



**UNIVERSITY OF COLOMBO**  
**FACULTY OF ARTS**  
**MASTER OF FINANCIAL ECONOMICS 2017**  
**Final Examination – Semester II**  
**MFE06 - Financial Markets**  
**CASE STUDY**  
**Reading Time 30 Minutes**

The Case Study below relates to Tesla, an automobile manufacturing company listed in the USA

**Exhibit 1: Tesla Incorporated – Summary Statistics** (*finance.yahoo.com; reuters.com/finance/*)

<b>Company Name</b>	<b>Tesla Inc.</b>																																										
<b>Description</b>	Tesla, Inc., formerly Tesla Motors, Inc., designs, develops, manufactures and sells fully electric vehicles, and energy storage systems, as well as installs, operates and maintains solar and energy storage products. The Company operates through two segments: Automotive, Energy generation and storage.																																										
<b>Ticker</b>	<b>TSLA</b>																																										
<b>Exchange for Common Stock</b>	Nasdaq Global Select Market ("Nasdaq")																																										
<b>GICS Sector</b>	Consumer Discretionary	<table border="1"> <thead> <tr> <th colspan="2">ANALYST ESTIMATES</th> <th># of Analyst Estimates</th> <th>Mean Estimate</th> </tr> </thead> <tbody> <tr> <td colspan="4"><b>Sales</b></td> </tr> <tr> <td colspan="4"><i>(in \$Mn)</i></td> </tr> <tr> <td>Quarter Ending Sep-18</td> <td></td> <td>17</td> <td>6,099.58</td> </tr> <tr> <td>Year Ending Dec-19 (next year)</td> <td></td> <td>22</td> <td>28,009.70</td> </tr> <tr> <td colspan="4"><b>Earnings</b></td> </tr> <tr> <td colspan="4"><i>(\$ per share)</i></td> </tr> <tr> <td>Quarter Ending Jun-18</td> <td></td> <td>23</td> <td>-2.92</td> </tr> <tr> <td>Quarter Ending Sep-18</td> <td></td> <td>19</td> <td>-0.44</td> </tr> <tr> <td>Year Ending Dec-19 (next year)</td> <td></td> <td>22</td> <td>2.86</td> </tr> </tbody> </table>		ANALYST ESTIMATES		# of Analyst Estimates	Mean Estimate	<b>Sales</b>				<i>(in \$Mn)</i>				Quarter Ending Sep-18		17	6,099.58	Year Ending Dec-19 (next year)		22	28,009.70	<b>Earnings</b>				<i>(\$ per share)</i>				Quarter Ending Jun-18		23	-2.92	Quarter Ending Sep-18		19	-0.44	Year Ending Dec-19 (next year)		22	2.86
ANALYST ESTIMATES				# of Analyst Estimates	Mean Estimate																																						
<b>Sales</b>																																											
<i>(in \$Mn)</i>																																											
Quarter Ending Sep-18		17	6,099.58																																								
Year Ending Dec-19 (next year)		22	28,009.70																																								
<b>Earnings</b>																																											
<i>(\$ per share)</i>																																											
Quarter Ending Jun-18		23	-2.92																																								
Quarter Ending Sep-18		19	-0.44																																								
Year Ending Dec-19 (next year)		22	2.86																																								
<b>GICS Industry</b>	Automotive																																										
<b>Chairman/CEO/Co-Founder</b>	Elon Reeve Musk																																										
<b>Share Price Information</b>																																											
Previous Close (Aug 6)	\$ 341.99																																										
Today's Close (Aug 7)	\$ 379.57																																										
Bid (Last available - Aug 7)	378.95 × 10,000																																										
Ask (Last available - Aug 7)	379.10 × 15,000																																										
<b>Market Index Information</b>	<b>Nasdaq</b>																																										
Previous Close (Aug 6)	7,859.68																																										
Today's Close (Aug 7)	7,883.66																																										
<b>Financial Highlights</b>																																											
Fiscal Year Ends	31-Dec-18																																										
Most Recent Quarter (mrq)	30-Jun-18																																										
		<table border="1"> <thead> <tr> <th colspan="2">DIVIDEND HISTORY</th> <th>Company</th> <th>Industry</th> </tr> </thead> <tbody> <tr> <td>Dividend Yield</td> <td></td> <td>--</td> <td>2.7</td> </tr> <tr> <td>Dividend Yield - 5 Year Avg</td> <td></td> <td>--</td> <td>2.45</td> </tr> <tr> <td>Dividend 5 Year Growth Rate</td> <td></td> <td>--</td> <td>4.13</td> </tr> <tr> <td>Payout Ratio (ttm)</td> <td></td> <td>--</td> <td>27.76</td> </tr> </tbody> </table>		DIVIDEND HISTORY		Company	Industry	Dividend Yield		--	2.7	Dividend Yield - 5 Year Avg		--	2.45	Dividend 5 Year Growth Rate		--	4.13	Payout Ratio (ttm)		--	27.76																				
DIVIDEND HISTORY		Company	Industry																																								
Dividend Yield		--	2.7																																								
Dividend Yield - 5 Year Avg		--	2.45																																								
Dividend 5 Year Growth Rate		--	4.13																																								
Payout Ratio (ttm)		--	27.76																																								

*mrq – Most Recent Quarter, ttm – Trailing Twelve Months*

**Exhibit 1 (Cont.):**

<b>Balance Sheet</b>		<b>VALUATION RATIOS</b>		<b>Company</b>	<b>Industry</b>
Total Cash (mrq)	\$ 2.24 Bn	P/E Ratio (ttm)	n/a		14.15
Total Debt (mrq)	\$ 13.41 Bn	Price to Sales (ttm)	4.73		1.12
Book Value Per Share (mrq)	\$ 22.91	Price to Book (mrq)	16.56		1.75
<b>Income Statement</b>		Price to Cash Flow (ttm)	n/a		8.3
Revenue (ttm)	\$ 13.68 Bn	Beta	0.88		1.43
EBITDA	\$ -464.34 Mn	Return on Equity (ttm)	-44.37		13.22
EPS (ttm)	\$ -16.14				
EPS (mrq)	\$ -4.21				
Shares Outstanding	170.59 Mn				
<b>Cash Flow Statement</b>					
Operating Cash Flow (ttm)	\$ -318.71 Mn				
Levered Free Cash Flow (ttm)	\$ -2.76 Bn				

mrq – Most Recent Quarter  
ttm – Trailing Twelve Months

**Exhibit 2: Given below are details from the SEC filing of the convertible bond issue by Tesla in February 2014.**

<b>Issuer:</b>	Tesla Inc., a Delaware corporation (the "Issuer")
<b>Securities Offered:</b>	\$800,000,000 0.25% Convertible Senior Notes due 2019
<b>Settlement Date:</b>	March 01, 2014
<b>Nasdaq Last Reported Sale Price</b>	\$ 252.54 per share (February 27, 2014)
<b>Maturity:</b>	March 01, 2019 unless earlier purchased or converted.
<b>Interest Rate:</b>	0.25% p.a.
<b>Interest Payment Dates:</b>	Semi annually on March 01 and September 01 of each year
<b>Initial Conversion Rate:</b>	2.7788 shares of Common Stock per \$1,000 Face Value
<b>Book-Running Managers:</b>	Goldman Sachs, Morgan Stanley, JP Morgan, Deutsche Bank Securities
<b>Underwriting</b>	\$ 15.00 per \$1,000 Face Value
<b>Conversion Rights</b>	At the holders discretion in multiples of \$1,000 principal value

**Exhibit 3: Given below are details of the Bond Issued by Tesla in August 2017****TSLA 5.300% 15Aug2025 Corp (USD)**

<b>ISIN</b>	USU8810LAA18	<b>Annual Coupon Rate</b>	5.3 % p.a.
<b>Issuer</b>	Tesla Inc.	<b>Coupon Frequency</b>	Semi Annually
<b>Guarantor</b>	SolarCity Corp	<b>Coupon payment dates</b>	15-Feb, 15-Aug
<b>Seniority</b>	Unsecured	<b>Bond Type</b>	High Yield Corporate
<b>Issue Price</b>	\$ 100 (Par)	<b>Issue Size</b>	USD 1,800,000,000
<b>Issue Date</b>	15-Aug-17	<b>Bond Credit Rating</b>	B- (S&P)
<b>Maturity Date</b>	15-Aug-25	<b>Issuer Credit Rating</b>	B- (S&P)
	Callable		
		<b>Redemption Date</b>	<b>Redemption Price</b>
<b>Callability</b>		15-Aug-20	103.98%
		15-Aug-21	102.65%
		15-Aug-22	101.33%
		15-Aug-23	100.00%

**Exhibit 4: 8 Years After Going Public, Elon Musk Wants To Take Tesla Private** (*npr.org; August 7, 2018*)

- A. Tesla Motors started selling its stock to the public in 2010 – the first IPO of a US automaker in more than a half-century. On Tuesday, Tesla CEO said he's considering a reversal – taking the car company private.
- B. The outspoken entrepreneur took to Twitter to deliver the news. "Am considering taking Tesla private at \$420. Funding secured," Musk tweeted in early afternoon.
- C. Shortly before 3:30 p.m. Tesla published an email that Musk sent to company employees, saying that no final decision on taking the company private had been made and that it would ultimately be left to shareholders. "The reason for doing this is all about creating the environment for Tesla to operate best," Musk wrote. "As the most shorted stock in the history of the stock market, being public means that there are large numbers of people who have the incentive to attack the company."
- D. Musk's relationship with shareholders and analysts has been rocky, to say the least. In May, after Tesla reported a loss of more than \$700 million for the first quarter, he dismissed one question on the earnings call. "Boring, bonehead questions are not cool. Next," he said.

**Exhibit 5: Why Bondholders Never Bought Elon Musk's Talk of Taking Tesla Private** -A.Randall, W.Forsyth (*Barrons.com; Aug. 28, 2018*)

- A. In the 3 weeks since Tesla (TSLA) CEO Elon Musk's controversial tweet about taking the company private, its share price swung wildly. The stock went as high as \$379.57 on Aug-07, from \$341.99 the previous day.
- B. By contrast, Tesla's main junk-bond issue barely budged. High-yield bond investors have been skeptical and from the debtholder's unsentimental view, it seemed far-fetched that a junk-rated company (Moody's Investors Service has Tesla at Caa1, and Standard & Poor's rates it B-minus) could mount what would have been a record transaction, when the EBITDA and free cash flow of the Company are highly uncertain.
- C. The market price of 87.25 on the 5.30% bonds due Aug-2025, left Tesla bondholders to mark the first anniversary of the bonds' life this month with a loss of 12.75% relative to the original par issue price, bringing the yield to maturity to 7.70%. The price decline over the past year is more than twice the 5.30% coupon investors clipped.

**Exhibit 6: The top 3 mutual fund holdings and ETF holdings of Tesla shares is given below:**

Ticker	ETF Fund (Holding Highest % of Portfolio in Tesla)	TSLA Allocation	# of TSLA Shares	TSLA Market Value (\$M)
ARKQ	ARK Industrial Innovation ETF	10.59%	64,441	16.45
GEX	VanEck Vectors Global Alternative Energy ETF	9.46%	387,536	8.49
QCLN	First Trust NASDAQ Clean Edge Green Energy Index Fund	8.40%	331,074	7.98

**Exhibit 6 (Cont.):**

Ticker	Mutual Fund (Holding Highest % of Portfolio in Tesla)	TSLA Allocation	# of TSLA Shares (Mn)	TSLA Market Value (\$ Mn)
PRGFX	T Rowe Price Growth Stock Fund	2.07%	3.538	1,067.50
VTSMX	Vanguard Total Stock Market Index	1.88%	3.200	965.30
FBGRX	American Funds New Perspective Fund	1.54%	2.618	789.70

**Exhibit 7**

**Tesla Sells \$546 Million of Asset Backed Bonds as Buyers Can't Get Enough (Bloomberg; January 31, 2018)**

Tesla Inc. sold \$546 million of auto lease-backed bonds Thursday. The sought-after debt deal allowed Tesla to slash the risk premiums it would pay on the notes. They were sold at yields between 2.3% and 5%. At initial offered prices, parts of the deal backed by leases were 14 times oversubscribed. The bonds are tied to leases of its Model X and Model S vehicles. It is the company's first auto ABS deal. Tesla initially dangled juicy yields to lure investors, as much as 2.9%, but was later able to cut that margin to 2.65%.

**Moody's Assigns Ratings to Tesla Auto Lease Trust 2018-A Notes (moody's.com; February 06, 2018)**

Moody's Investors Service has assigned ratings to the instruments issued by Tesla Auto Lease Trust 2018-A (TALT 2018-A). This is the first auto lease transaction for Tesla Finance LLC (TFL; not rated). The notes are backed by a pool of closed-end retail automobile leases originated by TFL, who is also the servicer and administrator for this transaction. The ratings are based on the quality of the underlying collateral and its expected performance, the strength of the capital structure, and the experience and expertise of TFL as the servicer and administrator. Credit enhancement for the notes consists of a combination of overcollateralization, a non-declining cash reserve account\* and subordination.

	Rating	Amount (USD Mn)	% of Assets	Years to Maturity	Maturity	Issue Yield / Coupon
Tranche A	Aaa	422.61	69.50%	1 Yr 10 Mo	Dec-2019	2.32%
Tranche B	Aaa2	40.14	6.60%	2 Years	Feb-2020	2.75%
Tranche C	A2	27.97	4.60%	2 Yr 2 Mo	Apr-2020	2.97%
Tranche D	Baa2	23.71	3.90%	2 Yr 3 Mo	May-2020	3.30%
Tranche E	Baa3	31.62	5.20%	3 Yr 1 Mo	Mar-2021	4.94%
		<b>546.05</b>				
Over-collateralization		62.03	10.20%			
		<b>608.08</b>	<b>100%</b>			

\*Cash Reserve is where the originator may put aside a certain amount of cash in a reserve account to absorb credit losses