

Another Liquidity Crunch at Tesla?

Christopher Noe

Palo Alto, California, April 1, 2018 – Despite intense efforts to raise money, including a last-ditch mass sale of Easter Eggs, we are sad to report that Tesla has gone completely and totally bankrupt. So bankrupt, you can't believe it.

– Tweet from Elon Musk, Tesla CEO

The lighthearted nature of Elon Musk's April Fool's Day tweet contrasted with Tesla facing serious financial pressures as the company sought to ramp up production of its Model 3 all-electric vehicle (EV). Throughout 2017 and into 2018, Tesla was burning through cash, and investors were questioning whether the company would need to raise additional capital. While the company had been successful in the past at issuing both equity and debt, it was not clear whether investors would be receptive to another round of fundraising. Not being able to raise capital would potentially imperil Tesla's ability to survive and risk turning Musk's little joke into tragic reality.

Company Background

Originally incorporated by two engineers in July 2003 with the goal of sustainable transportation, Tesla had grown over the next fifteen years into the world's leading designer, manufacturer, and marketer of high-performance EVs. Elon Musk joined the founding team after having successfully started and later selling Zip2, an online city guide, and PayPal, the global electronic payments platform.¹ Named after Nikola Tesla, best known for his 1888 invention of the electric AC induction motor, Tesla launched its first model, the Roadster, in 2008. The \$100,000 EV could reach a top speed of 130 mph, accelerate

¹ Matt Weinberger and Katie Canales, "Elon Musk turns 47 today – here's the incredible story of how he went from getting bullied in school to the most interesting man in tech," *Business Insider*, June 28, 2018, <https://www.businessinsider.com/the-rise-of-elon-musk-2016-7> (accessed July 9, 2019).

This case was prepared by Senior Lecturer Christopher Noe. Research assistance was provided by Allan Wu.

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from 0-60 mph in just under four seconds, and travel 250 miles on a single charge. After Tesla experienced a liquidity crunch in 2008 brought about by production delays and poor economic conditions, Musk invested \$80 million in the company and was named CEO.²

In 2009, Tesla announced the Model S, a new line of luxury sedans. Production was expected to start in mid-2012. Following the launch of the Roadster and the announcement of the Model S, Tesla went public on June 29, 2010, raising a total of \$226.1 million.³ Although Tesla had never made a profit, was initially expected to lose money until 2012,⁴ and anticipated that its technology would take a decade to become fully established,⁵ strong demand for the company's shares led to increasing the size of the IPO by 20% from 11.1 million to 13.3 million shares at \$17 a share, a price higher than was expected.⁶ The IPO was highly successful, as Tesla closed its first day of trading at \$23.89, a 41% increase.⁷

The first delivery of the Model S, with a starting price of \$60,000, was in June 2012. It was well received, winning Motor Trend's 2013 Car of the Year Award.⁸ It was also the first car to receive a perfect score from *Consumer Reports* magazine.⁹ In February 2012, Tesla unveiled a prototype of the Model X, an \$80,000 crossover SUV, the first of which was delivered in September 2015. In March 2016, Tesla revealed the Model 3, the company's first mass market EV, with the expectation of helping the company transition away from its niche automobile manufacturer status.¹⁰ The Model 3 had a starting price of \$27,500 after a \$7,500 federal income tax credit.

At the end of 2015, Tesla introduced autopilot driving software to its vehicles enabling them to steer, change lanes, and drive at highway speeds.¹¹ Drivers could download updates to the software "over the air," or wirelessly. Even though the autopilot software did not allow for fully autonomous driving – drivers still needed to be alert behind the wheel and put their hands on the steering wheel every few seconds to comply with safety laws – the technology was far ahead of what any other automobile manufacturer offered at the time.

² Ibid.

³ <https://www.nasdaq.com/markets/ipos/company/tesla-inc-665410-63240> (accessed July 9, 2019).

⁴ Associated Press, "With First Share Offering, Tesla Bets on Electric Car's Future," *The New York Times*, June 28, 2010.

⁵ Lynn Cowan, "Investors Can Expect a Long Drive With Tesla – Start-Up Electric-Car Maker Has a Product, but the Technology Could Take a Decade or More to Become Established," *The Wall Street Journal*, June 28, 2010.

⁶ Associated Press, "Tesla Increases Its Share Price to \$17," *The New York Times*, June 29, 2010.

⁷ Lynn Cowan and Matt Jarzemsky, "Tesla Roars Out of the Garage Maker of Electric Cars Has Second-Best Opening Day This Year, Surging 41%," *The Wall Street Journal*, June 30, 2010.

⁸ Angus MacKenzie, "2013 Motor Trend Car of the Year: Tesla Model S," *MotorTrend*, November 12, 2012, <https://www.motortrend.com/news/2013-motor-trend-car-of-the-year-tesla-model-s/> (accessed July 9, 2019).

⁹ Peter Valdes-Dapena, "New Tesla earns perfect score from Consumer Reports," *CNN*, August 27, 2015, <https://money.cnn.com/2015/08/27/autos/consumer-reports-tesla-p85d/index.html> (accessed July 9, 2019).

¹⁰ Roberto Baldwin, "Tesla unveils its \$35,000 Model 3," *Engadget*, March 31, 2016, <https://www.engadget.com/2016/03/31/tesla-unveils-its-35-000-model-3/> (accessed July 9, 2019).

¹¹ Drew Harwell, "Tesla's Autopilot still requires a driver," *The Washington Post*, October 16, 2015.

From the delivery of its first Roadsters, Tesla steadily increased vehicle production. Tesla's cutting edge technology and devoted customers along with expanding production all contributed to the impression that the company represented the future of automobile manufacturing. Reflecting this optimistic assessment, on April 10, 2017, Tesla became the most valuable American automobile manufacturer when its market capitalization of \$51 billion slightly surpassed that of General Motors after having previously surpassed Ford's.¹²

In addition to EVs, Tesla ventured into other products. In 2014, to support its automotive efforts, the company announced plans to build a multi-billion dollar car battery gigafactory with enough capacity to supply 500,000 EVs annually.¹³ Tesla subsequently partnered with Panasonic to build factories located in Reno, NV and Buffalo, NY.¹⁴ In addition to automobile batteries, the company also created a home battery product, the Powerwall, allowing people to store energy from solar panels in case of grid outages.¹⁵

Tesla acquired SolarCity Corporation in November 2016 in an all-stock deal valued around \$2.1 billion.¹⁶ One of the largest solar energy companies in the U.S., SolarCity focused on designing and installing solar panels on the roofs of homes and other buildings. The company's leasing model was credited with having contributed to wider adoption of solar panels.¹⁷

Growing Pains

Despite its rising stock price, Tesla continually struggled to turn a profit. The company's cash flow from operations was also generally negative, reflecting the fact that it was not producing cars at sufficiently high volume to benefit from manufacturing economies of scale. Meanwhile, Tesla was also investing billions in its factories, charging stations, and sales and service network.

To fund its business, Tesla had to repeatedly raise additional capital following its IPO through a series of equity and debt offerings. The equity offerings, as well as the stock exchanged in the acquisition of SolarCity, nearly doubled Tesla's shares outstanding in the eight years following its IPO (**Exhibit 1**). The company's long-term debt, including debt assumed in the SolarCity acquisition, grew to in excess of \$10 billion over this same period (**Exhibit 2**).

Increases in Tesla's share count and debt level were particularly pronounced between 2015 and 2017. **Exhibit 3** provides Tesla's 2015-17 balance sheets. **Exhibits 4 and 5** provide information from Tesla's

¹²Center for Research in Security Prices.

¹³ Mike Ramsey, "Tesla Plans \$5 Billion Car Battery Factory," *The Wall Street Journal*, February 27, 2014.

¹⁴ Alan Ohnsman, "Tesla, Panasonic Plan Solar Panel Partnership At SolarCity's New York Factory," *Forbes*, October 17, 2016.

¹⁵ Chris Mooney, "Tesla unveils a new home battery," *The Washington Post*, May 2, 2015.

¹⁶ Tim Higgins and Cassandra Sweet, "Tesla, SolarCity Merger Gets Shareholder Approval," *The Wall Street Journal*, November 17, 2016.

¹⁷ Leanna Garfield, "Everything you need to know about the solar company Tesla wants to buy for \$2.6 billion," *Business Insider*, September 12, 2016, <https://www.businessinsider.com/solarcity-tesla-solar-energy-2016-9> (accessed July 9, 2019).

statements of stockholders' equity and debt footnotes for these years. **Exhibit 6** contains 2015-17 summary income statement information for the company.

The start of production for the Model 3 in July 2017 represented an evolution of Tesla's business model from a high-end niche-market manufacturer to a mass market producer. The challenge for the company was making cars on a much greater scale than any of its previous models. This challenge proved difficult. The company repeatedly revised downward its production forecasts for the Model 3 and pushed off the date where it expected to reach its production goal of 5,000 cars per week.¹⁸ Production of 5,000 cars per week was considered a critical number for Tesla to hit in order to become cash flow positive.

While Model 3 production ramped up, Tesla's quarterly cash burn rate accelerated, causing analysts to question whether it would need to raise additional capital. One Goldman Sachs analyst wrote to clients that "between its current operations, anticipated new product spend, and incremental capacity additions, we see Tesla potentially requiring over \$10 billion in external capital raises and debt re-financing by 2020."¹⁹

Responding to concerns about Tesla's cash burn, Musk commented in the company's 2018 first quarter vehicle production and deliveries report that it would not "require an equity or debt raise this year, apart from standard credit lines."²⁰ This comment sounded similar to one from February 2012 when Musk said that Tesla "doesn't need to ever raise another financing round."²¹

Ultimately, the question of Tesla's ability to survive hinged on a delicate balance between the company's need for additional capital and investors' willingness to provide it. The looming question was whether Musk's casual bankruptcy tweet would turn out to be prophetic.

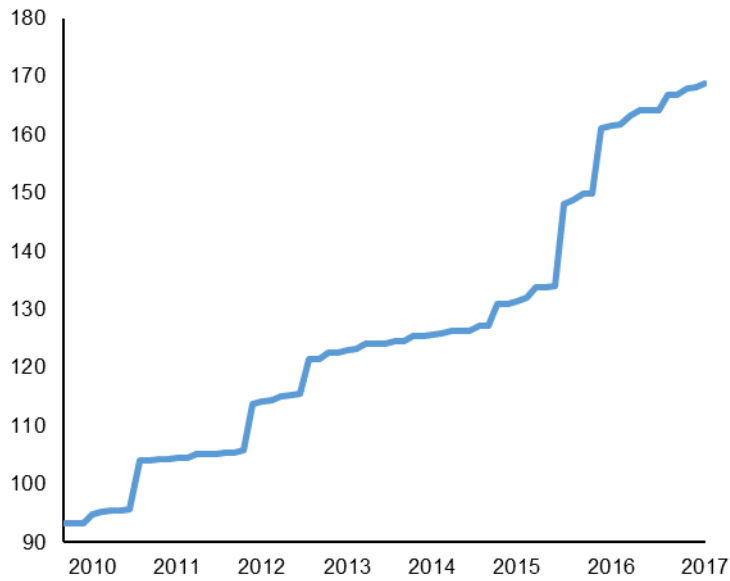
¹⁸ Tim Higgins, "Tesla's Lackluster Model 3 Sales Miss Lowered Wall Street Expectations; The company again pushed backed its goal of making 5,000 Model 3s a week by another quarter," *The Wall Street Journal*, January 3, 2018.

¹⁹ Graham Rapier, "GOLDMAN SACHS: Tesla may need \$10 billion in fresh cash in the next 18 months (TSLA)," *Business Insider*, May 17, 2018, <https://markets.businessinsider.com/news/stocks/tesla-stock-price-tesla-will-need-10-billion-in-fresh-cash-before-2020-goldman-sachs-says-2018-5-1024848274> (accessed July 9, 2019).

²⁰ "Tesla Q1 2018 Vehicle Production and Deliveries," Tesla press release, April 3, 2018.

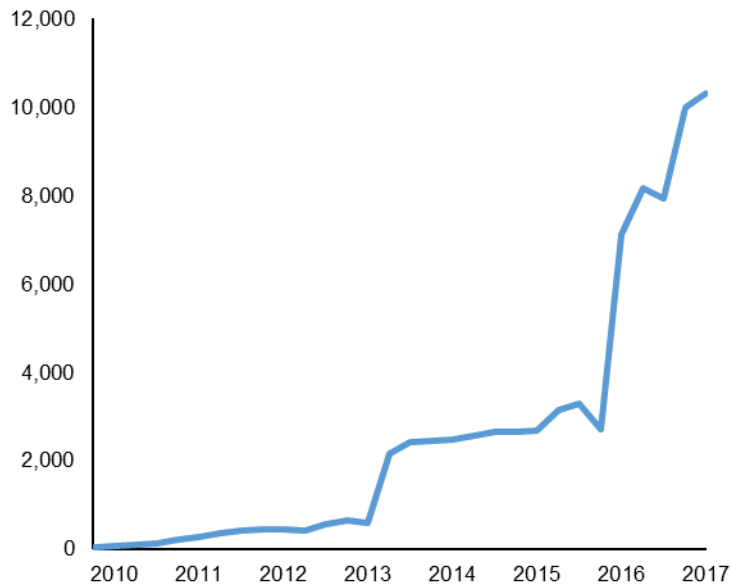
²¹ David Rucker, "Remembrance of Markets Past," *Barron's*, August 28, 2017.

Exhibit 1 Tesla, Inc. Shares Outstanding 2010-17 (Millions)



Source: YCharts.

Exhibit 2 Tesla, Inc. Long-Term Debt 2010-17 (\$ Millions)



Note: Includes capital lease obligations.

Source: YCharts.

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Exhibit 3 Tesla, Inc. Balance Sheets (Thousands)

	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015
Current assets			
Cash and cash equivalents	\$ 3,367,914	\$ 3,393,216	\$ 1,196,908
Restricted cash	155,323	105,519	22,628
Accounts receivable, net	515,381	499,142	168,965
Inventory	2,263,537	2,067,454	1,277,838
Prepaid expenses and other current assets	268,365	194,465	125,229
Total current assets	<u>6,570,520</u>	<u>6,259,796</u>	<u>2,791,568</u>
Operating lease vehicles, net	4,116,604	3,134,080	
Solar energy systems, leased to be leased, net	6,347,490	5,919,880	
Property, plant and equipment, net	10,027,522	5,982,957	1,791,403
Intangible assets, net	361,502	376,145	3,403,334
Goodwill	60,237		
MyPower customer notes receivable, net of current portion	456,652	506,302	
Restricted cash, net of current portion	441,722	268,165	31,522
Other assets	273,123	216,751	74,633
Total assets	<u>28,655,372</u>	<u>22,664,076</u>	<u>8,092,460</u>
Current liabilities			
Accounts payable	2,390,250	1,860,341	916,148
Accrued liabilities and other	1,731,366	1,210,028	422,798
Deferred revenue	1,015,253	763,126	423,961
Resale value guarantees	787,333	179,504	136,831
Customer deposits	853,919	663,859	283,370
Current portion of long-term debt	799,849	1,114,650	617,716
Current portion of capital leases	96,700	35,497	15,450
Total current liabilities	<u>7,674,670</u>	<u>5,827,005</u>	<u>2,816,274</u>
Long-term debt, net of current portion	8,828,985	5,892,016	2,023,153
Capital leases, net of current portion	589,334	77,484	17,222
Deferred revenue, net of current portion	1,177,799	851,790	446,105
Resale value guarantees, net of current portion	2,309,222	2,210,423	1,293,741
Other long-term liabilities	2,442,970	1,891,449	364,976
Total liabilities	<u>23,022,980</u>	<u>16,750,167</u>	<u>6,961,471</u>
Redeemable noncontrolling interests in subsidiaries	397,734	367,039	
Convertible senior notes	70	8,784	47,285
Stockholders' equity			
Common stock; \$0.001 par value; 2,000,000 shares authorized; 168,797 and 161,561 shares issued and outstanding as of Dec. 31, 2017 and Dec. 31, 2016, respectively	169	161	131
Additional paid-in capital	9,178,024	7,773,727	3,414,692
Accumulated other comprehensive gain (loss)	33,348	(23,740)	(3,556)
Accumulated deficit	(4,974,299)	(2,997,237)	(2,322,323)
Total stockholders' equity	<u>4,237,242</u>	<u>4,752,911</u>	<u>1,088,944</u>
Noncontrolling interests in subsidiaries	997,346	785,175	
Total liabilities and equity	<u>\$ 28,655,372</u>	<u>\$ 22,664,076</u>	<u>\$ 8,092,460</u>

Source: Tesla, Inc. 10-Ks, December 31, 2015-17.

Exhibit 4 Tesla, Inc. Stockholders' Equity Information (Thousands)

	Common Stock		Additional Paid-In Capital
	Shares	Amount	
Balance as of Dec. 31, 2015	131,425	\$ 131	\$ 3,414,692
Issuance of common stock in May 2016 public offering	7,915	8	1,687,139
Issuance of common stock upon acquisition of SolarCity	11,125	11	2,145,977
Common stock issued, net of shares withheld for employee taxes	11,096	11	163,817
Stock-based compensation			347,357
Other			14,745
Balance as of Dec. 31, 2016	<u>161,561</u>	<u>161</u>	<u>7,773,727</u>
Issuance of common stock in March 2017 public offering	1,536	2	399,645
Issuance of common stock upon acquisitions	35	0	10,528
Exercise of conversion feature of convertible senior notes due in 2018	1,408	2	230,151
Common stock issued, net of shares withheld for employee taxes	4,257	4	259,381
Stock-based compensation			485,822
Other			18,770
Balance as of Dec. 31, 2017	<u>168,797</u>	<u>\$ 169</u>	<u>\$ 9,178,024</u>

Source: Tesla, Inc. 10-K, December 31, 2017.

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Exhibit 5 Tesla, Inc. Debt Information (Thousands)

	Net Carrying Value					
	Dec. 31, 2017		Dec. 31, 2016		Dec. 31, 2015	
	Current	Long-Term	Current	Long-Term	Current	Long-Term
1.50% Convertible Senior Notes due in 2018	\$ 5,442		\$ 196,229		\$ 617,716	
0.25% Convertible Senior Notes due in 2019		869,092		827,620		795,405
1.25% Convertible Senior Notes due in 2021		1,186,131		1,132,029		1,092,748
2.375% Convertible Senior Notes due in 2022		841,973				
5.30% Senior Notes due in 2025		1,775,550				
Credit Agreement		1,109,000		969,000		135,000
Warehouse Agreements	195,382	477,867	73,708	316,292		
Canada Credit Facility	31,106	55,603	18,489	48,853		
Vehicle and Other Loans	15,944	261	17,235	6,536		
2.75% Convertible Senior Notes due in 2018*	222,171			212,223		
1.625% Convertible Senior Notes due in 2019*		511,389		483,820		
Zero-Coupon Convertible Senior Notes due in 2020*		86,475		89,418		
Term Loan due in December 2017*			75,715			
Term Loan due in December 2018*	156,884					
Term Loan due in January 2021*	5,885	169,352	5,860	176,169		
Revolving Credit Facilities*		158,733	500,074	427,944		
Solar-Backed Notes*	31,835	1,085,424	19,627	560,161		
Other*	135,200	502,135	207,713	641,951		
Total Debt	\$ 799,849	\$ 8,828,985	\$ 1,114,650	\$ 5,892,016	\$ 617,716	\$ 2,023,153

Note: * Assumed in the SolarCity acquisition.

Source: Tesla, Inc. 10-Ks, December 31, 2015-17.

Exhibit 6 Tesla, Inc. Summary Income Statement Information (Thousands)

	<u>2017</u>	<u>2016</u>	<u>2015</u>
Revenue	\$ 11,758,751	\$ 7,000,132	\$ 4,046,025
EBITDA	3,917	279,759	(294,039)
EBIT	(1,632,086)	(667,340)	(716,629)
Interest Expense	471,259	198,810	118,851

Source: Tesla, Inc. 10-K, December 31, 2017.