabilities, and other long-term liabilities in percent of revenues. Tesla asked its potential customers for a refundable deposit of USD 2,500 when a Model S was ordered and USD 5,000 for a Model X. The resulting cash impact had to be considered for the cash flow forecast. Tesla provided a four year or 50,000 mile warranty with every Model S subject to some limitations. The corresponding liabilities were accounted for in the accrued liabilities (current portion) or the other long-term liabilities (non-current portion) depending on the remaining maturity of the respective liability. Because of their operative nature, they should be part of NWC.

In 2013, Tesla began offering a resale value guarantee to customers who bought a Model S in the US or Canada and financed the purchase through specified banking partners. Participating customers had the right to selling the car back to Tesla after 36 to 39 months at a pre-determined price. Although Tesla received the full price of the car as a cash inflow at delivery, the transaction was treated as an operating lease for accounting purposes. Revenues were deferred and the resale value guarantee had to be accounted for. Thus, balance sheet items relevant for accounting for the program were operating leases, deferred revenues, and resale value guarantees. In 2013, around 23% of all vehicles sold were sold with the resale value guarantee.

The increase in cars produced and sold was reflected by the growth of the cash used in operating activities and in investing activities as shown in Table 2. Operating cash flows were lower than cash needed for investments in most of the years. More recently, cash and cash equivalents increased considerably. As of December 2013, current and non-current restricted cash was comprised of security deposits held as part of the vendors' credit policies required for delivering goods to Tesla,

and of security deposits related to lease agreements and equipment financing. Tesla pointed out the importance of liquidity in order to react quickly to development needs and opportunities.

Financial debt grew to USD 2.427 billion in Q2 2014. After retiring a loan of the United States Department of Energy (DOE loan facility) in 2013, Tesla's debt consisted of convertible notes bearing interest rates of 1.5 % (issued in 2013, due 2018), 0.25 % (issued in 2014, due 2019), and 1.25 % (issued in 2014, due 2021). Upon conversion of the notes, Tesla was obliged to deliver cash or shares of its common stock. The company announced in its 2013 annual report that it expected to avoid any dilution effects (caused by a conversion into shares) through compensating transactions. Tesla has raised additional equity over the past 3 years through a series of seasoned equity offerings. USD 415 million was raised in 2013.

Preparing the valuation

Based upon his strategic and financial analysis, Hans began to prepare a valuation of the company as of the end of September 2014. He planned to compare it with the current share price in order to determine if the fundamental value was consistent with the market capitalization. He planned to apply a DCF (discounted cash flow) valuation and a valuation by multiples. Both methods are used by investors, analysts, and bankers on a regular basis. Table 4 contains the multiples for other carmakers. Hans chose those Original Equipment Manufacturers (OEM) for the peer group, since they were also offering electric vehicles.

For the DCF valuation, he collected analysts' reports and derived an own-forecast out to 2019 for yearly volume sold and average revenue per unit (Table 1). The forecast showed increases in volume from the Model X (expected to be introduced in 2015) and the Gen III (expected in 2017). As Gen III would be sold at considerably lower prices, average revenue per vehicle would decrease. Hans estimated that the increase in worldwide automotive sales would slow down considerably until 2020 to a level of around 2.5 %, as shown by the study by KPMG (Figure 2). It seemed plausible to assume that the high growth in volumes sold estimated for Tesla (Table 1) would start to decrease after 2019, until a long-term sustainable growth rate of around 2.5 % would be reached in 2030. Thus, Hans considered a 3-stage model to be appropriate, consisting of a detailed forecast until 2020, a transitory stage until 2030, and a perpetuity starting in 2030.

While forecasting revenues from development services and powertrain, Hans realized that both streams of revenues were not material. Accounts receivables and customer deposits would be considered as part of the NWC. He thought that the components of NWC could be assumed to stay constant in relative terms (days in inventory, conversion periods, other positions in percent of revenues) as observed for 2013. Hans only wondered whether the short receivables conversion period in 2013 should be prolonged for the forecast.

The resale value guarantee introduced in 2013 applied to about 23 % of all vehicles sold in that year. As the program had just started, there was no experience about how many customers would return their car and what would be the resale value for Tesla of the cars given back by customers. If Tesla were able to sell the returned cars more or less at their resale value, the cash flow impact would be like that for a regular cash purchase. Tesla would receive the cash inflow at delivery, and cash

outflows to returning customers would be offset by cash inflows for selling the returned vehicles. For these reasons, Hans decided to use the volume and price forecasts provided by analysts without making further assumptions about the components of the resale value program. That implied that cash flows would be forecasted without considering the development of operating leases, deferred revenues, and resale guarantees in the NWC.

Hans considered the use of the recent gross margins, the expense ratios, and the components of the cash cycle (NWC) mentioned above to be a viable option for developing his cash flow forecast, because past data was influenced by building up the business and developing the first models. Nevertheless, Hans assumed that Tesla would be able to increase the gross margin and to decrease SG&A expenses as a percent of revenues as a result of the decreasing relevance of fixed costs compared to revenues. The Gigafactory would lead to a reduction in the cost of revenue and therefore to an increase of the gross margin, because the costs for the battery packs would decrease considerably. As it was not clear at the valuation date whether the Gigafactory would generate a positive net cash flow for Tesla, aside from the reduction in the battery cost, Hans thought about choosing a conservative approach by considering lower battery costs only. As Tesla aimed at being a technology leader in future years, R&D expenses were expected to continue to use up a significant part of revenues throughout the forecast horizon.

The corporate tax rate was set at 30 %. Tesla's 2013 annual report noted a deferred tax asset of USD 341.2 million, which could be interpreted as a loss carry-forward for future taxable income. Thus, taxes would be paid only after the loss carry-forward had been used. The debt to equity ratio for Tesla was very low at the end of September 2014, since the market capitalisation (USD 242.6/share times 125.4 million shares) was about USD 30.4 billion, and financial debt was USD 2.427 billion. Hans projected that amount of debt employed to remain constant in dollar terms to simplify the analysis. The cost of debt was expected to be 3 %.

Table 5 shows the expected capital expenditures and depreciation. Because of the constant level of debt employed, negative levered free cash flows could occur because of the capital expenditures. They would be covered by issuing new common stock. Positive free cash flows were expected to be paid out.

One non-cash expense which had to be corrected for when it came to DCF valuation was the stockbased compensation. As the possible dilution from the exercise of the convertible notes and warrants was partially offset by compensating transactions and would then amount (for share prices at the current level) to new shares of only about 1 % of the current number of shares, Hans decided to ignore this dilution. On the other hand, the number of employee stock options (22.641 million) was too high to be ignored. As mentioned in the annual report 2013, the average exercise price of these options was USD 26.7. As these options represented a part of company value which did not belong to the existing shareholders, Hans decided to use the treasury stock method to account for the dilution caused by these options.

For the DCF valuation of Tesla, he decided to use the yield on 10-year treasury bonds (2.5 % at the end of September 2014), a market risk premium of 6 %, and an unlevered beta value of 0.96.

Final Thoughts

Based upon the financial forecasts collected from investment banks and the key figures in the studies by KPMG and others, Hans felt prepared to collect strategic and financial arguments in favor and against selling the stake in Tesla. For the financial aspect of his decision he considered the fundamental value of Tesla to be a good point of reference for the current market value of Tesla.

Table 2: Income statements & cash flow 2008 – 2014

(in million USD)	**2008** Actual	**2009** Actual	**2010** Actual	**2011** Actual	**2012** Actual	**2013** Actual	**2014** Q1+Q2 Actual
Vehicles	14.7	111.5	75.5	101.7	354.3	1,952.7	1,346.4
Powertrain	0.0	0.4	21.6	46.9	31.4	45.1	40.7
Revenues - Automotive	14.7	111.9	97.1	148.6	385.7	1,997.8	1,387.1
Revenues - Development services	0.0	0.0	19.6	55.7	27.6	15.7	2.8
Total Revenues	**14.7**	**111.9**	**116.7**	**204.3**	**413.3**	**2,013.5**	**1,389.9**
Cost of sales - Automotive	15.9	102.4	80.0	115.5	371.7	1,543.9	1,016.6
Cost of sales - Development services			6.0	27.2	11.5	13.4	5.2
Cost of revenues	**15.9**	**102.4**	**86.0**	**142.7**	**383.2**	**1,557.3**	**1,021.8**
Gross profit	-1.2	9.5	**30.7**	**61.6**	**30.1**	**456.2**	**368.1**
Research & development	53.7	19.3	93.0	209.0	274.0	232.0	189.2
Selling, general & administrative expenses	23.6	42.1	84.6	104.1	150.4	285.6	251.6
Operating expenses	**77.3**	**61.4**	**177.6**	**313.1**	**424.4**	**517.6**	**440.8**
EBIT	**-78.5**	**-51.9**	**-146.9**	**-251.5**	**-394.3**	**-61.4**	**-72.7**
Interest income and other income	-0.5	-1.2	-6.6	-2.4	-1.5	22.8	6.1
Interest expense	3.7	2.5	1.0	0.0	0.3	33.0	43.1
EBT	**-82.7**	**-55.6**	**-154.5**	**-253.9**	**-396.1**	**-71.6**	**-109.7**
Provision for income taxes[2]	0.1	0.0	0.2	0.5	0.1	2.6	2.0
Profit/Loss	**-82.8**	**-55.6**	**-154.7**	**-254.4**	**-396.2**	**-74.2**	**-111.7**
Note: Depreciation and amortization	4.2	6.9	10.6	16.9	28.8	106.1	99.0
EBITDA	**-74.3**	**-45.0**	**-136.3**	**-234.6**	**-365.5**	**44.7**	**26.3**
Net cash used in operating activities	-52.4	-80.8	-127.8	-128.0	-266.1	258.0	57.6
Net cash used in investing activities	-11.6	-14.2	-180.2	-162.3	-206.9	-249.4	-326.6
Net cash provided by financing activities	56.1	155.4	338.0	446.0	419.6	635.4	2098.1

Source: Tesla annual and quarterly reports

[2] The increase in these provisions in 2013, for example, was due to the increase in taxable income in foreign subsidiaries leading to an expense despite of negative EBT.

Table 3: Balance sheets 2009 – 2014

(in million USD)	2009 Actual	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Q2 Actual
Cash and cash equivalents	69.6	99.6	255.3	201.9	845.9	2,675.0
Restricted cash & short-term marketable securities		73.6	48.5	19.1	3.0	11.7
Accounts receivable	3.4	6.7	9.5	26.8	49.1	96.6
Inventories	23.2	45.2	50.0	268.5	340.4	596.9
Prepaid expenses and other current assets	4.2	10.8	9.4	8.4	27.6	61.5
Current assets	**100.4**	**235.9**	**372.7**	**524.7**	**1,266.0**	**3,441.7**
Operating lease assets		8.0	11.8	10.1	382.4	531.2
Property, plant and equipment	23.5	114.6	298.4	552.2	738.5	1,035.8
Restricted cash	3.6	4.9	8.0	5.2	6.4	7.2
Other assets	2.8	22.7	22.4	22.0	23.6	38.5
Total assets	**130.3**	**386.1**	**713.3**	**1,114.2**	**2,416.9**	**5,054.4**
Accounts payable	15.1	29.0	56.1	303.4	304.0	443.6
Accrued liabilities	14.5	20.9	32.1	39.8	108.3	161.4
Deferred revenue	1.5	4.6	2.3	1.9	91.9	139.4
Capital lease obligations	0.3	0.3	1.1	4.4	7.7	9.7
Customer deposits (reservation payments)	26.0	30.8	91.8	138.8	163.2	228.0
Convertible senior notes					0.2	593.7
Current portion of long-term debt			7.9	50.8		
Current liabilities	**57.4**	**85.6**	**191.3**	**539.1**	**675.3**	**1,575.8**
Common stock warrant liability	1.7	6.1	8.8	10.6		
Capital lease obligations	0.8	0.5	2.8	10.0	12.9	14.1
Deferred revenue	1.2	2.8	3.2	3.1	181.2	235.1
Long-term debt/convertible senior notes		71.8	268.3	401.5	586.0	1,833.1
Resale value guarantee					236.2	345.1
Other long-term liabilities	3.5	12.3	14.9	25.2	58.2	98.9
Total liabilities	**64.6**	**179.1**	**489.3**	**989.5**	**1,749.8**	**4,102.1**
Total convertible preferred stock	319.2					
Shareholder equity	-253.5	207.0	224.0	124.7	667.1	952.3
Total liabilities and shareholders' equity	**130.3**	**386.1**	**713.3**	**1,114.2**	**2,416.9**	**5,054.4**

Source: Tesla annual and quarterly reports

Table 4: Multiples

September 2014	PE	P/S	P/B	EV/EBIT	EV/EBITDA	EV/Sales
BMW	9.50	0.69	1.50	11.41	7.20	1.50
Daimler	7.30	0.50	1.49	14.17	9.61	1.15
GM	26.80	0.40	0.92	39.49	10.30	0.65
Nissan	10.70	0.35	1.44	17.68	7.97	0.94
Renault	12.10	0.75	1.21	12.80	6.30	0.82
Toyota	11.10	0.39	0.93	14.18	9.40	1.36
VW	8.20	0.38	0.69	10.37	5.32	0.83
Peer group (average)	12.24	0.49	1.17	17.16	8.01	1.04

Source: Thomson Reuters Eikon; author's calculations

Table 5: Capex and depreciation (USD million)

	2014	2015	2016	2017	2018	2019
Total capital expenditure	834	1,114	1,194	1,274	1,354	1,234
Depreciation	144	283	469	568	674.2	787

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total capital expenditure	1,114	1,194	1,274	1,354	1,434	1,514	1,594	1,674	1,754	1,834	1,914
Depreciation	889.8	982.7	1,082.2	1,188.3	1,301.2	1,396.8	1,497.7	1,604	1,715.6	1,832.5	1,914

Source: author's estimates

Aufgabe:

Sie sollen eine Bewertung von Tesla nach dem Discounted-Cashflow-Verfahren durchführen

- **Nicht** gefordert ist eine Bewertung mit Multiplikatoren und ebenfalls **nicht** gefordert ist eine strategische Analyse.
- Bearbeitung und Abgabe der Aufgabe als Excel-Datei

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