

EXHIBIT “A”

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA**

IN RE TESLA, INC. SECURITIES
LITIGATION

Case No. 18-cv-04865-EMC

Hon. Edward M. Chen

Expert Report of Michael L. Hartzmark, Ph.D.

September 22, 2020

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I. SCOPE OF ENGAGEMENT

1. I have been retained by Court-appointed Lead Counsel (“Counsel”)¹ for the putative Class (the “Class”)² in the matter of *In Re Tesla, Inc. Securities Litigation* to determine whether Tesla, Inc. (“Tesla” or the “Company”) common stock and options on Tesla common stock traded in open, well-developed and efficient markets (hereinafter referred to as “an efficient market”)³ from August 7, 2018 to August 17, 2018 (the “Class Period”).⁴ I have also been asked by Counsel to opine on whether the calculation of damages on a class-wide basis is subject to a common methodology for all common stock and option Class members in connection with their claims under Section 10(b) of the Securities Exchange Act of 1934 (the “Exchange Act”) and U.S. Securities & Exchange Commission (“SEC”) Rule 10b-5 adopted thereunder (collectively, “Section 10(b)”).

¹ Levi & Korsinsky, LLP.

² I understand from Lead Counsel that the proposed Class definition is: “[A]ll individuals and entities who purchased or sold Tesla stock, options, and other securities during the Class Period and were damaged thereby, excluding Tesla, [Elon R.] Musk, the Board, and each Defendant’s immediate family members, legal representatives, heirs, successors or assigns, and any entity in which Tesla, Musk, or the Board have or had a controlling interest (the ‘Class’).” Consolidated Complaint for Violation of the Federal Securities Laws filed January 16, 2019 (the “Complaint”), ¶28. For options, I have been asked to consider only those options that had volume during the Class Period as being potential Class Members and my analysis relates to the efficiency of the market for those options.

³ “The fraud on the market theory is based on the hypothesis that, in an **open and developed securities market**, the price of a company’s stock is determined by the available material information regarding the company and its business. Misleading statements will therefore defraud purchasers of stock even if the purchasers do not directly rely on the misstatements.” *Basic Inc. v. Levinson*, 485 U.S. 224, 241-242 (1988) (emphasis added).

⁴ Complaint, ¶1. Complaint (¶2) alleges that the Class Period begins “On August 7, 2018, at 12:48 p.m. ET, [when] Musk tweeted the following message to over 22 million people: “Am considering taking Tesla private at \$420.” The Class Period ends on August 17, 2018 after the final alleged corrective disclosure that appeared in *The New York Times* online edition after the conclusion of trading on August 16, 2018 and in the print edition on August 17, 2018 before market hours (Complaint, ¶196).

2. I have reviewed the Complaint and assume the allegations are true for purposes of this report. I have made no independent investigation of the issues of liability and loss causation in this case, and nor have I been asked to calculate damages. My report applies widely-accepted economic, financial and statistical analyses to determine whether Tesla common stock traded in an efficient market.

3. My report is organized as follows: In Section II, I present my qualifications as an expert. In Section III, I summarize each of my opinions. In Section IV, I describe the concept of market efficiency. In Section V, I offer empirical support for the conclusion that Tesla common stock traded in an efficient market during the Class Period by examining the “operational” factors for demonstrating market efficiency set forth in *Cammer v. Bloom*, 711 F. Supp. 1264 (D.N.J. 1989) (“*Cammer*”) and *Krogman v. Sterritt*, 202 F.R.D. 467, 474-78 (N.D. Tex. 2001) (“*Krogman*”). In Section VI, I examine “price-related” factors. These empirical analyses demonstrate that Tesla common stock rapidly responded to new, Company-specific information, which also supports the conclusion that Tesla common stock traded in an efficient market. In Section VII, I examine how the basket of factors related to Tesla’s stock price applies to options on Tesla common stock, as well as the relationship between the prices of Tesla common stock and its options, to demonstrate that the options on Tesla common stock traded in an efficient market. In Section VIII, I show that the calculation of damages in this case can be done on a class-wide basis subject to a common methodology for Plaintiff’s claims under the Exchange Act. Section IX provides my conclusions.

II. QUALIFICATIONS

4. I am President of Hartzmark Economics Litigation Practice, LLC and prior to this I was a Principal and Director at Navigant Economics (formerly dba Chicago Partners, LLC, a subsidiary of Navigant Consulting, Inc.). Both firms specialize in the application of economics and finance to legal, commercial and regulatory issues, including issues such as those addressed in this report. I also am currently engaged as an independent contractor by the Office of the Attorney General of the State of New Jersey and was previously

engaged by the Office of the Attorney General of the State of New York, to assist in investigations of the mortgage-backed securities market.⁵

5. I have served as a testifying and consulting expert in numerous securities class actions. In addition, I have published scholarly articles on a multitude of issues in financial economics including those associated with securities class actions, including the topic of market efficiency. I have spent much of my time as an economic consultant evaluating issues related to market efficiency, including its relation to the certification of securities class actions. My primary focus has been on securities such as common stock, corporate bonds, Treasury and energy futures, swaps, swaptions and options, and asset-backed securities. My expert reports which included the topics of market efficiency and common damages methodology have been cited with approval by the respective courts in *In re: CenturyLink Sales Practices and Securities Litigation*,⁶ *Laurence Rougier, et al. v. Applied Optoelectronics, Inc., et al.*, (which included the certification of the class of options

⁵ “A residential *mortgage-backed security* (MBS) is an instrument whose cash flow depends on the cash flows of an underlying pool of mortgages.” Frank J. Fabozzi and Steven V. Mann, *The Handbook of Fixed Income Securities*, Seventh Edition, McGraw-Hill Education (2005), p. 16 (“Handbook”).

⁶ *In re: CenturyLink Sales Practices and Securities Litigation*, Memorandum of Law and Order (D. Minn. Sept. 14, 2020), Dkt. 813.

The Court also noted that “Because price impact can be observed on ‘front end’ (*i.e.*, misstatements causing or maintaining inflation) or on the ‘back end’ (*i.e.*, a decline in price caused by the corrective disclosures), Defendants must affirmatively disprove both to satisfy their burden.” (p. 31, citing *Ark. Teacher Ret. Sys. v. Goldman Sachs Grp., Inc.* (2d. Cir. 2020).

“Defendants’ criticisms of the specifics of which techniques will be used to construct the inflation ribbon and actually calculate losses with Hartzmark’s damages model are premature. At the class certification stage, Plaintiffs need merely show, as Hartzmark has done, that ‘the techniques used to estimate the true price (and thus calculate artificial inflation) will be common to all putative class members and will be applied on a class-wide basis.’” p. 42.

“There is nothing about there being more plaintiffs that makes the damages model more or less accurate, because there is no argument here that damages would be individualized.” p. 44.

holders)⁷ *Christakis Vrakas, et al. v. U.S. Steel Corp., et al* (which included the certification of the class of options holders),⁸ *Lord Abbett Affiliated Fund, Inc. et al. v. Navient Corp. et al.* (which included the certification of the class of options holders),⁹ *In re Signet Jewelers Limited Securities Litigation*,¹⁰ *West Palm Beach Police Pension Fund, et al. v.*

⁷ *Laurence Rougier, et al. v. Applied Optoelectronics, Inc., et al.*, No. 4:17-cv-02399, ECF Nos. 125, 131 (S.D. Tex. Nov. 13, 2019), at 30 (finding that “Plaintiffs’ proposed damages model comports with the requirements of Rule 23(b)(3) as set forth in *Comcast Corp. v. Behrend*, 569 U.S. 27 (2013)”; at 31 (finding that “Furthermore, courts recognize event studies, like the one used by Dr. Hartzmark, as an accepted method for determining artificial inflation and out-of-pocket damages in suits involving fraud on the market liability.”); at 34-35 (finding that “Dr. Hartzmark’s report and supplemental report describe at length his method for calculating the “but for” value of the stock, for disaggregating inflation or price fluctuations not related to the misrepresentations found by a jury, and how he would use the inflation ribbon to methodically calculate damages for each Class Member. Thus, unlike the plaintiffs in *BP I*, the Plaintiffs here have satisfied their burden to demonstrate a damages model that calculates artificial inflation, the but for price, and will disaggregate inflation unrelated to fraud. Also, as was the case for the post-explosion subclass the district court certified in *BP II*, there is no disconnect between Plaintiffs’ theory of liability and damages model in violation of *Comcast*.”) (citations omitted) at 36 (“As detailed above, Plaintiffs’ method for demonstrating class-wide damages is consistent with its fraud on the market theory of liability, Dr. Hartzmark proposes a damage methodology that will disaggregate losses not attributable to fraud found by the jury, and class certification under Rule 23(b)(3) will not violate *Comcast*.”); and at 38 (finding that “Plaintiffs have also proposed a damages methodology that is common to the class and is properly tethered to their corrective disclosure theory of liability.”).

⁸ *Christakis Vrakas, et al. v. U.S. Steel Corp., et al.*, Memorandum Order (W.D. Pa., Dec. 31, 2019), Dkt. 215, at 16 (finding that “Plaintiffs cite several cases in this Circuit and elsewhere that affirm the appropriateness of the out-of-pocket methodology that Dr. Hartzmark proposes as a sufficient damages model for class certification purposes.” (footnote omitted)).

⁹ *Lord Abbett Affiliated Fund, Inc. et al. v. Navient Corp. et al.*, Memorandum Opinion (D. Del. Aug. 25, 2020).

¹⁰ *In re Signet Jewelers Limited Sec. Litig.*, 2019 WL 3001084 (S.D.N.Y. 2019) at *20 (finding that “Plaintiff’s burden at this stage is simply to propose a methodology for calculating damages that corresponds to its theory of liability. It has done so here. Dr. Hartzmark’s purports to ‘us[e] the results of an event study along with the disclosures of firm-specific information’ to measure ‘the level of artificial inflation in the prices of the Signet common stock’ based upon ‘price reactions to disclosures revealing [Defendants’] alleged misstatements and omissions.’ . . . ‘From this, daily levels of

DFC Global Corp., et al.,¹¹ *In re Cobalt International Energy, Inc. Securities Litigation* (which included the certification of the class of bond holders),¹² and *William D. Wallace, et al. v. IntraLinks Holdings, Inc., et al.*¹³ I also wrote a series of reports cited in the district court’s opinion granting class certification of DVI common stock and corporate bonds in *In re DVI, Inc. Securities Litigation*, 249 F.R.D. 196 (E.D. Pa. 2008), which was affirmed by the Third Circuit in *In re DVI, Inc. Securities Litigation*, 639 F.3d 623 (3d Cir. 2011) (which included the certification of the class of bond holders). I have also co-authored three law review publications discussing the commonly used empirical tests applicable to securities class actions.¹⁴

6. I earned my B.A. in economics from The University of Michigan and my M.A. and Ph.D. in economics from The University of Chicago. I have taught economics

inflation can be calculated by adjusting the inflation measure for each day throughout the Class Period.’ This methodology, which applies on a class-wide basis, is capable of measuring the out-of-pocket losses suffered by the Class members.”) (citations omitted).

¹¹ *W. Palm Beach Police Pension Fund, et al. v. DFC Global Corp., et al.*, 2016 WL 4138613, at *13 (E.D. Pa. Aug. 4, 2016) (finding that “Dr. Hartzmark has data underlying his conclusions and [the defendants’ expert] just has noise”).

¹² *In re Cobalt Intl. Energy, Inc., Sec. Litig.*, 2017 WL 2608243 (S.D. Tex. 2017) at *5 (finding that “Plaintiffs have provided expert testimony demonstrating, at this class certification stage, that the market for Cobalt Notes was adequately efficient to allow them to rely on the fraud-on-the market presumption of reliance.”).

¹³ *William D. Wallace, et al. v. IntraLinks et al.*, Opinion (S.D.N.Y., September 30, 2014), Dkt. 99, at 19 (finding that “While calculating the proper damages based on the date of purchase and sale may be complicated, it does not demand excessive individual inquiry. Plaintiff’s proposed determination of damages by event study appears to be a workable methodology of determining damages on a class-wide basis that conforms to its theory of liability, thus meeting the requirements of *Comcast Corp. v. Behrand*, 133 S. Ct. 1426 (2013).”).

¹⁴ Michael L. Hartzmark, Cindy A. Schipani, H. Nejat Seyhun, *Fraud on the Market: Analysis of the Efficiency of the Corporate Bond Market*, 2011 Colum. Bus. L. Rev., 654-716 (2011); Michael L. Hartzmark, H. Nejat Seyhun, *The Curious Incident of the Dog That Didn’t Bark and Establishing Cause-and-Effect in Class Action Securities Litigation*, 6 Va. L. & Bus. Rev., 415-66 (Winter 2012); Michael L. Hartzmark, H. Nejat Seyhun, *Understanding the Efficiency of the Market for Preferred Stock*, 8 Va. L. & Bus. Rev., 149-230 (Spring 2014).

and financial economics in the Department of Economics at The University of Chicago and jointly in the Michigan Business School (now the Ross School of Business) and the Department of Economics at the University of Michigan.

7. At the University of Michigan, I created and taught courses on financial and commodity futures markets. While an Assistant Professor at the University of Michigan, I received a research grant from the University of Chicago Center for the Study of Futures Prices, as well as the John M. Olin Faculty Fellowship to further my research in financial markets. In addition, I published articles in peer-reviewed journals related to financial markets. Prior to my tenure track appointment at the University of Michigan, I was employed as a Financial Economist at the Commodity Futures Trading Commission, Division of Economics and Education.

8. I have been a holder of the Series 7 and 63 registered representative licenses and have served as a Financial Advisor at Fahnestock & Co., Inc. (now Oppenheimer & Co., Inc.). I was also founder and President of DARMA, LLC, a wealth and asset advisory company affiliated with Oppenheimer & Co., Inc.

9. My qualifications, publications, and expert engagements are summarized in detail in my *curriculum vitae*, which is attached to this report as **Appendix A**. Hartzmark Economics Litigation Practice, LLC is being compensated at my standard rate of \$700 per hour for my work in this matter. My compensation is not dependent on my opinions expressed in this report or the outcome of this matter.

III. SUMMARY OF OPINIONS

10. Based on my analysis to date, I have formed the following opinions:

OPINION 1: Throughout the Class Period, Tesla common stock and options on Tesla common stock traded in efficient markets. This opinion is based on an analysis of a basket of factors, including those set forth in *Cammer* and *Krogman*, which, consistent with the fundamental principles of economics and finance and academic research, indicate that Tesla common stock and options on Tesla common stock traded in efficient markets. The behavior of Tesla common stock price movements on news dates collectively over the Class Period, as well as other

empirical analyses of price movements, demonstrate that Tesla common stock and options on Tesla common stock rapidly responded to unanticipated and material Company-specific information. Analysis of the other factors set forth in *Cammer* and *Krogman* also demonstrate that Tesla common stock and options on Tesla common stock traded in efficient markets throughout the Class Period.

OPINION 2: While I have not been asked to quantify damages, the calculations of damages for violations of Section 10(b) of the Exchange Act (and SEC Rule 10b-5) for both the Tesla common stock and the options on Tesla common stock are subject to a common methodology and may be computed on a class-wide basis.

11. In reaching these opinions, I have relied upon various materials, which are listed in **Appendix B** and/or are otherwise cited in this report. The research and analysis upon which my opinions are based has been conducted by me with the assistance of personnel working under my direction and supervision. My conclusions are based on information available to me as of the date of this report. I understand that discovery is ongoing, and I may review, evaluate, and analyze relevant material that becomes available to me in the future. I reserve the right to modify my conclusions based on additional information.

IV. BASIS FOR OPINIONS ON EFFICIENCY OF THE MARKET FOR TESLA COMMON STOCK AND OPTIONS

A. Efficient Market Defined

12. A market is defined as being informationally efficient if prices of securities trading in that market reflect all material, publicly available information.¹⁵ Further, informational efficiency means that prices of securities rapidly change to reflect new, unanticipated, material, public information. The notion behind efficient markets is that the

¹⁵ See Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. Fin., 383 (1970) (“A market in which prices always ‘fully reflect’ available information is called ‘efficient’”); Eugene F. Fama, *Efficient Capital Markets: II*, 46 J. Fin., 1575 (1991) (“I take the market efficiency hypothesis to be the simple statement that security prices fully reflect all available information.”).

competition among investors to discover new profit opportunities pushes security prices to reflect all material, publicly available information.

13. The finance literature supports the concept of market efficiency. The father of modern finance and Nobel Prize winner, Eugene Fama, wrote, “We shall conclude that, with but a few exceptions, the efficient markets model stands up well,”¹⁶ and “[i]n short, the evidence in support of the efficient markets model is extensive, and (somewhat uniquely in economics) contradictory evidence is sparse.”¹⁷ In 1991, Professor Fama updated his analysis and wrote, “The empirical literature on efficiency and asset-pricing models passes the acid test of scientific usefulness.”¹⁸ Professor Fama also wrote that “precise inferences about the degree of market efficiency are likely to remain impossible. Nevertheless, judged on how it has improved our understanding of the behavior of security returns, the past research on market efficiency is among the most successful in empirical economics, with good prospects to remain so in the future.”¹⁹

14. The opinion in *Cammer* articulated five factors used by courts to evaluate whether a market is efficient for the purposes of establishing the presumption of investor reliance articulated by the Supreme Court in *Basic Inc. v. Levinson*, 485 U.S. 224 (1988). The fundamental principles of economics and finance that underlie a large body of academic research published over the past forty years support each factor as an indicator of market efficiency. As explained below, it is important to understand that assessment of market efficiency does not turn on any one single factor; rather, it is an assessment of all the factors together that allows one to reach the conclusion that a market for a security is

¹⁶ Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. Fin. at 383.

¹⁷ *Id.* at 416.

¹⁸ Fama, *Efficient Capital Markets: II*, 46 J. Fin. at 1576.

¹⁹ *Id.* at 1576. See also Eugene F. Fama, *Market efficiency, long-term returns, and behavioral finance*, 49 J. Fin. Econ. 283 (1998); G. William Schwert, *Anomalies and Market Efficiency*, in *Handbook of the Economics of Finance* (G. Constantinides et al., eds., 2003); and Burton G. Malkiel, *The Efficient Market Hypothesis and Its Critics*, 17 J. Econ. Perspectives 59 (2003).

efficient. For ease of comprehension, the factors can be separated into two general categories: “operational factors” and “price-related factors.”

1. *Operational Factors Employed to Evaluate Whether a Security Trades in an Efficient Market*

15. The operational factors examine the trading and arbitrage activity in the market, with the clear understanding that (a) an efficient market is one in which anyone can buy and sell securities; (b) an efficient market is one that has a high level of trading activity, and for which trading information is readily available; and (c) an efficient market can be characterized as a liquid market that can absorb a reasonable amount of trading volume at relatively low trading costs.²⁰ Thus, the courts have primarily focused on the question of whether a security trades in an open and well-developed market,²¹ with the clear understanding that (a) an open capital market is one in which anyone can buy and sell securities; (b) a developed capital market is one that has a high level of trading activity, and for which trading information is readily available; and (c) a developed capital market can be characterized as a liquid market that can absorb a reasonable amount of trading volume at relatively low trading costs. As a result, the operational factors are primarily used to examine whether there is sufficient trading and arbitrage activity, along with widespread information dissemination, such that it can reasonably be expected that the market price for the security rapidly reflects new information.²²

²⁰ Economists often suggest that, “The common metrics of liquidity are turnover, bid-ask spread, and transactional size.” This is also consistent with the operational *Commer* factors. Handbook, at 363.

²¹ “A developed market is one which has a relatively high level of activity and frequency, and for which trading information (*e.g.*, price and volume) is widely available. It is principally a secondary market in outstanding securities. It usually, but not necessarily, has continuity and liquidity (the ability to absorb a reasonable amount of trading with relatively small price changes).” *Commer*, 711 F. Supp. at 1276 n.17, (citing Bromberg & Lowenfels, 4 *Securities Fraud and Commodities Fraud*, § 8.6 (Aug. 1988)).

²² “In an open and developed market, the dissemination of material misrepresentations or withholding of material information typically affects the price of the stock, and purchasers generally rely on the price of the stock as a reflection of its value.” *Peil v. Speiser*, 806 F.2d at 1161.

16. The operational factors set forth in *Cammer* are:

- (1) average weekly turnover;²³
- (2) analyst coverage;²⁴
- (3) number of market makers or dealers of the security, along with arbitrageurs;²⁵ and

“Indeed, nearly every court that has considered the proposition has concluded that where materially misleading statements have been disseminated into an impersonal, well-developed market for securities, the reliance of individual plaintiffs on the integrity of the market price may be presumed.” *Basic*, 485 U.S. at 247.

²³ “Turnover measured by average weekly trading of two percent or more of the outstanding shares would justify a strong presumption that the market for the security is an efficient one; one percent would justify a substantial presumption.” *Cammer*, 711 F. Supp. at 1286.

²⁴ “[I]t would be persuasive to allege a significant number of securities analysts followed and reported on a company’s stock during the class period.” *Id.* See also *Teamsters Local 445 Freight Div. Pension Fund v. Bombardier, Inc.*, 546 F.3d 196, 205 (2d Cir. 2008) (“[T]he greater the number of securities analysts following and reporting on a company’s stock, the greater the likelihood that information released by a company is being relied upon by investors.”) (quoting *In re Xcelera.com Sec. Litig.*, 430 F.3d 503, 514 (1st Cir. 2005)).

²⁵ “[I]t could be alleged the stock had numerous market makers. The existence of market makers and arbitrageurs would ensure completion of the market mechanism; these individuals would react swiftly to company news and reported financial results by buying or selling stock and driving it to a changed price level.” *Cammer*, 711 F. Supp. at 1286-87.

Related to arbitrage activity, some courts have also suggested that other factors may be relevant to determining whether a market is efficient for class-certification purposes, including the activity and number of institutional investors. For example, in *In re Enron Corporation Securities, Derivative & “ERISA” Litigation*, 529 F. Supp. 2d 644, 756 (S.D. Tex. 2006), the court decided that the Enron bonds traded in efficient markets partially based on “data on institutional holdings . . . [that] there was active trading . . . during the Class Period, [and] there were a substantial number of institutional investors.”

“Consistent with the efficiency indicators used recently by the courts, the inefficient firms have lower mean trading volume, fewer market makers, lower analyst following, and **lower institutional ownership (number and percentage)** than efficient firms.” Brad M. Barber, Paul A. Griffin, and Baruch Lev, *The Fraud-on-the-Market Theory*

- (4) the issuer's eligibility to file SEC Form S-3 and to incorporate by reference other SEC Forms.²⁶

17. The court in *Krogman* suggested three additional operational factors:

- (1) the market capitalization of the security;²⁷
- (2) the bid-ask price spread;²⁸ and
- (3) the float of the security (*i.e.*, the amount of outstanding security not held by insiders of the corporation).²⁹

and the Indicators of Common Stocks' Efficiency, 19 J. Corp. L., 285-312, 302 (Winter 1994) (footnote omitted and emphasis added).

²⁶ "... [I]t would be helpful to allege the Company was entitled to file an S-3 Registration Statement in connection with public offerings or, if ineligible, such ineligibility was only because of timing factors rather than because the minimum stock requirements set forth in the instructions to Form S-3 were not met." *Cammer*, 711 F. Supp. at 1287. *See also id.* at 1271 n.5 ("Generally speaking, it is the largest and most well-known companies which register equity securities on Form S-3"); *id.* at 1284 (quoting SEC Securities Act Release No. 6235, 45 FR 63,693 (1980)) ("This form [S-3] is predicated on the Commission's belief that the market operates efficiently for these companies, *i.e.*, that the disclosure in Exchange Act reports and other communications by the registrant, such as press releases, has already been disseminated and accounted for by the market place.") (emphasis omitted).

²⁷ In *Krogman*, the court suggested that "[m]arket capitalization, calculated as the number of shares multiplied by the prevailing share price, may be an indicator of market efficiency because there is a greater incentive for stock purchasers to invest in more highly capitalized corporations." 202 F.R.D. at 478.

²⁸ *See Krogman*, 202 F.R.D. at 478 ("A large bid-ask spread is indicative of an inefficient market, because it suggests that the stock is too expensive to trade.").

²⁹ Insiders cannot freely trade in the stock of their firm based on their privileged, nonpublic information. They are subject to both trading restrictions (blackout periods, and restrictions of Rule 10b-5 and Exchange Act Sections 16(b) and 16(c)) and the reporting requirements of Section 16(a). *See* 17 C.F.R. § 240.10b-5 (2011); 15 U.S.C. §§ 78p(b), 78p(c), 78p(a) (2011). "In determining efficiency, courts also consider the percentage of shares held by the public, rather than insiders." *Krogman*, 202 F.R.D. at 478.

2. Price-Related Factors Employed to Evaluate Whether a Security Trades in an Efficient Market

18. The price-related factors are used to examine whether the market price for the security rapidly reflects unanticipated information about future Company cash flows as would be expected in an efficient market.

19. To examine the market efficiency of Tesla common stock and options, I test whether:

- (1) there is a rapid price reaction to new information relevant to the valuation of the security;³⁰ and
- (2) the speed of response by examining whether certain statistical properties are associated with security price movements, such as the lack of autocorrelation.³¹

3. Evaluating Operational and Price-Related Factors

20. Professor Fama's conclusion that "precise inferences about the degree of market efficiency are likely to remain impossible," as well as other academic research in economics and finance, support an approach whereby the above factors should be used as

³⁰ "[I]t would be helpful to a plaintiff seeking to allege an efficient market to allege empirical facts showing a cause and effect relationship between unexpected corporate events or financial releases and an immediate response in the stock price." *Cammer*, 711 F. Supp. at 1287.

³¹ "Autocorrelation is usually found in time-series data. Economic time series often display a 'memory' in that variation is not independent from one period to the next." William H. Greene, *Econometric Analysis* (Prentice Hall, 2d ed. 1993) at 358. In other words, autocorrelation is the measurement of the relationship between the security return at time *t* and the return of the same security at some fixed time in the past. First-order autocorrelation would be found when there is a statistically significant relationship between the common stock return today and the common stock return yesterday. Another way of looking at this concept is that if an observer can use the return from yesterday to predict with some level of certainty the return today, there exists autocorrelation. The absence of autocorrelation is an indicator of market efficiency. *See Lehocky v. Tidel Techs., Inc.*, 220 F.R.D. 491, 506-507 n.20 (S.D. Tex. 2004) (noting that both parties' experts agreed on the helpfulness of an autocorrelation analysis).

a basket of indicators of the efficiency of the security, but as previously noted by no means is it necessary that each factor in that basket specifically offer support. Judicial analysis of market efficiency reflects this recognition. For instance, the Second Circuit recently held that market efficiency may be demonstrated where the operational factors support that conclusion, even if the price-related factor does not.³² In so holding, the Second Circuit noted, “The *Cammer* and *Krogman* factors are simply tools to help district courts analyze market efficiency in determining whether the *Basic* presumption of reliance applies in class certification decision-making. But they are no more than tools in arriving at that conclusion, and certain factors will be more helpful than others in assessing particular securities and particular markets for efficiency.”³³

21. In forming my opinion that Tesla common stock and Tesla options traded in efficient markets throughout the Class Period, I have considered each of these operational and price-related factors.

V. ANALYSIS OF OPERATIONAL FACTORS OF TESLA COMMON STOCK

A. Background

22. In its Form 10-K filed for the fiscal year ending December 31, 2018, Tesla described itself as follows:

We design, develop, manufacture and sell high-performance fully electric vehicles (“EVs”) and energy generation and storage systems, and also install and maintain such energy systems and sell solar electricity. We are the world’s first vertically integrated sustainable energy company, offering end-to-end clean energy products, including generation, storage and consumption.³⁴

³² *Waggoner v. Barclays PLC*, 875 F.3d 79, 98 (2d Cir. 2017), *cert. denied*, 138 S. Ct. 1702 (2018).

³³ *Id.*

³⁴ Tesla SEC Form 10-K filed February 19, 2019, p. 1.

23. Tesla is a Delaware corporation with headquarters in California.³⁵ Throughout the Class Period, Tesla common stock was listed on The NASDAQ Global Select Market under the “TSLA” trading symbol, where it began trading in June 2010.³⁶

24. On July 27, 2018, approximately two weeks before the start of the Class Period, Tesla had 170.6 million shares outstanding.³⁷ On September 30, 2018 (about a month and one-half months after the end of the Class Period), Tesla had 171.6 million shares outstanding.³⁸

B. Analysis of the Operational Factors

1. Cammer Factor I – Average Weekly Trading Volume

25. The first operational factor is the average weekly turnover of a security. As discussed in the *Cammer* opinion: “Turnover measured by average weekly trading of two percent or more of the outstanding shares would justify a strong presumption that the market for the security is an efficient one; one percent would justify a substantial presumption.”³⁹ A high trading volume indicates substantial investor interest in the security, and thus increases the likelihood that newly-available public and private information will be rapidly incorporated in the security price through trading.⁴⁰ In addition, high volume suggests the possibility that investors will, all other factors staying constant, be able to reap greater profits from any information they may possess because they can more easily participate in the market. This greater profit opportunity from the information

³⁵ Tesla SEC Form 10-K filed February 19, 2019, cover.

³⁶ Tesla SEC Form 10-K filed February 19, 2019, p. 39.

³⁷ Tesla SEC Form 10-Q filed August 6, 2018, cover.

³⁸ Tesla SEC Form 10-Q filed November 2, 2018, p. 4.

³⁹ *Cammer*, 711 F. Supp. at 1286.

⁴⁰ Jonathan M. Karpoff, *The Relation between Price Changes and Trading Volume: A Survey*, 22 J. of Fin. and Quantitative Analysis, 109, 112 (1987), surveys the literature on trading volume and absolute price changes. Karpoff documents that higher volume results in greater absolute stock price reactions. See also, Brad M. Barber, Paul A. Griffin, and Baruch Lev, *The Fraud-on-the-Market Theory and the Indicators of Common Stocks’ Efficiency*, 19 J. Corp. L. 285 (Winter 1994).

they may possess then encourages investors to make greater investments in information gathering and processing. This, in turn, will enhance the informational efficiency of the market.⁴¹

26. To reliably determine whether the turnover fulfills the *Cammer* criterion, I calculated average weekly turnover over the Class Period, which is equal to the average of the ratio of weekly volume divided by the shares outstanding for that week.⁴² The Class Period spans almost two full weeks. **Exhibit I** contains the results of this analysis and shows that for the Class Period a total of 135.8 million shares traded hands. The average weekly volume was 72.2 million shares and the ratio of the average weekly volume to shares outstanding was 42% – *significantly more than* the 2% threshold that *Cammer* held “would justify a strong presumption that the market for the security is an efficient one”⁴³ – and the median was 42% (the ratio for the week of August 6, 2018 – August 10, 2018 was 54% and for August 13, 2018 – August 17, 2018 was 30%).⁴⁴ In addition, in a recently published paper, the authors calculated average daily turnover over 2016-2018 for all NYSE and NASDAQ stocks. For comparison purposes, over Tesla’s turnover during the Class Period would have placed it in the top 5% of all the NYSE and NASDAQ traded companies.⁴⁵

⁴¹ Larry Harris, *Trading and Exchanges: Market Microstructure for Practitioners* (Oxford University Press, 2003), pp. 70, 205, 215.

⁴² The trading volume I utilize for the turnover analysis is the composite daily reported trading volume, which I obtained from Bloomberg. The source for shares outstanding is Tesla SEC filings.

⁴³ *Cammer*, 711 F. Supp. at 1286.

⁴⁴ These figures include the entire weeks of the start date and end date of the Class Period (*i.e.*, the weekly figures also include volume on August 6, 2018). As a comparison, I also compute weekly turnover for the 120 trading days prior to the start of the Class Period (the “PreCP Period;” as described later, the PreCP Period is used as the estimation period for my event study analysis). The average weekly turnover over the PreCP Period was 23.5% (*see Appendix C*).

⁴⁵ *See*, Bharat Bhole, Sunita Surana, and Frank Torchio, *Benchmarking Market Efficiency Indicators for Securities Litigation*, 2020 U. of Ill. Online L. Rev. 96 (2020) (“BST 2020”), Table 1 (p. 102). I calculate daily average turnover for Tesla as the weekly average divided by 5.

27. Not only is Tesla’s average weekly turnover over 20 times the level that supports a “strong presumption” of efficiency under *Cammer*, but the average and median weekly turnover measures here are greater than many of the turnover measures calculated in other litigation where the courts found the common stock to trade in an efficient market.⁴⁶ Therefore, the high average weekly turnover of Tesla common stock therefore “justif[ies] a strong presumption that the market for the security is an efficient one”⁴⁷ throughout the Class Period.

2. *Cammer Factor II – Analyst Coverage*

28. The second operational factor is the number of security analysts who followed and reported on Tesla’s common stock. As discussed in *Cammer*: “It would be persuasive to allege a significant number of securities analysts followed and reported on a company’s stock during the class period.”⁴⁸ As more analysts follow and report on a company’s securities, more information about the company is disseminated to a greater number of investors. The presence of such professionals means that more information is likely to be reflected in the price of these securities either through increased trading or simply through revaluation of the securities by the market participants.⁴⁹

⁴⁶ See, e.g., *City of Ann Arbor Emps.’ Ret. Sys. v. Sonoco Prods. Co.*, 270 F.R.D. 247, 256 (D.S.C. 2010) (finding a stock with a weekly trading volume of 2.61% to have traded in an efficient market); *In re Mills Corp. Sec. Litig.*, 257 F.R.D. 101, 107 (E.D. Va. 2009) (finding an average weekly trading volume of 2-3.5% indicative of market efficiency).

⁴⁷ *Cammer*, 711 F. Supp. at 1286.

⁴⁸ *Cammer*, 711 F. Supp. at 1286. See also *In Re Xcelera.com Securities Litigation*, 430 F.3d 503 (1st Cir. 2005) at 514 (“[T]he greater the number of securities analysts following and reporting on a company’s stock, the greater the likelihood that information released by a company is being relied upon by investors.”).

⁴⁹ See, for example, Jill E. Fisch, *The Role and Regulation of the Research Analyst*, Research Handbook on the Economics of Corporate Law, Edgar Elgar Publishing, 2012, pp. 315, 317. (“The role of the research analyst... is to provide information to the marketplace. Analysts enhance capital market efficiency by enabling stock prices to reflect information and by reducing the need for each investor individually to gather and analyze that information. ... Research analysts collect information about specific

29. As **Exhibit II** shows, as recorded by Bloomberg, during the Class Period there were between 32 and 33 research analysts following the Company. Further, there were between 21 and 22 research analysts that were part of the Thomson Reuters I/B/E/S consensus EPS estimate for the current fiscal year.⁵⁰ In-depth research analyst coverage included the following entities among others from August 1 through August 17, 2018 (which includes Tesla's most recent earnings results prior to the Class Period): Argus Research, Barclays, Berenberg, Cannacord Genuity, CFRA Equity Research, Cowen and Co., Credit Suisse, Elazar Advisors, Evercore ISI, Guggenheim Securities, Jefferies, JPMorgan, Moody's, Morgan Stanley, Morningstar, Oppenheimer, Piper Sandler, RBC Capital Markets, Susquehanna Financial Group, and UBS.⁵¹ There were over 15 additional technical or non-English language analyst firms that covered Tesla and reported results.⁵² In total, there were in excess of 57 analysts reporting on Tesla during the PreCP Period and Class Period. *See Exhibit III-A* for a listing of the number of reports within the PreCP Period and the Class Period from these analysts. This exhibit shows that there were 332 reports published during the PreCP Period and the Class Period, with 54 reports published during the Class Period.

30. The substantial coverage of Tesla's stock by analysts can also be observed in analyst participation in conference calls held by Tesla. Many of these analysts participated in the regular earnings calls Tesla hosted in conjunction with the release of its quarterly

firms and the overall market. They then package that information for use by investors in trading decisions.”)

Michael J. Brennan, Narasimhan Jegadeesh, and Bhaskaran Swaminathan, *Investment Analysis and the Adjustment of Stock Prices to Common Information*, 6 Rev. of Fin. Stds. 799, 800 (1993). (“Recent theory suggests that the number of analysts may have an effect on the speed of adjustment to new information.... this would suggest an association between the number of analysts and the speed of adjustment, if the number of analysts can be regarded as a proxy for the number of informed investors.”)

⁵⁰ Sources: Bloomberg and S&P Capital IQ. For the PreCP Period, there was an average of 31 analysts as recorded by Bloomberg and 22 that were part of the Thomson Reuters I/B/E/S consensus EPS estimate for the current fiscal year (*see Appendix C*).

⁵¹ Based on reports available on the S&P Capital IQ and Thomson Eikon databases.

⁵² Based on reports available on the S&P Capital IQ and Thomson Eikon databases.

financial results. On these conference calls, analysts and other investors were able to ask questions about Tesla, with twelve on the call preceding the Class Period (for Q2-2018 earnings) and nine on the call after the Class Period (for Q3-2018 earnings). *See Exhibit III-B* for a list of analysts who asked questions on these conference calls.

31. The number of analysts following Tesla compares favorably to the number following other defendant companies at issue in other cases where the courts concluded that the common stock traded in efficient markets.⁵³ In addition, based on 2016-2018 data in BST 2020, Tesla's analyst coverage described above (based on Thomson data) would have placed it in the top 10% of all NYSE and NASDAQ traded companies.⁵⁴

32. In addition to the analyst reports, there were numerous press releases, news stories and other media coverage of Tesla throughout the eleven calendar days of the Class Period (9 trading days). (*See Appendix D* for a chronology of information releases.) I found approximately 2,900 articles (including over 500 articles from Bloomberg News or First Word⁵⁵ and over 2,400 from Factiva⁵⁶) that discussed Tesla.

33. Finally, as a public company, Tesla was required to file numerous information disclosures in SEC forms that contain new and possibly material information (*e.g.*, 10-K, 10-Q, Proxy and Registration forms) and others that were related to material changes in the Company (*e.g.*, 8-K).

⁵³ *See, e.g., Aranaz v. Catalyst Pharmaceutical Partners, Inc.*, 302 F.R.D. 657, 669 (S.D. Fla. 2014) (finding at least four different securities analysts following Catalyst supported market efficiency); *Billhofer v. Flamel Techs., S.A.*, 281 F.R.D. 150, 153-54 (S.D.N.Y. 2012) (finding that eight separate firms issuing reports about Flamel and four additional firms participating in investor conference and more than two dozen articles and press releases being published about Flamel was sufficient to favor a finding of market efficiency).

⁵⁴ BST 2020 at Table 2, p. 104.

⁵⁵ Based on a search of Bloomberg News or Bloomberg First Word articles for company "Tesla Inc" with medium relevance.

⁵⁶ Factiva is a Dow Jones company. For Factiva, I searched all sources for the company code "Tesla, Inc." *See infra* note 97.

34. The continuous coverage of Tesla by a substantial number of analysts, investment professionals, public press, and financial institutions, along with regular and frequent disclosures by the Company in the form of press releases and SEC filings, provides evidence supporting the conclusion that Tesla common stock traded in an efficient market throughout the Class Period.

3. *Cammer Factor III – Market Makers and Arbitrageurs*

35. The next operational factor is the presence of market makers and arbitrageurs. As discussed in *Cammer*, “[t]he existence of market makers and arbitrageurs would ensure completion of the market mechanism; these individuals would react swiftly to company news and reported financial results by buying or selling stock and driving it to a changed price level.”⁵⁷ This factor, as suggested by the *Cammer* court related to a stock that was traded in the 1980’s over-the-counter market or on the early version of NASDAQ (which, at the time, was not a national exchange, but instead was a reporting network in which transactions in securities are reported to the National Association of Securities Dealers for publication).⁵⁸ The *Cammer* court understood that the market-making infrastructure of a stock market is indicative of its efficiency.⁵⁹

36. As explained below, consideration of this factor supports a finding of market efficiency for Tesla common stock because: (a) the stock was traded on the NASDAQ

⁵⁷ *Cammer*, 711 F. Supp. at 1286-87. See also *In re Xcelera.com*, 430 F.3d at 515 (quoting Black’s Law Dictionary (8th ed. 2004)) (“A market-maker is ‘one who helps establish a market for securities by reporting bid-and-asked quotations’ (the price a buyer will pay for a security and the price a seller will sell a security).” A market-maker also “‘stands ready to buy or sell at these publicly quoted prices.’”); *Id.* (quoting *Lehocky v. Tidel Techs., Inc.*, 220 F.R.D. 491, 508 n.24 (S.D. Tex. 2004)); *In Re PolyMedica Securities Litigation*, 453 F. Supp. 2d 260, 268 (D.C. Mass 2006) (“A market-maker is ‘[o]ne who helps establish a market for securities by reporting bid-and-asked quotations’ (the price a buyer will pay for a security and the price a seller will sell a security) A market-maker also ‘stand[s] ready to buy or sell at these publicly quoted prices.’” (citations omitted)).

⁵⁸ *Cammer*, 711 F. Supp. at 1271 n.24.

⁵⁹ See also *supra* note 25.

Global Select Market; (b) was actively traded by a large group of sophisticated investors;⁶⁰ and (c) there were opportunities for arbitrage.⁶¹

a) Trading on the NASDAQ

37. Throughout the Class Period, Tesla common stock traded on the NASDAQ Global Select Market.⁶² The NASDAQ National Market System is one of the most renowned, most liquid and most efficient forums for trading stocks in the world. The NASDAQ exchange is decentralized and includes the participation of multiple *market makers*, dealers or financial intermediaries who stand ready to buy or sell in order to ensure there is adequate liquidity and orderly trading.⁶³ Because market makers make it easier for investors to execute trades in a timely fashion and with reasonable transaction costs, a larger number of market makers, not only signals widespread interest and participation in the market for the particular security, but results generally in a relatively higher degree of liquidity and narrower bid-ask spreads. These are attributes of efficient markets.

38. When the *Cammer* court issued its decision in 1989, over-the-counter trading and NASDAQ were very different than they are today. With innovations in electronic trading NASDAQ has become a national exchange and has grown to rival the NYSE in

⁶⁰ *Enron*, 529 F. Supp. 2d at 756.

⁶¹ *PolyMedica*, 453 F. Supp. 2d at 273.

⁶² The NASDAQ consists of three tiers: the NASDAQ Global Select Market; the NASDAQ Global Market; and the NASDAQ Capital Market. The listing requirements are most stringent for the Global Select Market, followed by the Global Market, and then the Capital Market. *See* NASDAQ Initial Listing Guide, June 2020, p. 6, available at: <https://listingcenter.nasdaq.com/assets/initialguide.pdf> (last visited September 18, 2020).

⁶³ The difference in trading between the NYSE and NASDAQ has diminished. A recent study concludes that: “This study provides evidence of the homogenization of trading in the United States. The empirical results show that two significant characteristics of market quality—trading volume and transitory volatility—have become indistinguishable, on average, between NASDAQ stocks and those listed at the traditional listing [NYSE] exchanges. These results provide concrete evidence of a reality that is obvious to most practitioners: The market structures used for trading stocks are now essentially the same regardless of their primary listing markets.” *See* Lawrence Harris, *The Homogenization of US Equity Trading*, Working Paper, September 30, 2011, p. 2.

size, liquidity and information dissemination.⁶⁴ According to the 10-K filed by NASDAQ, Inc. for the year ended 2017, “[NASDAQ is] a leading provider of trading, clearing, marketplace technology, regulatory, securities listing, information and public company services. ... The Nasdaq Stock Market is the largest single venue of liquidity for trading U.S.-listed cash equities.”⁶⁵ “As of December 31, 2017, there were 2,949 total listings on The Nasdaq Stock Market, including 373 ETPs. The combined market capitalization was approximately \$11.6 trillion.”⁶⁶ Furthermore, like its competitor, the NYSE, “Companies seeking to list securities on The NASDAQ Stock Market must meet minimum listing requirements, including specified financial and corporate governance criteria. Once listed, companies must meet continued listing standards.”⁶⁷

39. Courts (and economists) have generally presumed that common stocks traded on the NASDAQ trade in an efficient market.⁶⁸ In the *Groupon* decision, the court noted that even the Defendants’ economic expert conceded that most securities traded on the NASDAQ exchange traded in an efficient market.⁶⁹

⁶⁴ For example, in 2007, NASDAQ became “fully operational as an independent registered national securities exchange ...” Nasdaq, Inc., SEC Form 10-K for fiscal year ending December 31, 2017, p. 2.

⁶⁵ *Id.* at 2-3.

⁶⁶ *Id.* at F-8.

⁶⁷ *Id.* at 5.

⁶⁸ *Lumen v. Anderson*, 280 F.R.D. 451, 459 (W.D. Mo. 2012) (“It would be remarkable for a court to conclude NASDAQ is not an efficient market . . .” (footnote omitted)).

“While other courts have been reluctant to conclude that a stock was traded efficiently solely because it was traded on the NYSE or NASDAQ, most courts agree that such listing is a good indicator of efficiency.” *Carpenters Pension Trust Fund of St. Louis, et al. v. Barclays PLC, et al.*, 2015 U.S. Dist. LEXIS 110382 at *26 (S.D.N.Y. 2015) (footnote omitted).

⁶⁹ “Dr. Gompers, Defendants’ expert, did not dispute Dr. Feinstein’s conclusions that (1) the NASDAQ exchange—on which Groupon shares traded—was a well-developed exchange on which **most company’s stocks traded efficiently** most of the time....” *In re Groupon, Inc. Securities Litigation*, 2015 WL 1043321, at *5 (N.D. Ill. 2015) (emphasis added).

b) The Existence of Market Makers

40. Tesla investors benefitted from having market makers, who competed against one another. According to Bloomberg, there were at least 81 dealers during the month including the Class Period. These 81 financial intermediaries often risked their own capital and utilized the most advanced information technology and sophisticated research teams to assist investors by improving liquidity and information dissemination.⁷⁰ Demonstrating that there was active participation by a substantial number of brokers, **Exhibit IV** shows that 9 brokers traded in excess of one percent of the total volume.

41. Therefore, the fact that Tesla was listed on the NASDAQ Global Select Market and had at least nine active market makers, as well as many other less active market makers, standing ready to buy or sell, provides evidence supporting the conclusion that Tesla common stock traded in an efficient market throughout the Class Period.

c) Arbitrageurs and Institutional Holdings

42. As noted above, some courts have also considered the number and activity of institutional investors, as well as the proportion of their holdings of the common stock as evidence of market efficiency.⁷¹ **Exhibit V** lists 1,039 institutions that filed SEC Form 13F and other documents, disclosing the combined sizes of their beneficial and non-beneficial ownership positions of Tesla common stock for either of the reporting quarters before and after Class Period.⁷² These data show that “there was active trading . . . during

⁷⁰ Many market makers not only serve as intermediaries, but also trade for their own accounts.

⁷¹ See, e.g., *Enron*, 529 F. Supp. 2d at 756.

⁷² For securities traded on major U.S. exchanges, such as the NYSE, NASDAQ and AMEX, S&P Capital IQ gathers institutional ownership information via Form 13F filings and other sources. For 13F filings, the SEC’s rules state: “Institutional investment managers that use the United States mail (or other means or instrumentality of interstate commerce) in the course of their business and that exercise investment discretion over \$100 million or more in Section 13(f) securities must file Form 13F. . . . An institutional investment manager is an entity that either invests in, or buys and sells, securities for its own account. For example, banks, insurance companies, and broker/dealers are institutional investment managers. So are corporations and pension funds that manage their own investment portfolios. An institutional investment

the Class Period, [and] there were a substantial number of institutional investors,”⁷³ including a large group of sophisticated investors, institutional investors and investment advisors, who participated in the market for Tesla common stock either on their own behalf or on behalf of other beneficial owners. Further, the top 20 largest institutional holders of Tesla common stock (in terms of relative size) as of June 30, 2018 and September 30, 2018 held a large proportion of the public float (I also report the position relative to outstanding shares). *See Exhibit VI*. This exhibit shows that the aggregate positions of these 22 institutions held between 57% and 61% of the public float (and between 45% and 49% of the outstanding shares) as of the listed dates. In addition, based on 2016-2018 data in BST 2020, Tesla’s institutional ownership as a percent of shares during the Class Period would have placed it between the 25th and 50th percentiles of NYSE and NASDAQ traded companies.⁷⁴

43. The reasonably large number of sophisticated institutional investors and investment advisors, as well as the relatively large proportion of the float they held offers some support that Tesla common stock traded in an efficient market throughout the Class Period.⁷⁵

manager is also a natural person or an entity that exercises investment discretion over the account of any other natural person or entity. For example, an investment adviser that manages private accounts, mutual fund assets, or pension plan assets is an institutional investment manager. So is the trust department of a bank. A trustee is an institutional investment manager, but a natural person who exercises investment discretion over his or her own account is not an institutional investment manager.” U.S. Securities and Exchange Commission: Division of Investment Management: Frequently Asked Questions About Form 13F, February 24, 2020, <http://www.sec.gov/divisions/investment/13ffa.htm> (last visited September 19, 2020).

⁷³ *See, e.g., Enron*, 529 F. Supp. 2d at 756.

⁷⁴ BST 2020 at Table 4, p. 106. Based on Tesla’s institutional holdings as a percent of shares outstanding of 45% on June 30, 2018 and 49% on September 30, 2018.

⁷⁵ *See supra* note 25. Other courts have noted the level of institutional investors in assessing market efficiency. *See, e.g., In re Alstom SA Sec. Litig.*, 253 F.R.D. 266, 280 (S.D.N.Y. 2008); *Ann Arbor*, 270 F.R.D. at 251; *Billhofer*, 281 F.R.D. at 153.

d) Arbitrage Opportunities and Short Interest

44. Some courts have also examined the issue of arbitrage opportunities by considering whether there is an availability of shares to borrow in order to enter into a short sale.⁷⁶ Short selling enables market participants to trade on their perceived negative information about the company even if they do not hold a long position in the stock. Thus, short selling assists in arbitrage activity when it is believed by investors that the stock is possibly mispriced and too high. Short selling activity can therefore impact market prices and efficiency because it enables all traders who believe the price is going to decline, even if they do not hold a long position, to sell and possibly affect market prices.

45. The amount of short interest in Tesla common stock during the Class Period ranged from 32.72 million shares to 34.99 million shares, with an average short interest of 34.23 million shares (based on short interest reported at the end of July 2018 and mid-August 2018). As a percentage of shares outstanding, short interest ranged from 19.2% to 20.5% and, as a percentage of public float, short interest also ranged from 24.1% to 25.7%. *See Exhibit VII*. This relatively high short interest suggests that arbitrageurs and traders with negative views on Tesla were able to remain active. The empirical results suggest that there was substantial arbitrage and trading activity, which offers further evidence that Tesla common stock traded in an efficient market throughout the Class Period.⁷⁷

4. Cammer Factor IV – SEC Form S-3 Eligibility

46. Eligibility to register securities on SEC Form S-3 is another factor in the analysis of market efficiency.⁷⁸ To be eligible to register on Form S-3, an issuer must (a)

⁷⁶ *PolyMedica Corp. Sec. Litig.*, 453 F. Supp. 2d at 273.

⁷⁷ In addition, based on 2016-2018 data in BST 2020, Tesla's short interest as a percent of shares during the Class Period would have placed it in the top 5% of NYSE and NASDAQ traded companies. BST 2020 at Table 6, p. 107.

⁷⁸ "Fourth, as discussed, it would be helpful to allege the Company was entitled to file an S-3 Registration Statement in connection with public offerings or, if ineligible, such ineligibility was only because of timing factors rather than because the minimum stock requirements set forth in the instructions to Form S-3 were not met." *Cammer*, 711 F. Supp. at 1287.

be current in its SEC filings for at least 12 months and (b) have a public float of \$75 million.⁷⁹

47. At all times throughout the Class Period, Tesla was current in its SEC filings. In addition, Tesla easily met the public float requirement. Indeed, on average, Tesla's public float was more than 630 times the required threshold. In addition, Tesla has repeatedly filed Form S-3ASR since it became publicly traded in 2010, filing on September 25, 2012, May 15, 2013, May 18, 2016, November 7, 2017, March 11, 2019, and May 2, 2019.⁸⁰

48. Thus, this *Cammer* Factor offers further evidence supporting the conclusion that Tesla common stock traded in an efficient market throughout the Class Period.

C. Other Operational Factors to Weigh When Examining Market Efficiency

49. In addition to the operational *Cammer* factors evaluated above, I have also considered additional operational factors that have sometimes been considered by courts. As with the operational *Cammer* factors, these additional operational factors support my conclusion that Tesla common stock traded in an efficient market throughout the Class Period.

1. *Krogman* Factor – Market Capitalization

50. In *Krogman*, the court stated that “[m]arket capitalization, calculated as the number of shares multiplied by the prevailing share price, may be an indicator of market efficiency because there is a greater incentive for stock purchasers to invest in more highly capitalized corporations.”⁸¹

⁷⁹ SEC 1379, “Form S-3, Registration Statement under the Securities Act of 1933, General Instructions,” updated May 2019, at 2-3.

⁸⁰ Source: SEC EDGAR database, searched July 16, 2020 for filing type S-3. Type ASR means an “automatic shelf registration” which is available for “well-known seasoned issuers.” SEC 1379, “Form S-3, Registration Statement under the Securities Act of 1933, General Instructions,” updated May 2019, at 6.

⁸¹ *Krogman*, 202 F.R.D. at 478.

51. At the start of the Class Period, Tesla’s market capitalization was \$64.75 billion and at the end of the Class Period was \$52.12 billion.⁸² Throughout the Class Period, the market capitalization of Tesla averaged approximately \$59.55 billion. *See Exhibit VIII.*⁸³

52. Tesla’s market capitalization compares favorably to the market capitalization of defendant companies in other cases where the courts concluded that the common stock traded in efficient markets. Indeed, courts have certified classes involving issuer-defendants with significantly lower market capitalization than Tesla.⁸⁴ In addition, based on 2016-2018 data in BST 2020, Tesla’s market capitalization during the Class Period would have placed it in the top 5% of NYSE and NASDAQ traded companies.⁸⁵

2. *Krogman Factor – The Size of the Float of Tesla Common Stock*

53. Float or public float refers to the number of shares of Tesla stock that are not held by insiders of the corporation.⁸⁶ Consequently, a larger float relative to the total

⁸² Based on the \$379.57 closing price and approximately 170.59 million shares outstanding as of August 7, 2018; and the \$305.50 closing price and approximately 170.59 million shares outstanding as of August 17, 2018.

⁸³ During the PreCP Period, Tesla’s average market capitalization was \$52.96 billion. *See Appendix C.*

⁸⁴ Certification has been granted in many class action securities matters where the market capitalization of defendant companies is far lower than the average market capitalization of Tesla. *See, for example, In re DVI, Inc. Sec. Litig.*, 249 F.R.D. 196, 212 (E.D. Pa. 2008), which was affirmed by the Third Circuit. *In re DVI, Inc. Sec. Litig.*, 639 F.3d 623 (3d Cir. 2011) (“The market capitalization of DVI during the Class Period ranged between \$300 million to \$12 million, following DVI’s negative disclosures.”); *Vinh Nguyen v. Radiant Pharms. Corp.*, 287 F.R.D. 563, 574 (C.D. Cal. 2012) (“The value of stock held by non-affiliates ranged from \$29.5 million to \$73.1 million during the Class Period.”); *In Re Netbank, Inc. Sec. Litig.*, 259 F.R.D. 656, 672 (N.D. Ga. 2009) (“market capitalization rates range from \$246,386,421.36 to \$432,150,737.31”); *The Pennsylvania Avenue Funds v. Inyx Inc.*, 2011 U.S. Dist. LEXIS 72999, *28 (S.D.N.Y. 2011) (“the market capitalization was consistently in excess of \$22.4 million throughout the Class Period.”)

⁸⁵ BST 2020 at Table 5, p. 107.

⁸⁶ “In determining efficiency, courts also consider the percentage of shares held by the public, rather than insiders.” *Krogman*, 202 F.R.D. at 478, quoting *O’Neil v. Appel*, 165 F.R.D. 479 (W.D. Mich. 1996) at 503.

number of outstanding shares of Tesla stock indicates there are a large proportion of Tesla shares that are available to non-insiders who can trade without restrictions and profit by trading on new information to the marketplace.

54. On average, insiders held 34.6 million or 20.3% of the average shares outstanding during the Class Period.⁸⁷ The public float was thus, on average, approximately 79.7% of Tesla's shares during the Class Period. The large proportion of Tesla shares held by the public offers further evidence that Tesla common stock traded in an efficient market throughout the Class Period.

3. Krogman Factor – Bid-Ask Spread

55. The size of the bid-ask spread (*i.e.*, ask quote minus bid quote) for a stock in the market is an indication of the liquidity in the market, and courts have considered it as a factor in determining whether the security trades in an efficient market. In *Krogman*, the court stated that, “[a] large bid-ask spread is indicative of an inefficient market, because it suggests that the stock is too expensive to trade.”⁸⁸

56. Here, the low bid-ask spread for Tesla common stock supports market efficiency. Using daily closing bid and ask quotes, I calculated the percent bid-ask spread for Tesla common stock. The percent bid-ask spread was calculated as (i) the ask quote less the bid quote divided by (ii) the average of the bid and ask quotes. **Exhibit IX** contains the results of the bid-ask spread analysis for each day of the Class Period. The average daily percent spread for Tesla common stock was 0.02% over the Class Period.⁸⁹

57. These numbers compare favorably to the findings of the courts in other cases where the courts concluded that the common stocks traded in efficient markets.⁹⁰ Further,

⁸⁷ Insider holdings were obtained for directors and officers as a group from Tesla's SEC Form DEF14A filed April 26, 2018.

⁸⁸ *Krogman*, 202 F.R.D. at 478.

⁸⁹ During the PreCP Period, Tesla's average bid-ask spread was 0.03%. See **Appendix C**.

⁹⁰ See *Radiant*, 287 F.R.D. 563, 574 (finding a much larger bid-ask spread of 0.58 percent supported market efficiency); *In re Scientific-Atlanta*, 571 F. Supp. 2d 1315, 1339

they also compare favorably to academic research, which showed that in 2009 the bid-ask CRSP-based average spreads for all NYSE and AMEX stocks were 1.03%, while for all NASDAQ stocks the average spread was 2.55%.⁹¹ By comparison, the average daily spread for Tesla common stock was approximately *one fiftieth* the size of the NYSE spreads and *one 125th* the size of the NASDAQ spreads. In addition, based on 2016-2018 data in BST 2020, Tesla's bid-ask spread during the Class Period would have placed it in the lowest 10% of NYSE and NASDAQ traded companies; meaning that Tesla's bid-ask spread was *narrower* than 90% of the common stocks traded on the NYSE and NASDAQ during the 2016-2018 period.⁹²

58. The small size of the bid-ask spread is further evidence offering support for the conclusion that Tesla common stock traded in an efficient market throughout the Class Period.

VI. THE PRICE-RELATED FACTORS DESCRIBING MARKET EFFICIENCY OF TESLA COMMON STOCK

A. Background

59. What is often referred to as the fifth *Cammer* factor is “a cause and effect relationship between unexpected corporate events or financial releases and an immediate response in the stock price.”⁹³ As stated in *Cammer*, “[o]ne of the most convincing ways to demonstrate [market] efficiency would be to illustrate, over time, a cause and effect

(N.D. Ga. 2007) (finding that a bid-ask spread that “never exceeded 1.9%” weighed heavily in favor of market efficiency); and *Cheney v. Cyberguard Corp.*, 213 F.R.D. 484, 501 (S.D. Fla. 2003) (finding that average daily relative bid-ask spread of 2.44% weighed in favor of market efficiency).

⁹¹ Kee H. Chung and Hao Zhang, *A Simple Approximation of Intraday Spreads Using Daily Data*, 17 J. Fin. Markets, 94, Table 2 (2014). The paper compared data using closing CRSP (Center for Research in Security Prices) prices to intraday data and showed the spreads are very close. 2009 is the most recent year the authors examined.

⁹² BST 2020 at Table 3, p. 105. I note that Tesla's average 0.02% is also listed as the 5th percentile as well as the 10th percentile.

⁹³ *Cammer*, 711 F. Supp. at 1287.

relationship between company disclosures and resulting movements in stock price.”⁹⁴ As the *Krogman* court also noted, “in an efficient market, a stock’s price remains relatively stable in the absence of news, and changes very rapidly as the market receives new and unexpected information.”⁹⁵

60. Below I present empirical evidence that Tesla common stock exhibits the type of cause and effect relationship described in *Cammer* and *Krogman*, supporting a conclusion of market efficiency. First, I examine Tesla common stock price movements on earnings announcements (which I define as “news days”) in the PreCP Period. Second, I examine Tesla common stock price movements on days where there are alleged misstatements and corrective disclosures during the Class Period. Third, I examine the relationship between price volatility and volume throughout the Class Period and the PreCP Period. Finally, I demonstrate that there is no statistically significant autocorrelation of Tesla common stock abnormal returns during the Class Period and PreCP Period. This lack of autocorrelation demonstrates that Tesla’s common stock price reacted quickly to all types of news. Overall, the empirical results presented below support the conclusion that Tesla common stock traded in an efficient market throughout the Class Period.

B. Price Reaction to Unexpected New Information

1. Event Study Methodology Used to Test for Cause and Effect

61. To detect whether the price of Tesla common stock rapidly reacted to disclosures of important unanticipated information, I ran a series of empirical tests using the results from an event study. Event studies are widely used in academia, securities litigation matters and investment practices, and have been a standard statistical procedure used by financial economists for over thirty years. They are generally used to measure the reaction of market participants (and thus the stock price) to the disclosure of new information. In an event study, generally-accepted statistical methods are used to test whether a stock price movement on a particular date is statistically significant – *i.e.*, is of

⁹⁴ *Cammer*, 711 F. Supp. at 1291.

⁹⁵ *Krogman*, 202 F.R.D. at 477.

a large enough magnitude to allow a statistician to conclude it is not the consequence of chance.

62. As is explained in detail in **Appendix E**, to determine whether the Tesla stock price movement on any given date is statistically significant, I use generally-accepted econometric methods and specify a regression model that removes the outside influences on the stock price movement. I then compare the remaining or residual firm-specific portion of the stock price movement on the date in question to the typical or normal volatility of the company's stock.

63. Finally, as is typical in event studies performed in the context of class certification, I examine the relationship between the magnitudes of the abnormal returns, the statistical significance of those abnormal returns and the unexpected news related to the subject company. In **Appendix D**, I present the voluminous daily chronology including Tesla common stock prices, returns, volumes, abnormal returns and levels of statistical significance along with any company news. This chronology also demonstrates the depth of the media coverage of Tesla.^{96,97} The abnormal returns and the measures of statistical significance are used in the analyses below.

⁹⁶ During the Class Period, numerous news stories about Tesla appeared in leading financial publications, including Associated Press Newswires, Barron's, Benzinga.com, Bloomberg First Word, Bloomberg News, Business Insider, Business Wire, CNET News.com, CNN Wire, Dow Jones Institutional News, Forbes.com, Investor's Business Daily, MarketWatch, PR Newswire, Reuters News, The New York Times, The Wall Street Journal, Theflyonthewall.com, and USA Today. As discussed above, the broad dissemination of information about Tesla through the media, analyst reports and regular SEC filings is itself evidence supporting the conclusion that Tesla common stock traded in an efficient market during the Class Period. *See, e.g., In re HealthSouth Corp. Sec. Litig.*, 261 F.R.D. 616, 635 (N.D. Ala. 2009) ("The extensive coverage of HealthSouth in general and its bonds in particular by investment professionals, public media, and institutional investors reflects that HealthSouth notes traded in an efficient market.").

⁹⁷ For the Tesla chronology, I compiled lists of SEC filings, analyst reports, and news articles. I compiled the list of all of Tesla SEC filings from August 7, 2018 to August 17, 2018 from the SEC website. The list of analyst reports is based on reports available from the Thomson Eikon and Capital IQ electronic databases. While some other reports may exist, this is a reasonably comprehensive list of the analyst reports issued

2. Cause and Effect Analysis Examining Days with Earnings News – Background

64. In an efficient market, each disclosure of unanticipated material information will be expected to have an impact on the security price. This is why the *Cammer* court concluded, “[I]t would be helpful to a plaintiff seeking to allege an efficient market to allege empirical facts showing a cause and effect relationship between unexpected corporate events or financial releases and an immediate response in the stock price.”⁹⁸ In securities litigation, the event study for a single firm, as described in detail in **Appendix E**, examines the impact on stock prices from a confluence of different types of information that is disclosed and disseminated. It is not unusual that over a class period a corporation will announce earnings, dividends, discoveries, new products, management changes, new issues of securities, lawsuits that it files, lawsuits filed against it, projections, regulatory changes that impact its business, and more.

65. In an efficient market, academic research finds that there will be some large price movements with no news,⁹⁹ and conversely, that there will be news without large

concerning Tesla. For news articles contained in the chronology, I searched Factiva. For Factiva, I searched all sources for the company code for “Tesla, Inc.” To eliminate duplicate stories, a news story was considered a duplicate and eliminated if it had exactly the same date, timestamp, headline, news source, and lead paragraph as another news story from the same provider.

⁹⁸ *Cammer*, 711 F. Supp. at 1287.

⁹⁹ For example, in a 2002 study of the general stock market, Professor Fair observed that in the 4,417 trading days for the S&P 500 Index there were 220 days with abnormal returns. Of these days with significant returns, only 69 days had identifiable events or news. Thus, only 31.4 percent of the days had identifiable news, while 68.6 percent had no identifiable event or news. Notably, Professor Fair did not conclude that the S&P 500 stocks traded in inefficient markets. *See*, Ray Fair, *Events That Shook the Market*, 75 *Jnl. of Bus.* 713, 714 (2002).

This result is also consistent with other studies, including an analysis that examined return predictability following large price changes and information releases. In this study the authors looked at all common stocks traded on the NYSE and AMEX from 1990 to 1992 and observed 23,459 events with large abnormal returns (*i.e.*, days for one or more stocks with large price movements). After employing certain defined data filters, the final sample included 4,873 events. They found, “Approximately one-third

price movements. On the latter point, for example, there will be news without large price movements when a company announces earnings that are in line with expectations and the announcement may be important to investors, but the mix of information would not have changed significantly enough to elicit a statistically significant stock price reaction. Similarly, when a company's disclosure misleads investors by concealing important information, the effect of the concealment would generally not result in a significant stock price movement. The concealment "news" would maintain the mix of information, so the appropriate price reaction would be a maintenance of the price level where it previously was.

66. Furthermore, there are *unobserved factors* that might lead to significant price movements without news. These factors include, among others, unobserved changes in the market's expectations, imperfections in the statistical methods employed to evaluate the systematic cause-and-effect relationships of a single firm over a given period of time, and private trading activity — for example, insider trading, trading in advance of an offering or portfolio rebalancing. These factors all might drive a large price response without an observed cause.

67. Below I present empirical evidence that demonstrates that Tesla common stock exhibits the type of cause and effect relationship described in *Cammer* and *Krogman*, supporting a conclusion that Tesla common stock traded in an efficient market. I first examine Tesla's stock price movements on earnings dates during the PreCP Period to investigate whether Tesla's stock price generally moves with known information events. On days on which there are earnings or guidance disclosures, these disclosures typically (although not always) communicate to the market valuation information, which is considered to be material.¹⁰⁰ Whether the material information disclosed on these days is

of the events had public announcements." Mahesh Pritamani and Vijay Singal, *Return Predictability Following Large Price Changes and Information Releases*, 25 *Jnl. of Banking & Fin.* 631, 635-640 (2001) ("Pritamani and Singal").

¹⁰⁰ There is a voluminous academic literature examining price responses to earnings releases. The pioneering work was completed by William H. Beaver, *The Information Content of Annual Earnings Announcements*, 6 *Jnl. of Acctg. Res.* 67 (1968). *See also*,

unanticipated or anticipated will, in an efficient market, be reflected in the price movements observed on the day or days that follow. When selecting events for inclusion in an event study, it is that *group* of events as a *whole* that is characterized as having greater likelihood that there is material, unanticipated information that is disclosed as compared to all other days. One would not necessarily expect all of the individual events in a collective event study to have statistically significant returns.¹⁰¹ I next examine Tesla's stock price movements on the following dates: August 7, 2018, the date of the initial misrepresentation at the beginning of the Class Period and August 17, 2018, the date of the final corrective disclosure at the end of the Class Period. Because of the short duration of the Class Period, I am unable to perform a more standard statistical analysis of news vs. no-news days (in which news is objectively defined in advance by a topic such as earnings releases).

3. Cause and Effect Analysis of Earnings Releases During the PreCP Period

68. On May 2, 2018, after the market closed, Tesla released its financial results for the first quarter of 2018 and hosting a live question and answer webcast.¹⁰² On May 3, 2018, Tesla's stock price responded rapidly, closing down by 5.55%,¹⁰³ which was statistically significant at the 5% level. The volume on May 3, 2018 was 17,352,130 shares, more than 2 times the average daily volume of 8,293,907 shares during the PreCP Period. On the next trading day, May 4, 2018, Tesla's stock price increased 3.39%, which was not statistically significant.¹⁰⁴ This suggests that there was an open and well-developed market with sufficient liquidity to absorb the trading demands of the many investors who were

Daniella Acker, *Implied Standard Deviations and Post-Earnings Announcement Volatility*, 29 J. of Bus., Fin. and Acctg. 429 (2002).

¹⁰¹ See *supra* fn 99.

¹⁰² <https://ir.tesla.com/news-releases/news-release-details/tesla-releases-first-quarter-2018-financial-results>.

¹⁰³ From a closing price of \$301.15 on May 2, 2018 to a closing price of \$284.45 on May 3, 2018. See **Appendix F**.

¹⁰⁴ See **Appendix C** and **Appendix F**.

acting on their interpretations of the new information and that the market reacted rapidly to the earnings announcement made on May 2, 2018.

69. On August 1, 2018, after the market closed, Tesla released its financial results for the second quarter of 2018 and hosting a live question and answer webcast.¹⁰⁵ On August 2, 2018, Tesla's stock price responded rapidly, closing up by 16.19%,¹⁰⁶ which was statistically significant at the 1% level. The volume on August 2, 2018 was 23,214,962 shares, more than 2.75 times the average daily volume of 8,293,907 shares during the PreCP Period. On the next trading day, August 3, 2018, Tesla's stock price decline 0.39%, which was not statistically significant.¹⁰⁷ This also suggests that there was an open and well-developed market with sufficient liquidity to absorb the trading demands of the many investors who were acting on their interpretations of the new information and that the market reacted rapidly to the earnings announcement made on August 1, 2018.

4. Cause and Effect Analysis of Alleged Final Corrective Disclosure and Initial Misrepresentation During the Class Period

70. Throughout the Class Period, the Complaint alleges there were a number of misrepresentations and alleged corrective disclosures. For the purposes of this Opening Report, I have examined the price movements surrounding the initial misrepresentation and final alleged corrective disclosure.

a) Daily Return on August 7, 2018

71. On August 7, 2018, according to the Complaint, Tesla's CEO, Elon Musk, tweeted at 12:48 p.m. ET: "Am considering taking Tesla private at \$420. Funding secured." (the "Musk Tweet").¹⁰⁸ The Complaint details further tweets made by Musk during the trading day, as well as a blog post that was made public at 3:32 p.m.¹⁰⁹ Trading

¹⁰⁵ <https://ir.tesla.com/news-releases/news-release-details/tesla-releases-second-quarter-2018-financial-results>.

¹⁰⁶ From a closing price of \$300.84 on August 1, 2018 to a closing price of \$349.54 on August 2, 2018. See **Appendix F**.

¹⁰⁷ See **Appendix C** and **Appendix F**.

¹⁰⁸ Complaint, ¶2.

¹⁰⁹ Complaint, ¶¶74-85.

was halted at 2:08 p.m. and resumed again at 3:45 p.m.¹¹⁰ On August 7, 2018, Tesla's stock price rapidly responded to the information released, increasing by a statistically significant amount of 10.99%.¹¹¹ As shown in **Appendix F**, there is a positive daily abnormal return that is highly statistically significant (with a p-value below 1%, which denotes statistical significance at below the 1% level).

72. In addition, the volume on August 7, 2018 was 30,875,768 shares, over 3.7 times greater than the average daily volume of 8,293,907 shares during the PreCP Period.¹¹² This suggests that there was an open and well-developed market with sufficient liquidity to absorb the trading demands of the many investors who were acting on their interpretations of the new information.

b) Intraday Price Movements on August 7, 2018

73. Throughout the day on August 7, 2018 there were numerous disclosures of different types of information, much of which appear to be related to the Musk Tweet and certain disclosures that would likely be considered as material information. Further, the Musk Tweet was released in the afternoon, while there were large price movements in the morning and early afternoon. Therefore, I present in **Chart 1** intraday trading activity (including price and volume) of Tesla. In addition, in the following paragraphs, I provide a statistical analysis of price movements throughout the day. **Chart 1** and the statistical information demonstrate the rapid response to the unanticipated material information on this day.

74. This rapid response to new information is first clearly demonstrated when at 12:17 p.m. ET, the *Financial Times* reported that a fund from Saudi Arabia was investing a large amount in Tesla (the "FT Article").¹¹³ In the 10-minute interval between 12:17

¹¹⁰ Complaint, ¶81.

¹¹¹ From a closing price of \$341.99 on August 6, 2018 to a closing price of \$379.57 on August 7, 2018. The abnormal price increase was \$36.28 per share.

¹¹² See **Appendix C** and **Appendix F**.

¹¹³ "Saudi Arabia's sovereign fund builds \$2b Tesla stake," *The Financial Times*, August 7, 2018 (It is my understanding from Counsel that the source code for the article shows

p.m. ET and 12:27 p.m. ET Tesla's stock price rose from \$342.26 to \$354.38.¹¹⁴ This \$12.12 (3.5%) per-share increase in ten minutes is statistically significant based on using one-minute intervals for an event study analysis.¹¹⁵ In addition, the volume over the ten minutes of 1,284,993 shares was 7.6 times the average volume per ten minute interval of 168,381 shares over the time period from the open of trade to 12:10 p.m. ET on August 7, 2018.¹¹⁶

75. In addition, on August 7, 2018 the price movement from \$356.85 just prior to the Musk Tweet to the closing price of \$379.57 (or return of 6.37%) is also statistically significant based on the daily standard error calculated using the market model regression described above.¹¹⁷ In addition, the volume over the interval from the Musk Tweet to the

that it was published at 16:17:28 GMT, indicating publication at 12:17 pm ET). News outlets reported on the price movements following the *Financial Times* article, for example: "Tesla Climbs to Session High; FT Reports Saudi Fund Has Stake," Bloomberg News, August 7, 2018, 12:35 p.m.; "12:27 EDT Tesla jumps 3% to \$352.37 after FT says Saudi fund built \$2B stake," Theflyonthewall.com, August 7, 2018.

¹¹⁴ Based on the last traded price of the 12:16:-12:17 and 12:26-12:27 minute intervals from Bloomberg one-minute interval data (function GIT).

¹¹⁵ For this analysis, I obtain one-minute interval returns on August 6 and 7, 2018 for Tesla, the XCMP Index and the DJUSAP index from Bloomberg (GIT function). I remove Tesla's return from the DJUSAP index per my methodology in **Appendix E**. I run a market model of the one-minute returns on August 6, 2018 to obtain beta estimates, which I then apply for the ten one-minute intervals to obtain a cumulative abnormal return for Tesla. I divide this abnormal return by the product of the standard error of the market model regression and the square root of 10. This results in a highly statistically significant return with a p-value below 1%, which denotes statistical significance at the 1% level and I can say with 99% confidence that the price impact of the *Financial Times* story was not due to a random price movement or chance.

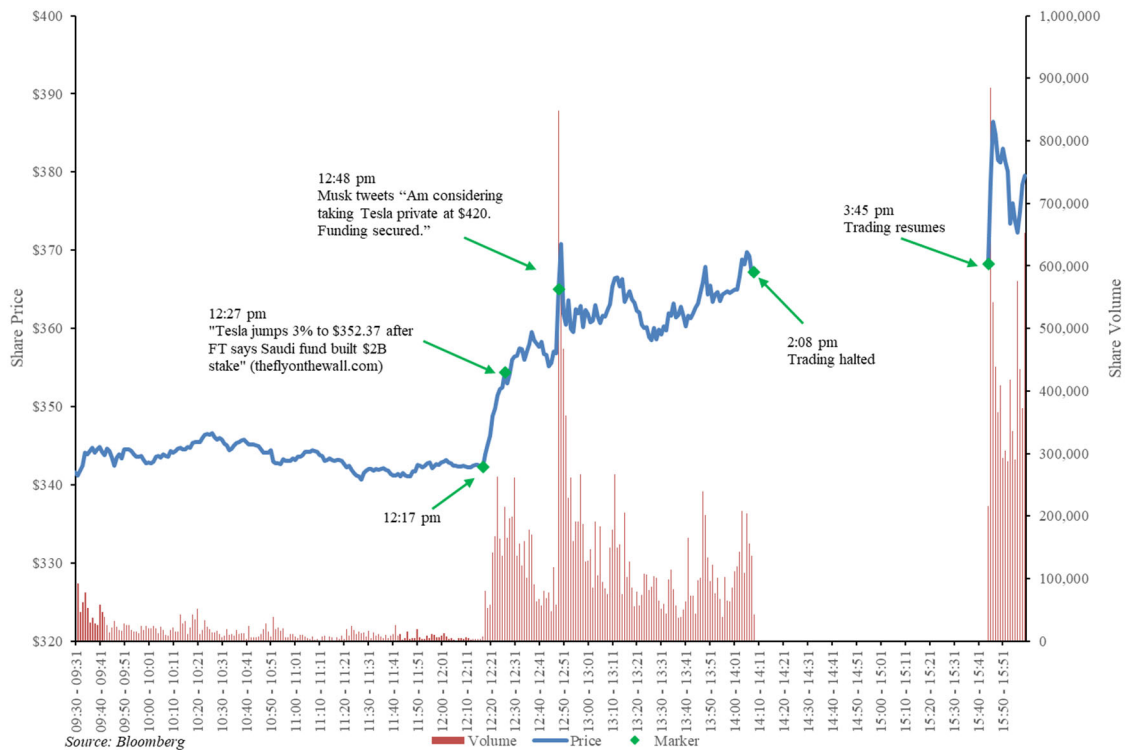
¹¹⁶ Source: Bloomberg one-minute interval data (function GIT) based on non-overlapping 10-minute intervals.

¹¹⁷ Based on the closing prices over the 12:47-12:48 and 15:59-16:00 one-minute intervals from Bloomberg (function GIT). I apply the same methodology as described in footnote 115 (using 192 one-minute intervals). This minute-level methodology results in a highly statistically significant return with a p-value below 1%, which denotes statistical significance at the 1% level and I can say with 99% confidence that the price impact of the initial Musk Tweet and additional Tweets and information was not due to a random price movement or chance (if the daily standard error is used, the abnormal

close of over 18 million shares,¹¹⁸ which even though it is shorter than a full trading day, was over 2 times greater than the average daily volume of 8,293,907 shares during the PreCP Period. This statistical analysis also enables me to reasonably distinguish between the price reaction from the information disclosed in the FT Article from that of the Musk Tweet.

Chart 1

Tesla Intraday Stock Price at End-of-Minute Intervals and Volume during Each Minute August 7, 2018



76. Therefore, volume and price reactions for Tesla common stock on August 7, 2018 are consistent with what an economist would expect when a security trades in an

return is statistically significant at the 2% level). I note that, in the first minute of trading (12:48-12:49 interval), Tesla’s stock price increased 2.29%, which is also highly statistically significant.

¹¹⁸ Based on volume from the 12:48-12:49 interval to 13:59-16:00 interval from Bloomberg one-minute interval data (function GIT).

open, well-developed and efficient market and support my opinion that Tesla common stock traded in an efficient market.

c) Daily Return on August 17, 2018

77. Before the market opened for trading on August 17, 2018, according to the Complaint, “*The New York Times* published an article based on a lengthy interview with Musk that reported that the Public Investment Fund had not committed to provide any cash, so funding was not ‘secured.’ *The New York Times* article further disclosed that no one had seen or reviewed Musk’s August 7, 2018 tweet before he posted it indicating that no going private transaction was imminent.” (the “NYT Article”).¹¹⁹ Tesla’s stock price rapidly responded to the information released, with the price at the close on August 16, 2018 of \$335.45 declining to \$305.50 at the close on August 17, 2018, a statistically significant amount of -8.93%.¹²⁰ The volume on August 17, 2018 was 18,958,612 shares, over 2.2 times greater than the average daily volume of 8,293,907 shares during the PreCP Period. This suggests that there was an open and well-developed market with sufficient liquidity to absorb the trading demands of the many investors who were acting on their interpretations of the new information, which was rapidly reflected in the stock price of Tesla.

d) Price Movement from the Close (on August 16, 2018) to Open (on August 17, 2018)

78. At the open on August 17, 2018, Tesla’s stock was immediately down to \$323.50 per share.¹²¹ This 3.56% decline from the prior day close of \$335.45 is statistically significant at the 3% significance level.¹²² Given the other disclosures on this date and the fact that this alleged corrective information came from a third-party, it would seem likely

¹¹⁹ Complaint, ¶6. The article was published in an online edition of *The New York Times* on August 16 after the conclusion of trading hours and then in print on August 17 before pre-market hours. Complaint, ¶196.

¹²⁰ See **Appendix F**.

¹²¹ Source: Bloomberg.

¹²² Based on a market model run of close-to-open returns over the Control Period of 120 days prior to the Class Period using a similar methodology as described in **Appendix E**, but on a close-to-open interval rather than close-to-close. The t-statistic is -2.24.

that the almost instantaneous close-to-open time interval might not allow sufficient time for the information from this disclosure to be fully processed and completely reflected in the market price. What my analysis does clearly demonstrate is that the market quickly began incorporating the information disclosed in the NYT Article.

79. Overall, whether examining the close-to-open price movement or the traditional close-to-close price movement, there was a rapid price response to the information in the NYT Article released after the market closed on August 16, 2018. Examining the traditional daily time interval, there as a negative abnormal return that is highly statistically significant (with a p-value below 1%, which denotes statistical significance at below the 1% level).

80. Therefore, volume and price reactions for Tesla common stock on August 17, 2018 are consistent with what an economist would expect when a security trades in an open, well-developed and efficient market.

5. Cause and Effect Analysis Examining the Relationship Between Abnormal Returns and Volume

81. Because of the relatively short Class Period, which means there are no earnings dates that are not alleged to be corrective disclosure dates in the Class Period (*i.e.*, a small sample size), to support my conclusion about the relationship between news and price movements, I also examine the overall relationship between price volatility and volume to empirically evaluate the impact of disclosures of information on the Tesla stock price response throughout the Class Period and the PreCP Period.¹²³

¹²³ Any time when there is a relatively short class period and courts have to evaluate whether a stock trades in an efficient market, generally, the courts find the event study analysis to be helpful. *See, for example, Wilson v. LSB Indus.*, 2018 U.S. Dist. LEXIS 138832, at *36 (S.D.N.Y. 2018) (accepting event study that used three news days); *Todd v. STAAR Surgical Co.*, 2017 U.S. Dist. LEXIS 1919, at *25-31 (C.D. Cal. 2017) (accepting event study that used three news days; *In re HealthSouth Corp. Sec. Litig.*, 257 F.R.D. 260, 282 n. 22 (N.D. Ala. 2009) (accepting event study that used two dates).

82. “It is an old Wall Street adage that ‘It takes volume to make prices move.’”¹²⁴ This is consistent with Karpoff’s conclusion that: “Although one can question the asserted causality, numerous empirical findings support what will be called here a ‘positive volume-absolute price change correlation.’”¹²⁵

83. There has been a plethora of academic research on this issue dating back to at least the 1960s attempting to determine why in an efficient market one observes a positive correlation between the size of absolute price changes and the magnitude of volume. The answer has been attributed to the flow of information. Differential pre-disclosure information among investors and differential interpretation of the disclosure itself will lead to greater than normal volume.

84. Moreover, all else constant, abnormal security returns on earnings release dates or other news dates are significantly more volatile or are “more likely to move” on average than on other trading days – *i.e.*, the abnormal returns are more likely to be larger than average. For example, academic economists agree that because earnings disclosures (on average) reveal more value-relevant information than is disseminated on all other days, it is expected that the security returns should be more volatile for earnings days as compared to other days.¹²⁶ The expected volatility is driven by profit-motivated investors who have different opinions on what will be the price impact of the value-relevant earnings information. Therefore, once the information is released, then it is expected, on average, that it will be reflected in greater changes in the stock price as compared to the normal movements observed on all other days. The empirical findings in the academic literature are consistent with this implication.¹²⁷

¹²⁴ Jonathan M. Karpoff, *The Relation between Price Changes and Trading Volume: A Survey*, 22 J. of Fin. and Quantitative Analysis, 109-126, 112 (1987) (“Karpoff”).

¹²⁵ Karpoff at 112.

¹²⁶ This does NOT suggest that there is an expected or systematic *direction* of abnormal returns and earnings, but instead understands that one must look at this in terms of whether the absolute return on earning dates is greater.

¹²⁷ See William H. Beaver, *The Informational Content of Annual Earnings Announcements*, 6 J. of Accounting Research, 67-92 (1968) (“Beaver”). Daniella

85. Combine the expected impact on price of news to the impact on volume and one can see how information and price changes are linked, and one can see how new information will result in larger than average volume and price changes. Professor Beaver states: “An important distinction between the price and volume tests is that the former reflects changes in the expectations of the market as a whole while the latter reflects changes in the expectations of individual investors.”¹²⁸ Thus, “price changes are interpreted as the market evaluation of new information, while the corresponding volume is considered an indication of the extent to which investors disagree about the meaning of the information.”¹²⁹ The key is that volume and price movements have common ties to the flow of new information about the security.

86. Therefore, using the Price-Volume Test, I examine the relationship between Tesla’s reported volume and its stock price changes by regressing the Company’s absolute abnormal stock returns on the log of trading volume over the PreCP Period and the Class Period and PreCP Period combined. As shown in **Exhibit X**, the relationship between the two variables is positive and highly statistically significant for both samples and thus supports the conclusion that Tesla common stock traded in an efficient market throughout the Class Period.

6. Cause and Effect Analysis Examining Autocorrelation

87. Next, I demonstrate that Tesla’s common stock price reacted quickly to all types of news. I conduct a statistical test to determine whether the daily abnormal returns of Tesla’s common stock exhibit autocorrelation using returns and lagged returns. Autocorrelation is a statistical property of the series of returns of a security wherein tomorrow’s security price movement can be systematically predicted with a reasonable

Acker, *Implied Standard Deviations and Post-Earnings Announcement Volatility*, 29 J. of Bus., Fin. and Accounting, 429-456, 452 (2002) finds that, “[t]he tests on volatility changes around [earnings] announcements indicate that announcements that are easy to interpret or announcements of good news are both associated with a volatility peak on the day of the announcement itself.”

¹²⁸ Beaver at 69.

¹²⁹ Karpoff at 110 (footnote omitted).

degree of statistical certainty based solely on the security price movement today (or some period in the past). The presence of systematic and persistent statistically significant autocorrelation throughout the PreCP Period and Class Period suggests *the possibility* that investors might have unexploited profit opportunities from naïve trading strategies (*i.e.*, either buying and holding the security or shorting and holding the short position) that are greater than the transaction costs.¹³⁰ Persistent statistically significant autocorrelation measures the empirical relation between stock returns over consecutive days (*e.g.*, the return today will enable an investor to predict the return tomorrow).

88. I demonstrate this by showing there is no systematic and persistent statistically significant autocorrelation of Tesla abnormal returns during the PreCP Period and Class Period combined. For this analysis, I conducted a statistical test to determine whether the daily abnormal returns of Tesla common stock exhibit persistent and systematic autocorrelation using returns and lagged returns.¹³¹ Autocorrelation is a statistical property of the series of returns of a security wherein tomorrow's security price movement can be systematically predicted with a reasonable degree of statistical certainty based solely on the security price movement today (or some period in the past). Some have argued that persistent and significant autocorrelation in the returns might indicate a violation of market efficiency in that it suggests that the security price does not react

¹³⁰ Autocorrelation throughout the Class Period or PreCP Period should not be confused with an observation of a specific series of anomalous price movements over a short period, such as a series of price declines caused by a series of adverse disclosures, as would be expected in an efficient market.

¹³¹ “Autocorrelation is usually found in time-series data. Economic time series often display a ‘memory’ in that variation is not independent from one period to the next.” Greene, *supra* note 31. In other words, autocorrelation is the measurement of the relationship between the security return at time *t* and the return of the same security at some fixed time in the past. First-order autocorrelation would be found when there is a statistically significant relationship between the common stock return today and the common stock return yesterday. Another way of looking at this concept is that if an observer can use the return from yesterday to predict with some level of certainty the return today, there exists autocorrelation. *See Lehocky*, 220 F.R.D. at 506-507 n.20 (noting that both parties’ experts agreed on the helpfulness of autocorrelation); *PolyMedica*, 453 F. Supp. 2d at 276–78.

quickly, making available profit opportunities from naïve trading strategies that are sustained over time.

89. My statistical analysis of Tesla abnormal stock returns for the 129 days of the PreCP Period and Class Period shows there is no statistically significant autocorrelation. This supports a conclusion of market efficiency. Here, I ran a standard statistical model by regressing each trading day's abnormal return on the abnormal return from the prior trading day. From this model, I derive a coefficient of 0.02 representing the measurement of the relationship between the abnormal current (*i.e.*, today) and lagged (*i.e.*, yesterday) returns and a *t*-statistic of 0.22. A *t*-statistic of 1.96 or above in absolute value would indicate a statistically significant relationship between yesterday's and today's abnormal returns. Because the *t*-statistics I derive (again, 0.22) is well below the threshold for significance, I conclude that there is no statistically significant autocorrelation of Tesla abnormal stock returns during the PreCP Period and Class Period. This finding again supports the conclusion that the market for Tesla common stock traded in an efficient market throughout the Class Period.¹³²

90. In summary, the statistical test I performed shows no statistically significant autocorrelation for Tesla abnormal returns at the five percent level of statistical confidence, which is consistent with the conclusion that Tesla common stock reacts quickly to news. This result and the other cause and effect tests above are strong support that Tesla common stock traded in an efficient market throughout the Class Period

C. Based on the Basket of Factors the Courts Evaluate, Tesla Common Stock Traded in an Efficient Market

91. My empirical analyses in this section shows that the disclosure of Tesla-specific news caused rapid and significant movements in the prices of Tesla common stock. These analyses strongly support the conclusion that the market for Tesla common stock was efficient. Moreover, using the empirical results for the evaluation of the eight

¹³² I also perform this analysis using only the PreCP Period, which results in a coefficient of 0.06 and *t*-statistic of 0.62.

operational factors in Section V, I have also presented strong support for my conclusion that Tesla common stock traded in an efficient market throughout the Class Period.

92. In summary, when examining the basket of factors that courts generally rely upon for class certification decisions, which are also consistent with the fundamental principles of economics and finance that academics rely upon to evaluate market efficiency, the evidence strongly supports the conclusion that Tesla common stock traded in an efficient market throughout the Class Period.

VII. THE BASKET OF RELEVANT FACTORS USED TO EVALUATE THE MARKET EFFICIENCY OF TESLA COMMON STOCK APPLIES TO THE EXAMINATION OF WHETHER OPTIONS ON TESLA COMMON STOCK TRADED IN EFFICIENT MARKETS

93. I have also been asked to determine whether options on Tesla common stock traded in open, well-developed and efficient markets. For this analysis, I include only those options that had traded (*i.e.*, had volume) during the Class Period. In the following subsections, I provide a general overview of options and option terminology and discuss my analysis of the efficiency of the market for options on Tesla common stock.

A. Overview of Options

94. An option on Tesla common stock is a contract which gives the buyer the right, but not the obligation, to buy or sell Tesla common stock at a specified *strike price* prior to or on a *specified date*. The strike price (also called the exercise price) is the amount paid or received upon exercise of the option and the specified date (also called the expiration or maturity date) is the termination date when the contract is no longer in force. There are two types of standard exchange-traded stock options: call options and put options. A call option gives the holder the right, but not the obligation, to purchase shares of Tesla common stock at a specified strike or exercise price, on or before the specified expiration or maturity date. These option contracts are purchased from sellers, who are commonly referred to as the option writers. A put option gives the holder the right, but not the obligation, to sell shares of Tesla common stock to the option writers at the specified exercise price on, or possibly before, the expiration date.

95. Because a stock option is forward-looking, at any point in time during its life, other determinants of its value include the risk-free interest rate, expected dividends to be paid on the stock, the time to maturity of the options, and the volatility of the underlying asset at that point in time.¹³³

96. The difference between the exercise price and the underlying stock price is called the “intrinsic value” of an option. For a call option, the intrinsic value is equal to the underlying stock price less the exercise price of the option (*i.e.*, how much more the stock is worth than the price you have the option to buy it at), but not less than zero. For a put option, the intrinsic value is equal to the exercise price less the underlying stock price (*i.e.*, how much less the stock is worth than the price you have the option to sell it at), but not less than zero.

97. During the life of an option, an option would also have “time value,” which is the value inherent in holding the option over time and is generally determined by the length of the remaining life of the option (the longer time to expiration, the higher the time value of the option) and the implied volatility of the underlying stock (the higher the implied volatility, the higher the time value of the option).

98. It is critical to understand that stock options are considered “derivative” securities because they derive their value from the value of the underlying asset, which in the case of Tesla put and call options is the share price of Tesla common stock. In other words, at any given point in time, the ultimate price of a particular option is primarily dependent on the magnitude of the difference between the fixed strike price of that option and the variable price of Tesla’s common stock (in particular, the variability of the price over the life of the option). Therefore, holding all else constant, as the price of Tesla common stock changes, so too will the prices of the put and call options. When the price of Tesla common stock rises, *all else constant*, in an efficient market it is expected that the

¹³³ See, John C. Cox and Mark Rubenstein, *Options Markets* (Prentice-Hall, 1985), pp. 33-39 for an in-depth discussion of determinants of option value (“Cox and Rubenstein”).

prices of call options will rise, while the prices of put options will fall.¹³⁴ Conversely, when the price of Tesla common stock falls, *all else constant*, in an efficient market it is expected that the prices of call options will fall, while the prices of put options will rise.

99. Besides the underlying Tesla stock price, the expected volatility in Tesla's stock price is a critical factor in determining the value of an option on Tesla common stock. In this case, volatility can be thought of as the expected dispersion of possible future levels of Tesla stock prices. Thus, according to Cox and Rubenstein:

The higher the volatility, the greater the likelihood that the stock will do either very well or very poorly. These are offsetting effects for the owner of the stock, but not for the owner of the call. He will get the full dollar benefit from the favorable outcomes, but will avoid most of the dollar loss from the unfavorable outcomes, since in those cases he will not exercise the call. Consequently, the higher the volatility over the lifetime of a call, the higher is its value relative to the stock.¹³⁵

100. Another factor that is important in determining the value of an option is the time to maturity. The time to maturity element acts much like volatility because the longer the option has to expire, the greater the expected dispersion of possible future levels of Tesla stock prices.

B. Exchange-Traded Options Like Those on Tesla Common Stock

101. Standard exchange-traded option contract prices, such as those on Tesla common stock, are quoted on the basis of purchasing (*i.e.*, calling) or selling (*i.e.*, putting) a share of Tesla common stock, although a standard contract is generally for 100 underlying

¹³⁴ Under certain conditions, in an efficient market, an observable option price might not necessarily change if the stock price changes. For example, the price of an out-of-the-money option with a very short time to expiration would not be expected to discernably change unless there is a sufficiently large price movement in the underlying stock.

Or, as is the case in this matter, if the time to maturity and likely end price is altered (say by the possibility of an impending merger or other transaction), the prices of calls and puts might not move in the typical direction based solely on what is expected given the stock price movement.

¹³⁵ Cox and Rubenstein, p. 34 (footnote omitted).

shares.¹³⁶ Thus, if an option contract is quoted at \$10, the cost of purchasing such an option (referred to as the “premium”) would be \$1,000 (equal to \$10 multiplied by 100). There are generally a variety of options available to trade at different expiration dates and strike prices. In general, there is a series of long-term options (“LEAPs”) expiring in each January that begin to be traded approximately 2-1/2 years prior to the expiration of the specified contract.¹³⁷ There are also options with quarterly cycle expirations that begin trading approximately eight months prior to expiration.¹³⁸ In addition, options with other monthly and weekly expirations can begin trading closer to the expiration date.¹³⁹

102. There is no limitation to the number of put or call options because when a new option is “written,” it creates one new contract, which adds to what is called “open interest.” Open interest is the number of outstanding contracts for each option series that is being traded by investors. Open interest is reduced when an option is exercised or there is an offsetting trade (*i.e.*, if an option purchaser sells his or her option to an option writer or an option writer closes out his or her position by buying an option from an option holder). In the case of exercising a call option, the purchaser buys the 100 shares of common stock at the strike price (with the purchaser acquiring 100 shares of common stock and remitting to the option writer an amount equal to 100 times the strike price); while exercising a put

¹³⁶ There can be exchange-traded options that are adjusted due to events such as capital changes which adjustments are detailed in OCC infomemos (found at <https://infomemo.theocc.com/infomemo/search>).

¹³⁷ *See*, for example, “How LEAPS® Work,” The Options Industry Council, FAQ 7.8, <https://www.optioneducation.org/optionsoverview/how-leaps-work> (last visited September 17, 2020).

¹³⁸ *See*, for example, “LEAPS® & Expiration Cycles, What are Expiration Cycles?” The Options Industry Council, FAQ 11.2.2, <https://www.optioneducation.org/referencelibrary/faq/leaps-and-expiration-cycles> (last visited September 17, 2020).

¹³⁹ *See*, for example, “LEAPS® & Expiration Cycles, What are Expiration Cycles?” The Options Industry Council, FAQ 11.2.2, <https://www.optioneducation.org/referencelibrary/faq/leaps-and-expiration-cycles>; “Weekly Options,” The Options Industry Council, FAQ 11.2.10, <https://www.optioneducation.org/referencelibrary/faq/weekly-options> (last visited September 17, 2020).

option means the option purchaser sells or assigns 100 shares of common stock at the strike price to the writer of the put (with the writer receiving 100 shares of common stock and remitting to the purchaser an amount equal to 100 times the strike price).

C. Modeling Option Prices Using the Black-Scholes Model

103. In their seminal publication, Professors Fischer Black and Myron Scholes presented a model of call and put prices that combined the factors discussed above. The Black-Scholes model (adjusted for dividends) is as follows:¹⁴⁰

$$c = Se^{-qt}N(d_1) - Xe^{-rt}N(d_2)$$

and

$$p = Xe^{-rt}N(-d_2) - Se^{-qt}N(-d_1)$$

where

$$d_1 = \frac{\ln(S/X) + (r - q + \sigma^2/2)T}{\sigma\sqrt{T}}$$

and

$$d_2 = d_1 - \sigma\sqrt{T}$$

where: c = the price of a call option;
 p = the price of a put option;
 S = the current stock price underlying the option;
 σ = the volatility of the underlying stock;
 X = the exercise price of the option;
 T = the time to expiration of the option;¹⁴¹
 q = the dividend yield on the underlying stock;¹⁴²
 r = the risk-free interest rate;¹⁴³ and

¹⁴⁰ For example, see John C. Hull, *Options, Futures, and Other Derivatives*, 291 (without dividends), 331 (with dividends) (7th ed. 2009); Fischer Black and Myron Scholes, *The Pricing of Options and Corporate Liabilities*, 81 *Journal of Political Economy* 637 (1973).

There are many option valuation models. I use Black-Scholes to help describe the important factors or inputs that determine option value.

¹⁴¹ The number of days to expiration is equal to the expiration date less the trading date.

¹⁴² Tesla did not pay a dividend during the Class Period, nor was one expected to be paid in the near future.

¹⁴³ For the risk-free interest rate r in the equation above, one generally refers to the U.S. Treasury constant maturity rate closest to the number of days to expiration for each respective option.

N denotes the cumulative probability density function for a standardized normal distribution.

104. Not only does this enable the calculation of put and call prices, but when prices are observed these equations can be used to solve for the implied volatility each day. The implied volatility is based on the option prices.

105. The Black-Scholes model and the discussion above provide for a foundation to interpret my empirical evidence related to the analysis of whether the market for Tesla options as a whole or individually traded in open, well-developed and efficient markets.

D. Overview of Tesla's Options Series Listed on Exchanges During the Class Period

106. There were 2,449 unique option series in which there were transactions made during the Class Period, including 1,146 call options and 1,303 put options.¹⁴⁴ The expiration dates of these option series ranged from August 10, 2018 through January 17, 2020. As discussed below, there was volume of 1,772,360 call option contracts and 1,598,370 put option contracts during the Class Period.

E. Efficiency of the Market for Tesla Options

1. Operational Factors

a) Several Operational Factors for Tesla Common Stock Apply to Tesla Options

107. Although many courts, for example those in the Fifth Circuit, have considered that satisfaction of certain factors for common stock is sufficient to demonstrate that the derivative options also trade in an efficient market, I have still undertaken the analysis below.¹⁴⁵ These circuit courts' rulings are consistent with the understanding that because

¹⁴⁴ This does not include option series that were available to trade but for which there were no trades made. Data source: Cboe Exchange, Inc., Cboe DataShop as discussed later.

¹⁴⁵ *Enron*, 529 F. Supp. 2d at 754 (“The Court finds that Dr. Nye’s evidence applying the *Cammer/Unger/Bell* factors to the stock, is sufficient to trigger the fraud-on-the-market presumption for Plaintiffs’ § 10(b) claims based on the options.”); *Marcus v. J.C. Penney Co., Inc.*, 2016 U.S. Dist. LEXIS 115795, at *30 (E.D. Tex. 2016) (relying on “[t]he Court in *Enron* [which] found that an experts’ application of

the ultimate price of options on Tesla common stock is primarily dependent or derived based on the price of Tesla common stock and the price of Tesla common stock is determined by the flow of information about the performance of Tesla, the efficiency of the price of the options on Tesla common stock is determined by the efficiency of Tesla's common stock, as measured by the basket of factors that were examined in Sections V and VI, above. Thus, whether the market participants are investors in Tesla common stock or stock options, they generally will have access to the same information from the same sources (analysts, media, Company filings, etc.) and have reasonably low-cost alternatives to act on that information. Therefore, to the extent that the Tesla common stock share price reflects all publicly available information about Tesla, and the share price rapidly adjusts to account for new, material and unanticipated information, it would be expected that prices for options on Tesla common stock would also reflect all publicly available information about Tesla, and the options prices would rapidly adjust to account for new, material and unanticipated information. Thus, overall, to the extent that the *Cammer* factors are supportive, such as analyst and media coverage, the ability to file SEC Form S-3, and the fact that the common stock trades on a standardized exchange and with market makers, support the conclusion that Tesla common stock trades in an efficient market, these factors would also support the conclusion that options on Tesla common stock trade in an efficient market.

the *Cammer* factors to common stock was sufficient to trigger the presumption for options as well”), *report and recommendation adopted*, 2017 U.S. Dist. LEXIS 33257 (E.D. Tex. 2017).

This is also consistent with the recent case *Laurence Rougier, et al. v. Applied Optoelectronics, Inc., et al.*, No. 4:17-cv-02399, ECF Nos. 125, 131 (S.D. Tex. Nov. 13, 2019), at 28 wherein the Court stated, “His statistical analysis [of the options] and the evaluation of eight [*Cammer/Krogman*] factors [for the common stock] support the conclusion that AOI options operated in an efficient market.”

This view is also shared by the Second Circuit courts in *McIntire v. China MediaExpress Holdings, Inc.*, 38 F. Supp. 3d 415, 433-34 (S.D.N.Y. 2014); as well as the Third Circuit in *In re Merck & Co., Sec. Derivative & ERISA Litig.*, No. 1658 (SRC), 2013 U.S. Dist. LEXIS 13511, at *60-61 (D.N.J. Jan. 30, 2013).

108. As it relates to the Tesla common stock and options trading on centralized exchanges with all of the benefits of pre- and post-trade dissemination of information, the only minor difference is that exchange-traded options, also known as “listed options,” are not traded on the NASDAQ Global Select Market, but are mostly traded on other exchanges,¹⁴⁶ with the primary exchange being the Cboe Options Exchange (“Cboe”), along with additional affiliated exchanges,¹⁴⁷ as well multiple other exchanges.¹⁴⁸ Further, the Cboe uses a hybrid approach to attract its market makers. First, much like the NYSE there is a Designated Primary Market Maker (“DPM”).¹⁴⁹ For Tesla the DPM is

¹⁴⁶ Tesla stock options are currently traded and quoted on exchanges including: BOX; CBOE BATS, C2, CBOE and EDGX; MIAX EMLD, MIAX and MPRL; NASDAQ GEM, ISE, MCRY, NOBO, NSDQ, and PHLX; and NYSE AMEX and ARCA. Source: <https://www.theocc.com/Market-Data/Market-Data-Reports/Series-and-Trading-Data/Series-Search> (last visited September 22, 2020).

¹⁴⁷ According to the Cboe, “Cboe provides choice for our diverse trading customers by operating four U.S.-listed cash equity options markets, including the largest options exchange in the U.S. - Cboe Options Exchange.” <http://http://markets.cboe.com/us/options/overview/> (last visited September 17, 2020). To be listed on the Cboe, among other criteria, “the [underlying] security shall be characterized by a substantial number of outstanding shares which are widely held and actively traded.” Rules of Cboe Exchange, Inc., updated September 8, 2020, p. 76 (available at https://cdn.cboe.com/resources/regulation/rule_book/C1_Exchange_Rule_Book-Effective-October-7-2019.pdf).

¹⁴⁸ The OCC “is the world’s largest equity derivatives clearing organization. OCC is dedicated to promoting stability and financial integrity in the marketplaces that it serves by focusing on sound risk management principles. By acting as guarantor, OCC ensures that the obligations of the contracts it clears are fulfilled.” “OCC’s participant exchanges include: BOX Exchange LLC, Cboe BZX Exchange, Inc., Cboe C2 Exchange, Inc., Cboe EDGX Exchange, Inc., Cboe Exchange, Inc., Miami International Securities Exchange, LLC, MIAX Emerald, LLC, MIAX PEARL, LLC, Nasdaq GEMX, LLC, Nasdaq ISE, LLC, Nasdaq BX, Inc., Nasdaq MRX, LLC, Nasdaq PHLX, LLC, Nasdaq Options Market, LLC, NYSE American Options, LLC, and NYSE Arca, Inc.” “What is OCC?” <https://www.theocc.com/about/corporate-information/what-is-occ.jsp> (last visited September 17, 2020).

¹⁴⁹ “The DPM is a market-maker who is obligated to make continuous bid and ask prices in all option series in his appointed option classes. In return, the DPM is guaranteed certain rights to participate in each trade, either electronic or in open-outcry. In addition to, or in the absence of a DPM (e.g., those classes not traded on the Hybrid system) many option classes at Cboe also have independent market-makers who make bid and

Susquehanna Securities, LLC.¹⁵⁰ The DPM plays a similar role as the Designated Market Maker on the NYSE.¹⁵¹ Next, all exchange members are eligible market makers and there is a well-defined market makers program.¹⁵²

ask prices from either the trading floor or remotely. Ultimately, however, your orders are executed with the Cboe's current best available bid or offer. This party may be an option professional or an individual investor via an option order." *See*, <http://www.cboe.com/education/getting-started/quick-facts/options-marketplace> (last visited September 17, 2020).

¹⁵⁰ <http://www.cboe.com/trading-resources/symbol-directory/equity-index-leaps-options?sid=T> (last visited September 17, 2020).

¹⁵¹ No court has found an NYSE-traded stock to trade in an inefficient market. According to the NYSE:

The cornerstone of the NYSE market model is the Designated Market Maker (DMM). DMMs have obligations to maintain fair and orderly markets for their assigned securities. They operate both manually and electronically to facilitate price discovery during market opens, closes and during periods of trading imbalances or instability. This high touch approach is crucial for offering the best prices, dampening volatility, adding liquidity and enhancing value.

DMMs apply their market experience and judgment of dynamic trading conditions, macroeconomic news and industry-specific intelligence, to inform their decisions. A valuable resource for our listed company community, DMMs offer insights, while making capital commitments, maintaining market integrity, and supporting price discovery.

Designated Market Makers, <https://www.nyse.com/market-model> (last visited September 17, 2020).

The NYSE uses these well-capitalized DMMs to facilitate fair and orderly trading. According to the NYSE: "The NYSE's unique market model combines leading technology with human judgment to prioritize price discovery and stability over speed for our listed companies. Coupled with our electronic markets, we believe nothing can take the place of human insight and accountability. It's the human element at NYSE that results in lower volatility, deeper liquidity and improved prices." Market Model, <https://www.nyse.com/market-model> (last visited September 17, 2020).

¹⁵² *See also*, "Market-makers are exchange members who provide liquidity in the marketplace by risking their own capital in making bids and offers for their own accounts in the absence of public buy or sell orders. They are the backbone of the Cboe's trading system." <http://www.cboe.com/education/getting-started/quick-facts/options-marketplace> (last visited September 17, 2020).

109. Because exchange-traded options have standardized strike prices, expiration dates and deliverables (the number of shares/contracts of the underlying asset), they attract and accommodate large numbers of traders. This increased volume benefits traders by providing improved liquidity and lower costs. The more traders there are for a specific option contract, the easier it is for interested buyers to identify willing sellers.

110. The standardization of exchange-traded options also enables clearing houses to guarantee that options contract buyers will be able to exercise their options — and that options contract sellers will fulfill the obligations they take on when selling options contracts — because the clearing house can match any of a number of options contract buyers with any of a number of options contract sellers. Clearing houses can do this more easily because the terms of the contracts are all standard and options in the same series are interchangeable.¹⁵³

111. Should it be found that Tesla common stock traded in an efficient market, then that finding along with the fact that the Tesla options traded on a centralized exchange — that provides the same type of information rich environment and informational benefits to investors as those found for the NYSE and NASDAQ exchanges — supports the conclusion that the Tesla options traded in efficient markets.¹⁵⁴

¹⁵³ “The Options Clearing Corporation is the sole issuer of all options listed at the Cboe and other U.S. options exchanges, and is the entity through which all Cboe option transactions are ultimately cleared. As the issuer of all options, OCC essentially takes the opposite side of every option traded. Because OCC basically becomes the buyer for every seller and the seller for every buyer, it allows options traders to buy and sell in a secondary market without having to find the original opposite party. The OCC substantially reduces the credit risk aspect of trading options, as the OCC requires that every buyer and every seller have a clearing member and that both sides of the transaction are matched. It also has the authority to make margin calls on firms during the trading day.” See, <http://www.cboe.com/education/getting-started/quick-facts/options-marketplace> (last visited September 17, 2020).

¹⁵⁴ It is also consistent with *Christakis Vrakas, et al. v. U.S. Steel Corp., et al.*, Memorandum Order (W.D. Pa., Dec. 31, 2019), Dkt. 215, at 13 n.11 (noting that “Plaintiffs also cite cases applying the same for options traded on the Chicago Board Options Exchange. [citation omitted]. The Court sees the analysis here as the same for both [common stock and the related options].”).

b) Other Operational Factors: Volume and Open Interest for Tesla Options

112. In addition to these factors — the importance of the information flowing from the stock market and the fact that the options trade on a centralized exchange — trading was very active and the volume of Tesla options was large during the Class Period. Over the Class Period, there was a total volume of 1,772,360 call option contracts (representing 177,236,000 underlying shares) and 1,598,370 put option contracts (representing 159,837,000 underlying shares).¹⁵⁵ See **Exhibit XI**. Thus, the number of shares represented by these contracts of 337,073,000 underlying shares is almost twice Tesla’s 170.6 million outstanding shares over the Class Period. It represents average weekly turnover of approximately 110% of the average outstanding shares.¹⁵⁶

113. In addition, the sum over the Class Period of each call option’s average daily open interest was 708,424 contracts (representing 70,842,400 underlying shares), while the sum over the Class Period of each put option’s average daily open interest was 1,258,892 contracts (representing 125,889,200 underlying shares).¹⁵⁷ See **Exhibit XI**. Thus, the

¹⁵⁵ Data source: Cboe Exchange, Inc., Cboe DataShop, Option Intervals data obtained at 1-minute intervals (the “Cboe Dataset”). I note that the data includes a small number of “non-standard” options identified with the field “root” of “TSLA1”. Out of the 2,449 option series that have volume over the Class Period, there are 6 non-standard options, all with expiration date of January 18, 2019. These include five call options (strikes of \$17, \$20, \$27, \$30 and \$40) and one put option (strike of \$40). The total volume over the Class Period for all of these non-standard options is 49 contracts. Based on infomemos 40095 and 40133 obtained from the OCC website, for these options, the underlying Tesla stock price should be adjusted by multiplying it by 0.11.

¹⁵⁶ 110% is equal to $[(337.1 / 170.6) / 9] \times 5$, where I divide by 9 for daily turnover over the 9 trading days and multiply the result by 5 to convert to weekly turnover (using 9 trading days is an approximation because not all options existed over all 9 days of the Class Period, with new option series being created and a set of options expiring on August 10, 2018). Although not an equivalent comparison of turnover, it is helpful to remember that the *Cammer* opinion states that, “Turnover measured by average weekly trading of two percent or more of the outstanding shares would justify a strong presumption that the market for the security is an efficient one; one percent would justify a substantial presumption.” *Cammer* at 1286.

¹⁵⁷ The open interest provided in the Cboe Dataset for each interval is the open interest at the start of each day. Thus, for example, the open interest on Monday, August 20, 2018

overall volume for all Tesla's call and put options during the Class Period represented approximately 1.7 times the average daily number of open contracts for all Tesla call and put options with trading during the Class Period, suggesting an active secondary market for contracts.¹⁵⁸ During the Class Period, the sum of each option's maximum open interest for all Tesla options that traded was 886,084 call option contracts (representing 88,608,400 underlying shares) and 1,464,106 put option contracts (representing 146,410,600 underlying shares). *See Exhibit XI.* Thus, the overall volume for all Tesla options during the Class Period represented approximately 1.4 times the maximum open contracts summed across all these Tesla options, also suggesting an active secondary market for contracts.¹⁵⁹

114. In summary, there was an active market and a substantial amount of volume, as well as a large amount (and value) of open interest in options during the Class Period, which also supports the conclusion that Tesla options traded in efficient markets.

c) Other Operational Factors: Bid-Ask Spreads for Tesla Options

115. I also evaluated the bid-ask spreads for Tesla options. Specifically, over each minute interval in the Cboe Dataset for each option, I estimated the spread (requiring the option's ask price to be greater than the bid) as the ask price less the bid price, and then divided by the mid-point of the bid and ask prices of Tesla common stock, which is the security for which the option allowed the holder to have the right to either buy or sell at a specified price through the expiration date. I average these spreads for each option each

would be the open interest at the end of the trading day of August 17, 2018. For average open interest over the Class Period, I use open interest from August 7, 2018 through August 20, 2018, which encompasses the start of trading on August 7, 2018 through the end of trading on August 17, 2018.

This includes open interest for only those options contracts with volume during the Class Period.

¹⁵⁸ $(1,772,360 + 1,598,370) / (708,424 + 1,258,892) = 1.71$. At the option level, I am unable to calculate this statistic for 8 call and 2 put series (because the average daily open interest is zero).

¹⁵⁹ $(1,772,360 + 1,598,370) / (886,084 + 1,464,106) = 1.43$. At the option level, I am unable to calculate this statistic for 8 call and 2 put series (because the maximum daily open interest is zero).

day, and then average the daily results for each option over the Class Period. The average of each option's spread based on this methodology during the Class Period is 0.55% for call options and 0.45% for put options. See **Exhibit XII**.

d) Operational Factors for Individual Options

116. I have been asked by Counsel to also calculate salient operational statistics for individual options. These include turnover and bid-ask spread.

117. For turnover, I separately divide each option's total volume by both its *average* open interest and *maximum* open interest during the Class Period. I then divide this by the number of trading days for which the particular option had bid and ask quotes (*i.e.*, was available to trade) during the Class Period. Finally, I multiply by five to obtain a measure of weekly turnover for that individual Tesla option. Although open interest for any one option is not a fixed number like shares of common stock outstanding, this figure is an indicia of whether the market for the individual option is active, open and well-developed.¹⁶⁰ The turnover measures are not directly comparable to the *Cammer* 1%-2% benchmarks, but in my opinion have been reliably modified to account for the institutional differences between options and stock trading. **Exhibit XI** provides a summary of these turnover measures separated by ranges of traded volume and **Appendix G** contains the turnover measures for each option series in the proposed Class.

118. The average turnover based on average open interest is 175% per week for call options and 152% per week for put options. Based on maximum open interest, the average open interest is 96% per week for call options and 83% per week for put options. Out of the 2,449 option series, with turnover measured in relation to maximum open

¹⁶⁰ “ In my published paper discussing the application of *Cammer/Krogman* factors to the corporate bond market, I stated “Specifically, the factors courts have found indicative of an efficient stock market—frequency of ownership turnover, analyst reporting, and price-related issues associated with cause-and-effect—must be adjusted to take into account the nuances of the bond market.” Michael L. Hartzmark, Cindy A. Schipani, H. Nejat Seyhun, *Fraud on the Market: Analysis of the Efficiency of the Corporate Bond Market*, 2011 Colum. Bus. L. Rev., 654, 659 (2011) (footnotes omitted). This certainly holds true in a derivatives market such as options. Moreover, these types of adjustments to account for “nuances” or institutional features of different securities markets have been widely accepted by the courts.

interest, only 50 calls and 47 puts (or less than 4% of the series) have turnover of less than 2% per week (and all of these 97 options series have volume under 100 contracts except for a single put option series); and only 24 calls and 20 puts have turnover of less than 1% per week (all of these 44 series have volume less than 100 contracts). As expected, these figures support the conclusion that the market for Tesla options is extremely active.

119. Because options are an investment vehicle to acquire or sell the underlying Tesla common stock, for the measurement of the average bid-ask spread for each option series, I calculate the spread in relation to Tesla's stock price (computed as the midpoint of the bid and ask spread of Tesla common stock at each one-minute interval). This means the bid-ask spread is based on the difference between the bid and ask quotes of the options divided by Tesla's stock price.

120. **Exhibit XII** provides a summary of the spreads separated by ranges of traded volume and **Appendix G** contains the results for each individual option series.¹⁶¹ The average of the options' average spreads is 0.55% for calls and 0.45% for puts, with a general reduction in average spread as the amount of total volume increases. For example, options that traded less than 100 contracts over the Class Period had an average spread of 0.79% of Tesla's stock price for calls and 0.65% for puts, while the most traded options with total volume of at least 25,000 contracts had an average spread of 0.18% of Tesla's stock price for calls and 0.11% for puts.

121. As with the turnover measurement, the bid-ask spread for a single option should be examined understanding the institutional differences between options and common stock markets. The measurement of the bid-ask spread is meant to offer insight into the costs to participate in the market, and thus like the turnover measure are indicia of whether the market for the individual option is active, open and well-developed. I note, that even though these figures are based on the institutional characteristics of the options market, they compare favorably to the findings of the courts in other cases where the courts

¹⁶¹ Bid-ask spreads are calculated at each one-minute interval in the CBOE dataset.

concluded that the common stocks traded in efficient markets.¹⁶² Further, they also compare favorably to academic research, which showed that in 2009 the bid-ask CRSP-based average spreads for all NYSE and AMEX stocks were 1.03%, while for all NASDAQ stocks the average spread was 2.55%.¹⁶³ In addition, based on 2016-2018 data in BST 2020, these averages of Tesla's options' bid-ask spreads during the Class Period would have placed them in between the 50th and 75th percentiles of NYSE and NASDAQ traded companies.¹⁶⁴

2. *Cause-and-Effect Analysis*

122. As discussed previously, the price of an option is primarily derived from the underlying security's price. Although it is expected that, holding all else constant (*e.g.*, implied volatility), call option prices will move in the same direction as the price of the underlying stock and put option prices will move in the opposite direction, options are not expected to move by the same per-share dollar or percentage amount as the underlying stock price except under certain narrow circumstances.¹⁶⁵

123. To understand the price movements of options relative to the underlying security, it is common to refer to an option as being "in the money" ("ITM") if the strike price of the call (put) option is below (above) the current stock price (*i.e.*, it has an intrinsic

¹⁶² See *Radiant*, 287 F.R.D. 563, 574 (finding a much larger bid-ask spread of 0.58 percent supported market efficiency); *In re Scientific-Atlanta*, 571 F. Supp. 2d 1315, 1339 (N.D. Ga. 2007) (finding that a bid-ask spread that "never exceeded 1.9%" weighed heavily in favor of market efficiency); and *Cheney v. Cyberguard Corp.*, 213 F.R.D. 484, 501 (S.D. Fla. 2003) (finding that average daily relative bid-ask spread of 2.44% weighed in favor of market efficiency).

¹⁶³ Kee H. Chung and Hao Zhang, *A Simple Approximation of Intraday Spreads Using Daily Data*, 17 J. Fin. Markets, 94, Table 2 (2014). The paper compared data using closing CRSP (Center for Research in Security Prices) prices to intraday data and showed the spreads are very close. 2009 is the most recent year the authors examined.

¹⁶⁴ BST 2020 at Table 3, p. 105.

¹⁶⁵ As discussed above, options that are far out-of-the-money might not move in the same direction. In addition, events that change the expected future value of the underlying stock – such as a takeover announcement which may cap the future value of the stock or reduce the potential life of an option – may cause the option to move in a direction opposite to what is expected based solely on the stock price movement.

value greater than zero). An option is considered “at the money” (“ATM”) if the strike price of the call (put) option is equal to the current stock price. Finally, an option is considered “out of the money” (“OTM”) if the strike price of the call (put) option is above (below) the current stock price. As an option moves farther out of the money, it is expected that for any given movement of the share price, there will be less movement of the option price. The more an option is in the money, the more similarly its option price will move relative to the stock price change.

124. Using this basic information, I first test for the cause-and-effect relationship by examining whether option price levels adjust to reflect Tesla common stock price movements throughout the Class Period. I examine this using the “put-call parity” relationship. I then examine whether the price changes in Tesla options are directionally consistent with the expected movement given Tesla’s stock price changes (assuming all other option valuation inputs constant).

a) Put-Call Parity

125. In addition to trading “naked” or unhedged long and short positions in the common stock directly, arbitrageurs can also profit from common stock price movements by trading in call and put options on the common stock. In an efficient market, the various call and put options on a common stock will be priced relative to one another (and the common stock) so as to provide zero risk-free economic profit from arbitraging these securities against one another.¹⁶⁶ Economists refer to this no-arbitrage state as “put-call parity.”

126. Put-call parity is a theoretical relation between call option prices, put option prices and share prices of the underlying common stock that should hold because a portfolio of put and call options plus risk-free bonds (accounting for borrowing money to pay for positions or lending the money garnered from the short sale) can be constructed to replicate the payoff from purchasing the underlying common stock (*i.e.*, you make money if the stock price increases and lose money if the stock price decreases). For American-

¹⁶⁶ Zero risk-free economic profit is an economic term that means no risk-free returns net of transaction costs.

style options on stocks, the put-call parity relation implies a lower and an upper bound on the value of the put and call option prices such that the following condition is satisfied:¹⁶⁷

$$S - X - D \leq C - P \leq S - Xe^{-rt},$$

where S denotes the current price of the underlying common stock, X denotes the exercise price of the option, C is the call option price, P is the put option price, r is the risk-free interest rate,¹⁶⁸ D is the present value of expected future dividends,¹⁶⁹ and t is the time to expiration of the options.¹⁷⁰

127. Theoretically, when this relationship no longer holds and the condition is violated, there *might exist* arbitrage opportunities which can be exploited using profitable trading strategies. A violation of this relationship, however, does not necessarily indicate profit opportunities. This is especially the case when all costs associated with transacting the options and the stock are not properly accounted for in the relationship.

128. I conducted an empirical test to determine whether Tesla common stock and exchange-traded options on Tesla common stock violated this put-call parity condition for each minute interval of the Cboe Dataset during the Class Period. A lack of violations implies that Tesla option prices are set according to Tesla's stock prices and adjust for

¹⁶⁷ For example, see John C. Hull, *Options, Futures, and Other Derivatives*, 211 (7th ed. 2009).

¹⁶⁸ For the risk-free interest rate r in the equation above, I used the U.S. Treasury constant maturity rate closest to the number of days to expiration for each respective option. The interest rate data was obtained from the Federal Reserve Board database. The following cut-offs were used in assigning interest rates to time to maturity: 1-60 days, 1-month rate; 61-136 days, 3-month rate; 137-273 days, 6-month rate; 274-547 days, 1-year rate; and 548-912 days, 2-year rate. I converted the interest rates to continuous compounding using the formula: $2 \times \ln(1+r/2)$, where r is the interest rate based on semiannual compounding.

¹⁶⁹ Tesla did not pay dividends and I assume the market expected no future dividend payments.

¹⁷⁰ The number of days to expiration is equal to the expiration date less the trading date.

movements in Tesla's stock price.¹⁷¹ For the analysis, I obtained one-minute interval bid and ask data for options on Tesla's common stock and Tesla's common stock from the Cboe Dataset. Using bid and ask quotes for Tesla common stock and options, I created put-call pairs over which to test the put-call parity condition.¹⁷²

129. I then tested these multiple option pairs along with the stock price to determine if there were violations of the put-call parity condition. Because these bounds are derived from the economic assumption of no arbitrage, it is important to test the condition based on realistic buying and selling opportunities.¹⁷³ Therefore, the lower bound of the equation above (*i.e.*, the left hand term in the equation above) is calculated using the ask quote for the call option, the bid quote for the put option and the bid quote of the stock; while the upper bound of the equation above (*i.e.*, the right hand term in the equation above) is calculated using the bid quote for the call option, the ask quote for the put option and the ask quote of the stock.

130. The magnitude of the violation in percentage terms was calculated for each option pair in relation to the bid-ask midpoint of Tesla's common stock (S_{bidask}), specifically as the absolute value of:

$$\{\min[0, S_{ask} - (C_{bid} - P_{ask} + Xe^{-rt})] + \max[0, S_{bid} - (C_{ask} - P_{bid} + X + D)]\} / S_{bidask}.$$

131. I calculated the put-call parity conditions over two datasets: pairs of options in which the call option had volume during the Class Period and pairs of options in which the put option had volume during the Class Period (these datasets will overlap if both

¹⁷¹ At any given time, there are multiple put and call options that trade based on Tesla's common stock. These put and call options can differ in terms of exercise price and expiration date.

¹⁷² I conducted the analysis on option pairs where at least one of the options (call or put) had positive volume. The resulting violation, if any, for any pair was also rounded to the nearest 0.01%. I also required the ask price to be not less than the bid price for the stock or options. In addition, I excluded any option pairs where the bid and ask were zero for both the call and the put options.

¹⁷³ As discussed later, this does not account for all transaction costs such as the cost of borrowing Tesla stock to initiate a short position and commissions related to the option transactions.

options in the pair had volume). I found that during the Class Period out of the 3,764,244 valid option pairs for call options that had volume during the Class Period, there were 702,959 violations of this mathematical relationship (or 18.7% of the total pairs), while for over 80% of the option pairs the put-call parity relation held.¹⁷⁴ See **Exhibit XIII**. For 4,308,298 pairs with put options that had volume during the Class Period, there were 1,027,246 violations, or 23.8%.

132. When there was a violation of the put-call parity formula, it amounted to an average of 0.27% of the midpoint of Tesla's common stock's bid and ask price for the call option-based pairs and 0.28% for the put option-based pairs. Furthermore, the direction of the violations indicated that the stock price, relative to *synthetic* stock price using the put and call option prices, was relatively higher than its actual value, which is consistent with the academic and trade literature that suggests during the Class Period, at times, to enter into a short position there were relatively higher costs than normal to borrow shares of Tesla common stock.¹⁷⁵ This relatively higher cost is supported by the observation that the

¹⁷⁴ There can be a violation even if the parity equation is found to be violated by a small amount, even a couple of pennies.

¹⁷⁵ "To be able to sell a stock short, one must borrow it, and because borrowing shares is not done in a centralized market, finding shares sometimes can be difficult or impossible. In order to borrow shares, an investor needs to find an owner willing to lend them. These lenders receive a fee in the form of interest payments generated by the short-sale proceeds, minus any interest rebate that the lenders return to the borrowers. This rebate acts as a price that equilibrates supply and demand in the securities lending market. In extreme cases, the rebate can be negative, meaning investors who sell short have to make a daily payment to the lender for the right to borrow the stock (instead of receiving a daily payment from the lender as interest payments on the short sale proceeds)..." Owen A. Lamont, *Short Sale Constraints and Overpricing*, NBER Reporter: Research Summary Winter 2005. <https://www.nber.org/reporter/winter05/lamont.html> (last visited September 17, 2020).

Rebate Definition: "Negotiated return of a portion of the interest earned by the lender of stock to a short seller. When a stock is sold short, the seller borrows stock from an owner or custodian and delivers it to the buyer. The proceeds are delivered to the lender. The borrower, who is short, often wants a rebate of the interest earned on the proceeds under the lender's control, especially when the stock can be borrowed from many sources. Note: The seller must pay the lender any dividends paid out or, in the case of bonds, interest that accrues daily during the term of the loan." <https://www.nasdaq.com/investing/glossary/r/rebate> (last visited September 17, 2020).

percent frequency of violations increased with the increase in time to maturity of the options pairs. This is because the costs to borrow shares increase with the duration of the short position. According to one article, the stock-loan fee for borrowing a share of Tesla stock was between 2.1% and 2.5%.¹⁷⁶ The higher than normal cost of borrowing is also consistent with the relatively large percentage of short interest that was observed during the Class Period. *See Exhibit VII.*

133. Because the put-call parity relationship tested above does not account for costs related to taking a short position (for example, the stock-loan fee) as well as certain costs related to transacting in the options (for example, commissions), in my view, the average violation of approximately 0.28%, or approximately \$0.98 of Tesla's average closing common stock price of \$349 during the Class Period, is not indicative of unexploited arbitrage opportunities or of an inefficient market, but simply reflects a relatively higher costs of shorting the stock than is normally observed. Consistent with the analysis of the direction of the stock and option price movements discussed below, the violations of the put-call parity relationship also do not show that the option prices failed to reflect all the public information in the market and respond rapidly to new, unanticipated, material information about Tesla. In other words, for the substantial majority of option pairs the prices of the options and underlying stock moved as expected in an efficient market. The violations simply suggest that if the costs of taking a short position were included in the put-call parity relationship, it is highly likely the violations would disappear.

3. Cause-and-Effect for Individual Options

134. I have also been asked to analyze the cause-and-effect relationship for individual options. For this individual analysis, I examine the put-call parity relationship, as well as the directional consistency between the stock price and option price movements.

¹⁷⁶ "It's really expensive to short Tesla's stock," *Quartz*, August 27, 2018.

a) Put-Call Parity

135. **Appendix G** contains for each option series the number of pairs for which put-call parity is tested, the number of violations, and the average percentage violation. These results are then summarized in **Exhibit XIII**, which shows that, as the time to maturity of the option series increases, so does the prevalence of put-call parity violations in general, with the longest term options of August 2019 (25% of call pairs and 52% of put pairs) and January 2020 (44% of call pairs and 54% of put pairs) expirations having higher violations, which is consistent with the relatively higher costs of shorting Tesla's common stock over a longer period. Even with these violations, the average violation is only 0.25% (0.27%) of the stock price for the August 2019 call (put) options and 0.49% (0.51%) for the January 2020 call (put) options. As explained above, these violations likely are an artifact of the relatively higher costs of shorting Tesla stock and do not reflect a lack of informational efficiency.

b) Option Price Movements after Statistically Significant Stock Price Reactions

136. To further examine cause-and-effect and determine whether the violations of put-call parity are the result of option prices failing to respond to changes in information about Tesla, I examine the response of option prices after certain statistically significant stock price movements during the Class Period, namely the two events or disclosures on August 7, 2018 (examined above in Section VI.B.4), and the disclosure of the alleged corrective information prior to the open of trading on August 17, 2018 (also examined above in Section VI.B.4).

137. Specifically, I examine whether the price changes (based on actual trades) in the options are directionally consistent with the expected movement or what would typically be observed given only Tesla's stock price changes.¹⁷⁷ Specifically, holding all other option pricing inputs constant, if the stock price increases by a large amount, call

¹⁷⁷ This does not account for other variables that affect option prices such as any changes in the implied volatility of Tesla's common stock. In addition, the announcement of a possible cash-based merger is not likely to effect in a typical way call options that are OTM and have strike prices above the merger price.

prices typically are expected to go up and put prices typically are expected to go down. Similarly, holding all other option pricing inputs constant, if the stock price declines by a large amount, call prices typically are expected to go down and put prices typically are expected to go up. Large price movements are examined because small stock price movements might be associated with what would appear to be random price movements from bid-ask bounce or just random movements due to no change in information.

138. Based on my statistical analysis of intraday and close-to-open stock trading activity in Section VI.B.4, above, I examine three events — all of which had statistically significant and rapid stock price movements. First, I examine the option price movements following the release of the FT Article at 12:17 p.m. as the stock price movement was positive and statistically significant. Next, I examine the price movements following the NYT Article prior to the opening of trading on August 17, 2018. Finally, I examine the option price movements following the Musk Tweet at 12:48 p.m. on August 7, 2018.

The Responses of Options Prices to the Information in the FT Article Support the Conclusion that Individual Options Trade in Efficient Markets

139. For the FT Article, the overwhelming percentage of options that traded following the disclosure rapidly moved in a manner that typically would be observed and expected in an efficient market (if all option inputs other than the level of the stock price remains constant). Prior to and after the disclosure on August 7, 2018 at 12:17 p.m., 671 options traded.¹⁷⁸ These 671 options represent more than 85% of the total volume of all Tesla options that traded over the Class Period, thus this sample represents the substantial proportion of volume of all Tesla options during the Class Period, which I consider to be a very robust group and representative of all Tesla options. Moreover, the price movements of over 96% of the individual options move in the direction that typically would be observed and expected (given an increase in the stock price but no changes to other option pricing inputs) in an efficient market where the option prices reflect the same information

¹⁷⁸ I find the price change in options that traded prior to 12:18 p.m., using the most recent traded price prior to 12:18 p.m., and also traded on or after 12:18 p.m. but prior to the 12:48 p.m., using the last trade prior to 12:48 p.m.

as in the common stock market. The fact that it is slightly under 100% of what would typically be expected is likely an issue with the randomness of price movements for a *de minimis* number of mostly OTM options.¹⁷⁹ See **Exhibit XIV** for a summary of the results separated by calls and puts and by whether the options were in-the-money or out-of-the money.

The Responses of Option Prices to the Information in the NYT Article Support the Conclusion that Individual Options Trade in Efficient Markets

140. For the NYT Article, the overwhelming percentage of options that traded also reacted rapidly following the disclosure, in a manner that typically would be observed and expected in an efficient market (if all else other than the level of the stock price remains constant). Before the close of trade on August 16, 2018 and after the open of trade on August 17, 2018, 1,162 options traded.¹⁸⁰ These 1,162 options that traded in the pre-and post-period represent more than 94% of the total volume of all Tesla options traded over the Class Period.¹⁸¹ Because they represent a substantial portion of all volume of all Tesla options during the Class Period, I consider this to be a very robust group and representative of all Tesla options. Moreover, the price movements of over 95% of the individual options is in the direction (given a decrease in Tesla's stock price and holding other option pricing inputs constant) that typically would be observed and expected in an efficient market where the option prices reflect the same information as is reflected in the common stock market. The fact that it is slightly under 100% of what would typically be expected is likely an issue with a certain randomness of price movements for a *de minimis* number of OTM options. See **Exhibit XV** for a summary of the results separated by calls and puts and by whether the options were in-the-money or out-of-the money.

¹⁷⁹ Especially for OTM options with low prices, pre- and post-event trades taking place at bid versus ask prices can cause what is commonly referred to as the bid-ask bounce, which might make it look like the price movements are atypical, when in fact it is simply the spread or cost of trading that explains the movement.

¹⁸⁰ I find the price change in options that traded on August 16, 2018, using the latest trade during the day, that also traded on August 17, 2018, using the first trade during the day.

¹⁸¹ Options that expired prior to August 17, 2018 are not counted in this percentage.

The Responses of Option Prices to the Information in the Musk Tweet Support the Conclusion that Individual Options Traded in Efficient Markets

141. For the Musk Tweet at 12:48 p.m. on August 7, 2018 and other information released during the remainder of the trading day (almost all of which related to the Musk Tweet), 867 options traded between 12:17 p.m. (after the FT Article was released) and before 12:48 p.m. and then again after 12:48 p.m. on August 7, 2018.¹⁸² For this group of options, I also observe an overwhelming majority of options that traded reacting rapidly to the information in a manner that typically would be observed and expected in an efficient market (if all else remains constant and the stock price is the only factor that changes). These 867 options that traded in the pre-and post-period represent almost 90% of the total volume of all Tesla options traded over the Class Period. Because they represent a substantial portion of volume of all the Tesla options traded during the Class Period, I again consider this to be a very robust group and representative of all Tesla options. Moreover, the price movements of over 77% of the individual options are in the direction that typically would be observed and expected (given an increase in the stock price but no changes to other option pricing inputs) in an efficient market where the option prices reflect the same information as is reflected in the common stock market.¹⁸³ See **Exhibit XVI** for a summary of the results for all options as well as separated by calls and puts and by whether the option was in-the-money or out-of-the money.

142. My observation that unlike the two other events discussed above, there are more atypical price movements, does not alter my conclusion that the price reactions were as expected and the markets for the individual options were efficient. For support of my

¹⁸² I find the price change in options that traded after 12:17 p.m. but prior to 12:48 p.m., using the latest trade made prior to 12:48 p.m., that also traded after 12:48 p.m., using the latest trade during the day.

¹⁸³ I test whether the proportion that are observed as “typical” are different than 50% (*i.e.*, if there was an equal chance of the option price movement being typical or atypical as I define them). For this I use a standard z-test for large samples (*see, e.g.*, John E. Hanke and Arthur G. Reitsch, *Understanding Business Statistics* 290-291 (Irwin 1990)). I find that a typical percentage of 77.97% is highly statistically significantly different than 50%, with a p-value below 1%.

conclusion, I note that the Musk Tweet and other (mostly related) information disclosed prior to the close of trading on August 7, 2018 effectively altered a number of the options pricing factors and otherwise would have impacted the expected dispersion of stock prices (discussed in Section VII.C, above). In other words, all else was not constant and there were likely changes to investor expectations beyond those of only a higher stock price. For example, the Musk Tweet or the disclosure of a potential corporate transaction would have altered the anticipated stock price volatility (or expected future stock price *dispersion*). Investors would have considered the stated takeover price of \$420, which would have impacted the expected future stock dispersion by: (1) adding a potential cap on the upper bound price for Tesla stock; and (2) increasing the probability that the transaction would close prior to the expected maturity of various options, thus lowering the time value of the options. Therefore, accounting for these offsetting factors would explain why certain options prices appear to move in an atypical fashion.

143. In summary, the first two events that I describe (the FT Article and the NYT Article) have well identified and clear implications for Tesla and its common stock price, and, for the most part would have had minimal impact (compared to the stock price change) on each option's implied volatility or time value. In other words, the stock price changes resulting from these events would be the main factor in determining changes to option prices. Therefore, the change of the values of the other inputs, that could have impacted the expected dispersion of future stock prices, would for all intents have been left relatively unchanged, and thus in determining the value of the Tesla options those factors would be held relatively constant. On the other hand, as described in the previous paragraph, the Musk Tweet about a going-private transaction at \$420 per share would, in an efficient market, alter the expected price dispersion. Therefore, as expected, certain call (put) options, especially OTM options, went down (up) despite the underlying statistically significant stock price increase.

F. Additional Empirical Evidence Supports a Conclusion of Market Efficiency

144. To further examine whether the relatively small proportion of options with what appear to be atypical price movements following soon after the Musk Tweet can be explained by the factors mentioned above, I utilize a commonly applied and generally-

accepted logit regression procedure for explaining the movements of dependent variables (the “Y” variable in a normal regression equation) when those movements have outcomes that are binary – *Yes* or *No*, or *zero* and *one*. In this case the price movement is either typical (77%) or (as I define it) atypical (23%). Thus, I established a categorical or binary variable to describe the price movement of each individual option. If the price movement is considered typical the variable takes on the value of zero, and otherwise if it is atypical, it takes on the value of one. Therefore, in my regression equation instead of a continuous dependent variable that is being evaluated (for example, the return of Tesla common stock in my market model regression described in Section VI.B.1, above) (*see also Appendix E*) the dependent or Y variable is either zero or one.

145. The logit function is the natural log of the odds of the modeled outcome. In this case, I examine whether there is a relationship between the directional price movements of the individual options that might be considered atypical compared to the typical option price movements when only the underlying stock price moves and all other factors remain relatively constant. In my logit regression, I determine whether the likelihood of observing an atypical option price movement after the Musk Tweet is a function of the characteristics of the specific option — time to maturity, volatility, sensitivity to price changes, etc. — meaning those factors more than offset the impact of the stock price change (all else constant).

146. To describe the characteristics of each option, I use its “Greek” measures prior to the Musk Tweet to see if these characteristics explain the deviations from typical movements that is generally expected when the stock price goes up.

147. The Greeks include “delta,” “gamma,” “rho,” “theta” and “vega.” These are all measures of how an option price is expected to change when there is a change in one of the underlying option input factors. Thus, for example, delta is the ratio that compares the expected change in the price of an option when the underlying Tesla stock increases, say by \$1.¹⁸⁴ For example, if a Tesla call (put) option has a delta value of 0.65 (-0.65), this

¹⁸⁴ For a discussion of the “Greeks”, *see* John C. Hull, *Options, Futures, and Other Derivatives*, chapter 17 (“The Greek Letters”) (7th ed. 2009). The delta is positive for

means that if Tesla stock price increases by \$1 per share, the call (put) option on Tesla common stock is expected to increase (fall) by \$0.65 per share, all else being equal. Gamma measures the expected rate of change of delta with any price change; rho measures the change in the option price for every 1% increase in risk-free interest rates; theta measures time decay; and vega measures the change in the option price for every 1% increase in implied volatility. These measures therefore measure different properties of option prices that would account for expected changes in the time value and changes in implied volatility.

148. The Logit results separately for the calls and puts are contained in **Appendix I**. The empirical evidence supports the conclusion that the likelihood of an atypical price movement for an individual option is strongly related to the characteristics of the options — whether they are longer maturity and further away from the money OTM options, etc. The empirical results are highly statistically significant for both the calls and puts, with the Max-rescaled R-Square of 79.2% (72.7%) for the calls (puts). This is demonstrated with a number of measures in the appendix, including what is called the percent concordant, which is a measure of how well the model fits the data. In this case the percent concordant

calls and negative for puts and “is defined as the rate of change of the option price with respect to the price of the underlying asset.” (*e.g.*, *see* Hull, pp. 207, 360). Gamma measures the rate of change of the delta with respect to the underlying asset’s price, where a smaller gamma means that the delta changes less as the underlying stock price changes (*e.g.*, *see* Hull, p. 369). Theta, sometime referred to as the “time decay,” is the rate of change of an option’s value with respect to the passage of time (*e.g.*, *see* Hull, p. 367). Vega is the rate of change of the option’s value with respect to the volatility of the underlying security, where a low absolute value means that changes in volatility have less impact on the option’s value, while a high absolute value vega means the option price is more sensitive to changes in the volatility of the underlying security (*e.g.*, *see* Hull, p. 373). Rho measures the rate of change of the option’s price with respect to changes in the interest rate (*e.g.*, *see* Hull, p. 375) and is positive for calls and negative for puts.

See also instructional primers with examples from the Option Industry Council available at: <https://www.optionseducation.org/advancedconcepts/delta>;
<https://www.optionseducation.org/advancedconcepts/gamma>;
<https://www.optionseducation.org/advancedconcepts/theta>;
<https://www.optionseducation.org/advancedconcepts/vega>;
<https://www.optionseducation.org/advancedconcepts/rho>;
<https://www.optionseducation.org/advancedconcepts/volatility-the-greeks>.

for the calls (puts) is 97.7% (96.7%), demonstrating again that the purported atypical price movements emerge because of the anomalous information disclosed in the Musk Tweet, which has an atypical impact on the price movements of a small number of mostly OTM options. These price movements are consistent with those expected in an efficient market when there are changes to multiple underlying inputs altering the expected stock price dispersion in the option pricing model.

G. Based on the Basket of Factors the Courts Evaluate, Options on Tesla Common Stock Traded in Efficient Markets

149. Although there were some violations in the put-call parity relationship, likely indicating only that the transactions costs, which were *de minimis* in magnitude compared to the stock price change, when examining the *basket of factors* that Courts generally rely upon for class certification decisions – which are also consistent with the fundamental principles of economics and finance that academics rely upon to evaluate market efficiency – the evidence overwhelmingly supports the conclusion that Tesla common stock and options on Tesla common stock traded in open, well-developed and efficient markets throughout the Class Period.

150. Support for the conclusion that the Tesla options traded in efficient markets throughout the Class Period comes from a multiplicity of sources. As described above, several of the *Cammer* and *Krogman* factors apply similarly for the common stock and the options — and, thus, support market efficiency for all Tesla options. First, the benefits of the dissemination and processing of information about Tesla from extensive analyst coverage (*Cammer-2*) extends to all Tesla securities and supports market efficiency. Second, the importance of the eligibility of Tesla to file an SEC Form S-3 (*Cammer-3*) likewise extends to all Tesla securities in support of efficiency. Third, the large market capitalization of Tesla common stock and the large value of the stock underlying the derivative Tesla options as a whole (*Krogman-1*) would support the conclusion that Tesla options traded in an efficient market. Finally, I found no evidence that any insiders held any Tesla exchange-traded options (*Krogman 2-The Size of the Float*), which would also support the conclusion that Tesla options traded in an efficient market. Thus, each of these features apply to all Tesla securities and all are consistent with and strongly support a conclusion of market efficiency. Moreover, Tesla options traded on established exchanges,

which supports the conclusion that the exchanges enhanced the efficiency of the Tesla options market.

151. In addition, the operational factors, such as turnover of the individual options and the bid-ask spreads relative to acquiring the Tesla common stock support the conclusion that Tesla options traded in efficient markets.

152. Further, a substantial proportion of individual option prices reacted to material, unanticipated news as would be typically observed and expected in an efficient derivative market. Even when there were what I label as atypical price reactions, they were explained by the characteristics of the individual options and in such a manner that would not be unexpected in an efficient market.

153. In addition, options pricing theory described above and trade practices both imply that the Tesla options formed a single derivatives market, in that the values are all linked to the underlying factors (such as the expected Tesla stock price dispersion) and changes in information that impact expectations about Tesla's stock price and its likely future movements.

154. Finally, courts have consistently found that for the purposes of examining securities markets, that related securities (such as options, preferred stock, different types of corporate bonds, etc.) are generally considered similar because of primary economic factors that drive their valuation. For options, these include the expected levels of future Tesla stock prices and its variability. In the case of the pricing of options, the main ingredient is the price and underlying return distribution of the common stock, which means that all Tesla options comprise a homogeneous pool of derivative securities based on the systematic linkage of the price to the same underlying inputs.

155. Based on the foregoing, I conclude that Tesla options traded in efficient markets.

VIII. THERE IS NO EVIDENCE OF A LACK OF PRICE IMPACT

156. Above, I presented clear and substantial evidence to support my opinion that Tesla common stock and options of Tesla common stock traded in an efficient market. I

also note that much of my evidence herein goes well beyond what the Supreme Court has required plaintiffs to demonstrate in *Halliburton Co. v. Erica P. John Fund, Inc.*, 134 S.Ct. 2398 (2014) (“*Halliburton II*”). There, the Court reaffirmed *Basic*:

The Court in *Basic* acknowledged, however, the debate among economists about the efficiency of capital markets and refused to endorse “any particular theory of how quickly and completely publicly available information is reflected in market price.” The Court instead based the presumption of reliance on the fairly modest premise that “market professionals generally consider most publicly announced material statements about companies, thereby affecting stock market prices.” Moreover, in making the presumption rebuttable, *Basic* recognized that market efficiency is a matter of degree and accordingly made it a matter of proof.¹⁸⁵

157. I also note that the Court held in *Halliburton II* that “defendants must be afforded an opportunity before class certification to defeat the presumption [of reliance] through evidence that an alleged misrepresentation did not actually affect the market price of the stock.”¹⁸⁶ As was clearly demonstrated above, whether relying upon the daily returns or the intraday returns, there is no evidence of a lack of price impact when one examines either the *front-end* price reactions of Tesla’s common stock to the Musk Tweet and other information released during the remaining trading day or the *back-end* price reactions of Tesla’s common stock to the NYT Article alleged corrective disclosure. Indeed, as demonstrated above in Section VI.B.4, there is robust and incontrovertible empirical evidence that the Musk Tweet on August 7, 2018 had a rapid, measurable and statistically significant price impact on Tesla’s common stock price. This empirical evidence likely would – once a complete price impact or loss causation analysis is completed – establish that the Musk Tweet introduced artificial inflation into the price of Tesla common stock. Moreover, the overwhelming reaction to the Musk Tweet and the NYT Article of the options prices also is consistent with the conclusion that there is no evidence of a lack of price impact for the options. Demonstrating that there is no evidence of a lack of price

¹⁸⁵ *Halliburton II*, 134 S.Ct. at 2403 (quoting *Basic*, 485 U.S. at 247, 248, nn. 24 & 28).

¹⁸⁶ *Id.* at 2417.

impact for the securities is yet another indicia that the markets for Tesla common stock and options on Tesla common stock were efficient.

IX. ABILITY TO CALCULATE DAMAGES ON A CLASS-WIDE BASIS

A. Calculating Damages for Violation of § 10(b) of the Exchange Act for Tesla Common Stock and Options Using the Out-of-Pocket Method

158. As set forth in the Complaint, Plaintiff alleges that Defendants violated Section 10(b) of the Exchange Act. As explained below, damages for this claim can be calculated on a class-wide basis using a common methodology.¹⁸⁷

159. The calculation of class-wide damages for a violation of Section 10(b) of the Exchange Act is subject to a common and broadly accepted methodology, which indeed is routinely applied and has become a virtual standard in federal securities litigation just like this Tesla matter. This class-wide damages methodology is generally referred to as the “out-of-pocket” method. Using the out-of-pocket method, damages suffered by Class Members are measured based on the investors’ losses from transacting at artificial prices caused by the alleged fraud. The levels of artificiality in the securities’ prices (*i.e.*, artificial inflation or deflation) at purchase and sale are compared to determine the harm to each Class Member.

160. Therefore, one can think of the out-of-pocket *method* as a straightforward, standard and commonly-used *formula* — for example, akin to the *formula* of the slope of a line taught in sixth grade algebra; namely $Y = a + bX$. To solve this simple formula for Y, one uses information to estimate a and b, and then simply inputs X into the *formula* to solve for Y.

161. In the out-of-pocket method, the inputs are the daily levels of artificiality in the prices for Tesla common stock and options caused by Defendants’ alleged misrepresentations and/or omissions and Class Member trading activity. Daily levels of artificial inflation or deflation are calculated as the difference between the actual prices

¹⁸⁷ As previously noted, I have not been asked to calculate or opine on the quantum of damages here.

observed on that day for Tesla common stock or an option and the true or “but-for” values of that security absent the alleged misrepresentations and omissions (*i.e.*, had the truth been disclosed the price “would have been” the true value).

162. Harm to Class Members based on their trading activity of common stock and options are then calculated based on: (i) the level of artificiality in prices on the date the Class Member acquires their options or common stock (including closing their short position); less (ii) the level of artificiality in prices on the date the Class Member sells their options (or closes their position) or common stock (including initiating a short position). For purchased shares or options open at the end of the Class Period there would be zero artificiality in prices associated with any offsetting transaction.¹⁸⁸ For any transaction (*e.g.*, a short sale) prior to the start of the Class Period the level of artificiality in prices is zero.

163. To implement the out-of-pocket method for Tesla common stock and options, which is based on the relatively straightforward, standard and commonly-used formula discussed above, inputs are calculated. Below I describe how one would calculate the inputs into the common out-of-pocket damages method for Tesla common stock and options. Because the options prices are derived primarily based on the price level of Tesla common stock and the expected dispersion of Tesla stock prices, the level of artificiality for the options’ prices will primarily depend on the levels of artificiality (or daily inflation) in Tesla’s common stock price and any levels of artificiality (or daily inflation/deflation) induced by the changes in the expected dispersion of Tesla stock prices.

164. Therefore, because the inputs into the calculation of the artificiality of option prices utilize the measure of artificiality of Tesla common stock prices, I first describe how to calculate the inputs into the common out-of-pocket damages method for Tesla common stock. This is followed by a description of how to calculate the inputs into the common out-of-pocket damages method for the options on Tesla common stock.

¹⁸⁸ If the security is artificially deflated, damages are calculated based on the deflation on sale less the deflation on purchase.

165. As will be described below, in my opinion, the out-of-pocket method does not involve any individualized issues for Tesla’s securities.¹⁸⁹ Indeed, no matter which of the techniques the experts might choose at the merits stage of this litigation to measure artificiality in the securities’ prices and thus to construct the inflation/deflation ribbons, the techniques used to estimate the minute-by-minute or daily true or but-for prices (and thus calculate the level of artificiality in prices) will be common to all putative class members and will be applied on a class-wide basis.¹⁹⁰

B. Calculating the Inputs to Implement the Out-of-Pocket Damages Method for Tesla Common Stock

166. For Tesla common stock, the daily levels of artificial inflation or the inputs into the out-of-pocket formula are calculated and represented by what economists generally refer to as an “inflation ribbon.” The inflation ribbon for common stock represents an estimate of the daily level of artificiality in the prices of Tesla common stock caused by the Defendants’ alleged misrepresentations and omissions, and is generally based on the price reactions to disclosures either related to or revealing the alleged misstatements and omissions. Daily levels of artificial inflation are calculated as the difference between the actual prices observed on that day for Tesla common stock and the true or “but-for” values of the stock absent the alleged misrepresentations and omissions (*i.e.*, had the truth been disclosed the price would have been the true value).

167. Harm to Class Members on common stock trading activity is then calculated based on the inflation on the date the Class Member acquires their common stock less the

¹⁸⁹ This is also consistent with the recent *Signet* Court’s conclusion that: “[Defendant’s expert’s] contention that Plaintiff’s methodology did not adequately isolate the impact ... is simply a **loss causation argument in disguise**, because it tests the causal relationship between the alleged misstatements and the price decline. Such an argument ‘goes beyond the *Rule 23* inquiry.’” *Signet* at *20 (emphasis added and in original, citations omitted).

¹⁹⁰ See, for example, Nicholas I. Crew, Kevin L. Gold and Marnie A. Moore, *Federal Securities Acts and Areas of Expert Analysis*, Litigation Services Handbook: The Role of the Financial Expert, Fifth Edition, Wiley (2012), 24.11-24.14.

inflation on the date the Class Member sells their common stock (or if unsold, based on zero inflation following the Class Period).¹⁹¹

168. To calculate the inputs for the out-of-pocket method or formula, an expert often begins with the same type of event study I used above in Section VI to evaluate the price-related factors for Tesla common stock. Using the results of the event study along with the disclosures of firm-specific information, daily abnormal returns or price movements are calculated. Using the abnormal returns to calculate actual inputs into the out-of-pocket method might require parsing (*i.e.*, disaggregating and separating the amount of the price movement due to the fraud from the amount of the price movement due to non-fraudulent disclosures) or scaling (changing the impact over time of the misrepresentations or omissions). In any case, parsing confounding information (if it were required) and scaling for changes over time (if it were required) is completed in an analysis of *loss causation*. But the Supreme Court's *Halliburton I* Opinion determined that *loss causation* is a common issue that need not be analyzed at the class certification stage.¹⁹² Thus, for present purposes, one need only realize that the above-described inputs — the measures of artificiality — will be determined by common elements and thus will be common to all class members and applied class-wide.

169. Harm to Class Members who purchased Tesla common stock at inflated prices to close their short positions are calculated based on the inflation on the date the Class Member purchased their common stock during the Class Period to deliver to the person/entity that loaned the investor the share less the inflation, if any, on the date the Class Member sold the shares short.¹⁹³

¹⁹¹ For a short seller, the sale occurs before a purchase, but the formula remains the same. If the short sale occurs prior to the Class Period, then it would be sold with zero inflation in Tesla's stock price.

¹⁹² *Erica P. John Fund, Inc. v. Halliburton Co, et al.*, 131 S. Ct. 2179 (2011) ("*Halliburton I*").

¹⁹³ Upon entering a short sale, an investor is obligated to return a share to the lender of that share upon closing the position. When an investor purchases a share to close a short position, this share is consequently delivered to the investor who loaned this share. For

C. Calculating the Inputs to Implement the Out-of-Pocket Damages Method for Options on Tesla Common Stock

170. Likewise, the daily level of artificiality in prices (either inflation or deflation) can be established for each option on Tesla common stock by taking into account the artificial inflation in Tesla common stock prices and any artificial option price levels induced by changes in the expected dispersion of Tesla stock prices as a result of the alleged misrepresentations and omissions.

171. Because option prices are derived from the share price of Tesla common stock and other factors like the expected future volatility of Tesla's stock, if the price of Tesla common stock is artificially inflated (and all other option inputs are constant),¹⁹⁴ then a call option would likewise be artificially inflated because the call option would be worth less if the Tesla common stock price was lower. If the price of the Tesla common stock is artificially inflated (and all other option inputs are constant), a put option would be artificially deflated because the put option would be worth more if the Tesla common stock price was lower.¹⁹⁵ More generally, if the price of the Tesla common stock is artificially distorted because the Musk Tweet impacted the price level of Tesla common stock, as well as causing other option pricing inputs to be distorted (*e.g.*, implied volatility), then the prices of call and put options would be artificially distorted and the level of the artificial

example, before the Class Period, the price at which the investor was loaned the share to sell was at a price not alleged to be impacted by the alleged misrepresentations or omissions and those short sellers are allegedly damaged if they then purchased to cover the position at artificially inflated stock prices during the Class Period.

¹⁹⁴ I note that if information that artificially inflates the stock changes other inputs to the option valuation such as by creating the possibility of reducing the days to expiration, truncating the expected distribution of Tesla stock prices, or affecting the expected volatility of Tesla common stock, then those such effects could result in a deflation of the call price.

¹⁹⁵ I note that if information that artificially inflates the stock changes other inputs to the option valuation such as by creating the possibility of reducing the days to expiration, truncating the expected distribution of Tesla stock prices, or affecting the expected volatility of Tesla common stock, then those such effects could result in additional deflation (or inflation if volatility increases) of the put price.

distortion (whether inflation or deflation) would then be applied class-wide to purchases and sales of the specific options to determine out-of-pocket damages.

172. A reasonable method of calculating the inputs into the out-of-pocket damages method to be applied on a class-wide basis would be to model the true or but-for prices of options on Tesla common stock using one of the widely employed option pricing models. For example, the classic Black-Scholes option pricing model or possibly some other pricing model could be used to calculate the true or but-for price for each option. After accounting for the level of artificial inflation from the price of Tesla common stock and any artificial effects on the dispersion of the Tesla stock price used to value the options caused by the alleged misrepresentations and omissions, the pricing model could then be used to mechanically calculate the true or “but-for” value for each option on Tesla common stock. Once these but-for prices are calculated, they are compared to the actual prices that are observed after the Musk Tweet.¹⁹⁶ This comparison would be implemented throughout the Class Period and result in a measure of artificiality in the option prices throughout the Class Period.

173. Examples of the relevant inputs into this model would include the but-for price for Tesla common stock and the “but-for” implied volatility level, the implied volatility after removing the artificial inflation or deflation in implied volatility (*i.e.* the expected future dispersion of Tesla common stock) that resulted from the alleged misrepresentations and omissions.

174. This is the same out-of-pocket method as would be used for the common stock because damages are based on each Class Member’s trading activity and the level of artificiality in the price of the Tesla security. This method would be formulaic and applied class-wide.

¹⁹⁶ I note there are a variety of option pricing models that would offer reasonable estimates of but-for prices. At such time as a loss causation and damages report is submitted, the preferred model could be applied to the data. No matter which model was to be used, the output of that model would be applied class-wide to determine individual investor damages.

D. Summary of the Out-Of-Pocket Damages Method

175. The common out-of-pocket damages method and the related inputs into the out-of-pocket formula are applied on a class-wide basis. In the end, the inputs or the daily levels of artificiality (*i.e.*, the artificial inflation ribbon for Tesla common stock and the inflation/deflation ribbons for the options) along with the actual trading activity of Class Members are used to calculate individual harm in a mechanical and formulaic manner.^{197,198}

176. In the merits stage when an expert identifies the level of artificiality in Tesla common stock and options attributable to the specific misrepresentations and omissions ultimately established by Plaintiff, these artificial prices do not depend on, nor does one need to consider, an individual investor's risk tolerance or expected returns. Rather they are common to all investors because they measure how the misrepresented information affected the prices of Tesla's common stock and options, which is of course the essence of fraud-on-the-market.

177. I note that the issue of whether and how much the particular Tesla common stock or option price reaction is caused at the front end by the misrepresentations or at the back end by the revelation of the truth concerning a particular piece of information (as opposed to confounding information) is a quintessential loss causation inquiry because it is focused on the causal relationship between the misrepresentations/omissions and the

¹⁹⁷ In addition, the 90-day period following the end of the Class Period would also need to be examined. Under the Private Securities Litigation Reform Act of 1995 ("PSLRA"), a plaintiff may not recover more than the difference between the purchase price and the mean trading price of the security during the 90-day look-back period. *See* 15 U.S.C. § 78u-4(e)(1).

¹⁹⁸ Some have argued that the U.S. Supreme Court decision in *Dura Pharmaceuticals v. Broudo*, 544 U.S. 336 (2005) caps the amount of per share damages to the dollar drop in the security that was caused by the corrective disclosure of the alleged wrongdoing, which could be implemented for the common stock. *See, e.g.*, David Tabak, *Inflation and Damages in a Post-Dura World*, NERA white paper, September 25, 2007. Because the measure of inflation/deflation for options could change on a daily basis, I could also calculate the effect of the abnormal price change in Tesla's stock price due to the alleged corrective disclosures on the options on Tesla's common stock, which could be used as an amount to limit recoverable damages consistent with *Dura*.

associated price movement. Sometimes, parsing or scaling might be necessary if there are confounding disclosures or changes over time. The commonly used and widely accepted techniques to account for confounding information and potential changes over time would be completed when a loss causation or damages report is submitted in this matter. Most critically, whatever the outcome as to the parsing and scaling, the inputs will be plugged into a common inflation or deflation ribbon, which would be applied Class-wide to calculate individual damages as described above in the common out-of-pocket damages method.

178. Moreover, in this matter with well identified disclosures and intraday price reactions, once discovery is complete and, eventually, a determination of liability is made by the finder of fact, to the extent it is even appropriate, disaggregating confounding information or scaling would be based on a disclosure-specific inquiry of the misrepresentations and related alleged corrective disclosures that would occur, at the earliest, based on a full factual record.

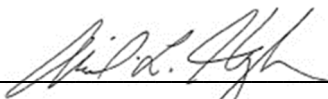
X. CONCLUSIONS

179. Based on the foregoing, my conclusions are as follows:

- i. Throughout the Class Period, Tesla common stock and options on Tesla common stock traded in efficient markets.
- ii. The calculations of damages for violations of Section 10(b) of the Exchange Act (and SEC Rule 10b-5) are subject to a common methodology and may be computed on a class-wide basis.

I declare under penalty of perjury that the foregoing is true and correct.

RESPECTFULLY SUBMITTED THIS 22nd DAY OF SEPTEMBER 2020



Michael L. Hartzmark, Ph.D.

Exhibit I**Weekly Trading Volume and Turnover of Tesla, Inc. Common Stock
During the Class Period**

"Turnover measured by average weekly trading of 2% or more of the outstanding shares would justify a strong presumption that the market for the security is an efficient one; 1% would justify a substantial presumption." [Cammer v. Bloom, 711 F. Supp. 1264 (D.N.J. 1989) at 1293.]

[1] Date	[2] Daily Volume	[3] Weekly Volume	[4] Shares Outstanding	[5] Weekly Turnover
Summary Statistics of Trading Volume and Turnover				
Weekly Volume and Turnover include August 6, 2018				
Total	135,756,997	144,321,328		
Average	15,084,111	72,160,664	170,593,144	42.3%
Minimum	6,064,033	51,574,211		30.2%
Median	11,552,044	72,160,664		42.3%
Maximum	30,875,768	92,747,117		54.4%
8/6/2018 Mon	8,564,331	---	---	---
8/7/2018 Tue	30,875,768	---	---	---
8/8/2018 Wed	24,571,163	---	---	---
8/9/2018 Thu	17,183,811	---	---	---
8/10/2018 Fri	11,552,044	92,747,117	170,593,144	54.4%
8/13/2018 Mon	10,463,881	---	---	---
8/14/2018 Tue	6,986,427	---	---	---
8/15/2018 Wed	9,101,258	---	---	---
8/16/2018 Thu	6,064,033	---	---	---
8/17/2018 Fri	18,958,612	51,574,211	170,593,144	30.2%

Notes:

[1] Trading date.

[2] Reported composite U.S. volume. Source: Bloomberg.

[3] Volume over entire week of trading.

[4] Last available shares outstanding as of the end of each week. Source: SEC filings.

[5] Weekly turnover = [3] / [4].

Exhibit II
Analyst Coverage of Tesla, Inc.

[1] Date	[2] Bloomberg Total Analyst Recommendations	[3] Number of Analysts in Thomson Reuters I/B/E/S Consensus
Average	33	22
Minimum	32	21
Median	33	22
Maximum	33	22

Daily Analyst Coverage during the Class Period

8/7/2018	Tue	33	21
8/8/2018	Wed	33	22
8/9/2018	Thu	33	22
8/10/2018	Fri	33	22
8/13/2018	Mon	33	22
8/14/2018	Tue	33	22
8/15/2018	Wed	32	22
8/16/2018	Thu	32	22
8/17/2018	Fri	32	22

Notes:

[1] Trading day during the Class Period.

[2] Most recent available Bloomberg total analyst recommendations. Bloomberg defines "total analyst recommendations" as the total number of analysts making recommendations for the security. Source: Bloomberg.

[3] Number of analysts in Thomson Reuters I/B/E/S consensus EPS estimates for current fiscal year. Source: S&P Capital IQ.

Exhibit III-A
Numbers of Analyst Reports Issued for Tesla, Inc. During the Class Period and 120-Trading Days Before the Class Period
February 14, 2018 - August 17, 2018

No.	Analyst	Pre-Class Period (2/14/2018-8/6/2018)	Class Period (8/7/2018-8/17/2018)	August 1 - August 17, 2018 (8/1/2018-8/17/2018)	Total (2/14/2018-8/17/2018)
1	Argus Research Company	2	1	1	3
2	Barclays	18	3	5	21
3	Berenberg	4	1	1	5
4	BuySellSignals Research	2	0	0	2
5	Canaccord Genuity	1	1	2	2
6	CFRA Equity Research	18	4	6	22
7	Coker & Palmer	1	0	0	1
8	Colliers Securities	1	0	0	1
9	Cowen and Company	12	2	3	14
10	Credit Suisse	5	0	1	5
11	Crispidea	5	0	0	5
12	Deutsche Bank	3	0	0	3
13	Dr. Priebe Research	3	0	1	3
14	Elazar Advisors	4	1	2	5
15	Eugene Investment & Securities	0	1	1	1
16	Evercore ISI	5	2	3	7
17	GlobalData	3	0	0	3
18	Guggenheim Securities LLC	6	0	1	6
19	Heibel-Ticker	2	0	0	2
20	Jefferies LLC	6	1	2	7
21	Jefferson Research & Management	25	2	3	27
22	JLWC	5	0	0	5
23	JP Morgan	12	1	2	13
24	KB Securities	6	1	2	7
25	Marktfeld	2	0	0	2
26	Millennium BCP	4	3	4	7
27	MINKABU THE INOFONOID, Inc.	1	0	0	1
28	Moody's	2	2	2	4
29	Morgan Stanley	27	12	14	39
30	Morningstar Inc.	9	2	4	11
31	New Constructs, LLC	1	0	0	1
32	New Generation Research	1	0	0	1
33	NH Investment & Securities Co., Ltd.	2	0	0	2
34	Nomura	1	0	0	1
35	Oppenheimer & Co. Inc.	8	0	1	8

Exhibit III-A
Numbers of Analyst Reports Issued for Tesla, Inc. During the Class Period and 120-Trading Days Before the Class Period
February 14, 2018 - August 17, 2018

No.	Analyst	Pre-Class Period (2/14/2018-8/6/2018)	Class Period (8/7/2018-8/17/2018)	August 1 - August 17, 2018 (8/1/2018-8/17/2018)	Total (2/14/2018-8/17/2018)
36	Pechala's Reports	1	0	0	1
37	Piper Sandler Companies	3	1	2	4
38	Plunkett Research, Ltd.	1	0	0	1
39	RBC Capital Markets	5	1	2	6
40	Red Pulse	15	1	2	16
41	Reuters - The Day Ahead Report	0	1	1	1
42	S&P Global Compustat	6	0	1	6
43	S&P Global Ratings	1	0	1	1
44	S3 Partners	3	0	0	3
45	Sadif Analytics Prime	5	0	0	5
46	Shinhan Investment Corp.	0	2	2	2
47	SSIF Tradeville SA	0	1	1	1
48	Susquehanna Financial Group LLLP	0	1	1	1
49	Tematica Research	0	1	1	1
50	Tianfeng Securities Brokerage Co., Ltd	3	0	1	3
51	Trefis	2	0	0	2
52	UBS Equities	9	3	6	12
53	ValuEngine, Inc	2	0	1	2
54	William O'Neil + Co.	1	0	0	1
55	Wright Reports	3	1	1	4
56	Yuanta Research	1	0	1	1
57	Zacks Equity Research	10	1	3	11
Total		278	54	88	332

Note:

For analysts available on Thomson EIKON, I count reports only from Thomson EIKON; otherwise, I count reports available from Capital IQ. Thomson EIKON and Capital IQ databases include analyst reports written in languages other than English.

Exhibit III-B
Analyst Participation in Tesla, Inc. Conference Calls
Before and After the Class Period

[1]	[2]	[3]
	Conference Calls	
Analyst/Investor	8/1/2018	10/24/2018
[1] Baird	x	
[2] Bank of America	x	
[3] Berenberg	x	
[4] Bernstein	x	x
[5] CleanTechnica	x	
[6] CNBC TV		x
[7] Consumer Edge	x	x
[8] Evercore		x
[9] Macquarie		x
[10] Morgan Stanley	x	x
[11] New Street Research	x	x
[12] Nomura Instinet	x	x
[13] RBC Capital Markets	x	
[14] Retail shareholders*	x	
[15] Wall Street Journal	x	
[16] Wolfe Research		x

Notes:

* Galileo Russell who represented the retail shareholders participated in the 8/1/2018 conference call.

[1] Analyst/Investor identified as asking a question during a conference call.

[2] "Q2 2018 Earnings Call," Bloomberg Transcripts, August 1, 2018.

[3] "Q3 2018 Earnings Call," Bloomberg Transcripts, October 24, 2018.

Exhibit IV
Broker Trades in Tesla, Inc. common Stock

Total reported volume:	277,360,157
Total broker volume:	93,076,228
Total broker volume / Total reported volume:	33.56%
Number of brokers with volume > 1% of Reported Volume	9

Broker Name	Broker Volume and Broker Volume as a Percent of Total Reported Volume	
	August 2018	
[1] MORGAN STANLEY & CO., INCORPOR	14,165,992	5.11%
[2] INTERACTIVE BROKERS LLC	12,962,020	4.67%
[3] INSTINET	11,870,020	4.28%
[4] ELECTRONIC TRANSACTION CLEARING, INC.	8,749,612	3.15%
[5] UBS SECURITIES LLC.	7,443,956	2.68%
[6] BARCLAYS CAPITAL INC.	4,856,251	1.75%
[7] CREDIT SUISSE FIRST BOSTON LLC	3,721,889	1.34%
[8] NATIONAL FINANCIAL SERVICES LL	3,442,937	1.24%
[9] Quantlab Securities LP	2,795,231	1.01%
[10] GOLDMAN SACHS	2,518,388	0.91%
[11] VIRTU AMERICAS LLC	2,409,540	0.87%
[12] JUMP TRADING, LLC	2,025,437	0.73%
[13] CLEARPOOL EXECUTION SERVICES, LLC	1,884,462	0.68%
[14] GTS SECURITIES LLC	1,766,765	0.64%
[15] DEUTSCHE BANK SECURITIES INC.	1,716,046	0.62%
[16] E*TRADE CLEARING LLC	1,189,688	0.43%
[17] TRADEBOT SYSTEMS, INC.	1,159,914	0.42%
[18] GLOBAL EXECUTION BROKERS, LP	1,039,686	0.37%
[19] CITIGROUP GLOBAL MARKETS INC.	906,916	0.33%
[20] CITADEL SECURITIES LLC	879,881	0.32%
[21] LIME BROKERAGE LLC	627,958	0.23%
[22] WOLVERINE EXECUTION SERVICES	473,233	0.17%
[23] AMERITRADE, INC.	471,536	0.17%
[24] WHITE BAY PT LLC	467,248	0.17%
[25] TRC MARKETS LLC	316,590	0.11%
[26] SPEEDROUTE LLC	312,569	0.11%
[27] Dart Executions, LLC	258,236	0.09%
[28] JEFFERIES & COMPANY, INC.	239,495	0.09%
[29] PDQ ATS. Inc.	183,715	0.07%
[30] LEK SECURITIES CORPORATION	182,258	0.07%
[31] ITG INC.	175,184	0.06%
[32] Wells Fargo Securities, LLC	157,492	0.06%
[33] HSBC SECURITIES (USA) INC.	133,332	0.05%
[34] ELECTRONIC BROKERAGE SYSTEMS, LLC	130,788	0.05%
[35] SANFORD C. BERNSTEIN AND CO. I	126,776	0.05%
[36] Fox River Execution Tehnology, LLC	111,239	0.04%
[37] TWO SIGMA SECURITIES, LLC	110,426	0.04%
[38] VOLANT LIQUIDITY, LLC	93,588	0.03%
[39] CHARLES SCHWAB AND CO. INC.	82,239	0.03%
[40] WOLVERINE SECURITIES	74,303	0.03%
[41] Stock USA Investments	72,199	0.03%
[42] BRUT, LLC	70,864	0.03%

Exhibit IV
Broker Trades in Tesla, Inc. common Stock

Total reported volume:	277,360,157
Total broker volume:	93,076,228
Total broker volume / Total reported volume:	33.56%
Number of brokers with volume > 1% of Reported Volume	9

Broker Name	Broker Volume and Broker Volume as a Percent of Total Reported Volume	
	August 2018	
[43] BMO CAPITAL MARKETS	39,007	0.01%
[44] DAIWA SECURITIES AMERICA INC.	38,212	0.01%
[45] PIPER JAFFRAY & CO.	33,133	0.01%
[46] HAP Trading, LLC	26,825	0.01%
[47] ACS EXECUTION SERVICES, LLC	24,430	0.01%
[48] MAXIM GROUP, LLC	8,181	0.00%
[49] JOSEPH GUNNAR AND CO.	8,000	0.00%
[50] LADENBURG, THALMANN & CO. INC.	7,449	0.00%
[51] BTIG, LLC	6,737	0.00%
[52] MORGAN STANLEY DW INC.	5,590	0.00%
[53] RBC CAPITAL MARKETS, LLC	5,314	0.00%
[54] PREBON FINANCIAL PRODUCTS INC.	5,000	0.00%
[55] SPARTAN SECURITIES GROUP LTD	3,538	0.00%
[56] CUTLER GROUP, LP	3,365	0.00%
[57] MKM PARTNERS	3,202	0.00%
[58] PICTET OVERSEAS INC.	2,957	0.00%
[59] SAGETRADER, LLC	2,669	0.00%
[60] STIFEL NICOLAUS	2,629	0.00%
[61] CANTOR FITZGERALD & CO.	1,390	0.00%
[62] ROBERT W. BAIRD & CO. INCORPOR	1,050	0.00%
[63] O'CONNOR & COMPANY LLC	757	0.00%
[64] VIEWTRADE SECURITIES, INC.	741	0.00%
[65] OPPENHEIMER & CO. INC.	666	0.00%
[66] STUART FRANKEL & CO. INCORPORA	500	0.00%
[67] MB TRADING	445	0.00%
[68] THE NORTHERN TRUST COMPANY	440	0.00%
[69] NATIONAL SECURITIES CORP.	391	0.00%
[70] BATS TRADING, INC.	320	0.00%
[71] WALL STREET ACCESS	216	0.00%
[72] CLSA AMERICAS, LLC	200	0.00%
[73] GOLDMAN SACHS EXECUTION & CLEARING, I	200	0.00%
[74] OLD MISSION CAPITAL, LLC	200	0.00%
[75] JONES AND ASSOCIATES INC.	170	0.00%
[76] BAY CREST PARTNERS, LLC	166	0.00%
[77] SOUTHWEST SECURITIES, INC.	142	0.00%
[78] FIRST MANHATTAN CO	100	0.00%
[79] BENJAMIN & JEROLD BROKERAGE I, LLC	90	0.00%
[80] LEERINK SWANN & CO., INC.	72	0.00%
[81] ANDREW GARRETT, INC.	40	0.00%
[82] Others	465,795	0.17%

Exhibit IV
Broker Trades in Tesla, Inc. common Stock

Total reported volume:	277,360,157
Total broker volume:	93,076,228
Total broker volume / Total reported volume:	33.56%
Number of brokers with volume > 1% of Reported Volum	9

Broker Name	Broker Volume and Broker Volume as a Percent of Total Reported Volume
	August 2018

Notes:

[1] Data for August 2018 are considered.

[2] The following brokers (with similar names) were combined into one broker based on having the same Central Registration Depository number (CRD number available at <https://brokercheck.finra.org/>): Baypoint Trading LLC and BTIG, LLC have been combined as BTIG, LLC; Citadel Derivatives Group Llc and CITADEL SECURITIES LLC have been combined as CITADEL SECURITIES LLC; CLEARPOOL EXECUTION SERVICES and CLEARPOOL EXECUTION SERVICES, LLC have been combined as CLEARPOOL EXECUTION SERVICES, LLC; GOLDMAN SACHS, GOLDMAN SACHS & CO. LLC and GOLDMAN, SACHS & CO. have been combined as GOLDMAN SACHS; INSTINET CORPORATION and INSTINET, LLC have been combined as Instinet; Jump Trading and JUMP TRADING, LLC have been combined as JUMP TRADING, LLC; TWO SIGMA SECURITIES and TWO SIGMA SECURITIES, LLC have been combined as TWO SIGMA SECURITIES, LLC; WOLVERINE EXECUTION SERVICES, and WOLVERINE EXECUTION SERVICES, LLC have been combined as WOLVERINE EXECUTION SERVICES; and data with missing broker name have been combined as Others (not included in count of brokers with >1% of reported volume).

Source:

Bloomberg.

Exhibit V

Institutions that Held Tesla, Inc. Common Stock in Either June 30, 2018 or September 30, 2018

No	Institution	No	Institution
1	1832 Asset Management L.P.	42	AMP Capital Investors Limited
2	AB Trust & Investment Services Group	43	Amundi Asset Management
3	ABL Global Asset Management Co. Ltd.	44	Analytic Investors, LLC
4	ABN AMRO Investment Solutions	45	Ancora Advisors, LLC
5	ACATIS Investment GmbH	46	Andbank Wealth Management SGIIC S.A.U.
6	Accredited Investors, Inc.	47	AP Fonden 4
7	Accrued Equities Inc.	48	AP Fonden 7
8	Accurate Investment Solutions	49	Aperio Group, LLC
9	Accuro Fund Solutions AG	50	Appleton Partners, Inc.
10	Achmea Investment Management B.V.	51	Apriem Advisors
11	ACTIAM N.V.	52	AQR Capital Management, LLC
12	Adirondack Trust Company, Asset Management Arm	53	Arbor Point Advisors, LLC
13	Administradora General de Fondos Security S.A.	54	Arca SGR S.p.A.
14	Advance Asset Management Limited	55	Ardsley Advisory Partners
15	Advantage Investment Management, LLC	56	Argus Investors' Counsel, Inc.
16	Adviser Investments, Inc	57	ARK Investment Management LLC
17	AdvisorNet Wealth Management	58	Arthur M. Cohen & Associates LLC
18	Advisors Asset Management, Inc.	59	Ashburton (Jersey) Limited
19	Advisory Research, Inc.	60	Ashfield Capital Partners, LLC
20	Advisory Services Network, LLC	61	Aspiriant, LLC
21	Advocacy Wealth Management Services, Llc, Asset Management Arm	62	Asset Dedication, LLC
22	AE Wealth Management, LLC	63	Asset Management One Co., Ltd.
23	Aevitas Wealth Management Inc.	64	Asset Management, Inc.
24	AGF Investments LLC	65	Asset Planning Services, Ltd.
25	AGF Management Limited (TSX:AGF.B)	66	AssetMark, Inc.
26	Alaska Retirement Management Board	67	Assetplus Investment Management Co., Ltd.
27	Albion Financial Group	68	Atlantic Investment Management, Inc.
28	All Terrain Financial Advisors	69	Atwood & Palmer, Inc.
29	AllianceBernstein L.P.	70	Avestar Capital, Llc
30	Allianz Asset Management AG	71	Avitas Wealth Management, LLC
31	Allsquare Wealth Management LLC	72	Aviva Investors Global Services Limited
32	Allworth Financial, L.P.	73	Avivasa Portföy Yönetimi A.S.
33	Alpha Omega Investment Advisors	74	Avondale Wealth Management LLC
34	Alphamark Advisors, LLC	75	AXA Investment Managers S.A.
35	ALPS Advisers, Inc.	76	Axel Capital Management, LLC
36	American Century Investment Management Inc.	77	Azimut Capital Management Sgr SpA
37	American Financial Network Advisory Services, Llc	78	B&T Capital Management, Incorporated
38	American Money Management, LLC	79	B. Riley Capital Management, LLC
39	American Research & Management Co.	80	Baillie Gifford & Co.
40	Ameritas Investment Partners Inc.	81	Baldwin Brothers, Inc.
41	AMF Fonder AB	82	Ballentine Partners, LLC

Exhibit V

Institutions that Held Tesla, Inc. Common Stock in Either June 30, 2018 or September 30, 2018

No	Institution	No	Institution
83	Baloise Fund Invest Advico	124	BMO Global Asset Management
84	Balyasny Asset Management L.P.	125	BNP Paribas Securities Corp, Asset Management Arm
85	Banca Finnat Euramerica S.p.A., Asset Management Arm	126	BNPP Asset Management Holding
86	Bank of America Corporation, Asset Management Arm	127	BNY Mellon Asset Management
87	Bank Of Oklahoma, N.A., Asset Management Arm	128	BOCI - Prudential Asset Management Limited
88	Bankinter Gestion de Activos, SGIIC	129	Boston Partners Global Investors, Inc.
89	Banque Pictet & Cie S.A., Asset Management Arm	130	Boston Private Wealth LLC
90	Barber Financial Group, Inc.	131	BosValen Asset Management Limited
91	Barclays Bank PLC, Securities Investments	132	Bourne Lent Asset Management, Inc.
92	Barclays PLC Private Banking & Investment Banking Investment	133	Braun-Bostich & Associates Inc.
93	Bardin Hill Investment Partners LP	134	Bridgeworth, Llc, Asset Management Arm
94	Baron Capital Group, Inc.	135	Brighton Jones, LLC, Asset Management Arm
95	Barrett Asset Management, LLC	136	Brinker Capital Holdings, Inc.
96	Bartlett Wealth Management	137	Bristlecone Advisors LLC
97	Bay Colony Advisory Group, Inc.	138	British Columbia Investment Management Corporation
98	Bayesian Capital Management, LP	139	BrokerCreditService Ltd., Asset Management Arm
99	BB&T Trust	140	Bronfman E.L. Rothschild, LP
100	BBVA Asset Management, S.A., S.G.I.I.C.	141	Brown Advisory Incorporated
101	BBVA Patrimonios Gestora, SGIIC,S.A.	142	Brown Brothers Harriman & Co., Asset Management Arm
102	BCV Asset Management	143	Bruderman Asset Management, LLC
103	Beacon Capital Management, Inc.	144	BT Funds Management (NZ) Limited
104	Bedel Financial Consulting Inc.	145	Buckingham Asset Management, LLC
105	Bedell Frazier Investment Counselling, LLC	146	Cable Hill Partners, LLC
106	Bell Rock Capital, LLC	147	Cabot Wealth Management, Inc.
107	Bellevue Asset Management AG	148	Caisse de dépôt et placement du Québec
108	Belpointe Asset Management LLC	149	Calamos Asset Management Inc.
109	Benjamin Edwards, Inc, Asset Management Arm	150	California Public Employees' Retirement System
110	Bergankdv Wealth Management, LLC	151	Calton & Associates, Inc., Asset Management Arm
111	Berkshire Capital Holdings Inc.	152	Cambridge Investment Research Advisors, Inc.
112	Bienville Capital Management LLC	153	Canada Pension Plan Investment Board
113	Bingham, Osborn & Scarborough, LLC	154	Canadian Imperial Bank of Commerce, Asset Management Arm
114	Biondo Investment Advisors LLC	155	Candriam Luxembourg S.A.
115	Birinyi Associates, Inc., Asset Management Arm	156	Capfi Delen Asset Management NV
116	BKS Advisors, LLC	157	CapFinancial Partners, LLC, Asset Management Arm
117	Blackhawk Capital Partners LLC	158	Capital Advisors, Ltd. LLC
118	BlackRock, Inc. (NYSE:BLK)	159	Capital Analysts, Inc.
119	Blankinship & Foster, LLC	160	Capital Group International Inc.
120	Blue Chip Wealth Management, Inc., Asset Management Arm	161	Capital Markets Trading UK LLP, Asset Management Arm
121	Bluefin Trading, Llc, Asset Management Arm	162	Capital Research and Management Company
122	BlueMountain Capital Management LLC	163	Caprock Group, Inc.
123	Blume Capital Management	164	Carnegie Investment Counsel

Exhibit V

Institutions that Held Tesla, Inc. Common Stock in Either June 30, 2018 or September 30, 2018

No	Institution	No	Institution
165	Carroll Financial Associates, Asset Management Arm	206	CLS Investments, LLC
166	Carson Wealth Management Group	207	CM-CIC Asset Management Société anonyme
167	Caspar Towarzystwo Funduszy Inwestycyjnych S.A.	208	CMT Capital Markets Trading GMBH
168	CastleArk Management LLC	209	CNH Partners, LLC
169	Catamount Management Group, LLC	210	Cobalt Capital Management, Inc.
170	Catawba Capital Management, Inc.	211	Coldstream Capital Management, Inc.
171	Cathay Securities Investment Trust Co Ltd.	212	Columbia Management Investment Advisers, LLC
172	Caxton Associates LP	213	Comerica Bank, Banking Investments
173	CCM Partners, L.P.	214	Commerce Investment Advisors, Inc.
174	Cedar Capital, LLC	215	Commerzbank AG, Asset Management Arm
175	Cedar Wealth Management, LLC	216	Connable Associates Inc.
176	Centaurus Financial, Inc., Asset Management Arm	217	Connor, Clark & Lunn Investment Management Ltd.
177	Centerpoint Advisors, LLC	218	Constance Associés S.A.S
178	CenterStar Asset Management, LLC	219	Consulting Group Advisory Services LLC
179	Centiva Capital, LP	220	Continental Advisors, LLC
180	Central Trust Company	221	Cornerstone Advisors, Inc.
181	Ceredex Value Advisors LLC	222	Cornerstone Wealth Management, LLC
182	Cerity Partners LLC	223	Covington Capital Management
183	Cetera Financial Holdings, Inc., Asset Management Arm	224	Coyle Financial Counsel, Inc., Asset Management Arm
184	Cetera Investment Advisers LLC	225	CPWM, LLC
185	Charles Schwab Investment Management, Inc.	226	Cramer Rosenthal McGlynn, LLC
186	Checchi Capital Advisers, LLC	227	Creative Financial Designs Inc, Asset Management Arm
187	Chessman Wealth Strategies Inc.	228	Creative Planning, Inc.
188	Chicago Partners Investment Group LLC	229	Credit Suisse Asset Management (Switzerland)
189	China Merchants Fund Management Co.,Ltd.	230	Credit Suisse Hedging-Griffo
190	CIBC Asset Management Inc.	231	Credit Suisse, Investment Banking and Securities Investments
191	CIBC Private Wealth Advisors, Inc.	232	Crewe Advisors Llc
192	CIBC World Markets Corp., Brokerage and Security Investments	233	Cribstone Capital Management, LLC
193	Cidel Asset Management Inc.	234	CrossLink Capital, Inc.
194	CIGNA Investments, Inc.	235	Crossmark Global Investments, Inc.
195	Citadel Advisors LLC	236	Csenge Advisory Group, Llc, Asset Management Arm
196	Citigroup Inc.,Banking and Securities Investments	237	CSS LLC/IL, Asset Management Arm
197	City National Rochdale, LLC	238	CTC LLC
198	CKW Financial Group, LLC, Asset Management Arm	239	Cutler Group LP, Asset Management Arm
199	Clarius Group, Llc	240	CWM Advisors, LLC
200	Clarus Wealth Advisors, LLC	241	Cypress Capital Management, LLC
201	Clear Perspective Advisors, LLC	242	Cypress Wealth Services, Llc, Asset Management Arm
202	ClearArc Capital, Inc.	243	D. E. Shaw & Co., L.P.
203	ClearBridge Investments, LLC	244	D.L. Carlson Investment Group, Inc.
204	ClearBridge, LLC	245	Dacheng Fund Management Company Limited
205	Clearstead Advisors, LLC	246	Daiwa Asset Management Co. Ltd.

Exhibit V

Institutions that Held Tesla, Inc. Common Stock in Either June 30, 2018 or September 30, 2018

No	Institution	No	Institution
247	Daiwa SB Investments Ltd.	288	Envestnet Asset Management, Inc.
248	Danske Bank A/S, Asset Management Arm	289	EP Wealth Advisors, Inc.
249	Danske Capital AS	290	Equitable Trust Company, Asset Management Arm
250	Davenport Asset Management	291	Equitec Group, LLC, Asset Management Arm
251	Davidson Investment Advisors, Inc.	292	Ersel Asset Management SGR S.p.A.
252	Degroof Petercam Asset Management	293	Erste-Sparinvest KAG
253	Deka Investment GmbH	294	Esfera Capital Gestión SGIC, SA
254	Delta Asset Management, LLC	295	Essex Financial Services, Inc.
255	Deniz Portfoy Yonetimi A.S.	296	ETF Managers Group LLC
256	Desjardins Global Asset Management Inc.	297	ETFS Management (AUS) Limited
257	Destination Wealth Management	298	EULAV Asset Management, LLC
258	Deutsche Asset & Wealth Management	299	Evanson Asset Management, LLC
259	Deutsche Bank, Private Banking and Investment Banking Investments	300	Evercore Wealth Management, LLC
260	Deutsche International Corporate Services (Ireland) Limited	301	Everett Harris & Co.
261	Diametric Capital, LP	302	Evergreen Capital Management, LLC
262	Dimensional Fund Advisors L.P.	303	Evolve Funds Group Inc.
263	Divergent Wealth Advisors, LLC	304	Exchange Traded Concepts, LLC
264	DJE Kapital AG	305	Family Capital Trust Company
265	DNB Asset Management AS	306	FCG Advisors, LLC, Asset Management Arm
266	Domini Impact Investments LLC	307	Ferris Capital, LLC
267	D'orazio & Associates, Inc.	308	Fidelity SelectCo, LLC
268	Dubuque Bank & Trust, Asset Management Arm	309	Fiduciary Trust Company
269	Dumont & Blake Investment Advisors, LLC	310	Fiduciary Trust Company International
270	Duncker, Streett & Co., LLC	311	Fiduciary Trust International, LLC
271	DWS Investment S.A.	312	Fieldpoint Private Advisors, Inc.
272	Dynamic Advisors Solutions LLC	313	Fiera Capital Corporation (TSX:FSZ)
273	DZ Bank AG, Asset Management Arm	314	FIL Limited
274	E Fund Management Co., Ltd.	315	Filament, LLC
275	E*TRADE Asset Management, Inc.	316	Financial Advocates Investment Management, LLC
276	E. Öhman J:or Fonder AB	317	Financial Architects, Inc.
277	EARNEST Partners, LLC	318	Financial Counselors, Inc.
278	Eaton Vance Management	319	Financial Engines Advisors L.L.C.
279	Edge Wealth Management, LLC	320	Financial Gravity Companies, Inc.
280	Edmond de Rothschild Asset Management SAS	321	Financial Gravity Wealth, Inc.
281	EFG Asset Management (Americas) Corp	322	Financial Management Professionals, Inc., Asset Management Arm
282	EFG Asset Management (UK) Limited	323	Financière Mermod S.A
283	Elite Wealth Management, Inc.	324	FineMark National Bank & Trust, Asset Management Arm
284	Ellington Management Group, L.L.C.	325	Finex Investment Management Llp
285	Ellipsis Asset Management	326	First Allied Advisory Services, Inc.
286	Elmwood Wealth Management, Inc.	327	First Command Advisory Services, Inc.
287	Enterprise Bank & Trust., Asset Management Arm	328	First Financial Bank, Asset Management Arm

Exhibit V**Institutions that Held Tesla, Inc. Common Stock in Either June 30, 2018 or September 30, 2018**

No	Institution	No	Institution
329	First Hawaiian Bank, Asset Management Arm	370	Gilder Gagnon Howe & Co. LLC
330	First Interstate Bank, Asset Management Arm	371	Girard Partners Ltd., Asset Management Arm
331	First Manhattan Co.	372	Glassman Wealth Services, LLC
332	First Mercantile Trust Company, Asset Management Arm	373	GLG LLC
333	First Personal Financial Services Inc.	374	GLG Partners, Inc.
334	First Republic Investment Management, Inc.	375	Global Atlantic Investment Advisors, LLC
335	First Sentier Investors (Australia) IM Ltd	376	Global Financial Private Capital, LLC
336	First State Investment Management (UK) Limited	377	Global Retirement Partners Llc, Asset Management Arm
337	First Trust Advisors L.P.	378	Global X Management Company LLC
338	Fisher Investments	379	Globevest Capital Ltd.
339	Flagship Harbor Advisors, LLC	380	GO ETF Solutions LLP
340	Fleming Family & Partners Ltd.	381	Gofen and Glossberg, L.L.C.
341	Florida State Board of Administration	382	Goldman Sachs Asset Management, L.P.
342	Flow Traders US LLC, Asset Management Arm	383	Goldman Sachs Group, Investment Banking and Securities Investments
343	FMR Co., Inc.	384	Gradient Investments, LLC
344	FMR LLC	385	Grantham Mayo Van Otterloo & Co. LLC
345	Focused Wealth Management, Inc.	386	Great-West Capital Management, LLC
346	Fonds de Réserve pour les Retraites	387	Green Century Capital Management, Inc.
347	Fort Point Capital Partners LLC	388	Grimes & Company, Inc.
348	Fort Washington Investment Advisors, Inc.	389	Group One Trading LP, Asset Management Arm
349	Fortis Advisors, LLC	390	Gryphon Financial Partners, LLC, Asset Management Arm
350	Founders Fund, Inc.	391	GuideStone Capital Management
351	Fox Run Management LLC	392	Gulf International Bank (UK) Limited
352	FP Financial Services, Inc	393	Guotai Asset Management Co., Ltd.
353	Franklin Resources, Inc. (NYSE:BEN)	394	GV Financial Advisors
354	Franzen Gerber & Westphalen Asset Management GmbH	395	GVO Asset Management Ltd
355	Fred Alger Management, LLC	396	GW & Wade, LLC
356	Front Row Advisors LLC	397	GWL Investment Management Ltd.
357	Frontier Investment Management Co	398	GWM Asset Management (Malta) Limited
358	FSC Securities Corporation, Asset Management Arm	399	H. M. Payson & Co.
359	Fukoku Mutual Life Insurance Co., Asset Management Arm	400	Handelsbanken Asset Management
360	Fusion Family Wealth LLC	401	Hanson & Doremus Investment Management, Inc.
361	Gamble Jones Investment Counsel	402	HarbourVest Partners, LLC
362	Garde Capital, Inc.	403	Harel Mutual Funds Ltd.
363	Gateway Investment Advisers, LLC	404	Harfst And Associates, Inc.
364	Gemmer Asset Management LLC	405	Harrington Investments, Incorporated
365	Genovese Burford & Brothers	406	Harvest Fund Management Co. Ltd.
366	Gentrust Wealth Management, LLC	407	HBK Investments L.P.
367	Geode Capital Management, LLC	408	HBK Sorce Advisory LLC
368	Gerber Kawasaki, Inc.	409	HCR Wealth Advisors
369	GF Fund Management Co., Ltd.	410	Heptagon Capital LLP

Exhibit V

Institutions that Held Tesla, Inc. Common Stock in Either June 30, 2018 or September 30, 2018

No	Institution	No	Institution
411	Heritage Wealth Advisors, LLC	452	Intellectus Partners, LLC
412	Hermitage Gestion Privée	453	Inverness Counsel Inc.
413	HHR Asset Management, LLC	454	Invesco Capital Management LLC
414	Highbridge Capital Management, LLC	455	Invesco Ltd. (NYSE:IVZ)
415	Highfields Capital Management, LP	456	Investacorp Advisory Services Inc.
416	Highland Capital Management Corp.	457	Investeringsforeningen SEBinvest
417	Highland Capital Management LLC, Asset Management Arm	458	Investidor Profissional Gestão de Recursos Ltda
418	Highmark Capital Management, Inc.	459	Ipg Investment Advisors LLC
419	Highpoint Advisor Group LLC	460	Irish Life Investment Managers Limited
420	HighTower Advisors, LLC	461	Ironwood Financial, LLC, Asset Management Arm
421	Hilliard Lyons Capital Management, LLC	462	Is Asset Management
422	Hitachi Investment Management, Ltd.	463	Itau Unibanco S.A., Asset Management Arm
423	Holderness Investments Company	464	J. Goldman & Co., L.P.
424	Hollencrest Securities, LLC, Asset Management Arm	465	J. P. Morgan Securities Plc - Own Capital
425	Homrich & Berg, Inc.	466	J. Safra Asset Management Corporation
426	Honkamp Krueger Financial Services, Inc	467	J.P. Morgan Asset Management, Inc.
427	Horan Securities, Inc., Asset Management Arm	468	Jackson, Grant Investment Advisers, Inc.
428	Horizon Kinetics LLC	469	Jacobi Capital Management, LLC
429	Horseman Capital Management Limited	470	Jacobson & Schmitt Advisors, LLC
430	Howe and Rusling, Inc.	471	Jaffetilchin Investment Partners, LLC
431	Hoylecohen, Llc	472	Jane Street Group, LLC, Asset Management Arm
432	HRT Financial LLC, Asset Management Arm	473	Janney Montgomery Scott LLC, Asset Management Arm
433	HSBC Global Asset Management (UK) Limited	474	Janus Henderson Group plc (NYSE:JHG)
434	Hua An Fund Management Co., Ltd.	475	Jasper Ridge Partners, L.P.
435	Hudock Capital Group, Llc	476	JBF Capital, Inc.
436	Hudson Bay Capital Management LP	477	JD Capital Management LLC
437	Hudson Canyon Investment Counselors, LLC	478	Jefferies Group LLC, Asset Management Arm
438	Hutchinson Lilley Investments LLP	479	Jennison Associates LLC
439	IBK Asset Management Co.,Ltd.	480	JFS Wealth Advisors, LLC
440	IBM Retirement Fund	481	JJJ Advisors Inc.
441	Icon Wealth Partners, Llc	482	Jnba Financial Advisors, Asset Management Arm
442	ID-Sparinvest, Filial af Sparinvest S.A., Luxembourg	483	Joel R. Mogy Investment Counsel Inc.
443	IFM Investors Pty Ltd	484	Johnson Financial Group, Inc., Asset Management Arm
444	IMS Capital Management, Inc.	485	Johnson Investment Counsel, Inc.
445	Independent Advisor Alliance, LLC	486	JPMorgan Chase & Co, Private Banking and Investment Banking Investments
446	Independent Financial Partners	487	Julius Baer Gestión, SGIIC, S.A.U.
447	ING Groep NV, Insurance and Banking Investments	488	Jump Trading, LLC, Asset Management Arm
448	Ingalls & Snyder LLC	489	Jupiter Asset Management Limited
449	Innovator Management LLC	490	JW Asset Management, LLC
450	Institutional And Family Asset Management, LLC	491	K2 & Associates Investment Management Inc.
451	Integrated Wealth Concepts LLC	492	Kabin Investment House Ltd.

Exhibit V

Institutions that Held Tesla, Inc. Common Stock in Either June 30, 2018 or September 30, 2018

No	Institution	No	Institution
493	Kathrein Capital Management AG	534	Liontrust Investment Partners LLP
494	Kavar Capital Partners, LLC	535	Livförsäkringsaktiebolaget Skandia AB, Asset Management Arm
495	KBC Asset Management NV	536	LLB Asset Management AG
496	KBC Fund Management Limited	537	LLB Invest Kapitalanlagegesellschaft m.b.H.
497	KCM Investment Advisors, LLC	538	LocalTapiola Asset Management Ltd
498	Keen Wealth Advisors, LLC	539	Lockwood Advisors, Inc.
499	Kemnay Advisory Services Inc	540	Lombard Odier Asset Management (Europe) Limited
500	Kettle Hill Capital Management, LLC	541	Lombard Odier Asset Management (Switzerland) SA
501	Keybank National Association, Asset Management Arm	542	Lombard Odier Darier Hentsch & Cie Asset Management
502	Keystone Financial Group, LLC	543	Lombard Odier Gestión (España) S.G.I.I.C., SAU
503	KGI Securities Investment Trust Co. Ltd.	544	Lombard Odier Transatlantic
504	Kiley Juergens Wealth Management, Llc	545	Loring, Wolcott & Coolidge Fiduciary Advisors, LLP
505	Kistler-Tiffany Advisors, LLC	546	Los Angeles Capital
506	KLP Kapitalforvaltning AS	547	Lourd Capital, LLC
507	Kms Financial Services, Inc, Asset Management Arm	548	Lowe Wealth Advisors, LLC
508	Korea Investment Corporation	549	LPL Financial Corporation, Asset Management Arm
509	Koshinski Asset Management, Inc.	550	LS Investment Advisors, LLC
510	Kovack Advisors, Inc., Asset Management Arm	551	Lyxor International Asset Management S.A.
511	Krane Funds Advisors, LLC	552	M&G Investment Management Limited
512	Krasney Financial, LLC	553	M&M Capital Markets, EAFI, S.L.
513	Krilogy Financial LLC	554	M&T Bank Corp, Asset Management Arm
514	Kutxabank Gestion, SGIIC , S.A.	555	Mackenzie Financial Corporation
515	Kynikos Associates LP	556	Macquarie Capital Investment Management LLC
516	L & S Advisors, Inc.	557	Macquarie Investment Management Business Trust
517	LA Banque Postale Asset Management	558	Macquarie Investment Management Limited
518	Ladenburg Thalmann Asset Management Inc.	559	MAI Capital Management, LLC
519	Lagoda Investment Management, L.P.	560	Main Street Research LLC
520	Landaas & Company, Asset Management Arm	561	Mainfirst Affiliated Fund Managers (Switzerland) Ag
521	Lansförsäkringar Fondförvaltning AB	562	Malaga Cove Capital, LLC
522	Laurel Wealth Advisors, Inc.	563	Managed Account Advisors LLC
523	Ledyard Financial Advisors	564	Manchester Capital Management, LLC
524	Lee Financial Corporation	565	Manulife Asset Management
525	Legacy Advisors, LLC	566	Maplelane Capital, LLC
526	Legacy Financial Advisors, Inc.	567	Marathon Asset Management, LLP
527	Legal & General Investment Management Limited	568	Marathon Trading Investment Management LLC
528	Lenox Wealth Advisors, Inc.	569	Marcus Capital, Llc
529	Lenox Wealth Management, Inc., Asset Management Arm	570	Mariner, LLC
530	Level Four Advisory Services, LLC, Asset Management Arm	571	Marino, Stram And Associates, LLC
531	Lido Advisors, LLC	572	Mark Asset Management Corporation
532	Lincoln Investment Advisors Corporation	573	Mark Sheptoff Financial Planning, LLC
533	Linscomb & Williams Inc.	574	Marshall Wace North America LP

Exhibit V

Institutions that Held Tesla, Inc. Common Stock in Either June 30, 2018 or September 30, 2018

No	Institution	No	Institution
575	Marsico Capital Management, LLC	616	MV Capital Management Inc
576	Mascoma Wealth Management	617	Nadler Financial Group, Inc.
577	Mason Street Advisors, LLC	618	National Asset Management, Inc.
578	Maytech Global Investments, LLC	619	National Pension Service
579	MBI Administradora General de Fondos S.A.	620	Nations Financial Group, Inc., Asset Management Arm
580	McAdam LLC, Asset Management Arm	621	Natixis Investment Managers International
581	Mcilrath & ECK, LLC	622	Natixis, Investment Banking and Corporate Banking Investments
582	Measured Wealth Private Client Group,LLC	623	Nelson Roberts Investment Advisors, LLC
583	Mediolanum Asset Management Limited	624	Nelson, Van Denburg & Campbell Wealth Management Group, LLC, Asset Management Arm
584	Meiji Yasuda Life Insurance Co., Asset Management Arm	625	Neuberger Berman BD LLC
585	Mellon Investments Corporation	626	New Capital Management LP
586	Menlo Advisors LLC	627	New England Private Wealth Advisors, LLC
587	Mercer Capital Advisers, Inc.	628	New Jersey Division of Investment
588	Merit Financial Advisors Llc	629	New York State Common Retirement Fund
589	Merrill Lynch & Co. Inc., Banking Investments	630	NewSquare Capital, LLC
590	Merriman, LLC	631	Nikko Asset Management Co., Ltd.
591	MetLife Investment Management, LLC	632	NISA Investment Advisors, L.L.C.
592	Migdal Mutual Funds Ltd.	633	Nissay Asset Management Corporation
593	Millennium Management LLC	634	NN Investment Partners International Holdings B.V.
594	MinichMacGregor Wealth Management, LLC	635	Noesis Capital Management Corp.
595	Miracle Mile Advisors, LLC	636	Nomura Asset Management Co., Ltd.
596	Mirador Capital Partners LP	637	Nomura Holdings Inc, Securities & Investment Arm
597	Mirae Asset Global Investments Co., Ltd	638	Nordea Investment Management AB
598	Mission Wealth Management, LLC	639	Norges Bank Investment Management
599	Mitsubishi UFJ Kokusai Asset Management Co., Ltd.	640	North Country Investment Advisers, Inc.
600	Mitsubishi UFJ Securities Holdings Co., Ltd,Securities and brokerage Arm	641	North Star Asset Management, Inc.
601	Mitsubishi UFJ Securities International PLC,Securities and Brokerage Arm	642	North Star Investment Management Corporation
602	Mml Investors Services, Llc, Brokerage Investments	643	Northeast Investment Management, Inc.
603	Mn Services Vermogensbeheer B.V.	644	Northern Trust Global Investments
604	Moneta Group Investment Advisors, LLC	645	Northstar Capital Management Llc
605	Monetary Management Group, Inc.	646	Northstar Wealth Partners LLC
606	Moors & Cabot, Inc., Asset Management Arm	647	Northwest Asset Management LLC
607	Morgan Stanley AIP GP LP	648	Northwest Financial Corp, Asset Management Arm
608	Morgan Stanley Investment Management Inc.	649	Northwestern Mutual Wealth Management Company
609	Morgan Stanley, Investment Banking and Brokerage Investments	650	Nuveen Investments, Inc.
610	Morgens, Waterfall, Vintiadis & Company, Inc.	651	Nykredit Asset Management A/S
611	Mosaic Family Wealth, LLC	652	Nykredit Portefølje Administration A/S
612	Motilal Oswal Asset Management Company Limited	653	Oak Grove Capital, LLC
613	Motley Fool Asset Management, LLC	654	Oakworth Capital, Inc., Asset Management Arm
614	Mount Yale Investment Advisors, LLC	655	OAM Köln GmbH
615	Mountain Pacific Investment Advisers, Inc.	656	Oarsman Capital, Inc.

Exhibit V

Institutions that Held Tesla, Inc. Common Stock in Either June 30, 2018 or September 30, 2018

No	Institution	No	Institution
657	O'dell Group, Llc	698	Personal Capital Advisors Corp
658	OFI Advisors, LLC	699	Pflug Koory, LLC
659	Ofi Asset Management	700	PFTC Trading, LLC ,Asset Management Arm
660	Ohio National Investments, Inc.	701	PGIM, Inc.
661	Ohio Public Employees Retirement System	702	PHARUS Management SA
662	Old Mutual Customised Solutions (Pty) Limited	703	Pictet & Cie (Europe) S.A., Asset Management Arm
663	Omnia Family Wealth, LLC	704	Pictet Asset Management Limited
664	One Wealth Advisors, Llc	705	Piedmont Investment Advisors, Inc.
665	OP Varainhoito Oy	706	Pin Oak Investment Advisors, Inc.
666	Opera Trading Capital SA	707	Pinkerton Retirement Specialists, LLC
667	Operadora Actinver, Sociedad Anónima de Capital Variable, Sociedad Operadora de Fondos	708	Pinnacle Associates Ltd
668	Opes Advisors, Inc., Asset Management Arm	709	Pinnacle Family Advisors, LLC
669	Oppenheimer Asset Management Inc.	710	Pittenger & Anderson, Inc.
670	Optimum Growth Advisors, LLC	711	PKO Towarzystwo Funduszy Inwestycyjnych SA
671	Optimum Investment Advisors, LLC	712	Plain Capital Asset Management
672	P+, Pensionskassen for Akademikere	713	Plante & Moran Financial Advisors
673	Pacer Advisors Inc	714	PNC Financial Services Group Inc., Banking Investments
674	Pacific Life Fund Advisors LLC	715	Point72 Asset Management, L.P.
675	Paloma Partners Management Co	716	PointState Capital LP
676	PanAgora Asset Management, Inc.	717	Polar Capital Holdings plc (AIM:POLR)
677	Paradigm Asset Management Co., LLC	718	Polaris Wealth Advisers, Llc, Asset Management Arm
678	Parallax Volatility Advisers, L.P.	719	Popular Gestion Privada SGIIC S.A.
679	Parallel Advisors LLC	720	Portfolio Strategies, Inc.
680	Parametric Portfolio Associates LLC	721	Prentiss Smith & Company, Inc.
681	Parisi Gray Wealth Management, Llc	722	Price Wealth, LLC
682	Park West Asset Management LLC	723	Prime Capital Investment Advisors, LLC
683	Parkside Financial Bank & Trust, Asset Management Arm	724	PRIMECAP Management Company
684	Parsons Capital Management, Inc.	725	Principal Global Investors, LLC
685	Pathstone Federal Street	726	Prio Wealth Limited Partnership
686	Pathway Financial Advisors, Llc	727	Private Advisor Group, LLC
687	Patriot Financial Group	728	Private Capital Advisors, Inc.
688	Patten Group, Inc.	729	Private Capital Group, LLC
689	Peak Capital Management, LLC	730	Private Ocean, LLC
690	PEAK6 Investments, L.P.	731	ProEquities, Inc., Asset Management Arm
691	Peddock Capital Advisors, Llc	732	Proffitt & Goodson, Inc.
692	Penserra Capital Management, LLC	733	Proficio Capital Partners LLC
693	People's United Financial Inc., Wealth Management and Trust Division	734	ProFund Advisors LLC
694	Peregrine Asset Advisers, Inc.	735	ProShare Advisors LLC
695	Perennial Advisors, LLC	736	Prospera Financial Services, Asset Management Arm
696	Perigon Wealth Management, LLC, Asset Management Arm	737	Prudential Financial Securities Investment Trust Enterprise Co., Ltd.
697	Periscope Capital Inc	738	Prudential Investment Management Japan Company Limited

Exhibit V

Institutions that Held Tesla, Inc. Common Stock in Either June 30, 2018 or September 30, 2018

No	Institution	No	Institution
739	Public Employees Retirement Association of Colorado	780	Richard Bernstein Advisors LLC
740	Public Sector Pension Investment Board	781	River Wealth Advisors Llc
741	Pure Asset Management	782	RMB Capital Management, LLC
742	Pyramid Trading Limited Partnership, Asset Management Arm	783	Robert W. Baird & Co. Incorporated, Asset Management Arm
743	Pzena Investment Management, Inc (NYSE:PZN)	784	Roble Belko
744	QCI Asset Management Inc.	785	Rockefeller & Co. LLC
745	QCM Cayman, Ltd.	786	Rocky Mountain Advisers, Llc
746	QS Investors LLC	787	Ropes Wealth Advisors, LLC
747	Quad Capital Management Advisors LLC	788	Rosenblum Silverman Sutton Investment Counsel
748	Quad Cities Investment Group, LLC	789	Royal Alliance Associates, Inc., Securities Investments
749	Quadrant Partners	790	Royal Bank of Canada Trust Company (Bahamas) Limited, Asset Management Arm
750	Quaestio Capital Management SGR S.p.A Unipersonale	791	Royal Bank of Canada, Banking & Securities Investments
751	Quantitative Investment Management, LLC	792	Royal Fund Management, LLC
752	Qube Research And Technologies Ltd	793	Royal London Asset Management Limited
753	Quinn Opportunity Partners LLC	794	RPG Family Wealth Advisory, LLC
754	R.H. Bluestein & Company	795	Rpg Investment Advisory, LLC
755	Raab & Moskowitz Asset Management LLC	796	Ruggie Wealth Management
756	Rafferty Asset Management, LLC	797	Russell Investment Management, LLC
757	Rainier Group Investment Advisory, LLC	798	SagePoint Financial Advisors, Inc., Securities Investments
758	Rasmala Investment Bank Ltd., Asset Management Arm	799	Salzman Capital Management LLC
759	Rathbone Investment Management Limited	800	San Francisco Sentry Investment Group
760	Raymond James Financial Inc., Asset Management Arm	801	Sandy Spring Bank, Asset Management Arm
761	Raymond James Financial Services Advisors, Inc.	802	Sanlam Investment Management (Pty) Ltd.
762	RBC Dominion Securities Inc., Asset Management Arm	803	Santander Asset Management, S.A., S.G.I.I.C.
763	RBC Private Counsel (USA) Inc.	804	SAVA INFOND, druzba za upravljanje, d.o.o.
764	RE Advisers Corporation	805	Sawtooth Solutions, LLC
765	Red Cedar Capital, Llc	806	Schroder Investment Management Limited
766	Redpoint Investment Management Pty Ltd	807	Scotiabank Global Banking and Markets, Asset Management Division
767	Regal Wealth Group Inc.	808	Sculptor Capital Management, Inc. (NYSE:SCU)
768	Regent Investment Management LLC	809	SeaBridge Investment Advisors, LLC
769	RegentAtlantic Capital, LLC	810	SeaCrest Wealth Management, LLC
770	Regions Investment Management, Inc.	811	SEB Investment Management AB
771	Regis Management Company, LLC	812	Securities America Advisors, Inc.
772	Reilly Financial Advisors	813	Security Investors, LLC
773	Renaissance Technologies Corp.	814	Security Kapitalanlage AG
774	Renta 4 Gestora SGIIC S.A.	815	Security National Trust Company
775	Resona Asset Management Co., Ltd.	816	Segall Bryant & Hamill, LLC
776	Resources Investment Advisors, Inc.	817	SEI Investments Company (NasdaqGS:SEIC)
777	Reynders, McVeigh Capital Management, LLC	818	Seminole Management Co., Inc.
778	Reynolds Capital Management	819	Sequoia Financial Advisors, LLC
779	Rhumblin Advisers Ltd Partnership	820	Seven Eight Capital, LLC

Exhibit V**Institutions that Held Tesla, Inc. Common Stock in Either June 30, 2018 or September 30, 2018**

No	Institution	No	Institution
821	SFMG Wealth Advisors	862	Stearns Financial Services Group, Asset Management Arm
822	Sg3 Management, LLC	863	Stelac Advisory Services LLC
823	Sharkey, Howes & Javer, Inc.	864	Stephens Investment Management Group, LLC
824	Sheaff Brock Investment Advisors, LLC	865	Sterling Investment Advisors, Ltd.
825	Shell Asset Management Company B.V.	866	Stevens First Principles Investment Advisors
826	Siemens Fonds Invest GmbH	867	Steward Partners Investment Advisory, Llc
827	Sigma Planning Corporation, Asset Management Arm	868	Stichting Bedrijfstakpensioenfondsvoor de Media PNO
828	Signature Wealth Management Group Llc	869	Stichting Pensioenfondsvoor ABP
829	SignatureFD, LLC	870	Stifel Asset Management Corp.
830	Silvercrest Asset Management Group LLC	871	Storebrand Asset Management AS
831	Simplex Trading, LLC, Asset Management Arm	872	Strategic Advisers, Inc
832	Skandia Fonder AB	873	Strategic Wealth Advisors Group, Inc.
833	Slow Capital, Inc.	874	Strategic Wealth Partners, Ltd.
834	SMBC Capital Markets, Inc., Asset Management Arm	875	Stratos Wealth Partners Ltd
835	SMH Asset Management	876	Sumitomo Mitsui DS Asset Management Company, Limited
836	Smith & Williamson Investment Management LLP	877	Sumitomo Mitsui Trust Asset Management Co., Ltd.
837	Smith, Moore & Co., Asset Management Arm	878	Summit Partners Public Asset Management LLC
838	Smithfield Trust Company, Asset Management Arm	879	Summit Trail Advisors, LLC
839	Sns Financial Group, Llc, Asset Management Arm	880	SunAmerica Asset Management, LLC
840	Societe Generale, Securities Investments	881	SunTrust Advisory Services, Inc.
841	Société Privée de Gestion de Patrimoine	882	SunTrust Banks Inc, Asset Management Arm
842	SoMa Equity Partners, L.P.	883	Susquehanna Advisors Group, Inc.
843	Sonata Capital Group, Inc.	884	Susquehanna International Group, LLP, Asset Management Arm
844	Sonora Investment Management, LLC	885	Susquehanna Investment Group
845	Sound Income Strategies, LLC	886	Swedbank Robur Fonder AB
846	Southport Capital, Inc.	887	Swiss National Bank, Asset Management Arm
847	Sp Asset Management	888	Swisscanto Asset Management AG
848	Sparkasse Oberösterreich Kapitalanlagegesellschaft M.B.H.	889	Sws Partners, LLC
849	Sparrow Capital Management, Inc.	890	Sygnia Asset Management (Pty) Ltd
850	Spectrum Management Group, Inc, Asset Management Arm	891	Symmetry Peak Management, LLC
851	SPP Fonder AB	892	Synovus Securities, Asset Management Arm
852	Spyglass Capital Management LLC	893	Synovus Trust Company, National Association
853	Squar Milner Financial Services, LLC	894	Systematic Financial Management LP
854	SRS Capital Advisors, Inc.	895	T&D Asset Management Co., Ltd.
855	SSN Advisory, Inc.	896	T. Rowe Price Group, Inc. (NasdaqGS:TROW)
856	St. Johns Investment Management Company	897	Tamir Fishman Asset Management Ltd.
857	STA Wealth Management, LLC	898	Tamir Fishman Mutual Funds Ltd.
858	Staley Capital Advisers, Inc.	899	Tanaka Capital Management, Inc.
859	Standard Life Aberdeen plc (LSE:SLA)	900	Tarbox Group, Inc., Asset Management Arm
860	State Street Global Advisors, Inc.	901	Taylor Wealth Management Partners LLC
861	State Teachers Retirement System of Ohio	902	TCI Wealth Advisors, Inc., Asset Management Arm

Exhibit V

Institutions that Held Tesla, Inc. Common Stock in Either June 30, 2018 or September 30, 2018

No	Institution	No	Institution
903	TD Asset Management, Inc.	944	Trillium Asset Management LLC
904	TD Capital Management LLC	945	Trilogy Capital, Inc.
905	Teacher Retirement System of Texas	946	True Private Wealth Advisors LLC, Asset Management Arm
906	Teachers Insurance and Annuity Association of America - College Retirement Equities Fund	947	TrueNorth, Inc.
907	Telemus Capital, LLC	948	Truwealth Management
908	Teza Capital Management, LLC	949	Trustcore Financial Services, LLC
909	The Bank of Nova Scotia, Banking Investments	950	Trustmark Investment Advisors, Inc.
910	The Bryn Mawr Trust Company, Asset Management Arm	951	Truvestments Asset Management LLC
911	The Burney Company	952	Tudor Investment Corporation
912	The California State Teachers' Retirement System	953	Twin Tree Management, L.P.
913	The Capital Advisory Group Advisory Services, LLC	954	Two Sigma Investments, LP
914	The Dai-Ichi Life Insurance Company, Limited, Asset Management Arm	955	Two Sigma Securities, LLC, Asset Management Arm
915	The Glenmede Trust Company, N.A.	956	U.S. Bancorp Asset Management, Inc.
916	The Huntington Trust Company, National Association	957	UBS Asset Management
917	The Inland Real Estate Group of Companies, Inc.	958	UBS O'Connor LLC
918	The MassMutual Trust Company, F.S.B. , Trust Investments	959	Union Asset Management Holding AG
919	The Pacific Center For Financial Services	960	Union Investment Management Group
920	The Rehmann Group, LLC, Asset Management Arm	961	United Capital Financial Advisers LLC
921	The State of Wisconsin Investment Board	962	Urquijo Gestión, S.A., S.G.I.I.C., Sociedad Unipersonal
922	The TCW Group, Inc.	963	USAA Investment Management Company
923	The Trust Company	964	Utah Retirement Systems
924	The Trust Company of Vermont	965	Valeo Financial Advisors, LLC
925	The Vanguard Group, Inc.	966	Valley National Advisers, Inc.
926	Third Swedish National Pension Fund	967	Valor Management Corp.
927	Thomas J. Herzfeld Advisors, Inc.	968	Van Eck Associates Corporation
928	Threshold Ventures	969	Van Hulzen Asset Management, LLC
929	Thrivent Investment Management, Inc.	970	Vanguard Capital Wealth Advisors, LLC
930	Tiedemann Wealth Management, LLC	971	Vantage Investment Advisors, LLC
931	TOBAM	972	Vectors Research Management LLC
932	Tocqueville Asset Management LP	973	Ventura Wealth Management
933	Tokio Marine Asset Management Co., Ltd.	974	Veritable LP
934	Toronto-Dominion Bank, Banking Investments	975	Victory Capital Management Inc.
935	Tortoise Capital Advisors L.L.C.	976	Vident Investment Advisory, LLC
936	Tortoise Investment Management, LLC	977	Vigilant Capital Management, LLC
937	Tower Research Capital LLC	978	Virtu Financial LLC, Asset Management Arm
938	Tower View Investment Management & Research Llc	979	Virtus Fund Advisers, LLC
939	Tradewinds Capital Management, LLC	980	Vision2020 Wealth Management Corp.
940	Tramondo Wealth Management AG	981	Visionary Asset Management, Inc.
941	Transamerica Asset Management, Inc.	982	Voya Investment Management LLC
942	Traynor Capital Management, Inc.	983	VVB Vermögensverwaltung Braunenberg GmbH
943	Triad Hybrid Solutions, LLC	984	Wagner Wealth Management, LLC

Exhibit V**Institutions that Held Tesla, Inc. Common Stock in Either June 30, 2018 or September 30, 2018**

No	Institution	No	Institution
985	Walleye Capital LLC	1013	Willingdon Wealth Management Inc.
986	Warburg Invest AG	1014	Willow Creek Wealth Management Inc.
987	Washington Trust Bank, Asset Management Arm	1015	Wilmington Funds Management Corporation
988	Washington Trust Wealth Management	1016	Wilmington Trust Company, Banking & Trust Investments
989	Water Street Capital, Inc.	1017	Wilmington Trust Investment Advisors, Inc.
990	Watermark Asset Management, Inc.	1018	Wilmington Trust Investment Management, LLC
991	We Are One Seven, LLC	1019	Winch Financial, LLC, Asset Management Arm
992	Wealth Architects, LLC	1020	Winslow, Evans & Crocker, Inc., Asset Management Arm
993	Wealthcare Advisory Partners LLC	1021	Winthrop Partners - WNY, LLC
994	Wealthfront Corporation	1022	WMS Partners, LLC
995	WealthTrust Axiom, LLC	1023	Wolverine Asset Management, LLC
996	Wealthtrust Fairport, LLC	1024	Wolverine Trading LLC, Asset Management Arm
997	WealthTrust-Arizona, LLC	1025	Woodbury Financial Services, Inc, Securities Investments
998	Weatherly Asset Management, L.P.	1026	World Asset Management
999	Wedbush Asset Management, LLC	1027	Worm Capital, Llc
1000	Wellington Management Group LLP	1028	WP Advisors, LLC
1001	Wells Capital Management Incorporated	1029	XACT Fonder AB
1002	Wells Fargo & Company, Private Banking and Investment Banking Arm	1030	Xact Kapitalförvaltning AB
1003	Wells Fargo & Company, Securities and Brokerage Investments	1031	Yapi Kredi Portföy Yönetimi A.S.
1004	Westside Investment Management, LLC	1032	YorkBridge Wealth Partners, LLC
1005	Wetherby Asset Management	1033	Zeke Capital Advisors, LLC
1006	Whitener Capital Management, Inc.	1034	Zevenbergen Capital Investments LLC
1007	Whitnell & Co, Asset Management Arm	1035	Zions Capital Advisors, Inc.
1008	Whittier Trust Company	1036	ZKB Asset Management
1009	Wilbanks, Smith & Thomas Asset Management, LLC	1037	Zurich Insurance Group AG, Asset Management Arm
1010	Wilcoxson Wealth Management	1038	Zweig-DiMenna Associates, Inc.
1011	William Blair Investment Management, LLC	1039	ZWJ Investment Counsel Inc
1012	Williams, Jones & Associates, LLC		

Note:

Institutions with positive holdings of Tesla, Inc. common stock for quarters before and after the Class Period (either 6/30/2018 or 9/30/2018).

Source:

S&P Capital IQ.

Exhibit VI**Positions of Large Institutions as of the End of Quarters before and after the Class Period**

No.	Institution	6/30/2018	9/30/2018
1	Allianz Asset Management AG	779,535	831,914
2	Baillie Gifford & Co.	13,171,801	13,125,451
3	Baron Capital Group, Inc.	1,662,723	1,662,469
4	BlackRock, Inc. (NYSE:BLK)	6,459,236	6,322,440
5	BMO Global Asset Management	3,309,433	3,286,244
6	BNY Mellon Asset Management	935,778	593,224
7	Capital Research and Management Company	6,090,587	6,817,290
8	FMR Co., Inc.	1,243,950	954,370
9	FMR LLC	9,872,686	9,047,746
10	Geode Capital Management, LLC	1,040,281	1,051,690
11	Goldman Sachs Group, Investment Banking and Securities Investments	900,568	1,030,854
12	Invesco Capital Management LLC	1,436,683	1,470,675
13	Jennison Associates LLC	4,332,187	4,817,282
14	Morgan Stanley, Investment Banking and Brokerage Investments	1,026,064	1,200,208
15	Norges Bank Investment Management	725,509	814,193
16	Northern Trust Global Investments	851,044	851,565
17	PRIMECAP Management Company	1,095,115	1,106,015
18	State Street Global Advisors, Inc.	2,443,822	2,578,815
19	Susquehanna International Group, LLP, Asset Management Arm	8,801	790,568
20	T. Rowe Price Group, Inc. (NasdaqGS:TROW)	11,931,923	17,380,054
21	Teachers Insurance and Annuity Association of America - College Retirement Equities Fund	769,135	509,925
22	The Vanguard Group, Inc.	6,977,408	7,036,426
Positions of the 22 Institutions on Each Date		77,064,269	83,279,418
Shares Outstanding		170,516,000	171,578,000
22 Institutional Positions as a % of Shares Outstanding		45%	49%
Public Float		135,195,118	135,994,577
22 Institutional Positions as a % of Public Float		57%	61%
Number of Institutions with Positive Positions on Each Date		949	887

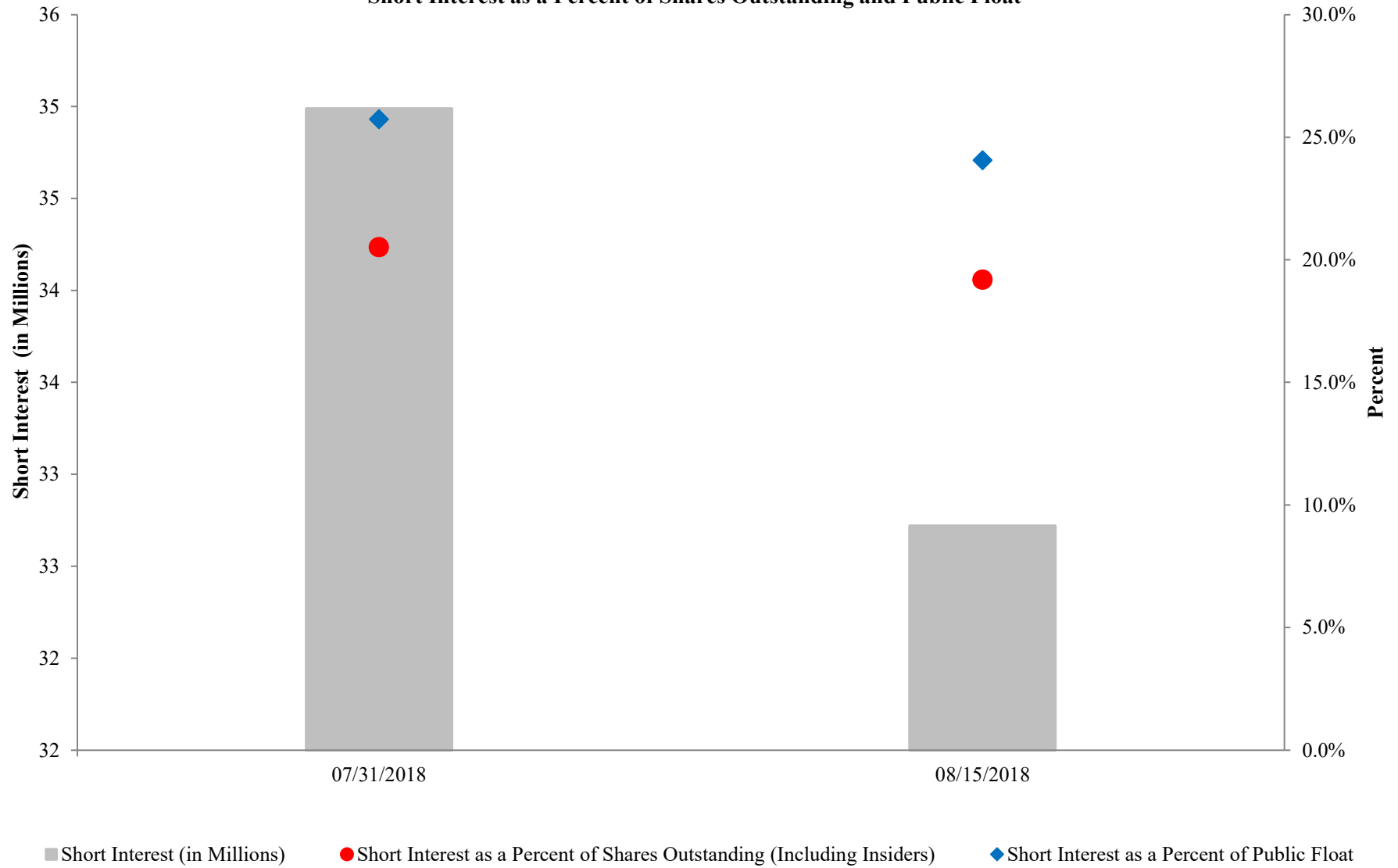
Note:

To be included in this list, the institution positions ranked in the top 20 of all institutional positions as of either 6/30/2018 or 9/30/2018

Source:

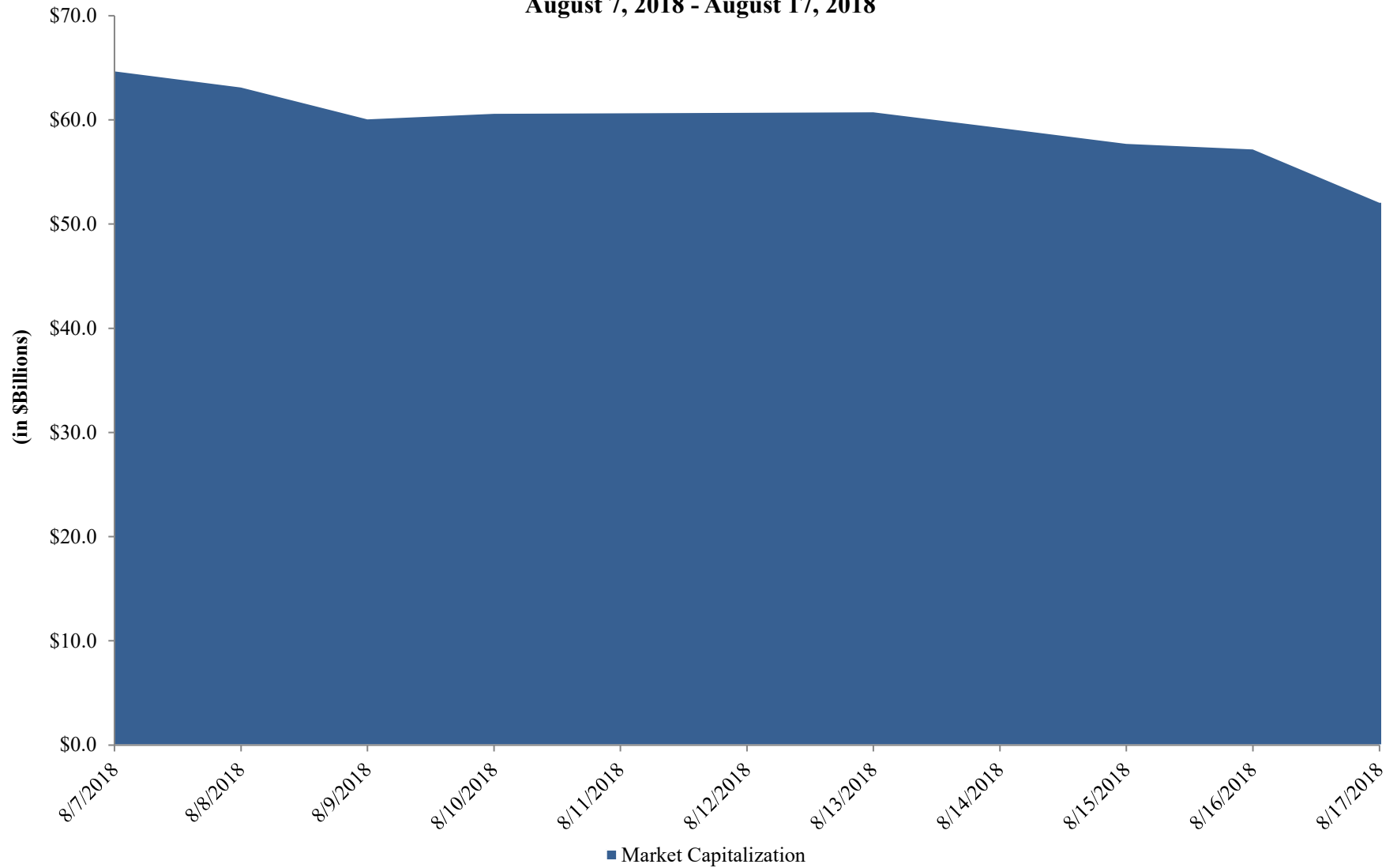
S&P Capital IQ and SEC filings.

Exhibit VII
Short Interest Levels of Tesla, Inc. Common Stock and
Short Interest as a Percent of Shares Outstanding and Public Float



Sources:
 Bloomberg and SEC filings.

Exhibit VIII
Market Capitalization of Tesla, Inc. Common Stock
August 7, 2018 - August 17, 2018



Sources:
Bloomberg and SEC filings.

Exhibit IX
Bid-Ask Spread in Tesla, Inc. Common Stock

Tesla Inc. Common Stock Daily Bid-Ask Spread 8/7/2018 - 8/17/2017		
	\$ Spread	% Spread
Average	\$0.07	0.02%
Median	\$0.07	0.02%

Benchmark from Academic Research:

Chuang and Zhang 2014:

	NYSE/AMEX Common Stocks		NASDAQ Common Stocks	
	Monthly Data	Yearly Data	Monthly Data	Yearly Data
	2009 CRSP % Spread		2009 CRSP % Spread	
Average	1.03%	1.15%	2.55%	2.91%
Median	0.35%	0.40%	0.69%	0.92%

Bhole Surana Torchio 2020:

Percentiles over Three-Year Periods for Average Bid-Ask Spreads for Companies Listed on the NYSE and Nasdaq Stock Exchanges							
	5th	10th	25th	50th	75th	90th	95th
2010-2012	0.03%	0.04%	0.07%	0.18%	0.93%	2.77%	4.24%
2013-2015	0.02%	0.02%	0.04%	0.12%	0.64%	2.09%	3.12%
2016-2018	0.02%	0.02%	0.04%	0.14%	0.75%	1.96%	2.70%

Notes:

See Appendix C for Tesla, Inc. daily statistics and methodology.

Statistics for 2009 CRSP spread for NYSE/AMEX and NASDAQ common stocks are obtained from Kee H. Chung and Hao Zhang, *A Simple Approximation of Intraday Spreads Using Daily Data*, 17 J. Fin. Markets, 94, Table 2 (2014).

Statistics for 2010-2018 CRSP spread for NYSE and Nasdaq common stocks are obtained from Bharat Bhole, Sunita Surana, and Frank Torchio, *Benchmarking Market Efficiency Indicators for Securities Litigation*, 2020 U. of Ill. Online L. Rev, 96, Table 3 (2020).

Exhibit X
Relationship Between Volume and Abnormal Returns

Date Range	Coefficient	t-stat	Observations	R-Squared
<i>120-Trading Day Prior to Class Period</i>				
02/14/2018 - 08/06/2018	0.02	7.30	120	31.13%
<i>120-Trading Day Prior to Class Period and Class Period</i>				
02/14/2018 - 08/17/2018	0.03	8.38	129	35.61%

Notes:

Based on a regression of absolute value of daily abnormal returns on the natural log of trading volume.
 See Appendix F for daily abnormal returns and volume.

Exhibit XI
Volume and Turnover Summary for Option Series with Class Period Volume

Class Period Volume for Option Series		CALLS								PUTS							
		Volume Relative to Average Open Interest				Volume Relative to Average Open Interest				Volume Relative to Average Open Interest				Volume Relative to Average Open Interest			
		Total Series	Total Volume	Total of Average Open Interest	Minimum	Average	Maximum	Count of Series <2%	Count of Series <1%	Total Series	Total Volume	Total of Average Open Interest	Minimum	Average	Maximum	Count of Series <2%	Count of Series <1%
1	99	526	14,603	61,993	0.14%	117.50%	1111.11%	49	22	541	17,484	79,871	0.04%	111.19%	1111.11%	46	19
100	499	278	68,244	88,153	2.36%	129.88%	789.93%	0	0	382	92,789	157,524	1.98%	132.99%	875.00%	1	0
500	999	100	72,997	41,694	13.81%	194.20%	772.03%	0	0	127	87,777	114,293	2.55%	140.21%	846.69%	0	0
1,000	2,499	86	138,196	101,673	10.08%	188.48%	1160.20%	0	0	113	178,859	191,485	7.39%	186.29%	1108.10%	0	0
2,500	4,999	64	216,348	129,307	8.23%	250.70%	1088.54%	0	0	62	215,988	199,090	12.13%	191.87%	930.29%	0	0
5,000	9,999	51	369,082	115,272	25.41%	468.09%	3017.81%	0	0	41	287,911	194,913	7.44%	420.55%	2151.12%	0	0
10,000	14,999	15	181,390	66,290	44.99%	367.86%	1320.47%	0	0	17	204,510	171,935	16.40%	424.72%	1930.38%	0	0
15,000	24,999	12	229,223	34,290	183.64%	756.56%	3437.37%	0	0	11	215,628	52,263	58.99%	679.82%	2013.14%	0	0
25,000	49,999	14	482,277	69,752	226.58%	822.25%	1822.30%	0	0	9	297,424	97,517	36.62%	531.69%	1654.68%	0	0
ALL		1,146	1,772,360	708,424	0.14%	174.54%	3437.37%	49	22	1,303	1,598,370	1,258,892	0.04%	152.36%	2151.12%	47	19

Class Period Volume for Option Series		CALLS								PUTS							
		Volume Relative to Maximum Open Interest				Volume Relative to Maximum Open Interest				Volume Relative to Maximum Open Interest				Volume Relative to Maximum Open Interest			
		Total Series	Total Volume	Total of Maximum Open Interest	Minimum	Average	Maximum	Count of Series <2%	Count of Series <1%	Total Series	Total Volume	Total of Maximum Open Interest	Minimum	Average	Maximum	Count of Series <2%	Count of Series <1%
1	99	526	14,603	66,838	0.14%	48.63%	357.14%	50	24	541	17,484	86,119	0.04%	50.29%	250.00%	46	20
100	499	278	68,244	104,763	2.33%	70.71%	229.08%	0	0	382	92,789	180,430	1.98%	72.65%	574.63%	1	0
500	999	100	72,997	57,376	12.87%	101.87%	433.74%	0	0	127	87,777	133,476	2.54%	80.39%	472.76%	0	0
1,000	2,499	86	138,196	127,211	9.97%	115.04%	1107.31%	0	0	113	178,859	230,430	7.31%	93.69%	576.87%	0	0
2,500	4,999	64	216,348	159,816	8.15%	139.77%	630.93%	0	0	62	215,988	231,676	11.50%	115.96%	508.71%	0	0
5,000	9,999	51	369,082	155,162	23.94%	337.62%	2670.61%	0	0	41	287,911	225,750	7.40%	278.44%	1896.80%	0	0
10,000	14,999	15	181,390	80,118	42.80%	243.38%	915.80%	0	0	17	204,510	187,682	16.00%	272.05%	1020.43%	0	0
15,000	24,999	12	229,223	47,214	146.76%	490.04%	2032.05%	0	0	11	215,628	70,521	51.77%	467.38%	1355.28%	0	0
25,000	49,999	14	482,277	87,586	190.06%	637.77%	1571.40%	0	0	9	297,424	118,022	31.07%	396.73%	1180.75%	0	0
ALL		1,146	1,772,360	886,084	0.14%	96.27%	2670.61%	50	24	1,303	1,598,370	1,464,106	0.04%	82.70%	1896.80%	47	20

Notes:
Source: Appendix G.
There were 8 calls and 2 puts for which there was no start of day open interest during the Class Period (none with more than 10 contracts traded) and are not include in volume relative to open interest.

Exhibit XII
Bid-Ask Spread Summary for Option Series with Class Period Volume

Class Period Volume for Option Series	<i>Calls</i>					<i>Puts</i>				
	Total Series	Minimum	Average	Maximum	Total Series	Minimum	Average	Maximum		
1	99	526	0.03%	0.79%	4.21%	541	0.00%	0.65%	2.97%	
100	499	278	0.01%	0.42%	2.11%	382	0.02%	0.36%	1.78%	
500	999	100	0.01%	0.39%	3.36%	127	0.00%	0.30%	1.39%	
1,000	2,499	86	0.03%	0.32%	1.30%	113	0.01%	0.27%	1.97%	
2,500	4,999	64	0.01%	0.28%	1.19%	62	0.02%	0.24%	1.37%	
5,000	9,999	51	0.03%	0.27%	1.24%	41	0.01%	0.17%	0.99%	
10,000	14,999	15	0.02%	0.16%	0.45%	17	0.02%	0.24%	1.42%	
15,000	24,999	12	0.02%	0.18%	0.62%	11	0.01%	0.10%	0.31%	
25,000	49,999	14	0.03%	0.18%	0.51%	9	0.02%	0.11%	0.24%	
<i>ALL</i>	<i>1,146</i>	<i>0.01%</i>	<i>0.55%</i>	<i>4.21%</i>	<i>1,303</i>	<i>0.00%</i>	<i>0.45%</i>	<i>2.97%</i>		

Notes:

Source: Appendix G. The percent bid-ask spread are calculated relative to Tesla's common stock price.

Exhibit XIII
Put-Call Summary for Option Series with Class Period Volume

Expiration	Calls				Puts			
	Pairs	Violations	%	Average	Pairs	Violations	%	Average
			Violations	Violations			Violations	Violations
2018-08-10	133,287	8	0.01%	0.09%	126,950	8	0.01%	0.09%
2018-08-17	343,889	7	0.00%	0.10%	366,119	7	0.00%	0.10%
2018-08-24	291,918	2	0.00%	0.01%	319,511	2	0.00%	0.01%
2018-08-31	240,534	62	0.03%	0.02%	319,704	62	0.02%	0.02%
2018-09-07	252,332	335	0.13%	0.02%	313,465	333	0.11%	0.02%
2018-09-14	233,123	909	0.39%	0.02%	271,733	909	0.33%	0.02%
2018-09-21	254,868	18,037	7.08%	0.03%	240,441	18,037	7.50%	0.03%
2018-09-28	146,250	10,951	7.49%	0.03%	85,020	9,704	11.41%	0.03%
2018-10-19	253,402	52,890	20.87%	0.08%	293,475	53,225	18.14%	0.08%
2018-11-16	175,890	70,575	40.12%	0.17%	218,790	90,622	41.42%	0.16%
2018-12-21	188,761	102,268	54.18%	0.26%	245,507	139,015	56.62%	0.24%
2019-01-18	259,156	102,235	39.45%	0.26%	276,609	118,953	43.00%	0.24%
2019-02-15	98,086	46,287	47.19%	0.27%	121,096	69,705	57.56%	0.27%
2019-03-15	206,895	61,518	29.73%	0.25%	291,038	102,649	35.27%	0.24%
2019-06-21	224,242	71,154	31.73%	0.32%	269,482	132,916	49.32%	0.33%
2019-08-16	192,554	47,609	24.73%	0.25%	252,225	131,309	52.06%	0.27%
2020-01-17	269,057	118,112	43.90%	0.49%	297,133	159,790	53.78%	0.51%
<i>ALL</i>	<i>3,764,244</i>	<i>702,959</i>	<i>18.67%</i>	<i>0.27%</i>	<i>4,308,298</i>	<i>1,027,246</i>	<i>23.84%</i>	<i>0.28%</i>

Source: Appendix G.

Exhibit XIV

Cause-And-Effect Analysis of the Reaction of Options Prices to Information in the FT Article

	ALL	CALLS	PUTS	
All	Number of Options Traded	671	337	334
	<i>Percent of Class Period Volume</i>	85.56%	88.16%	82.68%
	Percent of Options with Typical Price Movements	96.87%	99.11%	94.61%
	<i>Percent of Class Period Volume</i>	83.73%	88.10%	78.89%
	Average Pre-Event Price		\$19.15	\$13.14
	Average Post-Event Price		\$25.33	\$10.72
	Average Price Change Over Event		\$6.19	-\$2.42
	<hr/>			
	Number of Options Traded	161	91	70
	<i>Percent of Class Period Volume</i>	82.89%	78.56%	85.61%
In-the-Money	Percent of Options with Typical Price Movements	99.38%	98.90%	100.00%
	<i>Percent of Class Period Volume</i>	82.89%	78.54%	85.61%
	Average Pre-Event Price		\$44.07	\$30.87
	Average Post-Event Price		\$55.45	\$23.89
	Average Price Change Over Event		\$11.38	-\$6.97
	<hr/>			
Out-of-the-Money	Number of Options Traded	510	246	264
	<i>Percent of Class Period Volume</i>	86.25%	89.84%	81.63%
	Percent of Options with Typical Price Movements	96.08%	99.19%	93.18%
	<i>Percent of Class Period Volume</i>	83.95%	89.77%	76.47%
	Average Pre-Event Price		\$9.93	\$8.44
	Average Post-Event Price		\$14.20	\$7.23
Average Price Change Over Event		\$4.27	-\$1.21	

Source: Appendix H.

Exhibit XV

Cause-And-Effect Analysis of the Reaction of Options Prices to Information in the NYT Article

	ALL	CALLS	PUTS	
All	Number of Options Traded	1162	525	637
	<i>Percent of Class Period Volume</i>	94.07%	93.52%	94.62%
	Percent of Options with Typical Price Movements	95.52%	93.33%	97.33%
	<i>Percent of Class Period Volume</i>	86.06%	79.32%	92.88%
	Average Pre-Event Price		\$17.94	\$17.83
	Average Post-Event Price		\$13.58	\$22.91
	Average Price Change Over Event		-\$4.36	\$5.08
	<hr/>			
	Number of Options Traded	279	132	147
	<i>Percent of Class Period Volume</i>	91.02%	87.14%	93.84%
In-the-Money	Percent of Options with Typical Price Movements	100.00%	100.00%	100.00%
	<i>Percent of Class Period Volume</i>	91.02%	87.14%	93.84%
	Average Pre-Event Price		\$46.94	\$45.55
	Average Post-Event Price		\$35.69	\$58.61
	Average Price Change Over Event		-\$11.25	\$13.05
	<hr/>			
Out-of-the-Money	Number of Options Traded	883	393	490
	<i>Percent of Class Period Volume</i>	94.77%	94.71%	94.84%
	Percent of Options with Typical Price Movements	94.11%	91.09%	96.53%
	<i>Percent of Class Period Volume</i>	84.91%	77.87%	92.62%
	Average Pre-Event Price		\$8.20	\$9.52
	Average Post-Event Price		\$6.16	\$12.20
Average Price Change Over Event		-\$2.04	\$2.69	

Source: Appendix H.

Exhibit XVI

Cause-And-Effect Analysis of the Reaction of Options Prices to Information in the Musk Tweet

	ALL	CALLS	PUTS	
All	Number of Options Traded	867	443	424
	<i>Percent of Class Period Volume</i>	<i>89.09%</i>	<i>92.70%</i>	<i>85.10%</i>
	Percent of Options with Typical Price Movements	77.97%	76.98%	79.01%
	<i>Percent of Class Period Volume</i>	<i>73.15%</i>	<i>82.94%</i>	<i>62.30%</i>
	Average Pre-Event Price		\$26.94	\$15.30
	Average Post-Event Price		\$32.98	\$10.74
	Average Price Change Over Event		\$6.04	-\$4.56
	<hr/>			
	Number of Options Traded	228	165	63
	<i>Percent of Class Period Volume</i>	<i>87.09%</i>	<i>90.37%</i>	<i>76.98%</i>
In-the-Money	Percent of Options with Typical Price Movements	96.05%	94.55%	100.00%
	<i>Percent of Class Period Volume</i>	<i>86.07%</i>	<i>89.02%</i>	<i>76.98%</i>
	Average Pre-Event Price		\$52.63	\$43.32
	Average Post-Event Price		\$65.68	\$31.32
	Average Price Change Over Event		\$13.05	-\$12.00
	<hr/>			
Out-of-the-Money	Number of Options Traded	639	278	361
	<i>Percent of Class Period Volume</i>	<i>89.61%</i>	<i>93.66%</i>	<i>86.06%</i>
	Percent of Options with Typical Price Movements	71.52%	66.55%	75.35%
	<i>Percent of Class Period Volume</i>	<i>69.83%</i>	<i>80.42%</i>	<i>60.56%</i>
	Average Pre-Event Price		\$11.69	\$10.41
	Average Post-Event Price		\$13.57	\$7.14
	Average Price Change Over Event		\$1.88	-\$3.26

Source: Appendix H.

APPENDIX A

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PRESENT POSITIONS

HARTZMARK ECONOMICS LITIGATION PRACTICE, LLC

President (2013 - present)

Specializing in the application of economic, financial and accounting principles to securities, complex commercial, investment, intellectual property, antitrust and automotive litigation and regulatory matters

OFFICE OF THE ATTORNEY GENERAL – STATE OF NEW JERSEY

Independent Contractor (2015 - present)

MDA FINANCIAL, INC.

President (1981 - present)

FINRA (fka NATIONAL ASSOCIATION OF SECURITY DEALERS) Dispute Resolution

Member Arbitrator (2005 - present)

EDUCATION

- Ph.D. Department of Economics, the University of Chicago, 1984
(Doctoral Exams in Industrial Organization and Regulation; Public Finance)
- M.A. Department of Economics, the University of Chicago, 1982
- B.A. The University of Michigan (Economics, High Honors and Phi Beta Kappa), 1978

ACADEMIC HONORS AND FELLOWSHIPS

John M. Olin Faculty Fellowship, (George Stigler, Director) (1986 - 1987)

PEW Teaching Fellow, the University of Chicago (1980 - 1981)

Phi Beta Kappa, the University of Michigan (1978)

Parker Prize, in Labor Economics, University of Michigan (1978) -- Given for the best graduate or undergraduate paper in Labor Economics

GRANTS

Grant from the University of Chicago (1984). Center for the Study of Futures Prices: grant to analyze margin regulation for the Chicago Board of Trade Studies.

PROFESSIONAL EXPERIENCE

OFFICE OF THE ATTORNEY GENERAL – STATE OF NEW YORK

Independent Contractor (2013 - 2019)

CRA INTERNATIONAL, INC.

Independent Contractor (2015)

NAVIGANT ECONOMICS (FORMERLY CHICAGO PARTNERS, LLC)

Academic Affiliate (2012 - 2013)

Principal/Director (2008 - 2012)

Vice President (2004 - 2007)

DARMA, LLC

President (2005 - 2008)

PACIFIC BIOMETRICS, INC.

Interim Chief Financial Officer (2004 - 2006)

CRAGAR INDUSTRIES, INC.

Chairman, CEO, President and Treasurer (1993 - 2004)

MDA FINANCIAL, INC.

President (1981 - present)

FAHNESTOCK & Co., Inc. (now Oppenheimer & Co., Inc.)

Financial Consultant (Series 7 and Series 63) (2001 - 2003)

ECONOHIO CORPORATION

President (1989 - 1992)

LEXECON INC.

Senior Economist (1987 - 1989)

UNIVERSITY OF CHICAGO, Center for the Study of the Economy and the State, and the
Graduate School of Business (now the Chicago Booth School of Business)

John M. Olin Visiting Scholar (1986 - 1987)

UNIVERSITY OF MICHIGAN, Joint with Michigan Business School (now the Stephen M.
Ross School of Business) and Department of Economics

Assistant Professor (1984 - 1988)

Lecturer (1984)

COMMODITY FUTURES TRADING COMMISSION, Division of Economics and
Education, Washington, D.C.

Financial Economist (1982 -1983)

UNIVERSITY OF CHICAGO, Department of Economics

Instructor for Economic Analysis (1981)

Research Assistant for A. C. Harberger (1982)

Research Assistant for Sam Peltzman (1981 - 1982)

U. S. DEPARTMENT OF THE TREASURY, Office of Tax Analysis, Washington, D.C.

Research Assistant (1981)

PUBLICATIONS

- “Understanding the Efficiency of the Market for Preferred Stock,” (with H. Nejat Seyhun), Virginia Law & Business Review, Volume 8, Number 2, Spring 2014.
- “An Economist's View of Amgen,” Law360, May 2, 2013.
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- “Individual Income Taxation, 1947-1979,” (with Eugene Steuerle), National Tax Journal, June 1981.

BOARDS

- POWHATAN BUILDING CORPORATION, Director, Treasurer, (2010 - 2016)
- MIDTOWN EDUCATIONAL FOUNDATION, Auxiliary Board Member, (2009 - 2013)
- GLOBAL ENTERTAINMENT CORPORATION (Formerly AMEX: GEE, currently not listed); Director, Audit Committee Member (2004 - 2008);
- THE BOARD INSTITUTE (private software company), Financial Advisory Board (2004 - 2006)
- SHAKER INVESTMENTS, Financial Advisory Board (1992 - 2005)
- PACIFIC BIOMETRICS, INC. (OTC BB: PBMC currently not listed and renamed as Pacific Biomarkers), Director and Chairman of Audit Committee (2002 - 2004)
- CRAGAR INDUSTRIES, INC. (Formerly OTC BB: CRGR, company sold); Director and Chairman of the Board (1993 - 2004)

EXPERT REPORTS, DECLARATIONS AND DISCLOSURES PAST FOUR YEARS

- In re Altisource Portfolio Solutions, S.A. Securities Litigation. U.S. District Court for the Southern District of Florida; Report (8/12/2016); Deposition (11/9/2016); Damages Report (12/30/2016); Rebuttal Report (1/2/2017).
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- John Cumming, derivatively on behalf of New Senior Investment Group, Inc., v. Wesley R. Edens, et al. Court of Chancery of the State of Delaware; Report (11/9/2018).
- The Arbitrage Fund, on behalf of itself and all other similarly situated shareholders of Exactech, Inc. v. William Petty, et al. Circuit Court of Florida, Eleventh Judicial Circuit, Miami-Dade County; Report (12/6/2018).

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Appendices.

Appendix C

Operational Statistics for Tesla, Inc. Common Stock in the Pre-Class Period and Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Date	Daily Volume	Weekly Volume	Weekly Turnover	Shares Outstanding	Bloomberg Total Analyst Recommendations	Analysts in Thomson Reuters I/B/E/S Consensus	Closing Price	Market Capitalization (in \$ Billions)	Closing Bid-Ask Spread (\$)	Closing Bid-Ask Spread (%)
Summary Statistics (120-Trading Day Prior to Class Period: February 14, 2018 - August 6, 2018)										
Total	995,268,894	997,492,616								
Average	8,293,907	39,899,705	23.5%	169,715,669	31	22	\$312.06	\$52.959	\$0.08	0.03%
Minimum	3,219,649	20,016,279	11.8%	168,919,941	30	17	\$252.48	\$42.858	\$0.01	0.00%
Median	6,950,556	34,152,495	20.1%	169,793,685	31	22	\$309.00	\$52.552	\$0.07	0.02%
Maximum	23,214,962	87,496,485	51.5%	170,593,144	33	24	\$370.83	\$62.965	\$0.41	0.11%
Summary Statistics (Class Period: August 7, 2018 - August 17, 2018)										
Total	135,756,997	144,321,328								
Average	15,084,111	72,160,664	42.3%	170,593,144	33	22	\$349.06	\$59.547	\$0.07	0.02%
Minimum	6,064,033	51,574,211	30.2%	170,593,144	32	21	\$305.50	\$52.116	\$0.01	0.00%
Median	11,552,044	72,160,664	42.3%	170,593,144	33	22	\$352.45	\$60.126	\$0.07	0.02%
Maximum	30,875,768	92,747,117	54.4%	170,593,144	33	22	\$379.57	\$64.752	\$0.18	0.05%
2/12/2018 Mon	6,227,822	---	---	168,797,000	29	22	\$315.73	\$53.294	\$0.19	0.06%
2/13/2018 Tue	4,560,231	---	---	168,797,000	30	22	\$323.66	\$54.633	\$0.07	0.02%
2/14/2018 Wed	3,950,743	---	---	168,919,941	30	21	\$322.31	\$54.445	\$0.22	0.07%
2/15/2018 Thu	5,912,917	---	---	168,919,941	30	21	\$334.07	\$56.430	\$0.11	0.03%
2/16/2018 Fri	5,642,637	26,294,350	15.6%	168,919,941	30	21	\$335.49	\$56.671	\$0.07	0.02%
2/20/2018 Tue	4,009,435	---	---	168,919,941	30	21	\$334.77	\$56.549	\$0.05	0.01%
2/21/2018 Wed	3,219,649	---	---	168,919,941	30	21	\$333.30	\$56.301	\$0.11	0.03%
2/22/2018 Thu	6,969,808	---	---	168,919,941	30	21	\$346.17	\$58.475	\$0.01	0.00%
2/23/2018 Fri	5,817,387	20,016,279	11.8%	168,919,941	30	21	\$352.05	\$59.468	\$0.01	0.00%
2/26/2018 Mon	4,339,985	---	---	168,919,941	30	21	\$357.42	\$60.375	\$0.15	0.04%
2/27/2018 Tue	4,797,419	---	---	168,919,941	30	21	\$350.99	\$59.289	\$0.08	0.02%
2/28/2018 Wed	6,069,658	---	---	168,919,941	30	21	\$343.06	\$57.950	\$0.04	0.01%
3/1/2018 Thu	6,885,601	---	---	168,919,941	30	21	\$330.93	\$55.901	\$0.08	0.02%
3/2/2018 Fri	5,092,829	27,185,492	16.1%	168,919,941	30	21	\$335.12	\$56.608	\$0.17	0.05%
3/5/2018 Mon	3,823,769	---	---	168,919,941	30	21	\$333.35	\$56.309	\$0.05	0.02%
3/6/2018 Tue	4,285,744	---	---	168,919,941	30	22	\$328.20	\$55.440	\$0.14	0.04%

Appendix C

Operational Statistics for Tesla, Inc. Common Stock in the Pre-Class Period and Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	
Date	Daily Volume	Weekly Volume	Weekly Turnover	Shares Outstanding	Bloomberg Total Analyst Recommendations	Analysts in		Closing Price	Market Capitalization (in \$ Billions)	Closing Bid-Ask Spread (\$)	Closing Bid-Ask Spread (%)
						Thomson Reuters I/B/E/S Consensus					
3/7/2018	Wed	5,007,297	---	---	168,919,941	30	22	\$332.30	\$56.132	\$0.18	0.05%
3/8/2018	Thu	3,566,244	---	---	168,919,941	30	22	\$329.10	\$55.592	\$0.02	0.01%
3/9/2018	Fri	5,506,764	22,189,818	13.1%	168,919,941	30	22	\$327.17	\$55.266	\$0.04	0.01%
3/12/2018	Mon	8,264,035	---	---	168,919,941	30	22	\$345.51	\$58.364	\$0.05	0.01%
3/13/2018	Tue	5,965,805	---	---	168,919,941	30	22	\$341.84	\$57.744	\$0.05	0.01%
3/14/2018	Wed	7,967,370	---	---	168,919,941	30	22	\$326.63	\$55.174	\$0.02	0.01%
3/15/2018	Thu	6,564,801	---	---	168,919,941	30	22	\$325.60	\$55.000	\$0.05	0.02%
3/16/2018	Fri	6,117,279	34,879,290	20.6%	168,919,941	30	22	\$321.35	\$54.282	\$0.05	0.02%
3/19/2018	Mon	7,484,294	---	---	168,919,941	30	22	\$313.56	\$52.967	\$0.01	0.00%
3/20/2018	Tue	4,764,293	---	---	168,919,941	30	22	\$310.55	\$52.458	\$0.02	0.01%
3/21/2018	Wed	5,958,411	---	---	168,919,941	30	22	\$316.53	\$53.468	\$0.07	0.02%
3/22/2018	Thu	4,939,771	---	---	168,919,941	30	23	\$309.10	\$52.213	\$0.06	0.02%
3/23/2018	Fri	6,654,899	29,801,668	17.6%	168,919,941	30	23	\$301.54	\$50.936	\$0.12	0.04%
3/26/2018	Mon	8,375,175	---	---	168,919,941	30	23	\$304.18	\$51.382	\$0.04	0.01%
3/27/2018	Tue	13,872,029	---	---	168,919,941	30	23	\$279.18	\$47.159	\$0.05	0.02%
3/28/2018	Wed	21,001,437	---	---	168,919,941	30	23	\$257.78	\$43.544	\$0.01	0.00%
3/29/2018	Thu	15,170,749	58,419,390	34.6%	168,919,941	30	23	\$266.13	\$44.955	\$0.12	0.05%
4/2/2018	Mon	16,113,968	---	---	169,750,000	30	23	\$252.48	\$42.858	\$0.03	0.01%
4/3/2018	Tue	18,844,384	---	---	169,750,000	30	23	\$267.53	\$45.413	\$0.06	0.02%
4/4/2018	Wed	19,896,746	---	---	169,750,000	30	23	\$286.94	\$48.708	\$0.08	0.03%
4/5/2018	Thu	19,121,101	---	---	169,750,000	30	23	\$305.72	\$51.896	\$0.10	0.03%
4/6/2018	Fri	13,520,286	87,496,485	51.5%	169,750,000	30	23	\$299.30	\$50.806	\$0.08	0.03%
4/9/2018	Mon	10,249,805	---	---	169,750,000	30	23	\$289.66	\$49.170	\$0.03	0.01%
4/10/2018	Tue	11,024,259	---	---	169,750,000	31	23	\$304.70	\$51.723	\$0.12	0.04%
4/11/2018	Wed	7,482,945	---	---	169,750,000	31	23	\$300.93	\$51.083	\$0.09	0.03%
4/12/2018	Thu	7,608,769	---	---	169,750,000	31	23	\$294.08	\$49.920	\$0.02	0.01%
4/13/2018	Fri	7,327,223	43,693,001	25.7%	169,750,000	31	23	\$300.34	\$50.983	\$0.09	0.03%
4/16/2018	Mon	6,338,488	---	---	169,750,000	31	23	\$291.21	\$49.433	\$0.05	0.02%
4/17/2018	Tue	7,000,023	---	---	169,750,000	31	23	\$287.69	\$48.835	\$0.05	0.02%
4/18/2018	Wed	6,557,700	---	---	169,750,000	31	23	\$293.35	\$49.796	\$0.04	0.01%
4/19/2018	Thu	6,090,599	---	---	169,750,000	31	23	\$300.08	\$50.939	\$0.11	0.04%
4/20/2018	Fri	5,627,928	31,614,738	18.6%	169,750,000	31	24	\$290.24	\$49.268	\$0.04	0.01%
4/23/2018	Mon	4,893,378	---	---	169,750,000	31	24	\$283.37	\$48.102	\$0.10	0.04%

Appendix C

Operational Statistics for Tesla, Inc. Common Stock in the Pre-Class Period and Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	
Date	Daily Volume	Weekly Volume	Weekly Turnover	Shares Outstanding	Bloomberg Total Analyst Recommendations	Analysts in		Closing Price	Market Capitalization (in \$ Billions)	Closing Bid-Ask Spread (\$)	Closing Bid-Ask Spread (%)
						Thomson Reuters I/B/E/S Consensus					
4/24/2018 Tue	5,685,308	---	---	169,750,000	31	24	\$283.46	\$48.117	\$0.24	0.08%	
4/25/2018 Wed	4,013,574	---	---	169,750,000	31	24	\$280.69	\$47.647	\$0.11	0.04%	
4/26/2018 Thu	4,356,013	---	---	169,750,000	31	24	\$285.48	\$48.460	\$0.05	0.02%	
4/27/2018 Fri	4,364,626	23,312,899	13.7%	169,750,000	31	24	\$294.08	\$49.919	\$0.15	0.05%	
4/30/2018 Mon	4,228,172	---	---	169,793,685	31	24	\$293.90	\$49.902	\$0.08	0.03%	
5/1/2018 Tue	4,625,603	---	---	169,793,685	31	24	\$299.92	\$50.925	\$0.30	0.10%	
5/2/2018 Wed	8,970,370	---	---	169,793,685	31	24	\$301.15	\$51.133	\$0.09	0.03%	
5/3/2018 Thu	17,352,130	---	---	169,793,685	32	23	\$284.45	\$48.298	\$0.03	0.01%	
5/4/2018 Fri	8,569,354	43,745,629	25.8%	169,793,685	31	22	\$294.09	\$49.935	\$0.06	0.02%	
5/7/2018 Mon	8,678,224	---	---	169,793,685	31	22	\$302.77	\$51.408	\$0.04	0.01%	
5/8/2018 Tue	5,930,000	---	---	169,793,685	31	22	\$301.97	\$51.273	\$0.04	0.01%	
5/9/2018 Wed	5,727,365	---	---	169,793,685	31	18	\$306.85	\$52.101	\$0.10	0.03%	
5/10/2018 Thu	5,651,561	---	---	169,793,685	31	18	\$305.02	\$51.790	\$0.10	0.03%	
5/11/2018 Fri	4,679,649	30,666,799	18.1%	169,793,685	31	18	\$301.06	\$51.118	\$0.06	0.02%	
5/14/2018 Mon	7,286,804	---	---	169,793,685	31	18	\$291.97	\$49.575	\$0.07	0.02%	
5/15/2018 Tue	9,519,173	---	---	169,793,685	31	18	\$284.18	\$48.252	\$0.07	0.02%	
5/16/2018 Wed	5,674,019	---	---	169,793,685	31	18	\$286.48	\$48.642	\$0.06	0.02%	
5/17/2018 Thu	4,420,612	---	---	169,793,685	31	18	\$284.54	\$48.313	\$0.09	0.03%	
5/18/2018 Fri	7,251,887	34,152,495	20.1%	169,793,685	31	18	\$276.82	\$47.002	\$0.07	0.03%	
5/21/2018 Mon	9,182,571	---	---	169,793,685	31	20	\$284.49	\$48.305	\$0.03	0.01%	
5/22/2018 Tue	8,945,756	---	---	169,793,685	31	20	\$275.01	\$46.695	\$0.08	0.03%	
5/23/2018 Wed	5,985,053	---	---	169,793,685	31	17	\$279.07	\$47.384	\$0.08	0.03%	
5/24/2018 Thu	4,176,708	---	---	169,793,685	31	17	\$277.85	\$47.177	\$0.09	0.03%	
5/25/2018 Fri	3,875,082	32,165,170	18.9%	169,793,685	31	18	\$278.85	\$47.347	\$0.08	0.03%	
5/29/2018 Tue	5,666,640	---	---	169,793,685	31	19	\$283.76	\$48.181	\$0.19	0.07%	
5/30/2018 Wed	7,489,686	---	---	169,793,685	31	19	\$291.72	\$49.532	\$0.08	0.03%	
5/31/2018 Thu	5,919,721	---	---	169,793,685	31	19	\$284.73	\$48.345	\$0.02	0.01%	
6/1/2018 Fri	5,424,386	24,500,433	14.4%	169,793,685	32	20	\$291.82	\$49.549	\$0.07	0.02%	
6/4/2018 Mon	4,797,810	---	---	169,793,685	32	20	\$296.74	\$50.385	\$0.05	0.02%	
6/5/2018 Tue	5,995,157	---	---	169,793,685	32	21	\$291.13	\$49.432	\$0.05	0.02%	
6/6/2018 Wed	18,767,269	---	---	169,793,685	32	21	\$319.50	\$54.249	\$0.08	0.03%	
6/7/2018 Thu	14,345,271	---	---	169,793,685	32	22	\$316.09	\$53.670	\$0.02	0.01%	
6/8/2018 Fri	8,205,202	52,110,709	30.7%	169,793,685	32	22	\$317.66	\$53.937	\$0.16	0.05%	

Appendix C

Operational Statistics for Tesla, Inc. Common Stock in the Pre-Class Period and Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Date	Daily Volume	Weekly Volume	Weekly Turnover	Shares Outstanding	Bloomberg Total Analyst Recommendations	Analysts in		Market Capitalization (in \$ Billions)	Closing Bid-Ask Spread (\$)	Closing Bid-Ask Spread (%)
						Thomson Reuters I/B/E/S Consensus	Closing Price			
6/11/2018 Mon	13,183,473	---	---	169,793,685	32	22	\$332.10	\$56.388	\$0.02	0.01%
6/12/2018 Tue	22,347,403	---	---	169,793,685	32	22	\$342.77	\$58.200	\$0.05	0.01%
6/13/2018 Wed	9,469,804	---	---	169,793,685	32	22	\$344.78	\$58.541	\$0.17	0.05%
6/14/2018 Thu	10,981,023	---	---	169,793,685	32	22	\$357.72	\$60.739	\$0.01	0.00%
6/15/2018 Fri	10,848,254	66,829,957	39.4%	169,793,685	32	22	\$358.17	\$60.815	\$0.02	0.01%
6/18/2018 Mon	12,073,226	---	---	169,793,685	32	22	\$370.83	\$62.965	\$0.04	0.01%
6/19/2018 Tue	12,761,903	---	---	169,793,685	32	22	\$352.55	\$59.861	\$0.12	0.03%
6/20/2018 Wed	8,383,656	---	---	169,793,685	32	22	\$362.22	\$61.503	\$0.41	0.11%
6/21/2018 Thu	7,967,145	---	---	169,793,685	32	22	\$347.51	\$59.005	\$0.05	0.01%
6/22/2018 Fri	10,266,059	51,451,989	30.3%	169,793,685	31	22	\$333.63	\$56.648	\$0.01	0.00%
6/25/2018 Mon	6,931,304	---	---	169,793,685	31	22	\$333.01	\$56.543	\$0.21	0.06%
6/26/2018 Tue	7,452,487	---	---	169,793,685	31	22	\$342.00	\$58.069	\$0.02	0.01%
6/27/2018 Wed	8,333,727	---	---	169,793,685	31	22	\$344.50	\$58.494	\$0.05	0.01%
6/28/2018 Thu	8,398,005	---	---	169,793,685	31	22	\$349.93	\$59.416	\$0.02	0.01%
6/29/2018 Fri	6,492,396	37,607,919	22.1%	169,793,685	31	22	\$342.95	\$58.231	\$0.12	0.04%
7/2/2018 Mon	18,759,765	---	---	170,516,000	31	22	\$335.07	\$57.135	\$0.07	0.02%
7/3/2018 Tue	12,282,638	---	---	170,516,000	31	22	\$310.86	\$53.007	\$0.11	0.04%
7/5/2018 Thu	17,476,374	---	---	170,516,000	31	22	\$309.16	\$52.717	\$0.01	0.00%
7/6/2018 Fri	8,865,451	57,384,228	33.7%	170,516,000	31	22	\$308.90	\$52.672	\$0.09	0.03%
7/9/2018 Mon	7,596,753	---	---	170,516,000	31	22	\$318.51	\$54.311	\$0.20	0.06%
7/10/2018 Tue	9,471,498	---	---	170,516,000	31	22	\$322.47	\$54.986	\$0.11	0.03%
7/11/2018 Wed	4,884,076	---	---	170,516,000	31	22	\$318.96	\$54.388	\$0.06	0.02%
7/12/2018 Thu	5,721,166	---	---	170,516,000	31	22	\$316.71	\$54.004	\$0.01	0.00%
7/13/2018 Fri	5,875,770	33,549,263	19.7%	170,516,000	31	22	\$318.87	\$54.372	\$0.11	0.03%
7/16/2018 Mon	7,818,655	---	---	170,516,000	32	22	\$310.10	\$52.877	\$0.09	0.03%
7/17/2018 Tue	6,996,232	---	---	170,516,000	32	22	\$322.69	\$55.024	\$0.03	0.01%
7/18/2018 Wed	5,624,211	---	---	170,516,000	32	21	\$323.85	\$55.222	\$0.12	0.04%
7/19/2018 Thu	5,915,345	---	---	170,516,000	32	21	\$320.23	\$54.604	\$0.11	0.03%
7/20/2018 Fri	5,166,547	31,520,990	18.5%	170,516,000	32	21	\$313.58	\$53.470	\$0.03	0.01%
7/23/2018 Mon	10,992,947	---	---	170,516,000	32	21	\$303.20	\$51.700	\$0.07	0.02%
7/24/2018 Tue	9,590,784	---	---	170,516,000	32	21	\$297.43	\$50.717	\$0.01	0.00%
7/25/2018 Wed	7,094,180	---	---	170,516,000	32	21	\$308.74	\$52.645	\$0.06	0.02%
7/26/2018 Thu	4,630,522	---	---	170,516,000	32	21	\$306.65	\$52.289	\$0.02	0.01%

Appendix C

Operational Statistics for Tesla, Inc. Common Stock in the Pre-Class Period and Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Date	Daily Volume	Weekly Volume	Weekly Turnover	Shares Outstanding	Bloomberg Total Analyst Recommendations	Analysts in		Market Capitalization (in \$ Billions)	Closing Bid-Ask Spread (\$)	Closing Bid-Ask Spread (%)
						Thomson Reuters I/B/E/S Consensus	Closing Price			
7/27/2018 Fri	5,703,326	38,011,759	22.3%	170,593,144	32	21	\$297.18	\$50.697	\$0.13	0.04%
7/30/2018 Mon	6,814,072	---	---	170,593,144	32	21	\$290.17	\$49.501	\$0.01	0.00%
7/31/2018 Tue	5,076,916	---	---	170,593,144	32	21	\$298.14	\$50.861	\$0.01	0.00%
8/1/2018 Wed	10,129,430	---	---	170,593,144	32	21	\$300.84	\$51.321	\$0.18	0.06%
8/2/2018 Thu	23,214,962	---	---	170,593,144	32	21	\$349.54	\$59.629	\$0.13	0.04%
8/3/2018 Fri	13,656,486	58,891,866	34.5%	170,593,144	33	21	\$348.17	\$59.395	\$0.16	0.05%
8/6/2018 Mon	8,564,331	---	---	170,593,144	33	21	\$341.99	\$58.341	\$0.01	0.00%
8/7/2018 Tue	30,875,768	---	---	170,593,144	33	21	\$379.57	\$64.752	\$0.02	0.01%
8/8/2018 Wed	24,571,163	---	---	170,593,144	33	22	\$370.34	\$63.177	\$0.18	0.05%
8/9/2018 Thu	17,183,811	---	---	170,593,144	33	22	\$352.45	\$60.126	\$0.17	0.05%
8/10/2018 Fri	11,552,044	92,747,117	54.4%	170,593,144	33	22	\$355.49	\$60.644	\$0.04	0.01%
8/13/2018 Mon	10,463,881	---	---	170,593,144	33	22	\$356.41	\$60.801	\$0.01	0.00%
8/14/2018 Tue	6,986,427	---	---	170,593,144	33	22	\$347.64	\$59.305	\$0.01	0.00%
8/15/2018 Wed	9,101,258	---	---	170,593,144	32	22	\$338.69	\$57.778	\$0.07	0.02%
8/16/2018 Thu	6,064,033	---	---	170,593,144	32	22	\$335.45	\$57.225	\$0.07	0.02%
8/17/2018 Fri	18,958,612	51,574,211	30.2%	170,593,144	32	22	\$305.50	\$52.116	\$0.07	0.02%

Notes:

[1] Trading date.

[2] Reported composite U.S. volume. Source: Bloomberg.

[3] Volume over entire week of trading. Summary statistics for Class Period include the entire week of the first partial week of the Class Period. Summary statistic for the Pre-Class Period include the entire week of the first partial week of the Pre-Class Period and exclude the last partial week of the Pre-Class Period.

[4] Weekly turnover = [3] / [5]. Summary statistics for Class Period include the entire week of the first partial week of the Class Period. Summary statistic for the Pre-Class Period include the entire week of the first partial week of the Pre-Class Period and exclude the last partial week of the Pre-Class Period.

[5] Last available shares outstanding as of the end of each week. Source: SEC filings.

[6] Most recent available Bloomberg total analyst recommendations. Bloomberg defines "total analyst recommendations" as the total number of analysts making recommendations for the security. Source: Bloomberg.

[7] Number of analysts in Thomson Reuters I/B/E/S consensus EPS estimates for current fiscal year. Source: S&P Capital IQ.

[8] Reported composite U.S. closing price. Source: Bloomberg.

[9] = [5] x [8].

[10] The dollar bid-ask spread was calculated as the closing ask quote less the closing bid quote. Source: Bloomberg.

[11] The percent bid-ask spread was calculated as [10] divided by the average of the bid and ask quotes. Source: Bloomberg.

Appendix D
Tesla News Chronology with Daily Statistics

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
8/7/2018 Tue	30,875,768	\$379.57	10.99%	0.31%	0.49%	0.38%	10.61%	4.15	0.01% **	\$36.28	<p>Elon Musk aims to privatise Tesla (German Collection - Factiva, 08/07/2018)</p> <p>Elon Musk 'considering' taking Tesla private, trading resumed (CNET News.com - Factiva, 08/07/2018)</p> <p>Elon Musk Considering To Take Tesla Private (CE NoticiasFinancieras - Factiva, 08/07/2018)</p> <p>Elon Musk Considering To Take Tesla Private (RTT News - Factiva, 08/07/2018)</p> <p>Elon Musk considers taking Tesla private; Elon Musk considers taking Tesla private (The Daily Star - Factiva, 08/07/2018)</p> <p>Elon Musk contemplates removing Tesla from Wall Street and shares rise 7% (CE NoticiasFinancieras - Factiva, 08/07/2018)</p> <p>Elon Musk Floats Plan To Take Tesla Private At \$71 Billion Valuation (Forbes.com - Factiva, 08/07/2018)</p> <p>Elon Musk Floats Plan To Take Tesla Private At \$71 Billion Valuation (Forbes.com - Factiva, 08/07/2018)</p> <p>Elon Musk Floats Plan To Take Tesla Private At \$71 Billion Valuation (Forbes.com - Factiva, 08/07/2018)</p> <p>Elon Musk says he may take Tesla private and shares soar (The Toronto Star - Factiva, 08/07/2018)</p> <p>Elon Musk tweets that he may take Tesla private, shares jump 11 per cent; Move comes as CEO has been under mounting pressure from investors, analysts to stem company's financial losses (The Globe and Mail (Breaking News) - Factiva, 08/07/2018)</p> <p>Elon Musk (CTV National News - Factiva, 08/07/2018)</p> <p>Elon Musk, eager to shed Wall Street, suggests a massive buyout of Tesla. Its shares soar (latimes.com - Factiva, 08/07/2018)</p> <p>06:58 EDT Tesla begins hiring for \$2B Shanghai plant, Reuters reportsTesla has... (Theflyonthewall.com - Factiva, 08/07/2018)</p> <p>09:16 EDT Morgan Stanley questions if time to 'fade the bounce' in TeslaMorgan... (Theflyonthewall.com - Factiva, 08/07/2018)</p> <p>12:27 EDT Saudi wealth fund has built 3%-5% stake in Tesla, FT reports (Theflyonthewall.com - Factiva, 08/07/2018)</p> <p>12:27 EDT Tesla jumps 3% to \$352.37 after FT says Saudi fund built \$2B stake (Theflyonthewall.com - Factiva, 08/07/2018)</p> <p>12:30 EDT Saudi sovereign wealth fund builds 3%-5% stake in Tesla, FT... (Theflyonthewall.com - Factiva, 08/07/2018)</p> <p>12:49 EDT Tesla CEO Musk says 'considering taking Tesla private'Elon Musk,... (Theflyonthewall.com - Factiva, 08/07/2018)</p>

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Tesla News Chronology with Daily Statistics

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											12:56 EDT Tesla up 5% after Musk 'go-private' tweet, FT report of Saudi... (Theflyonthewall.com - Factiva, 08/07/2018)
											13:05 EDT Musk tweet on taking Tesla private helped shoot stock 5.7% high Musk... (Theflyonthewall.com - Factiva, 08/07/2018)
											13:10 EDT Musk tweet on taking Tesla private helped shoot stock 5.7% high Musk... (Theflyonthewall.com - Factiva, 08/07/2018)
											13:23 EDT Saudi sovereign fund stake in Tesla 'just below' 5%, Reuters says Saudi... (Theflyonthewall.com - Factiva, 08/07/2018)
											13:44 EDT Tesla CEO Musk says he does not have controlling vote Tesla CEO Elon... (Theflyonthewall.com - Factiva, 08/07/2018)
											13:53 EDT Ross Gerber says Tesla confirmed tweets are 'real,' sent by Musk Ross... (Theflyonthewall.com - Factiva, 08/07/2018)
											14:08 EDT Tesla CEO wants shareholders to stay if company goes private Tesla CEO... (Theflyonthewall.com - Factiva, 08/07/2018)
											14:09 EDT Tesla halted for news amid Musk's tweets on possibly going... (Theflyonthewall.com - Factiva, 08/07/2018)
											14:17 EDT Tesla CEO says shareholders could sell at \$420 or hold if company went... (Theflyonthewall.com - Factiva, 08/07/2018)
											15:10 EDT Tesla CEO says being private would end 'negative propaganda from... (Theflyonthewall.com - Factiva, 08/07/2018)
											15:32 EDT Tesla discloses email sent to employees about 'taking Tesla private' An... (Theflyonthewall.com - Factiva, 08/07/2018)
											15:36 EDT Tesla to resume trading at 3:45 pm ET Tesla shares are scheduled to... (Theflyonthewall.com - Factiva, 08/07/2018)
											15:46 EDT Tesla up 10% to \$377.07 after reopening following Musk 'go private'... (Theflyonthewall.com - Factiva, 08/07/2018)
											16:49 EDT Fly Intel: Wall Street's top stories for Tuesday Stocks opened with... (Theflyonthewall.com - Factiva, 08/07/2018)
											A Tesla Buyout Would Mean Elon Musk's \$100B Moonshot Pay Deal Crashed In Orbit (Forbes.com - Factiva, 08/07/2018)
											A Tesla LBO Would Mean Elon Musk's \$100B Moonshot Pay Deal Crashed In Orbit (Forbes.com - Factiva, 08/07/2018)
											A Tesla LBO Would Mean Elon Musk's \$100B Moonshot Pay Deal Crashed In Orbit (Forbes.com - Factiva, 08/07/2018)
											Barclays Research Report (Capital IQ - Manual Entry, 08/07/2018)
											Barclays Research Report (Eikon - Manual Entry, 08/07/2018)
											Behind the wheel of a Tesla Model 3: It's a giant iPhone ̄â,â€ for better and worse (Washington Post.com - Factiva, 08/07/2018)

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Tesla News Chronology with Daily Statistics

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Behind the wheel of a Tesla Model 3; It'S a giant iphone - for better and worse (National Post - Factiva, 08/07/2018)</p> <p>Biz quicks (Tulsa World - Factiva, 08/07/2018)</p> <p>Blue Chips Lead, As Nasdaq Aims For Sixth Gain In A Row (Investor's Business Daily - Factiva, 08/07/2018)</p> <p>Canaccord Genuity Research Report (Capital IQ - Manual Entry, 08/07/2018)</p> <p>Canaccord Genuity Research Report (Eikon - Manual Entry, 08/07/2018)</p> <p>CFRA Equity Research Research Report (Capital IQ - Manual Entry, 08/07/2018)</p> <p>CFRA Equity Research Research Report (Capital IQ - Manual Entry, 08/07/2018)</p> <p>CFRA Equity Research Research Report (Eikon - Manual Entry, 08/07/2018)</p> <p>Children's services chief hits back after facing calls to resign amid Tesla Twitter row (Bucks Free Press - Factiva, 08/07/2018)</p> <p>Cowen and Company Research Report (Eikon - Manual Entry, 08/07/2018)</p> <p>Dow Jones Futures: Tesla Stock Risk Vs. Reward; These 4 Stocks Swing On Earnings (Investor's Business Daily - Factiva, 08/07/2018)</p> <p>Elon Musk considers removing Tesla from the bag (CE NoticiasFinancieras - Factiva, 08/07/2018)</p> <p>Elon Musk considers removing Tesla from the bag (CE NoticiasFinancieras - Factiva, 08/07/2018)</p> <p>Elon Musk is serious about taking Tesla private (Mashable.com - Factiva, 08/07/2018)</p> <p>Elon Musk needs just 61 characters to lift wealth by \$900 million; Tesla shares spike after CEO tweets about taking carmaker private. (The Seattle Times: Web Edition - Factiva, 08/07/2018)</p> <p>Elon Musk's multibillion-dollar apology (EJ Insight - Factiva, 08/07/2018)</p> <p>Eugene Investment & Securities Research Report (Eikon - Manual Entry, 08/07/2018)</p> <p>GM creeps closer to cap on \$7,500 EV tax credit (The Detroit News - Factiva, 08/07/2018)</p> <p>GM creeps closer to cap on \$7,500 EV tax-credit (The Detroit News: Web Edition - Factiva, 08/07/2018)</p> <p>Has Musk met his match in Essex man and his truck? (The Times - Factiva, 08/07/2018)</p> <p>How Palo Alto is suffocating its rooftop solar market (San Francisco Business Times - Factiva, 08/07/2018)</p> <p>KB Securities Research Report (Capital IQ - Manual Entry, 08/07/2018)</p>

Appendix D
Tesla News Chronology with Daily Statistics

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Mendocino Fire Now the Largest in California History; Indonesia Earthquake Kills 105, Displaces 20,000; German Couple Convicted of Selling Child to Pedophiles; Trump to Host CEOs at New Jersey Golf Club; Trump Warns CEOs Against Doing Business with Iran; Trump's Foreign Policy Puts Central Bankers on Their Heels; Wildfires Burn as Scientists Warn of a Hothouse Planet; U.S. Billionaire Kroenke Takes Sole Control of Arsenal; Snap Shares Spike After Earnings; Papa John's Down 10 Percent After Results; Disney Earnings Miss Expectations. Aired 4-5p ET (CNN International: Quest Means Business - Factiva 08/07/2018)</p> <p>Morgan Stanley Research Report (Capital IQ - Manual Entry, 08/07/2018)</p> <p>Morgan Stanley Research Report (Capital IQ - Manual Entry, 08/07/2018)</p> <p>Morgan Stanley Research Report (Capital IQ - Manual Entry, 08/07/2018)</p> <p>Morgan Stanley Research Report (Eikon - Manual Entry, 08/07/2018)</p> <p>Morgan Stanley Research Report (Eikon - Manual Entry, 08/07/2018)</p> <p>Morningstar Inc. Research Report (Capital IQ - Manual Entry, 08/07/2018)</p> <p>Morningstar Inc. Research Report (Capital IQ - Manual Entry, 08/07/2018)</p> <p>Morningstar Inc. Research Report (Eikon - Manual Entry, 08/07/2018)</p> <p>Musk Makes Startling Proposal to Take Tesla Private (The Deal - Factiva, 08/07/2018)</p> <p>Musk ponders throwing Tesla out of bag (CE NoticiasFinancieras - Factiva, 08/07/2018)</p> <p>MUSK RAISES QUESTIONS WITH TWEET ABOUT TINY TESLA; IS HE JOKING OR NOT? ELECTRIC CARMAKER CEO SAYS THEY ARE WORKING ON A 'MINI-CAR' (San Jose Mercury News - Factiva, 08/07/2018)</p> <p>Musk says he may take Tesla private and shares roar (Postmedia Breaking News - Factiva, 08/07/2018)</p> <p>Musk says Tesla will be self-funded; Including its IPO, company raised \$3.9 billion from stock sales (The Toronto Star - Factiva, 08/07/2018)</p> <p>Musk suggests he might take Tesla private (EFE News Service - Factiva, 08/07/2018)</p> <p>Musk tended to consider withdrawing Tesla from the stock exchange - the value of the share went to the deal*** TRANSLATED *** (STT - Factiva, 08/07/2018)</p> <p>Musk tweets he may take Tesla private and shares roar (Postmedia Breaking News - Factiva, 08/07/2018)</p> <p>MUSK: 'EVEN HITLER' WAS BETTING AGAINST TESLA; CEO USES POPULAR MEME TO TAKE A DIG AT SHORT SELLERS OF HIS COMPANY'S STOCK (San Jose Mercury News - Factiva, 08/07/2018)</p> <p>Musk: Tesla's 'wild swings' as a public company have been a distraction, but going private not a final decision (San Francisco Business Times Online - Factiva, 08/07/2018)</p> <p>Musk: Tesla's 'wild swings' as a public company have been a distraction, but going private not a final decision (Silicon Valley/San Jose Business Journal Online - Factiva, 08/07/2018)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											New Broom; Audi interim CEO brings new style to company, after old boss jailed (Handelsblatt Global - Factiva, 08/07/2018)
											NIGHTLY BUSINESS REPORT for August 7, 2018, PBS (Nightly Business Report - Factiva, 08/07/2018)
											Now hiring: Tesla begins staffing effort for new Gigafactory in China (San Francisco Business Times Online - Factiva, 08/07/2018)
											Now hiring: Tesla begins staffing effort for new Gigafactory in China (Silicon Valley/San Jose Business Journal Online - Factiva, 08/07/2018)
											Of Course Twitter Loves Elon Musk (TheAtlantic.com - Factiva, 08/07/2018)
											Overseas investment strong despite tensions (China Daily - Factiva, 08/07/2018)
											Overseas investment strong despite tensions (China Daily-Hong Kong Edition - Factiva, 08/07/2018)
											Overseas investment strong despite tensions (China Daily-US Edition - Factiva, 08/07/2018)
											RBC Capital Markets Research Report (Capital IQ - Manual Entry, 08/07/2018)
											RBC Capital Markets Research Report (Eikon - Manual Entry, 08/07/2018)
											Regulator suspends Tesla deal awaiting clarification (CE NoticiasFinancieras - Factiva, 08/07/2018)
											Stock Market Closes Higher As Tesla Adds Drama In Final Hours (Investor's Business Daily - Factiva, 08/07/2018)
											Tesla CEO drops latest bombshell with \$72 billion buyout proposal (Chicago Sun-Times - Factiva, 08/07/2018)
											Tesla CEO Elon Musk Considering Taking Company Private (NPR: All Things Considered - Factiva, 08/07/2018)
											Tesla founder may take one-time Fisker rival private (Delaware Business Daily - Factiva, 08/07/2018)
											Tesla Gears up to Open Plant in China (Contify Automotive News - Factiva, 08/07/2018)
											Tesla high yield bond jumps on take-private speculation (GlobalCapital - Factiva, 08/07/2018)
											Tesla is looking for employees ... in China (CE NoticiasFinancieras - Factiva, 08/07/2018)
											Tesla returns to trading to shoot more than 13% (CE NoticiasFinancieras - Factiva, 08/07/2018)
											Tesla shares halted after Musk tweets that he's considering taking company private (Denver Business Journal Online - Factiva, 08/07/2018)
											Tesla shares jump after Musk tweets that he's considering taking company private (Buffalo Business First Online - Factiva, 08/07/2018)

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Tesla shares rise more than 7% after Elon Musk announcement of possible exit from the stock market (CE NoticiasFinancieras - Factiva, 08/07/2018)</p> <p>Tesla Short Selling Update - IHS Markit (Exchange News Direct - Factiva, 08/07/2018)</p> <p>Tesla starts recruitment for Chinese EV factory. (Just-Auto - Factiva, 08/07/2018)</p> <p>Tesla Stock Approaches New Record On Musk Talk Of Going Private (Investor's Business Daily - Factiva, 08/07/2018)</p> <p>Tesla Stock Jumps, Then Halted, As Elon Musk Tweets About Going Private (Investor's Business Daily - Factiva, 08/07/2018)</p> <p>Tesla store in Henrico marks one year in business with jump in Model 3 deliveries; legal dispute remains (Richmond Times-Dispatch: Web Edition - Factiva, 08/07/2018)</p> <p>Tesla's latest product is a \$1,500 surfboard, and it's already sold out (ETMAG.com - Factiva, 08/07/2018)</p> <p>Tests find car assistance systems only boost safety if drivers pay attention (CBS News: Evening News - Factiva, 08/07/2018)</p> <p>The 4 reasons why Elon Musk wants Tesla to leave Wall Street (CE NoticiasFinancieras - Factiva, 08/07/2018)</p> <p>The Latest: Musk says going private would free Tesla (Postmedia Breaking News - Factiva, 08/07/2018)</p> <p>Thermosolar project Cerro Dominador challenges Tesla technology (CE NoticiasFinancieras - Factiva, 08/07/2018)</p> <p>Title (NPR: All Things Considered - Factiva, 08/07/2018)</p> <p>Trading with Tesla shares was suspended*** TRANSLATED *** (STT - Factiva, 08/07/2018)</p> <p>UBS Equities Research Report (Capital IQ - Manual Entry, 08/07/2018)</p> <p>UBS Equities Research Report (Eikon - Manual Entry, 08/07/2018)</p> <p>With just one Tweet, Musk added \$ 900 million to his fortune (CE NoticiasFinancieras - Factiva, 08/07/2018)</p> <p>Zacks Equity Research Research Report (Capital IQ - Manual Entry, 08/07/2018)</p> <p>Elon Musk: Dang, turns out even Hitler was shorting Tesla stock; Tesla CEO tweets video meme, taunting his doubters (MarketWatch - Factiva, 08/07/2018 03:32 AM)</p> <p>Tesla starts hiring for new \$2 bln Shanghai plant (Reuters News - Factiva, 08/07/2018 05:17 AM)</p> <p>New tests of automatic braking systems found a worrying flaw and 2 Tesla models did the worst (Business Insider - Factiva, 08/07/2018 06:00 AM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>MW UPDATE: The revenue-growth rate that helped fuel Tesla's rally relied on an apples-to-oranges comparison (MarketWatch - Factiva, 08/07/2018 07:32 AM)</p> <p>The revenue-growth rate that helped fuel Tesla's rally relied on an apples-to-oranges comparison; Not uniquely among companies, Tesla failed to modify prior-year results, creating an inaccurate picture of its revenue growth (MarketWatch - Factiva, 08/07/2018 07:32 AM)</p> <p>The End Of The FANG Era? Gene Munster Makes The Case (Benzinga.com - Factiva, 08/07/2018 10:56 AM)</p> <p>BRIEF-Saudi Arabia's Sovereign Wealth Fund Builds \$2 Bln Tesla Stake- FT (Reuters News - Factiva, 08/07/2018 12:26 PM)</p> <p>Tesla starts recruitment for Chinese EV factory (MarketLine News and Comment - Factiva, 08/07/2018 12:30 PM)</p> <p>Stocks close higher as earnings news trumps trade-war fear; Tesla soars 11% on Musk's going-private tweet; Nasdaq's winning streak now longest since March (MarketWatch - Factiva, 08/07/2018 12:37 PM)</p> <p>Elon Musk lights up the internet and investors see green as Tesla rips higher (MarketWatch - Factiva, 08/07/2018 12:39 PM)</p> <p>Saudi sovereign fund builds 3 to 5 pct stake in Tesla - FT (Reuters News - Factiva, 08/07/2018 12:39 PM)</p> <p>Saudi sovereign fund builds 3 to 5 percent stake in Tesla: FT (Reuters News - Factiva, 08/07/2018 12:41 PM)</p> <p>MW Saudi Arabia's mega-fund builds stake in Tesla: report (MarketWatch - Factiva, 08/07/2018 12:45 PM)</p> <p>Saudi Arabia's Mega-fund Builds Stake In Tesla: Report -- MarketWatch (Dow Jones Institutional News - Factiva, 08/07/2018 12:45 PM)</p> <p>Morgan Stanley Raises Tesla Estimates After Earnings Analysis (Benzinga.com - Factiva, 08/07/2018 12:49 PM)</p> <p>Saudi Sovereign Wealth Fund Investing in Tesla -FT (Dow Jones Institutional News - Factiva, 08/07/2018 12:50 PM)</p> <p>TESLA'S MUSK SAYS "AM CONSIDERING TAKING TESLA PRIVATE AT \$420. FUNDING SECURED"- TWEET (Reuters News - Factiva, 08/07/2018 12:51 PM)</p> <p>TESLA'S MUSK SAYS "AM CONSIDERING TAKING TESLA PRIVATE AT \$420. FUNDING SECURED"- TWEET (Reuters News - Factiva, 08/07/2018 12:52 PM)</p> <p>Elon Musk tweets that he's considering taking Tesla private at \$420 per share with 'funding secured' (TSLA) (Business Insider - Factiva, 08/07/2018 12:55 PM)</p> <p>Saudi Arabia's mega-fund builds stake in Tesla: report (Dow Jones Newswires Chinese (English) - Factiva, 08/07/2018 12:55 PM)</p> <p>*Elon Musk's Twitter Account: 'Am Considering Taking Tesla Private at \$420' (Dow Jones Institutional News - Factiva, 08/07/2018 12:56 PM)</p>

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											Elon Musk considers taking Tesla private (Reuters News - Factiva, 08/07/2018 12:57 PM)
											Tesla jumps after report says Saudi Arabia amassed a \$2 billion stake and Musk tweets he's considering taking the company private (TSLA) (Business Insider - Factiva, 08/07/2018 12:57 PM)
											Elon Musk says he's considering taking Tesla private (CNN Wire - Factiva, 08/07/2018 01:03 PM)
											Elon Musk says he's considering taking Tesla private (CNN Wire - Factiva, 08/07/2018 01:05 PM)
											Elon Musk Tweets 'Considering Taking Tesla Private' (Dow Jones Institutional News - Factiva, 08/07/2018 01:05 PM)
											Tesla's Musk Tweets He's 'Considering' Taking Company Private -- MarketWatch (Dow Jones Institutional News - Factiva, 08/07/2018 01:07 PM)
											Tesla shares jump on Musk tweet on taking company private (Agence France Presse - Factiva, 08/07/2018 01:09 PM)
											Elon Musk Tweets 'Considering Taking Tesla Private' -- Update (Dow Jones Newswires Chinese (English) - Factiva, 08/07/2018 01:14 PM)
											Musk Tweets He Might Take Tesla Private At \$420 (Benzinga.com - Factiva, 08/07/2018 01:15 PM)
											Saudi sovereign fund PIF has bought a below 5 pct stake in Tesla -source (Reuters News - Factiva, 08/07/2018 01:18 PM)
											Musk Says in Tweet He Is Considering Taking Tesla Private (Dow Jones Institutional News - Factiva, 08/07/2018 01:20 PM)
											Saudi sovereign fund PIF has bought a below 5 percent stake in Tesla: source (Reuters News - Factiva, 08/07/2018 01:23 PM)
											Musk considers taking Tesla private as report says Saudis buy in (dpa International Service in English - Factiva, 08/07/2018 01:24 PM)
											Elon Musk says he's considering taking Tesla private (CNN Wire - Factiva, 08/07/2018 01:26 PM)
											BUZZ-U.S. STOCKS ON THE MOVE-Tesla, Office Depot, On Deck, Hertz Global (Reuters News - Factiva, 08/07/2018 01:28 PM)
											Tesla shares jump on Musk tweet on taking company private (Agence France Presse - Factiva, 08/07/2018 01:28 PM)
											UPDATE 1-Tesla starts hiring for new \$2 bln Shanghai plant (Reuters News - Factiva, 08/07/2018 01:31 PM)
											MW UPDATE: Tesla's Musk tweets he's 'considering' taking company private (MarketWatch - Factiva, 08/07/2018 01:34 PM)
											Update: Tesla's Musk Tweets He's 'considering' Taking Company Private -- MarketWatch (Dow Jones Institutional News - Factiva, 08/07/2018 01:34 PM)

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											<p>TESLA'S ELON MUSK TWEETS "GOOD MORNING" WITH A SMILEY AFTER AN EARLIER TWEET ABOUT TAKING TESLA PRIVATE (Reuters News - Factiva, 08/07/2018 01:35 PM)</p> <p>Global Equities Roundup: Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 01:37 PM)</p> <p>This ETF Has Almost 12% of its Assets in Tesla -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 01:37 PM)</p> <p>This ETF Has Almost 12% of its Assets in Tesla -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 01:37 PM)</p> <p>Elon Musk says he's considering taking Tesla private (CNN Wire - Factiva, 08/07/2018 01:39 PM)</p> <p>1ST LEAD Musk considers taking Tesla private as report says Saudis buy in By Shabtai Gold, dpa (dpa International Service in English - Factiva, 08/07/2018 01:39 PM)</p> <p>Elon Musk to take Tesla private? (Deutsche Welle - Factiva, 08/07/2018 01:42 PM)</p> <p>Tesla surges after Elon Musk follows up a \$2 billion investment report with a tweet saying he might take the company private (TSLA) (Business Insider - Factiva, 08/07/2018 01:47 PM)</p> <p>2ND LEAD Musk toys with idea of taking Tesla private as Saudis buy in By Shabtai Gold, dpa (dpa International Service in English - Factiva, 08/07/2018 01:51 PM)</p> <p>Helicopter Industry May Get Reprieve From Tougher Rules -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 01:56 PM)</p> <p>Elon Musk Says in Tweet He Is Considering Taking Tesla Private -- 2nd Update (Dow Jones Institutional News - Factiva, 08/07/2018 02:00 PM)</p> <p>TESLA'S ELON MUSK SAYS "MY HOPE IS *ALL* CURRENT INVESTORS REMAIN WITH TESLA EVEN IF WE ARE PRIVATE." - TWEET (Reuters News - Factiva, 08/07/2018 02:02 PM)</p> <p>Tesla starts hiring for new \$2 billion Shanghai plant (Reuters News - Factiva, 08/07/2018 02:03 PM)</p> <p>TESLA'S MUSK SAYS WOULD CREATE SPECIAL PURPOSE FUND ENABLING ANYONE TO STAY WITH TESLA - TWEET (Reuters News - Factiva, 08/07/2018 02:03 PM)</p> <p>Tesla Inc. (TSLA) Halted due to pending news (Dow Jones Institutional News - Factiva, 08/07/2018 02:08 PM)</p> <p>TESLA'S MUSK "AM SUPER APPRECIATIVE OF TESLA SHAREHOLDERS. WILL ENSURE THEIR PROSPERITY IN ANY SCENARIO"- TWEET (Reuters News - Factiva, 08/07/2018 02:08 PM)</p> <p>CORRECTED-UPDATE 3-Elon Musk considers taking Tesla private in tweet, shares rise (Reuters News - Factiva, 08/07/2018 02:12 PM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Tesla shares halted after Musk tweet about going private (Reuters News - Factiva, 08/07/2018 02:16 PM)</p> <p>TESLA'S MUSK SAYS "NO CHANGE" IN RESPONSE TO A TWEET ASKING HIM IF HE WOULD YOU LIKE TO STAY AS TESLA CEO IF CO GOES PRIVATE - TWEET (Reuters News - Factiva, 08/07/2018 02:17 PM)</p> <p>Elon Musk says he's considering taking Tesla private (CNN Wire - Factiva, 08/07/2018 02:27 PM)</p> <p>Tesla shares halted after Musk tweet about going private (Reuters News - Factiva, 08/07/2018 02:27 PM)</p> <p>Tesla options bulls reap windfall on Musk's going private tweet (Reuters News - Factiva, 08/07/2018 02:28 PM)</p> <p>Elon Musk says he's considering taking Tesla private (CNN Wire - Factiva, 08/07/2018 02:29 PM)</p> <p>3 Reasons Elon Musk Would Want to Take Tesla Private -- Barron's Blog (Dow Jones Institutional News - Factiva, 08/07/2018 02:31 PM)</p> <p>Mutual Funds and ETFs Own 31.8% of Tesla -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 02:33 PM)</p> <p>Mutual Funds and ETFs Own 31.8% of Tesla -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 02:33 PM)</p> <p>Musk says will remain Tesla CEO if company goes private (Agence France Presse - Factiva, 08/07/2018 02:35 PM)</p> <p>Tesla's stock halted as CEO Elon Musk tweets he's considering taking the electric vehicle company private (Associated Press Newswires - Factiva, 08/07/2018 02:35 PM)</p> <p>Elon Musk Says Tesla May Go Private, and Its Stock Soars (NYTimes.com Feed - Factiva, 08/07/2018 02:45 PM)</p> <p>Tesla Stock's Surge Puts Convertible Bonds in the Money -- Barron's Blog (Dow Jones Institutional News - Factiva, 08/07/2018 02:45 PM)</p> <p>If you didn't think Elon Musk might take Tesla private, you weren't paying attention (TSLA) (Business Insider - Factiva, 08/07/2018 02:52 PM)</p> <p>Musk says he is considering taking Tesla private (24 Ore Radiocor-Newswire International Edition - Factiva, 08/07/2018 02:56 PM)</p> <p>Tesla Bonds Rally After CEO Musk Says He Is Considering Taking The Company Private -- MarketWatch (Dow Jones Institutional News - Factiva, 08/07/2018 02:56 PM)</p> <p>Tesla surges after Elon Musk follows up a \$2 billion investment report with a tweet saying he might take the company private (TSLA) (Business Insider - Factiva, 08/07/2018 02:59 PM)</p> <p>News Highlights: Top Company News of the Day (Dow Jones Institutional News - Factiva, 08/07/2018 03:00 PM)</p>

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											Elon Musk says he's considering taking Tesla private (CNN Wire - Factiva, 08/07/2018 03:04 PM)
											Elon Musk jolts Wall Street with tweet on going private (Agence France Presse - Factiva, 08/07/2018 03:06 PM)
											US Consumer Credit Pulled Back in June -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 03:11 PM)
											ELON MUSK SAYS AS A PRIVATE CO, TESLA WILL BE SMOOTHER & LESS DISRUPTIVE AND WOULD END "NEGATIVE PROPAGANDA FROM SHORTS" - TWEET (Reuters News - Factiva, 08/07/2018 03:13 PM)
											Elon Musk Publicly Considers Taking Tesla Private, Promises to Protect Investors (Sputnik News Service - Factiva, 08/07/2018 03:17 PM)
											3RD LEAD Elon Musk floats idea of taking Tesla private after Saudis buy in By Shabtai Gold, dpa (dpa International Service in English - Factiva, 08/07/2018 03:22 PM)
											3 Reasons Elon Musk Would Want to Take Tesla Private -- Barron's Blog (Dow Jones Institutional News - Factiva, 08/07/2018 03:24 PM)
											MW UPDATE: Tesla bonds rally after CEO Musk says he is considering taking the company private (MarketWatch - Factiva, 08/07/2018 03:25 PM)
											Update: Tesla Bonds Rally After CEO Musk Says He Is Considering Taking The Company Private -- MarketWatch (Dow Jones Institutional News - Factiva, 08/07/2018 03:25 PM)
											Elon Musk Says in Tweet He Is Considering Taking Tesla Private -- Update (Dow Jones Newswires Chinese (English) - Factiva, 08/07/2018 03:31 PM)
											BRIEF-Tesla Blog Post From Elon Musk (Reuters News - Factiva, 08/07/2018 03:34 PM)
											Musk's Tweet Hurts...and Not Just Tesla Short Sellers -- Barron's Blog (Dow Jones Institutional News - Factiva, 08/07/2018 03:34 PM)
											Tesla CEO Elon Musk in Memo to Employees: Final Decision on Buyout Hasn't Been Made (Dow Jones Newswires Chinese (English) - Factiva, 08/07/2018 03:34 PM)
											Musk Memo: Shareholders Can Stay Investors in Tesla or Sell at \$420 a Share (Dow Jones Newswires Chinese (English) - Factiva, 08/07/2018 03:35 PM)
											Musk says no final decision on taking Tesla private (Reuters News - Factiva, 08/07/2018 03:35 PM)
											Elon Musk Explains Tesla Going-private Tweet In Blog Post -- MarketWatch (Dow Jones Institutional News - Factiva, 08/07/2018 03:36 PM)
											TESLA INC - "INTENTION IS NOT TO MERGE SPACEX AND TESLA" (Reuters News - Factiva, 08/07/2018 03:36 PM)
											TESLA INC SAYS FINAL DECISION HAS NOT YET BEEN MADE REGARDING TAKING TESLA PRIVATE (Reuters News - Factiva, 08/07/2018 03:36 PM)

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											<p>TESLA INC SAYS PROPOSAL TO GO PRIVATE WOULD ULTIMATELY BE FINALIZED THROUGH A VOTE OF CO'S SHAREHOLDERS (Reuters News - Factiva, 08/07/2018 03:36 PM)</p> <p>TESLA SAYS EITHER SHAREHOLDERS CAN STAY INVESTORS IN A PRIVATE TESLA OR THEY CAN BE BOUGHT OUT AT \$420 PER SHARE (Reuters News - Factiva, 08/07/2018 03:36 PM)</p> <p>TESLA SAYS INTENTION IS FOR ALL TESLA EMPLOYEES TO REMAIN SHAREHOLDERS, JUST AS IS THE CASE AT SPACEX - BLOG POST FROM ELON MUSK (Reuters News - Factiva, 08/07/2018 03:36 PM)</p> <p>TESLA SAYS MUSK'S INTENTION IS FOR ALL TESLA EMPLOYEES TO REMAIN SHAREHOLDERS OF THE COMPANY, JUST AS IS THE CASE AT SPACEX (Reuters News - Factiva, 08/07/2018 03:36 PM)</p> <p>Elon Musk says going private is 'best path forward' for Tesla (CNN Wire - Factiva, 08/07/2018 03:38 PM)</p> <p>EXTRA Tesla statement confirms plan for taking company private (dpa International Service in English - Factiva, 08/07/2018 03:38 PM)</p> <p>Update: Tesla's Elon Musk Expands In Blog Post On Going-private Tweet -- MarketWatch (Dow Jones Institutional News - Factiva, 08/07/2018 03:38 PM)</p> <p>Musk says no final decision on taking Tesla private (Reuters News - Factiva, 08/07/2018 03:39 PM)</p> <p>Tesla Inc. (TSLA) Paused (quotes only) due to news pending (Dow Jones Institutional News - Factiva, 08/07/2018 03:40 PM)</p> <p>3 Reasons Elon Musk Would Want to Take Tesla Private -- Barron's Blog (Dow Jones Institutional News - Factiva, 08/07/2018 03:40 PM)</p> <p>Skepticism over Elon Musk's special purpose fund for investors if Tesla goes private; Experts say that's not the way it works (MarketWatch - Factiva, 08/07/2018 03:40 PM)</p> <p>Update: Tesla's Elon Musk Expands In Blog Post On Going-private Tweet -- MarketWatch (Dow Jones Institutional News - Factiva, 08/07/2018 03:40 PM)</p> <p>ELON MUSK SAYS INVESTOR SUPPORT TO TAKE TESLA PRIVATE IS CONFIRMED; "ONLY REASON WHY THIS IS NOT CERTAIN IS THAT IT'S CONTINGENT ON A SHAREHOLDER VOTE" - TWEET (Reuters News - Factiva, 08/07/2018 03:41 PM)</p> <p>FULL TEXT-Tesla statement on potential deal to go private (Reuters News - Factiva, 08/07/2018 03:44 PM)</p> <p>Tesla Inc. (TSLA) Resumed Trading (Dow Jones Institutional News - Factiva, 08/07/2018 03:45 PM)</p> <p>MW UPDATE: Tesla's Elon Musk expands in blog post on going-private tweet (MarketWatch - Factiva, 08/07/2018 03:46 PM)</p>

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											<p>Update: Tesla's Elon Musk Expands In Blog Post On Going-private Tweet -- MarketWatch (Dow Jones Institutional News - Factiva, 08/07/2018 03:46 PM)</p> <p>3 Reasons Elon Musk Would Want to Take Tesla Private -- Barron's Blog (Dow Jones Institutional News - Factiva, 08/07/2018 03:47 PM)</p> <p>Read Elon Musk's email to Tesla employees (CNN Wire - Factiva, 08/07/2018 03:48 PM)</p> <p>Tesla Shares up 11% After Musk Tweets About Going Private -- Market Mover (Dow Jones Institutional News - Factiva, 08/07/2018 03:50 PM)</p> <p>Tesla statement on potential deal to go private (Reuters News - Factiva, 08/07/2018 03:50 PM)</p> <p>Tesla nears an all-time high after saying it will attempt to go private (TSLA) (Business Insider - Factiva, 08/07/2018 03:55 PM)</p> <p>Elon Musk says going private is 'best path forward' for Tesla (CNN Wire - Factiva, 08/07/2018 03:56 PM)</p> <p>Elon Musk says going private is 'best path forward' for Tesla (CNN Wire - Factiva, 08/07/2018 03:57 PM)</p> <p>Tesla CEO Musk explains rationale for taking company private (24 Ore Radiocor-Newsire International Edition - Factiva, 08/07/2018 04:03 PM)</p> <p>Stocks rally as Tesla nears an all-time high (Business Insider - Factiva, 08/07/2018 04:09 PM)</p> <p>3 Reasons Elon Musk Would Want to Take Tesla Private -- Barron's Blog (Dow Jones Institutional News - Factiva, 08/07/2018 04:10 PM)</p> <p>4TH LEAD Elon Musk pushes to take Tesla private after large Saudi buy in By Shbtai Gold, dpa (dpa International Service in English - Factiva, 08/07/2018 04:11 PM)</p> <p>MW S&P 500 closes within 0.5% of a record as markets climb; Tesla teases Wall Street with take-private talk (MarketWatch - Factiva, 08/07/2018 04:13 PM)</p> <p>S&P 500 Closes Within 0.5% Of A Record As Markets Climb; Tesla Teases Wall Street With Take-private Talk -- MarketWatch (Dow Jones Institutional News - Factiva, 08/07/2018 04:13 PM)</p> <p>Elon Musk says going private is 'best path forward' for Tesla (CNN Wire - Factiva, 08/07/2018 04:20 PM)</p> <p>The Latest: Musk says going private would free Tesla (Associated Press Newswires - Factiva, 08/07/2018 04:22 PM)</p> <p>The Latest: Musk says going private would free Tesla (The Canadian Press - Factiva, 08/07/2018 04:23 PM)</p> <p>The Latest: Musk says going private would free Tesla (The Canadian Press - Broadcast wire - Factiva, 08/07/2018 04:23 PM)</p> <p>BRIEF-Short-Seller Jim Chanos Says Short Position Is Best Thing Going For Tesla - CNBC (Reuters News - Factiva, 08/07/2018 04:34 PM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Elon Musk's latest Twitter antics have Tesla hurtling into uncharted territory and could have legal ramifications for the CEO (Business Insider - Factiva, 08/07/2018 04:35 PM)</p> <p>Elon Musk's latest Twitter antics have Tesla hurtling into uncharted territory and could have legal ramifications for the CEO (Business Insider - Factiva, 08/07/2018 04:35 PM)</p> <p>Tesla Shares End Almost 11% Higher After Musk's Privatization Tweet -- Data Talk (Dow Jones Institutional News - Factiva, 08/07/2018 04:35 PM)</p> <p>MW UPDATE: Stocks close higher as earnings news trumps trade-war fear; Tesla soars 11% on Musk's going-private tweet (MarketWatch - Factiva, 08/07/2018 04:39 PM)</p> <p>Tesla, rosy corporate news send Wall Street higher (Agence France Presse - Factiva, 08/07/2018 04:48 PM)</p> <p>Auto & Transport Roundup: Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 04:50 PM)</p> <p>Financial Services Roundup: Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 04:50 PM)</p> <p>Tech, Media & Telecom Roundup: Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 04:50 PM)</p> <p>Elon Musk Says in Tweet He Is Considering Taking Tesla Private -- 3rd Update (Dow Jones Institutional News - Factiva, 08/07/2018 04:51 PM)</p> <p>MW UPDATE: Tesla confirms intention to go private, sending stock up 11% (MarketWatch - Factiva, 08/07/2018 04:52 PM)</p> <p>Tesla confirms intention to go private, sending stock up 11%; Elon Musk tells employees he is thinking of taking Tesla private to give it more leeway to achieve its long-term goals (MarketWatch - Factiva, 08/07/2018 04:52 PM)</p> <p>Tesla and Hertz rally while Dentsply and Zillow fall (Associated Press Newswires - Factiva, 08/07/2018 04:59 PM)</p> <p>Tesla and Hertz rally while Dentsply and Zillow fall (The Canadian Press - Factiva, 08/07/2018 04:59 PM)</p> <p>News Highlights: Top Company News of the Day (Dow Jones Institutional News - Factiva, 08/07/2018 05:00 PM)</p> <p>Tesla boss Musk weighs go-private deal for electric car maker (Agence France Presse - Factiva, 08/07/2018 05:01 PM)</p> <p>Global Equities Roundup: Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 05:07 PM)</p> <p>Tesla Shorts Book Another Billion-Dollar Loss -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 05:07 PM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Tesla Shorts Book Another Billion-Dollar Loss -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 05:07 PM)</p> <p>Elon Musk says going private is 'best path forward' for Tesla (CNN Wire - Factiva, 08/07/2018 05:17 PM)</p> <p>Investors Should Be Wary of Proposed Tesla Deal -- Barron's Blog (Dow Jones Institutional News - Factiva, 08/07/2018 05:18 PM)</p> <p>Venezuelan Drone Incident Revs up US Security Concerns -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 05:23 PM)</p> <p>Business Highlights (Associated Press Newswires - Factiva, 08/07/2018 05:24 PM)</p> <p>Business Highlights (The Canadian Press - Factiva, 08/07/2018 05:24 PM)</p> <p>Tesla's Go-Private Dream Doesn't Add Up -- Heard on the Street (Dow Jones Institutional News - Factiva, 08/07/2018 05:28 PM)</p> <p>TransMountain Will Cost More, Take Longer than Expected -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 05:28 PM)</p> <p>Elon Musk says if Tesla goes private it will not merge with SpaceX (TSLA) (Business Insider - Factiva, 08/07/2018 05:29 PM)</p> <p>ANALYSIS-Tesla buyout would add to year of pain for short-sellers (Reuters News - Factiva, 08/07/2018 05:31 PM)</p> <p>Tesla's Go-Private Dream Doesn't Add Up; Tesla's wildest day yet leaves far more questions than answers (The Wall Street Journal Online - Factiva, 08/07/2018 05:31 PM)</p> <p>UPDATE 3-Tesla call options soar on Musk tweet, short-sellers hit (Reuters News - Factiva, 08/07/2018 05:32 PM)</p> <p>Elon Musk Says in Tweet He Is Considering Taking Tesla Private -- 3rd Update (Dow Jones Newswires Chinese (English) - Factiva, 08/07/2018 05:35 PM)</p> <p>5TH LEAD Elon Musk pushes to take Tesla private, shocking markets By Shabtai Gold, dpa (dpa International Service in English - Factiva, 08/07/2018 05:35 PM)</p> <p>Tesla shares soars after Elon Musk's buyout plan (Xinhua News Agency - Factiva, 08/07/2018 05:38 PM)</p> <p>Did Elon Musk break any laws with his going-private tweet today? (MarketWatch - Factiva, 08/07/2018 05:40 PM)</p> <p>Tesla Bonds Steady Amid Go-Private Speculation -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 05:46 PM)</p> <p>Tesla Bonds Steady Amid Go-Private Speculation -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 05:46 PM)</p> <p>Tesla buyout would add to year of pain for short-sellers (Reuters News - Factiva, 08/07/2018 05:53 PM)</p> <p>Alex Jones, Tesla, Primaries: Your Tuesday Evening Briefing (NYTimes.com Feed - Factiva, 08/07/2018 06:01 PM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Tesla CEO drops latest bombshell with \$72B buyout proposal (Associated Press Newswires - Factiva, 08/07/2018 06:02 PM)</p> <p>Tesla CEO drops latest bombshell with \$72B buyout proposal (The Canadian Press - Factiva, 08/07/2018 06:03 PM)</p> <p>Elon Musk tweets a lot. This time was different (CNN Wire - Factiva, 08/07/2018 06:09 PM)</p> <p>Apple Presses Its Privacy Commitment in Letter to Lawmakers -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 06:13 PM)</p> <p>Experts Cast Doubt on Musk's Envisioned Buyout of Tesla (Dow Jones Institutional News - Factiva, 08/07/2018 06:13 PM)</p> <p>Experts Cast Doubt on Musk's Envisioned Buyout of Tesla; A special-purpose vehicle open to all shareholders would be unprecedented, lawyers say (The Wall Street Journal Online - Factiva, 08/07/2018 06:13 PM)</p> <p>Tesla stock leaps after Elon Musk tweets about taking electric car company private (Independent Online - Factiva, 08/07/2018 06:13 PM)</p> <p>After the Bell: Dow Climbs 127 Points, but Did You See Tesla? -- Barron's Blog (Dow Jones Institutional News - Factiva, 08/07/2018 06:15 PM)</p> <p>Tesla call options soar on Musk tweet, short-sellers hit (Reuters News - Factiva, 08/07/2018 06:18 PM)</p> <p>BREAKINGVIEWS-Tesla buyout would need to go short on leverage (Reuters News - Factiva, 08/07/2018 06:32 PM)</p> <p>Is Tesla going private? Elon Musk claims investor support is confirmed after tweeting plans to privatize at \$420 per share, in shock announcement that HALTED the stock for almost two hours (Mail Online - Factiva, 08/07/2018 06:41 PM)</p> <p>Tesla boss Musk weighs go-private deal for electric carmaker (Agence France Presse - Factiva, 08/07/2018 06:42 PM)</p> <p>Elon Musk's Tesla Claim Could Land Him in Regulatory Trouble (Dow Jones Institutional News - Factiva, 08/07/2018 06:43 PM)</p> <p>News Highlights: Top Company News of the Day (Dow Jones Institutional News - Factiva, 08/07/2018 07:00 PM)</p> <p>Tesla shares are frozen as Elon Musk announces a plot to buy the electric car maker back in Twitter outburst (Mail Online - Factiva, 08/07/2018 07:05 PM)</p> <p>Tesla's Private Test Drive; Would you lend \$70 billion to buy a cash-needy car company? (The Wall Street Journal Online - Factiva, 08/07/2018 07:08 PM)</p> <p>Musk plan to privatize Tesla pushes \$2.3 bln of debt above conversion price (Reuters News - Factiva, 08/07/2018 07:30 PM)</p> <p>Elon Musk Says in Tweet He Is Considering Taking Tesla Private -- 4th Update (Dow Jones Institutional News - Factiva, 08/07/2018 07:34 PM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Musk plan to privatize Tesla pushes \$2.3 billion of debt above conversion price (Reuters News - Factiva, 08/07/2018 07:36 PM)</p> <p>ESPN Streaming Service Tops Modest Expectations -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 07:39 PM)</p> <p>Tesla CEO confirms intention to privatize U.S. top electric car maker (Xinhua News Agency - Factiva, 08/07/2018 07:44 PM)</p> <p>Elon Musk's Tesla Claim Could Land Him in Regulatory Trouble; Regulators may view the CEO's funding claim as an attempt to manipulate Tesla's stock price if he doesn't follow through (The Wall Street Journal Online - Factiva, 08/07/2018 07:46 PM)</p> <p>Elon Musk tweets plan to take Tesla private (thetimes.co.uk - Factiva, 08/07/2018 08:01 PM)</p> <p>Xinhua world news summary at 0030 GMT, Aug. 8 (Xinhua News Agency - Factiva, 08/07/2018 08:27 PM)</p> <p>UPDATE 9-Elon Musk says taking Tesla private is 'best path,' shares jump (Reuters News - Factiva, 08/07/2018 08:33 PM)</p> <p>Elon Musk says taking Tesla private is 'best path,' shares jump (Reuters News - Factiva, 08/07/2018 08:35 PM)</p> <p>Elon Musk Says in Tweet He Is Considering Taking Tesla Private -- 3rd Update (Dow Jones Newswires Chinese (English) - Factiva, 08/07/2018 09:10 PM)</p> <p>Elon Musk's Tesla Claim Could Land Him in Regulatory Trouble (Dow Jones Newswires Chinese (English) - Factiva, 08/07/2018 09:29 PM)</p> <p>Salesforce Gives Block Another Title -- Market Talk (Dow Jones Institutional News - Factiva, 08/07/2018 09:46 PM)</p> <p>UPDATE 1-Albemarle triples quarterly profit on rising lithium sales (Reuters News - Factiva, 08/07/2018 10:26 PM)</p> <p>Experts Cast Doubt on Musk's Envisioned Buyout of Tesla (Dow Jones Newswires Chinese (English) - Factiva, 08/07/2018 10:56 PM)</p> <p>TESLA 'TO GO SOLO' Tesla boss Elon Musk considers de-listing the firm from the stock exchange (thescottishsun.co.uk - Factiva, 08/07/2018 11:14 PM)</p> <p>TESLA 'TO GO SOLO' Tesla boss Elon Musk considers de-listing the firm from the stock exchange (thesun.co.uk - Factiva, 08/07/2018 11:14 PM)</p>
8/8/2018 Wed	24,571,163	\$370.34	-2.43%	0.06%	-0.23%	-0.07%	-2.36%	-0.92	35.71%	-\$8.97	<p>Elon Musk considers taking Tesla private (AAP Bulletins - Factiva, 08/08/2018)</p> <p>Elon Musk mulls taking Tesla private (Mubasher - Factiva, 08/08/2018)</p> <p>Elon Musk mulls taking Tesla private. (Just-Auto - Factiva, 08/08/2018)</p> <p>Elon Musk says he wants to take Tesla private at \$US420 a share (Australian Broadcasting Corporation News - Factiva, 08/08/2018)</p> <p>Elon Musk says he's considering taking Tesla private (U-Wire - Factiva, 08/08/2018)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											Elon Musk wants to make Tesla a private company, here's why (Asian News International - Factiva, 08/08/2018)
											Elon Musk Wants To Take Tesla Private (NPR: Morning Edition - Factiva, 08/08/2018)
											Elon Musk's Bombshell Tweets About Taking Tesla Private Said To Trigger SEC Review (Forbes.com - Factiva, 08/08/2018)
											Elon Musk's Bombshell Tweets About Taking Tesla Private Trigger SEC Review (Forbes.com - Factiva, 08/08/2018)
											Elon Musk's Bombshell Tweets About Taking Tesla Private Triggers SEC Review (Forbes.com - Factiva, 08/08/2018)
											Elon Musk's Twitter musings on Tesla drag Fidelity into the picture, sowing confusion (Boston Business Journal - Factiva, 08/08/2018)
											T. Rowe Price among Tesla shareholders trying to sort out Elon Musk's tweets (Baltimore Business Journal - Factiva, 08/08/2018)
											Tesla, Inc. (NASDAQ:TSLA) (U-Wire - Factiva, 08/08/2018)
											06:48 EDT Tesla shares worth no more than \$195 based on fundamentals, says... (Theflyonthewall.com - Factiva, 08/08/2018)
											07:48 EDT Musk could land in hot water with regulators over go-private tweets,... (Theflyonthewall.com - Factiva, 08/08/2018)
											07:50 EDT Tesla privatization talk a way to change conversation, says UBSUBS... (Theflyonthewall.com - Factiva, 08/08/2018)
											07:59 EDT Tesla going private 'feels like the right thing to do,' says... (Theflyonthewall.com - Factiva, 08/08/2018)
											08:01 EDT Musk may want to take Tesla private, but Morgan Stanley questions... (Theflyonthewall.com - Factiva, 08/08/2018)
											09:05 EDT Tesla \$420 buyout price mentioned by Musk too low, says BairdBaird... (Theflyonthewall.com - Factiva, 08/08/2018)
											09:09 EDT Tesla board says Musk opened discussion with board last week (Theflyonthewall.com - Factiva, 08/08/2018)
											09:10 EDT Tesla board says Musk opened going private discussion with board last... (Theflyonthewall.com - Factiva, 08/08/2018)
											09:13 EDT Tesla board says taking 'appropriate next steps' to evaluate going... (Theflyonthewall.com - Factiva, 08/08/2018)
											09:26 EDT Tesla's New York factory has assembly line, aesthetic problems,... (Theflyonthewall.com - Factiva, 08/08/2018)
											11:13 EDT RBC Capital revisits idea of Celgene going private after Tesla... (Theflyonthewall.com - Factiva, 08/08/2018)
											11:46 EDT Fly Intel: Today's top analyst calls on Wall StreetCheck out today's... (Theflyonthewall.com - Factiva, 08/08/2018)

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>13:46 EDT Tesla under pressure as analysts debate if Musk should take carmaker... (Theflyonthewall.com - Factiva, 08/08/2018)</p> <p>14:07 EDT Tesla's Musk talked with SoftBank about investment, Bloomberg... (Theflyonthewall.com - Factiva, 08/08/2018)</p> <p>14:13 EDT Icahn says he has 'zero thoughts' on Tesla Carl Icahn is speaking on... (Theflyonthewall.com - Factiva, 08/08/2018)</p> <p>14:28 EDT Tesla held investment talks with Softbank last year, Bloomberg... (Theflyonthewall.com - Factiva, 08/08/2018)</p> <p>15:46 EDT SEC examining whether Musk's statements in tweet were truthful, WSJ... (Theflyonthewall.com - Factiva, 08/08/2018)</p> <p>15:52 EDT Tesla down 3% after report SEC looking into Musk 'take private' tweet (Theflyonthewall.com - Factiva, 08/08/2018)</p> <p>16:01 EDT SEC examining if Musk 'taking Tesla private' tweet was truthful, WSJ... (Theflyonthewall.com - Factiva, 08/08/2018)</p> <p>5 things you need to know to start the day (CE NoticiasFinancieras - Factiva, 08/08/2018)</p> <p>A corner of the bond market shows how Tesla could win even if Musk's new plan flops (latimes.com - Factiva, 08/08/2018)</p> <p>A Promise Elon Musk And Tesla Can't Break (Forbes.com - Factiva, 08/08/2018)</p> <p>Agentur fÃ¼r Unternehmensnachrichten GmbH, mutual fund holdings - Tesla Motors Inc. (AfU Company Information: Mutual Fund Holdings Ã©ââ International Blue Chips - Factiva, 08/08/2018)</p> <p>Baillie Gifford set to be among big winners if Musk takes Tesla private (London Evening Standard - Factiva, 08/08/2018)</p> <p>Banks, tech lead stocks higher (The Courier - Factiva, 08/08/2018)</p> <p>Berenberg Research Report (Eikon - Manual Entry, 08/08/2018)</p> <p>BIG MOVERS (The Quad-City Times - Factiva, 08/08/2018)</p> <p>Business >> Elon Musk says he's considering taking Tesla private. PAGE A11 (Press-Telegram - Factiva, 08/08/2018)</p> <p>Business briefs: Musk says he's buying back Tesla (The Journal Gazette - Factiva, 08/08/2018)</p> <p>Buyout: At first, investors didn't take tweet seriously (Daily Herald - Factiva, 08/08/2018)</p> <p>Can Elon Musk "tweet" like this? (CE NoticiasFinancieras - Factiva, 08/08/2018)</p> <p>CFRA Equity Research Research Report (Eikon - Manual Entry, 08/08/2018)</p> <p>CN Banks Reportedly In Talks for Financing Tesla's Shanghai Plant (AASStocks Financial News - Factiva, 08/08/2018)</p>

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											<p>Could Biotech Giant Celgene Join Tesla In The Private Markets? (Investor's Business Daily - Factiva, 08/08/2018)</p> <p>Dow Futures: Roku Soars Near Buy Point; This Breakout Stands Out Vs. Apple, Alphabet, Tesla, Paycom (Investor's Business Daily - Factiva, 08/08/2018)</p> <p>Dow Jones Futures: Tesla Falls Below Buy Point As These Top Stocks Move (Investor's Business Daily - Factiva, 08/08/2018)</p> <p>Dow Jones Futures: Tesla Leads These 5 Notable Movers; U.S. Sets New China Duties (Investor's Business Daily - Factiva, 08/08/2018)</p> <p>Elon Musk did not quarrel with questioning Tesla's withdrawal from the stock exchange - the board evaluated the proposal*** TRANSLATED *** (STT - Factiva, 08/08/2018)</p> <p>Elon Musk hinted at the Tesla's historic stock market - criticizes the short-sighted decision-making of the listed company*** TRANSLATED *** (STT - Factiva, 08/08/2018)</p> <p>Elon Musk says 'considering' taking Tesla private (EJ Insight - Factiva, 08/08/2018)</p> <p>Elon Musk's Tesla buyout would reengineer take-private deals (Business Daily - Factiva, 08/08/2018)</p> <p>Equidate's new CEO buzzing over Tesla CEO Elon Musk's tweet (San Francisco Business Times - Factiva, 08/08/2018)</p> <p>Ernesto Sánchez Proal / Tesla vs. Wall Street (CE NoticiasFinancieras - Factiva, 08/08/2018)</p> <p>Evening Update: Trudeau not backing down in escalating dispute with Saudi Arabia; China to hit U.S. with \$16-billion in additional tariffs; Also: Tesla board evaluating CEO Elon Musk's idea to take company private (The Globe and Mail (Breaking News) - Factiva, 08/08/2018)</p> <p>Evercore ISI Research Report (Capital IQ - Manual Entry, 08/08/2018)</p> <p>Evercore ISI Research Report (Eikon - Manual Entry, 08/08/2018)</p> <p>Forget Tesla, this Indian battery can change the fate of e-cars (The Economic Times - Factiva, 08/08/2018)</p> <p>Going private is the best path forward, says Elon Musk (Indo-Asian News Service - Factiva, 08/08/2018)</p> <p>Henrico Tesla store marks 1 year in business with Model 3 delivery jump; Tesla store in Henrico marks one year in business with jump in Model 3 deliveries; legal dispute remains (The Richmond Times-Dispatch - Factiva, 08/08/2018)</p> <p>How can Musk finance the "most expensive ever" out of the bag? (CE NoticiasFinancieras - Factiva, 08/08/2018)</p> <p>If you think Trump is the only one critical of electric cars, think again (The Sacramento Bee - Factiva, 08/08/2018)</p>

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											<p>Jefferies LLC Research Report (Capital IQ - Manual Entry, 08/08/2018)</p> <p>Jefferies LLC Research Report (Eikon - Manual Entry, 08/08/2018)</p> <p>JP Morgan Research Report (Capital IQ - Manual Entry, 08/08/2018)</p> <p>JP Morgan Research Report (Eikon - Manual Entry, 08/08/2018)</p> <p>KB Securities Research Report (Eikon - Manual Entry, 08/08/2018)</p> <p>M&A wrap: Quantum Energy, Elon Musk, Tesla, Boston Scientific, Golden Gate (Mergers & Acquisitions Online - Factiva, 08/08/2018)</p> <p>MARKET MOVERS (The Patriot Ledger - Factiva, 08/08/2018)</p> <p>MARKET ROUNDUP; Stocks rise again, led by industrials (Los Angeles Times - Factiva, 08/08/2018)</p> <p>Millennium BCP Research Report (Capital IQ - Manual Entry, 08/08/2018)</p> <p>More questions about Tesla's Buffalo plant, report says (Buffalo Business First Online - Factiva, 08/08/2018)</p> <p>Morgan Stanley Research Report (Capital IQ - Manual Entry, 08/08/2018)</p> <p>Morgan Stanley Research Report (Eikon - Manual Entry, 08/08/2018)</p> <p>Morgan Stanley Research Report (Eikon - Manual Entry, 08/08/2018)</p> <p>Morning Update: U.S. refuses to back Canada in Saudi dispute, teaching schools facing withdrawal as Saudi students withdrawn; Also: Elon Musk tweets that he may take Tesla private, shares jump 11 per cent (The Globe and Mail (Breaking News) - Factiva, 08/08/2018)</p> <p>Musk aims to free Tesla from investors' "short-term thinking" (Buffalo News - Factiva, 08/08/2018)</p> <p>Musk considering taking Tesla private (Augusta Chronicle - Factiva, 08/08/2018)</p> <p>Musk 'considering' taking Tesla private in \$80bn deal; Unusual move (Investment Week - Factiva, 08/08/2018)</p> <p>Musk 'considering' taking Tesla private in \$80bn deal; Unusual move (Investment Week - Factiva, 08/08/2018)</p> <p>Musk drives Tesla shares higher with tweet that he may take auto maker private (The Globe and Mail - Factiva, 08/08/2018)</p> <p>Musk drops bombshell with \$72B buyout proposal (Daily Herald - Factiva, 08/08/2018)</p> <p>Musk Has a Bizarre Plan For Tesla (The Wall Street Journal - Factiva, 08/08/2018)</p> <p>Musk has bold plan: Take Tesla private (The San Francisco Chronicle - Factiva, 08/08/2018)</p> <p>Musk looking to take Tesla private, proposing buyout (Review Times - Factiva, 08/08/2018)</p> <p>Musk looking to take Tesla private, proposing buyout (The Courier - Factiva, 08/08/2018)</p>

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											<p>Musk Looks to Take Tesla Private --- Tweet on what would be a mammoth buyout surprises investors, drives stock up 11% (The Wall Street Journal - Factiva, 08/08/2018)</p> <p>Musk may take Tesla private (Electronics Weekly Online - Factiva, 08/08/2018)</p> <p>MUSK MAY TAKE TESLA PRIVATE; CEO DECLARES HE HAS FUNDING FOR PROPOSAL; COMPANY'S SHARE PRICE SPIKES MORE THAN 10 PERCENT (San Jose Mercury News - Factiva, 08/08/2018)</p> <p>Musk mulls taking Tesla private in shareholder deal CEO calls the move best way forward (Buffalo News - Factiva, 08/08/2018)</p> <p>Musk musing about private Tesla halts shares (Daily Press - Factiva, 08/08/2018)</p> <p>Musk musing about private Tesla halts shares (Orlando Sentinel - Factiva, 08/08/2018)</p> <p>Musk musing about private Tesla halts shares (The Capital (Annapolis) - Factiva, 08/08/2018)</p> <p>Musk plans \$72 billion Tesla buyout; Firm's stock climbs after announcement (Daily Post - Factiva, 08/08/2018)</p> <p>Musk Proposes Buyout; CEO Tweets He's Considering Buying Back All Tesla Stock For \$72B; Electric Carmaker (The Hartford Courant - Factiva, 08/08/2018)</p> <p>Musk reveals plans to take Tesla private (The Daily Telegraph - Factiva, 08/08/2018)</p> <p>Musk says he could take Tesla private (Calgary Herald - Factiva, 08/08/2018)</p> <p>Musk says he could take Tesla private (Montreal Gazette - Factiva, 08/08/2018)</p> <p>Musk says he could take Tesla private (Regina Leader Post - Factiva, 08/08/2018)</p> <p>Musk says he could take Tesla private (Saskatoon Star Phoenix - Factiva, 08/08/2018)</p> <p>Musk says he could take Tesla private (The London Free Press - Factiva, 08/08/2018)</p> <p>Musk says he could take Tesla private (Windsor Star - Factiva, 08/08/2018)</p> <p>Musk says he could take Tesla private, stunning investors (Vancouver Sun - Factiva, 08/08/2018)</p> <p>Musk says he could take Tesla private, stuns investors (Edmonton Journal - Factiva, 08/08/2018)</p> <p>Musk says he could take Tesla private; Saudis Take Stake (National Post - Factiva, 08/08/2018)</p> <p>Musk Says He May Take Tesla Private, Shares Roar (U-Wire - Factiva, 08/08/2018)</p> <p>Musk shocks Wall Street before possible exit of Tesla (CE NoticiasFinancieras - Factiva, 08/08/2018)</p> <p>Musk stirs up Wall St. (USA Today - Factiva, 08/08/2018)</p> <p>Musk stirs up Wall St. Tesla CEO tweets that he may take company private (Asheville Citizen-Times - Factiva, 08/08/2018)</p>

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											Musk stirs up Wall St. Tesla CEO tweets that he may take company private (Clarion-Ledger - Factiva, 08/08/2018)
											Musk stirs up Wall St. Tesla CEO tweets that he may take company private (Journal & Courier - Factiva, 08/08/2018)
											Musk stirs up Wall St. Tesla CEO tweets that he may take company private (Reno Gazette-Journal - Factiva, 08/08/2018)
											Musk stirs up Wall St. Tesla CEO tweets that he may take company private (Statesman Journal - Factiva, 08/08/2018)
											Musk stirs up Wall St. Tesla CEO tweets that he may take company private (The Tallahassee Democrat - Factiva, 08/08/2018)
											Musk stuns Tesla investors, says company may go private (San Francisco Chronicle: Web Edition - Factiva, 08/08/2018)
											Musk tells Twitter followers of plan to take Tesla carmaker private (The Daily Telegraph - Factiva, 08/08/2018)
											Musk tweet on taking Tesla private roils market (The Washington Post - Factiva, 08/08/2018)
											Musk tweets about taking Tesla private as Saudis invest \$2bn (The Irish Times - Factiva, 08/08/2018)
											Musk tweets plan to take Tesla private (The Times - Factiva, 08/08/2018)
											Musk wants Tesla to go private at \$420 per share (Indo-Asian News Service - Factiva, 08/08/2018)
											Musk weighs taking Tesla private for; possibly; \$72 Billion; Electric car maker's CEO says funding secured; for one of richest buyouts (San Diego Union-Tribune - Factiva, 08/08/2018)
											Musk weighs taking Tesla private, and shares surge (The Detroit News - Factiva, 08/08/2018)
											MUSK'S PRIVATE MOVE IS VERY PUBLIC; Tweet from Tesla CEO suggesting a buyout baffles Wall Street analysts. (Los Angeles Times - Factiva, 08/08/2018)
											Musk's Tesla tweets halt shares CEO's musings on taking the company private send stock soaring, may cross legal line (Chicago Tribune - Factiva, 08/08/2018)
											Musk's tweet on Tesla creates Wall Street stir; Post said company could go private, but was it real? (Florida Today - Factiva, 08/08/2018)
											NATION (The Albany Herald - Factiva, 08/08/2018)
											Nation Briefs: Tesla CEO drops latest bombshell with \$72B buyout proposal (St. Louis Post-Dispatch - Factiva, 08/08/2018)
											Nation/world business briefs (Richmond Times-Dispatch: Web Edition - Factiva, 08/08/2018)
											New Tesla bombshell: \$72B buyout proposal (Record-Journal - Factiva, 08/08/2018)

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Note to Elon: Tesla isn't the only company targeted by short sellers. Here's who tops the list. (Chicago Business Journal Online - Factiva, 08/08/2018)</p> <p>Note to Elon: Tesla isn't the only company targeted by short sellers. Here's who tops the list. (L.A. Biz - Factiva, 08/08/2018)</p> <p>Note to Elon: Tesla isn't the only company targeted by short sellers. Here's who tops the list. (New York Business Journal Online - Factiva, 08/08/2018)</p> <p>Now hiring: Tesla begins staffing effort for new Gigafactory in China (Pacific Business News Online - Factiva, 08/08/2018)</p> <p>P.T. Barnum or Albert Einstein? Two views on Musk's plan to take Tesla private (latimes.com - Factiva, 08/08/2018)</p> <p>Piper Sandler Companies Research Report (Capital IQ - Manual Entry, 08/08/2018)</p> <p>Piper Sandler Companies Research Report (Eikon - Manual Entry, 08/08/2018)</p> <p>Report: CEO Elon Musk has bizarre plan for Tesla (EFE News Service - Factiva, 08/08/2018)</p> <p>SAFETY GROUP GIVES TESLA MIXED RESULTS IN DRIVER-ASSIST TESTING; MODEL 3 AND MODEL S SCORED HIGH FOR STAYING IN LANES, BUT NEED SOME WORK ON BRAKING (San Jose Mercury News - Factiva, 08/08/2018)</p> <p>SAUDI BET ON TESLA (The Sun - Factiva, 08/08/2018)</p> <p>SAUDI BET ON TESLA (The Sun - Factiva, 08/08/2018)</p> <p>Saudi invests \$2bn in Tesla as founder Elon Musk mulls taking it private (ArabianBusiness.com - Factiva, 08/08/2018)</p> <p>Saudi sovereign wealth fund acquires significant stake in Tesla shares (Al Arabiya - Factiva, 08/08/2018)</p> <p>Scottish Mortgage boosts FTSE as Tesla surges (Citywire - Factiva, 08/08/2018)</p> <p>SEC Inquires About Elon Musk's Tweet On Taking Tesla Private: Reports (CE NoticiasFinancieras - Factiva, 08/08/2018)</p> <p>SEC Inquires About Elon Musk's Tweet On Taking Tesla Private: Reports (RTT News - Factiva, 08/08/2018)</p> <p>SEC looking into Tesla after Elon Musk's tweets, reports say (CNET News.com - Factiva, 08/08/2018)</p> <p>Shares in the American electric car-making company Tesla have closed almost... (Radio New Zealand News - Factiva, 08/08/2018)</p> <p>Short sellers burn, financial pundits fulminate as Elon Musk announces plan to take Tesla private (CHARGED Electric Vehicles Magazine - Factiva, 08/08/2018)</p> <p>Shorts sellers burn, financial pundits fulminate as Elon Musk announces plan to take Tesla private (CHARGED Electric Vehicles Magazine - Factiva, 08/08/2018)</p> <p>SSIF Tradeville SA Research Report (Capital IQ - Manual Entry, 08/08/2018)</p>

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											<p>Statement from the following members of Tesla's Board of Directors: Brad Buss, Robyn Denholm, Ira Ehrenpreis, Antonio Gracias, Linda Johnson Rice, and James Murdoch (Contify Automotive News - Factiva, 08/08/2018)</p> <p>Stock in Tesla Surges as Musk Floats Taking Carmaker Private (The New York Times - Factiva, 08/08/2018)</p> <p>Stocks - Disney, Snap, Tesla Slide Pre-market; Papa John's Tumbles; CVS Jumps (Investing.com - Factiva, 08/08/2018)</p> <p>Tasteless Tesla (The Times - Factiva, 08/08/2018)</p> <p>Tasteless Tesla (The Times - Factiva, 08/08/2018)</p> <p>Tasteless Tesla (The Times - Factiva, 08/08/2018)</p> <p>Tasteless Tesla [...] (The Times - Factiva, 08/08/2018)</p> <p>Tencent-backed electric car start-up NIO to file prospectus in September for planned US listing (scmp.com - Factiva, 08/08/2018)</p> <p>Tesla (TSLA) Stock Quotes, Company News And Chart Analysis (Investor's Business Daily - Factiva, 08/08/2018)</p> <p>Tesla board endorses CEO Elon Musk's stunning plan to consider going private (USA Today Online - Factiva, 08/08/2018)</p> <p>Tesla board evaluating CEO's bid to take company private (Postmedia Breaking News - Factiva, 08/08/2018)</p> <p>Tesla board is evaluating Elon Musk's plan to take the company private (latimes.com - Factiva, 08/08/2018)</p> <p>Tesla board says Musk started going-private talks last week (CNET News.com - Factiva, 08/08/2018)</p> <p>Tesla Board To Evaluate Elon's Offer For Taking Company Private - Quick Facts (CE NoticiasFinancieras - Factiva, 08/08/2018)</p> <p>Tesla Board To Evaluate Elon's Offer For Taking Company Private - Quick Facts (RTT News - Factiva, 08/08/2018)</p> <p>Tesla boss Musk weighs go-private deal for electric carmaker (Macau Business Daily - Factiva, 08/08/2018)</p> <p>Tesla CEO drops bombshell with buyout proposal; Tesla CEO Elon Musk mulling potential \$72B buyout of electric car maker (Rocky Mount Telegram - Factiva, 08/08/2018)</p> <p>Tesla CEO Elon Musk startled Wall Street by saying he may be preparing to take his struggling electric car maker private. (CBS News: CBS This Morning - Factiva, 08/08/2018)</p> <p>Tesla CEO makes \$72-billion pitch to take electric-car maker private (Victoria Times Colonist - Factiva, 08/08/2018)</p> <p>Tesla CEO suggests buyouts (The Florida Times-Union - Factiva, 08/08/2018)</p>

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											<p>Tesla CEO weigh taking his company private (Omaha World-Herald: Web Edition Articles - Factiva, 08/08/2018)</p> <p>Tesla chief, Musk, suggests company could go private (The Daily Gazette - Factiva, 08/08/2018)</p> <p>Tesla considers Elon Musk's proposal to make the car company private (New Electronics - Factiva, 08/08/2018)</p> <p>Tesla could stop trading on the stock market (CE NoticiasFinancieras - Factiva, 08/08/2018)</p> <p>Tesla drops \$72B buyout bombshell (Charleston Gazette - Factiva, 08/08/2018)</p> <p>Tesla looks to take the company private, leading stocks to surge (Business Review USA - Factiva, 08/08/2018)</p> <p>Tesla management already knew about Musk's plans (CE NoticiasFinancieras - Factiva, 08/08/2018)</p> <p>Tesla Once Jumps Over 13% on CE's Proposed Privatization at Premium (AAStocks Financial News - Factiva, 08/08/2018)</p> <p>Tesla public or Tesla private. Which way forward? (Daily News Egypt - Factiva, 08/08/2018)</p> <p>TESLA SHARES FROZEN AS MUSK PLOTS TO BUY IT BACK (Daily Mail - Factiva, 08/08/2018)</p> <p>Tesla shares frozen as Musk plots to buy it back (Scottish Daily Mail - Factiva, 08/08/2018)</p> <p>Tesla shares halted after Musk tweet (South Florida Sun-Sentinel - Factiva, 08/08/2018)</p> <p>Tesla shares on the rise as Musk tweets a plan (The Toronto Star - Factiva, 08/08/2018)</p> <p>Tesla shares soar after Musk says he's considering taking it private (St. Louis Business Journal Online - Factiva, 08/08/2018)</p> <p>Tesla shares soar after Musk says he's considering taking it private (Triangle Business Journal Online - Factiva, 08/08/2018)</p> <p>Tesla shares soar following Musk's tweet on plans to take company private - media (Unian - Factiva, 08/08/2018)</p> <p>TESLA SHARES TAKE OFF AS MUSK MULLS BUYOUT (City AM - Factiva, 08/08/2018)</p> <p>Tesla shocker Musk stuns Street, wants to take co. private (New York Post - Factiva, 08/08/2018)</p> <p>Tesla shorts take another hit from Musk tweet (Global Investor (incorporating International Securities Finance) - Factiva, 08/08/2018)</p>

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											Tesla soars after Musk tweets about taking carmaker private (St. Paul Pioneer Press - Factiva, 08/08/2018)
											Tesla Solar Roof tiles aren't coming out beautiful enough for Elon Musk, report claims (Mashable.com - Factiva, 08/08/2018)
											Tesla starts hiring for Shanghai factory (German Collection - Factiva, 08/08/2018)
											Tesla stock surges after Musk tweet (Boston Herald - Factiva, 08/08/2018)
											Tesla suspends shares after Elon Musk tweets he wants to take the carmaker private (Daily Herald - Factiva, 08/08/2018)
											Tesla suspends share-trading after Elon Musk tweets he wants to take the carmaker private (Washington Post.com - Factiva, 08/08/2018)
											Tesla 'to go solo' (The Sun - Factiva, 08/08/2018)
											Tesla tweet by Musk is raising legal issues; CEO hints at company going private; stock soars 11% (Detroit Free Press - Factiva, 08/08/2018)
											Tesla up as Musk weighs taking it private (Irish Independent - Factiva, 08/08/2018)
											Tesla wins for looks (Autocar - Factiva, 08/08/2018)
											Tesla's board of directors analyzes its withdrawal from the stock market (CE NoticiasFinancieras - Factiva, 08/08/2018)
											Tesla's board of directors analyzes its withdrawal from the stock market (CE NoticiasFinancieras - Factiva, 08/08/2018)
											Tesla's Board Responds To Musk's Tweet Thunderstorm On Going Private (Investor's Business Daily - Factiva, 08/08/2018)
											Tesla's Board Responds To Musk's Tweet Thunderstorm On Going Private (Investor's Business Daily - Factiva, 08/08/2018)
											Tesla's board says Musk started go-private talks last week; Tesla's board says Musk started go-private talks last week (The Daily Star - Factiva, 08/08/2018)
											Tesla's Elon Musk hints at giving Wall Street the slip (Los Angeles Times - Factiva, 08/08/2018)
											Tesla's Executive Board evaluated Muski's proposal to withdraw from the stock exchange*** TRANSLATED *** (STT - Factiva, 08/08/2018)
											Tesla's Executive Board evaluated Muski's proposal to withdraw from the stock exchange*** TRANSLATED *** (STT - Factiva, 08/08/2018)
											Tesla's Private Test Drive (The Wall Street Journal - Factiva, 08/08/2018)
											Tesla's Unconventional Road to the Private Market (The Deal - Factiva, 08/08/2018)
											Tests uncover flaws in electric car safety (Shanghai Daily - Factiva, 08/08/2018)
											The Daily Deal: Musk's New Nemeses; Tariffs vs. Capex (The Deal - Factiva, 08/08/2018)

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											<p>The Tesla Board of Directors analyzes its exit from Wall Street (CE NoticiasFinancieras - Factiva, 08/08/2018)</p> <p>The United States Penalizes Moscow For Chemical Weapons Act On British Soil;... (CNN International: Quest Means Business - Factiva, 08/08/2018)</p> <p>Tuesday's Energy Stocks: SCANA down 5.12% on downgrade, Tesla up 10.99% (SNL Energy Finance Daily - Factiva, 08/08/2018)</p> <p>UPDATE: Tesla shares jump 11% after CEO Musk confirms privatization interest (SNL Energy Finance Daily - Factiva, 08/08/2018)</p> <p>UPDATE: Tesla shares jump 11% after CEO Musk confirms privatization interest (SNL Financial Services Daily - Factiva, 08/08/2018)</p> <p>UPDATE: Tesla shares jump 11% after CEO Musk confirms privatization interest (SNL Power Daily with Market Report - Factiva, 08/08/2018)</p> <p>US: Elon Musk considers taking Tesla private (Australian Associated Press - Financial News - Factiva, 08/08/2018)</p> <p>Wednesday Papers: Elon Musk declares plan to take Tesla private (Citywire - Factiva, 08/08/2018)</p> <p>What you need to know about Elon Musk's \$1.4-billion Tesla tweet (Postmedia Breaking News - Factiva, 08/08/2018)</p> <p>Why Elon Musk can get away with tweeting about Tesla's business plans (Mashable.com - Factiva, 08/08/2018)</p> <p>With "tuitazo", Musk outlines the privatization of Tesla (CE NoticiasFinancieras - Factiva, 08/08/2018)</p> <p>Germany, California, Tesla: Your Wednesday Briefing (NYTimes.com Feed - Factiva, 08/08/2018 12:18 AM)</p> <p>Tesla shares climb after Elon Musk tweets he will take the company private (The Telegraph Online - Factiva, 08/08/2018 12:19 AM)</p> <p>Tesla Shorts Book Another Billion-Dollar Loss -- Market Talk (Dow Jones Newswires Chinese (English) - Factiva, 08/08/2018 12:21 AM)</p> <p>Mutual Funds and ETFs Own 31.8% of Tesla -- Market Talk (Dow Jones Newswires Chinese (English) - Factiva, 08/08/2018 12:38 AM)</p> <p>PRESS DIGEST- Wall Street Journal - Aug 8 (Reuters News - Factiva, 08/08/2018 12:56 AM)</p> <p>Elon Musk's Tesla buyout would reengineer take-private deals (Reuters News - Factiva, 08/08/2018 01:00 AM)</p> <p>INSIGHT-Inside Tesla's troubled New York solar factory (Reuters News - Factiva, 08/08/2018 01:00 AM)</p> <p>This ETF Has Almost 12% of its Assets in Tesla -- Market Talk > ARKQ TSLA (Dow Jones Newswires Chinese (English) - Factiva, 08/08/2018 01:02 AM)</p>

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											<p>Asian shares mixed after new US tariffs put on China exports (Associated Press Newswires - Factiva, 08/08/2018 01:10 AM)</p> <p>PRESS DIGEST-New York Times business news - Aug 8 (Reuters News - Factiva, 08/08/2018 01:18 AM)</p> <p>Heard on the Street: Musk Has a Bizarre Plan For Tesla -- WSJ (Dow Jones Institutional News - Factiva, 08/08/2018 02:32 AM)</p> <p>Musk Looks to Take Tesla Private -- WSJ (Dow Jones Institutional News - Factiva, 08/08/2018 02:32 AM)</p> <p>Two Little Words Raise Big Questions -- WSJ (Dow Jones Institutional News - Factiva, 08/08/2018 02:32 AM)</p> <p>Wednesday briefing: Elon Musk “I’ll take Tesla private (The Guardian - Factiva, 08/08/2018 02:39 AM)</p> <p>Experts doubt Elon Musk’s ability to pull off a buyout of Tesla; A special-purpose vehicle that is accessible to all shareholders would be unprecedented, lawyers said (MarketWatch - Factiva, 08/08/2018 03:21 AM)</p> <p>Elon Musk announces he is 'considering' taking Tesla private (London Evening Standard Online - Factiva, 08/08/2018 03:26 AM)</p> <p>Tesla boss Musk weighs go-private deal for electric carmaker (Agence France Presse - Factiva, 08/08/2018 03:47 AM)</p> <p>Elon Musk takes Tesla on a strange route to a potentially smart idea, yet again; Maybe Musk will be better off leading a private company, but this is not the way to get there (MarketWatch - Factiva, 08/08/2018 04:19 AM)</p> <p>A Tesla buyout would be the largest in history by a wide margin; If Elon Musk gets his way, Tesla could go private -- and a deal would dwarf previous take-private deals (MarketWatch - Factiva, 08/08/2018 04:19 AM)</p> <p>Tesla short sellers walloped after Musk talks going private; Tesla going to \$420 a share could send short sellers 'up in smoke,' firm says (MarketWatch - Factiva, 08/08/2018 04:19 AM)</p> <p>Elon Musk explained his going-private tweet to Tesla employees with this email; Musk says going private is all about creating the environment for Tesla to operate best (MarketWatch - Factiva, 08/08/2018 04:20 AM)</p> <p>Tesla’s Elon Musk tweets he is considering taking company private; Funding secured at \$420, CEO says on Twitter (MarketWatch - Factiva, 08/08/2018 04:20 AM)</p> <p>Newspaper headline roundup (24 Ore Radiocor-Newswire International Edition - Factiva, 08/08/2018 04:37 AM)</p> <p>These 5 tech stocks are in a dot-com-like bubble (and they aren’t all FAANGs); Beware of Amazon, Netflix, Salesforce, Tesla and Spotify (MarketWatch - Factiva, 08/08/2018 04:44 AM)</p>

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											Tesla bombshell; Tinder magic; Fox results (CNN Wire - Factiva, 08/08/2018 05:05 AM)
											Elon Musk Fast Facts (CNN Wire - Factiva, 08/08/2018 05:19 AM)
											Elon Musk net worth: The eye-watering amount the CEO of SpaceX and Tesla is actually worth (express.co.uk - Factiva, 08/08/2018 05:22 AM)
											Ohio Special Election, Tesla, Alex Jones: Your Wednesday Briefing (NYTimes.com Feed - Factiva, 08/08/2018 05:23 AM)
											Tesla Shares Surge as Elon Musk Mulls Making Firm Private (Sputnik News Service - Factiva, 08/08/2018 05:30 AM)
											Call of the day: Tesla shares are headed for \$420 regardless; Critical information for the U.S. trading day (MarketWatch - Factiva, 08/08/2018 05:45 AM)
											Elon Musk could face probe from regulators if plan to take company private does not go ahead (London Evening Standard Online - Factiva, 08/08/2018 05:50 AM)
											RPT-INSIGHT-Inside Tesla's troubled New York solar factory (Reuters News - Factiva, 08/08/2018 06:00 AM)
											Tesla's Share Rally May Ease Bond Repayment Pressure: AJ Bell -- Market Talk (Dow Jones Institutional News - Factiva, 08/08/2018 06:22 AM)
											Tesla's Share Rally May Ease Bond Repayment Pressure: AJ Bell -- Market Talk (Dow Jones Institutional News - Factiva, 08/08/2018 06:22 AM)
											Elon Musk Tweets And Blogs About Taking Tesla Private At \$420, Claims To Have Secured Funding (BW Businessworld - Factiva, 08/08/2018 06:24 AM)
											DealBook Briefing: How on Earth Will Tesla Go Private? (NYTimes.com Feed - Factiva, 08/08/2018 06:26 AM)
											National Audio 6:45 AM ET (The Canadian Press - Broadcast wire - Factiva, 08/08/2018 06:41 AM)
											Tesla board statement raises more questions about Elon Musk's go-private plan (MarketWatch - Factiva, 08/08/2018 06:56 AM)
											RPT-ANALYSIS-Tesla buyout would add to year of pain for short-sellers (Reuters News - Factiva, 08/08/2018 07:00 AM)
											RPT--Elon Musk's Tesla buyout would reengineer take-private deals (Reuters News - Factiva, 08/08/2018 07:00 AM)
											Tesla share trading HALTED after Elon Musk's Twitter announcement sends price SOARING (express.co.uk - Factiva, 08/08/2018 07:00 AM)
											U.S. Mortgage-Application Activity Hits Fresh Low -- Market Talk (Dow Jones Institutional News - Factiva, 08/08/2018 07:00 AM)
											The Morning Risk Report: Musk's Go-Private Tweets Could Bring Regulatory Scrutiny (Dow Jones Institutional News - Factiva, 08/08/2018 07:20 AM)

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											<p>Fears of No-Deal Brexit Sting Pound; EUR/GBP Above 0.90 -- Market Talk (Dow Jones Institutional News - Factiva, 08/08/2018 07:25 AM)</p> <p>Experts Cast Doubt on Musk's Envisioned Buyout of Tesla (Dow Jones Institutional News - Factiva, 08/08/2018 07:30 AM)</p> <p>Elon Musk mulls taking Tesla private (MarketLine News and Comment - Factiva, 08/08/2018 07:33 AM)</p> <p>10 things you need to know before the opening bell (Business Insider - Factiva, 08/08/2018 07:33 AM)</p> <p>10 things you need to know before the opening bell (SNAP, TSLA, DIS, CRM) (Business Insider - Factiva, 08/08/2018 07:33 AM)</p> <p>The 10-Point: The Wall Street Journal's Guide to the Day's Top News (Dow Jones Institutional News - Factiva, 08/08/2018 07:34 AM)</p> <p>Tesla spikes on Musk take-private tweet, report on Saudi investment (SeeNews Deals - Factiva, 08/08/2018 07:38 AM)</p> <p>Musk tweet could see fund manager battle over Tesla settled (Financial Adviser - Magazine and Web Content - Factiva, 08/08/2018 07:50 AM)</p> <p>BUZZ-U.S. STOCKS ON THE MOVE-Michael Kors, Papa John's, Tesla (Reuters News - Factiva, 08/08/2018 07:53 AM)</p> <p>JP Morgan Raises Tesla Price Target But Stays Underweight In Case Shares Trade On Fundamentals Again -- MarketWatch (Dow Jones Institutional News - Factiva, 08/08/2018 07:56 AM)</p> <p>MW UPDATE: JP Morgan raises Tesla price target but stays underweight in case shares trade on fundamentals again (MarketWatch - Factiva, 08/08/2018 07:58 AM)</p> <p>Tesla privatisation plans: Why is Tesla going private? Will Tesla change in private? (express.co.uk - Factiva, 08/08/2018 07:58 AM)</p> <p>Update: JP Morgan Raises Tesla Price Target But Stays Underweight In Case Shares Trade On Fundamentals Again -- MarketWatch (Dow Jones Institutional News - Factiva, 08/08/2018 07:58 AM)</p> <p>LIVE MARKETS-Tesla: Gargantuans at the gate (Reuters News - Factiva, 08/08/2018 07:59 AM)</p> <p>MW UPDATE: A Tesla buyout would be the largest in history -- by a wide margin (MarketWatch - Factiva, 08/08/2018 08:19 AM)</p> <p>MW UPDATE: Elon Musk takes Tesla on a strange route to a potentially smart idea, yet again (MarketWatch - Factiva, 08/08/2018 08:19 AM)</p> <p>MW UPDATE: Tesla short sellers walloped after Musk talks going private (MarketWatch - Factiva, 08/08/2018 08:19 AM)</p> <p>MW UPDATE: Elon Musk explained his going-private tweet to Tesla employees with this email (MarketWatch - Factiva, 08/08/2018 08:20 AM)</p>

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											<p>MW UPDATE: Tesla's Elon Musk tweets he is 'considering' taking company private (MarketWatch - Factiva, 08/08/2018 08:20 AM)</p> <p>JP Morgan raises Tesla price target but stays underweight in case shares trade on funda (Dow Jones Newswires Chinese (English) - Factiva, 08/08/2018 08:23 AM)</p> <p>RPT-Musk plan to privatize Tesla pushes \$2.3 bln of debt above conversion price (Reuters News - Factiva, 08/08/2018 08:23 AM)</p> <p>Tesla Is Maintained at Hold by Jefferies (Dow Jones Institutional News - Factiva, 08/08/2018 08:24 AM)</p> <p>Tesla Is Maintained at Hold by Jefferies (Dow Jones Newswires Chinese (English) - Factiva, 08/08/2018 08:25 AM)</p> <p>Tesla Price Target Raised to \$360.00/Share From \$250.00 by Jefferies (Dow Jones Newswires Chinese (English) - Factiva, 08/08/2018 08:25 AM)</p> <p>Inside Tesla's troubled New York solar factory (Reuters News - Factiva, 08/08/2018 08:26 AM)</p> <p>Elon Musk's Tesla buyout would reengineer take-private deals (Reuters News - Factiva, 08/08/2018 08:28 AM)</p> <p>Hot Stocks to Watch: TSLA (Dow Jones Newswires Chinese (English) - Factiva, 08/08/2018 08:28 AM)</p> <p>Tesla stock's surge puts convertible bonds in the money; Elon Musk's tweet has had a salutary effect on his company's financing position - particularly its \$2.3bn in two convertible bonds (Financial News - Factiva, 08/08/2018 08:31 AM)</p> <p>MW UPDATE: These 5 tech stocks are in a dot-com-like bubble (and they aren't all FAANGs) (MarketWatch - Factiva, 08/08/2018 08:44 AM)</p> <p>The Boss Tweets His Way Into Another Storm (MediaPost.com - Factiva, 08/08/2018 08:52 AM)</p> <p>Two Huge Questions Hang Over Musk's \$70 Billion Deal for Tesla (NYTimes.com Feed - Factiva, 08/08/2018 08:52 AM)</p> <p>Wall Street sees funding hurdle to Musk's plan to take Tesla private (Reuters News - Factiva, 08/08/2018 08:58 AM)</p> <p>Tesla's current fundamentals don't support a valuation anywhere close to \$420, one bear says (TSLA) (Business Insider - Factiva, 08/08/2018 08:59 AM)</p> <p>Electric Vehicle Market Grows With Sustained Government Support (PR Newswire - Factiva, 08/08/2018 09:00 AM)</p> <p>Press Release: Statement from the following members of Tesla's Board of Directors: Brad Buss, Robyn Denholm, Ira Ehrenpreis, Antonio Gracias, Linda Johnson Rice, and James Murdoch (Dow Jones Institutional News - Factiva, 08/08/2018 09:00 AM)</p>

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											<p>Statement from the following members of Tesla's Board of Directors: Brad Buss, Robyn Denholm, Ira Ehrenpreis, Antonio Gracias, Linda Johnson Rice, and James Murdoch (GlobeNewswire - Factiva, 08/08/2018 09:00 AM)</p> <p>Wall Street sees funding hurdle to Musk's plan to take Tesla private (Reuters News - Factiva, 08/08/2018 09:04 AM)</p> <p>Tesla Board Met 'several Times' To Evaluate CEO Musk's Take-private Idea -- MarketWatch (Dow Jones Institutional News - Factiva, 08/08/2018 09:12 AM)</p> <p>Tesla's board says Musk started go-private talks last week (Reuters News - Factiva, 08/08/2018 09:12 AM)</p> <p>BRIEF-Tesla Inc - Elon Opened A Discussion With Board About Taking Company Private Last Week (Reuters News - Factiva, 08/08/2018 09:18 AM)</p> <p>BUZZ-U.S. STOCKS ON THE MOVE-Snap, Tesla, Michael Kors, Papa John's (Reuters News - Factiva, 08/08/2018 09:18 AM)</p> <p>LIVE MARKETS-Wall St futures barely moving, point to soft open (Reuters News - Factiva, 08/08/2018 09:21 AM)</p> <p>Stocks to Watch: Tesla, Disney, Papa John's, Snap, Wendy's, CVS, Salesforce.com (Dow Jones Institutional News - Factiva, 08/08/2018 09:24 AM)</p> <p>Stocks to Watch: Tesla, Disney, Papa John's, Snap, Wendy's, CVS, Salesforce.com; Here are some of the companies with shares expected to trade actively in Wednesday's session (The Wall Street Journal Online - Factiva, 08/08/2018 09:24 AM)</p> <p>Tesla board says it will evaluate Musk proposal to go private (Agence France Presse - Factiva, 08/08/2018 09:24 AM)</p> <p>Thinking about buying stock in AmBev, General Electric , Helios and Matheson Analytics Inc., Hertz Global Holdings or Tesla? (PR Newswire - Factiva, 08/08/2018 09:31 AM)</p> <p>Tesla's Board of Directors Looking Into CEO's Offer to Privatize Company - Statement (Sputnik News Service - Factiva, 08/08/2018 09:32 AM)</p> <p>LIVE MARKETS-Brexit breeze (Reuters News - Factiva, 08/08/2018 09:34 AM)</p> <p>Tesla board met several times to discuss taking firm private (24 Ore Radiocor-Newswire International Edition - Factiva, 08/08/2018 09:35 AM)</p> <p>Tesla board met 'several times' to evaluate CEO Musk's take-private idea (Dow Jones Newswires Chinese (English) - Factiva, 08/08/2018 09:37 AM)</p> <p>10 Biggest Price Target Changes For Wednesday (Benzinga.com - Factiva, 08/08/2018 09:44 AM)</p> <p>Tesla board says it will evaluate Musk proposal to go private (Agence France Presse - Factiva, 08/08/2018 09:44 AM)</p> <p>MW UPDATE: Call of the day: Tesla shares are headed for \$420 regardless (MarketWatch - Factiva, 08/08/2018 09:45 AM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Tesla's surging stock has cost short sellers \$3 billion this month (TSLA) (Business Insider - Factiva, 08/08/2018 09:45 AM)</p> <p>Tesla's Board Has Met Several Times to Discuss Going-Private Proposal (Dow Jones Institutional News - Factiva, 08/08/2018 09:52 AM)</p> <p>Tesla public or Tesla private. Which way forward? (Deutsche Welle - Factiva, 08/08/2018 09:56 AM)</p> <p>Tesla's Board Has Met Several Times to Discuss Going-Private Proposal (Dow Jones Institutional News - Factiva, 08/08/2018 10:00 AM)</p> <p>LIVE MARKETS-Watch out for trade war margin pressure (Reuters News - Factiva, 08/08/2018 10:07 AM)</p> <p>Elon Musk Tweets He Is Considering Taking Tesla Private; A take-private deal could value the electric-car maker above \$70 billion, by far the biggest in history (The Wall Street Journal Online - Factiva, 08/08/2018 10:17 AM)</p> <p>Tesla: Is \$420 a Share Too Low for a Deal? (Barron's Online - Factiva, 08/08/2018 10:19 AM)</p> <p>Tesla: Is \$420 a Share Too Low for a Deal? -- Barrons.com (Dow Jones Institutional News - Factiva, 08/08/2018 10:19 AM)</p> <p>Did Elon Musk Violate Securities Laws With Tweet About Taking Tesla Private? (NYTimes.com Feed - Factiva, 08/08/2018 10:24 AM)</p> <p>Tesla's Board Has Met Several Times to Discuss Going-Private Proposal; The talks included how being a private company could 'better serve Tesla's long-term interests,' several board members said (The Wall Street Journal Online - Factiva, 08/08/2018 10:26 AM)</p> <p>UPDATE 1-Albemarle boosts stock buyback to \$500 million; shares jump (Reuters News - Factiva, 08/08/2018 10:39 AM)</p> <p>MW Tesla board statement raises more questions about Elon Musk's go-private plan (MarketWatch - Factiva, 08/08/2018 10:56 AM)</p> <p>MW UPDATE: Tesla board met 'several times' to evaluate CEO Musk's take-private idea (MarketWatch - Factiva, 08/08/2018 10:56 AM)</p> <p>Update: Tesla Board Met 'several Times' To Evaluate CEO Musk's Take-private Idea -- MarketWatch (Dow Jones Institutional News - Factiva, 08/08/2018 10:56 AM)</p> <p>Elon Musk boosted his net worth by \$1.4 billion with just one short tweet (TSLA) (Business Insider - Factiva, 08/08/2018 11:09 AM)</p> <p>LIVE MARKETS-Buying France through its banks (Reuters News - Factiva, 08/08/2018 11:10 AM)</p> <p>Elon Musk's Tweet About Taking Tesla Private Could Actually Be Good for Short Sellers. Here's How -- Barron's Blog (Dow Jones Institutional News - Factiva, 08/08/2018 11:12 AM)</p>

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											<p>Musk serious about taking Tesla private at USD 420 per share (Renewables Now - Factiva, 08/08/2018 11:20 AM)</p> <p>'The Thomas Edison of our age has come off rails': Brand expert says Elon Musk has put himself in a risky situation (TSLA) (Business Insider - Factiva, 08/08/2018 11:32 AM)</p> <p>How to trade Tesla stock even if the company doesn't go private; Aggressive investors can be on the lookout for a short squeeze, which could boost the shares (MarketWatch - Factiva, 08/08/2018 11:45 AM)</p> <p>'A private life is a happy life': Here's what Wall Street is saying about Tesla's plan to leave the stock market (TSLA) (Business Insider - Factiva, 08/08/2018 11:47 AM)</p> <p>LIVE MARKETS-Closing snapshot: European shares close lower (Reuters News - Factiva, 08/08/2018 11:51 AM)</p> <p>BUZZ-U.S. STOCKS ON THE MOVE-Snap, Mylan, Tesla, CVS Health (Reuters News - Factiva, 08/08/2018 11:52 AM)</p> <p>What Wall Street Is Saying About Musk Taking Tesla Private (Benzinga.com - Factiva, 08/08/2018 12:05 PM)</p> <p>Got Questions About Elon Musk Taking Tesla Private? We've Got Answers -- Barron's Blog (Dow Jones Institutional News - Factiva, 08/08/2018 12:09 PM)</p> <p>Why Mylan, Not Tesla, Is the Buyout to Bet On -- Heard on the Street (Dow Jones Institutional News - Factiva, 08/08/2018 12:10 PM)</p> <p>Auto & Transport Roundup: Market Talk (Dow Jones Institutional News - Factiva, 08/08/2018 12:20 PM)</p> <p>Tesla's board of directors says Elon Musk brought up going private last week (TSLA) (Business Insider - Factiva, 08/08/2018 12:29 PM)</p> <p>MW Tesla bonds jump more than 2 points after CEO Musk mulls going-private transaction (MarketWatch - Factiva, 08/08/2018 12:32 PM)</p> <p>Tesla Bonds Jump More Than 2 Points After CEO Musk Mulls Going-private Transaction -- MarketWatch (Dow Jones Institutional News - Factiva, 08/08/2018 12:32 PM)</p> <p>FACTBOX-A look at Tesla's nine-member board (Reuters News - Factiva, 08/08/2018 12:51 PM)</p> <p>Why would Elon Musk want to take Tesla private? (Independent Online - Factiva, 08/08/2018 12:54 PM)</p> <p>Beware what you wish for, Mr Musk, as you antagonise Wall Street (thetimes.co.uk - Factiva, 08/08/2018 01:00 PM)</p> <p>Tesla Shares Slightly Down in Heavy Trading -- Market Mover (Dow Jones Institutional News - Factiva, 08/08/2018 01:00 PM)</p> <p>WSJ City PM: Tesla Board Discussed Buyout Plan, China Digs In for Long Trade Fight (Dow Jones Institutional News - Factiva, 08/08/2018 01:01 PM)</p>

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											<p>Volatile visionary: Tesla's Musk divides Wall Street (Agence France Presse - Factiva, 08/08/2018 01:14 PM)</p> <p>BUZZ-U.S. STOCKS ON THE MOVE-Snap, Tesla, Michael Kors, Papa John's (Reuters News - Factiva, 08/08/2018 01:24 PM)</p> <p>BREAKINGVIEWS-Good riddance to a publicly traded Tesla (Reuters News - Factiva, 08/08/2018 01:25 PM)</p> <p>SEC questions Tesla over Elon Musk's tweets to take the company private; Regulators said to be inquiring whether CEO's claim was factual (MarketWatch - Factiva, 08/08/2018 01:32 PM)</p> <p>FACTBOX-Impact of U.S.-China trade tariffs on U.S. companies (Reuters News - Factiva, 08/08/2018 01:40 PM)</p> <p>Factbox: Impact of U.S.-China trade tariffs on U.S. companies (Reuters News - Factiva, 08/08/2018 01:44 PM)</p> <p>Elon Musk the charismatic capitalist putting his business on the line (The Guardian - Factiva, 08/08/2018 01:52 PM)</p> <p>5 reasons to bet against Elon Musk's plan to go private (CNN Wire - Factiva, 08/08/2018 01:53 PM)</p> <p>Tesla's Big Question: Better or Worse off as Private Company (Dow Jones Institutional News - Factiva, 08/08/2018 02:00 PM)</p> <p>Tesla's Big Question: Better or Worse Off as Private Company; Taking the electric-car maker private would shield the company's financial health from rivals, but would also remove easy access to capital (The Wall Street Journal Online - Factiva, 08/08/2018 02:00 PM)</p> <p>Being really rich doesn't make you clever as Elon Musk has so adeptly shown (Independent Online - Factiva, 08/08/2018 02:04 PM)</p> <p>BRIEF-Softbank Considers Tesla To Be Overvalued And There Are No Indications It Wants To Invest - FT (Reuters News - Factiva, 08/08/2018 02:12 PM)</p> <p>Tesla's Big Question: Better or Worse Off as Private Company (Dow Jones Institutional News - Factiva, 08/08/2018 02:20 PM)</p> <p>BRIEF-Elon Musk Talked With SoftBank About Tesla Investment- Bloomberg (Reuters News - Factiva, 08/08/2018 02:29 PM)</p> <p>Here's what Tesla would have to do to go private (CNN Wire - Factiva, 08/08/2018 02:30 PM)</p> <p>MW Tesla 'not going private anytime soon': Piper Jaffray (MarketWatch - Factiva, 08/08/2018 02:34 PM)</p> <p>Tesla 'not Going Private Anytime Soon': Piper Jaffray -- MarketWatch (Dow Jones Institutional News - Factiva, 08/08/2018 02:34 PM)</p> <p>Tesla and SoftBank Group Founders Had 2017 Talks About a Tesla Stake -Bloomberg (Dow Jones Institutional News - Factiva, 08/08/2018 02:36 PM)</p>

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											<p>Taking Tesla private would be the largest buyout in history – but maybe not much money would change hands (TSLA) (Business Insider - Factiva, 08/08/2018 02:41 PM)</p> <p>Tesla and SoftBank Group Founders Had 2017 Talks About a Tesla Stake –Bloomberg (Dow Jones Newswires Chinese (English) - Factiva, 08/08/2018 02:48 PM)</p> <p>Elon Musk Talked To Softbank About Tesla Investment: Report -- MarketWatch (Dow Jones Institutional News - Factiva, 08/08/2018 02:53 PM)</p> <p>MW Elon Musk talked to Softbank about Tesla investment: report (MarketWatch - Factiva, 08/08/2018 02:53 PM)</p> <p>Elon Musk reportedly met with Japan's SoftBank last year about taking Tesla private (TSLA) (Business Insider - Factiva, 08/08/2018 02:54 PM)</p> <p>Everyone – including fast-food chains and beer giants – is tweeting 'funding secured' to mock Elon Musk (TSLA) (Business Insider - Factiva, 08/08/2018 03:01 PM)</p> <p>Electric car maker Tesla could go private (coventrytelegraph.net - Factiva, 08/08/2018 03:04 PM)</p> <p>Got Questions About Elon Musk Taking Tesla Private? We've Got Answers -- Barron's Blog (Dow Jones Institutional News - Factiva, 08/08/2018 03:20 PM)</p> <p>Hagens Berman Alerts Short and Put Option Investors in Tesla, Inc. (TSLA) to the Firm's Investigation of Possible Disclosure Violations (PR Newswire - Factiva, 08/08/2018 03:21 PM)</p> <p>Press Release: Hagens Berman Alerts Short and Put Option Investors in Tesla, Inc. (TSLA) to the Firm's Investigation of Possible Disclosure Violations (Dow Jones Institutional News - Factiva, 08/08/2018 03:21 PM)</p> <p>Tesla board to evaluate Musk proposal to go private as shares dip (Agence France Presse - Factiva, 08/08/2018 03:21 PM)</p> <p>Elon Musk is in perilous territory after tweeting about wanting to take Tesla private, experts say (TSLA) (Business Insider - Factiva, 08/08/2018 03:36 PM)</p> <p>MW UPDATE: How to trade Tesla stock even if the company doesn't go private (MarketWatch - Factiva, 08/08/2018 03:45 PM)</p> <p>BRIEF-SEC Makes Inquiries To Tesla Over Musk's Tweet About Possibly Taking Co Private - CNBC, Citing DJ (Reuters News - Factiva, 08/08/2018 03:49 PM)</p> <p>By turning its back on Wall Street, Tesla could avoid market pressures (Agence France Presse - Factiva, 08/08/2018 03:52 PM)</p> <p>BRIEF-SEC Has Made Inquiries To Tesla Over Musk's 'Taking Private' Tweet - WSJ (Reuters News - Factiva, 08/08/2018 03:57 PM)</p> <p>The SEC has reportedly made inquiries into Tesla about Elon Musk's tweet regarding possibly taking the company private (TSLA) (Business Insider - Factiva, 08/08/2018 04:02 PM)</p>

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											<p>Elon Musk's \$72bn plan to take Tesla private is real confirms board (The Telegraph Online - Factiva, 08/08/2018 04:50 PM)</p> <p>Auto & Transport Roundup: Market Talk (Dow Jones Institutional News - Factiva, 08/08/2018 04:50 PM)</p> <p>UPDATE 7-U.S. SEC examining Musk's tweets on taking Tesla private -WSJ (Reuters News - Factiva, 08/08/2018 04:57 PM)</p> <p>Why Mylan, Not Tesla, Is the Buyout to Bet On; Mylan's strategic review offers a sharp contrast to Elon Musk's approach (The Wall Street Journal Online - Factiva, 08/08/2018 04:59 PM)</p> <p>Tesla board to weigh go-private as Musk faces questions (Agence France Presse - Factiva, 08/08/2018 05:14 PM)</p> <p>SEC examining Musk's tweets on taking Tesla private: WSJ (Reuters News - Factiva, 08/08/2018 05:43 PM)</p> <p>Tesla bosses weigh up Elon Musk's proposal to take the electric car maker private (Mail Online - Factiva, 08/08/2018 06:01 PM)</p> <p>MAGGIE PAGANO: Tesla's drive to stay ahead with a risk-taking boss who dislikes playing by the rules (Mail Online - Factiva, 08/08/2018 06:02 PM)</p> <p>Tesla CEO's buyout bid raises eyebrows, legal concerns (Associated Press Newswires - Factiva, 08/08/2018 06:05 PM)</p> <p>WHAT ARE THE SEC'S RULES AROUND FAIR DISCLOSURE? (Mail Online - Factiva, 08/08/2018 06:11 PM)</p> <p>Only 12 Tesla solar roofs were reportedly connected to the grid in California at the end of May (TSLA) (Business Insider - Factiva, 08/08/2018 06:14 PM)</p> <p>Elon Musk tweets on taking Tesla private 'being investigated' by US regulators (London Evening Standard Online - Factiva, 08/08/2018 06:24 PM)</p> <p>A couple reasons why Elon Musk could actually pull off his wild plan to take Tesla private (TSLA) (Business Insider - Factiva, 08/08/2018 06:28 PM)</p> <p>Elon Musk IS being investigated over Tesla tweet: SEC is 'making inquiries' after CEO tweeted plans to take his firm private with 'funding secured' (Mail Online - Factiva, 08/08/2018 06:49 PM)</p> <p>Tesla's change of direction could put it on a bumpy road (The Telegraph Online - Factiva, 08/08/2018 06:49 PM)</p> <p>Wall Street Salivates After Elon Musk Floats Taking Tesla Private (NYTimes.com Feed - Factiva, 08/08/2018 07:17 PM)</p> <p>SEC Inquired About Tesla CEO Musk's Tweets--2nd Update (Dow Jones Institutional News - Factiva, 08/08/2018 07:27 PM)</p> <p>SEC Probes Tesla CEO Musk's Tweets; The regulator is examining whether Musk's statement was truthful and why the disclosure was made on Twitter (The Wall Street Journal Online - Factiva, 08/08/2018 07:27 PM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Tesla Board of Directors evaluate Musk's privatization plan (Xinhua News Agency - Factiva, 08/08/2018 07:37 PM)</p> <p>Tesla directors say they knew of Elon Musk's surprise plan to go private (The Guardian - Factiva, 08/08/2018 07:39 PM)</p> <p>Doubts lurk over Musk's resources to fund buyout (thetimes.co.uk - Factiva, 08/08/2018 08:01 PM)</p> <p>Tesla short sellers take hit as downfall is forecast (thetimes.co.uk - Factiva, 08/08/2018 08:01 PM)</p> <p>Tesla's value underrated by Musk, top investor says (thetimes.co.uk - Factiva, 08/08/2018 08:01 PM)</p> <p>Tesla CEO's buyout bid raises eyebrows, legal concerns (The Canadian Press - Factiva, 08/08/2018 09:29 PM)</p> <p>Tesla CEO's buyout bid raises eyebrows, legal concerns (Associated Press Newswires - Factiva, 08/08/2018 09:35 PM)</p> <p>Tesla's Big Question: Better or Worse off as Private Company > TSLA (Dow Jones Newswires Chinese (English) - Factiva, 08/08/2018 11:18 PM)</p>
8/9/2018 Thu	17,183,811	\$352.45	-4.83%	0.05%	-0.73%	-0.17%	-4.67%	-1.83	7.04%	-\$17.28	<p>Elon Musk and the Trumpification of investor relations (GlobalCapital - Factiva, 08/09/2018)</p> <p>Elon Musk faces SEC probe over stock-price goosing tweets to take Tesla private (V3 - Factiva, 08/09/2018)</p> <p>Elon Musk Plans Taking Tesla Private (Financial Deals Tracker - Factiva, 08/09/2018)</p> <p>Moody's says Tesla's consideration to go private based on CEO's note is credit negative. (Moody's Investors Service Press Release - Factiva, 08/09/2018)</p> <p>14:23 EDT SEC looking at Tesla before tweets, now faces broader scrutiny... (Theflyonthewall.com - Factiva, 08/09/2018)</p> <p>14:53 EDT SEC stepping up probe of Tesla after Musk tweets, Bloomberg saysSEC... (Theflyonthewall.com - Factiva, 08/09/2018)</p> <p>14:59 EDT Moody's says Tesla's consideration to go private is credit... (Theflyonthewall.com - Factiva, 08/09/2018)</p> <p>17:10 EDT Tesla board to meet with advisors next week over going-private talks... (Theflyonthewall.com - Factiva, 08/09/2018)</p> <p>17:11 EDT Tesla jump 3.3% after CNBC report of board meeting over going-private... (Theflyonthewall.com - Factiva, 08/09/2018)</p> <p>17:13 EDT Tesla jumps 3% after CNBC report of board meeting with advisors next... (Theflyonthewall.com - Factiva, 08/09/2018)</p> <p>21:00 EDT Tesla board states that CEO Musk has 'addressed the funding', Reuters... (Theflyonthewall.com - Factiva, 08/09/2018)</p>

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											A \$70 Billion Deal for Tesla? Elon Musk Faces 2 Huge Questions (The New York Times - Factiva, 08/09/2018)
											A Musk-have SEC probes claim he has \$ to privatize Tesla (New York Post - Factiva, 08/09/2018)
											A Private Tesla May Find It Harder to Raise Capital (The Wall Street Journal - Factiva, 08/09/2018)
											ALL ABOARD Tesla directors say they will consider Elon Musk's plans to go private (City AM - Factiva, 08/09/2018)
											Analysis; Public or private, Tesla commitments remain; Stock buyback wouldn't affect promise to bring 1,460 jobs to Buffalo (Buffalo News - Factiva, 08/09/2018)
											Analysts grow dubious of Elon Musk's tweeted plan to take Tesla private (The Washington Post - Factiva, 08/09/2018)
											Baillie Gifford's Anderson questions Musk's Tesla valuation (Citywire - Factiva, 08/09/2018)
											Beware what you wish for, Mr Musk, as you antagonise Wall Street (The Times - Factiva, 08/09/2018)
											BOARD WEIGHS UP TESLA DEAL (Daily Mail - Factiva, 08/09/2018)
											Board weighs up Tesla deal (Scottish Daily Mail - Factiva, 08/09/2018)
											BRIEFCASE (The Patriot Ledger - Factiva, 08/09/2018)
											BRIEFCASE; Tesla board weighs CEO's buyout bid (The Daily Independent - Factiva, 08/09/2018)
											briefly ... (Greenwich Time - Factiva, 08/09/2018)
											Council of Tesla lowers revolutions to Musk (CE NoticiasFinancieras - Factiva, 08/09/2018)
											DealBook Briefing: How on Earth Will Tesla Go Private? (The New York Times - Factiva, 08/09/2018)
											Defense ripple effect: Big Army services contract prompts firm to open C. Fla. Research Park office (Orlando Business Journal - Factiva, 08/09/2018)
											Did Elon Musk Violate Securities Laws With Tweet About Taking Tesla Private?; Common Sense (International New York Times - Factiva, 08/09/2018)
											Doubts grow over Elon Musk's master plan to take Tesla private (Washington Post.com - Factiva, 08/09/2018)
											Doubts grow over Musk's plan to take Tesla private; Valuation of \$420 a share questioned (The Toronto Star - Factiva, 08/09/2018)
											Doubts lurk over Musk's resources to fund buyout (The Times - Factiva, 08/09/2018)
											Dow Futures: Roku Soars Near Buy Point; This Breakout Stands Out Vs. Apple, Alphabet, Tesla (Investor's Business Daily - Factiva, 08/09/2018)

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											Dow Futures: Roku Soars To Buy Zone; This Breakout Stands Out Vs. Apple, Alphabet, Tesla (Investor's Business Daily - Factiva, 08/09/2018)
											Dow Jones Futures: Tesla Roller Coaster Continues; These 4 Stocks Move On Earnings (Investor's Business Daily - Factiva, 08/09/2018)
											Editorial: Businessmen behaving badly (Richmond Times-Dispatch: Web Edition - Factiva, 08/09/2018)
											Experts cast doubt on privatisation drive (The Australian - Factiva, 08/09/2018)
											Fired Tesla employee files defamation lawsuit against the company (ETMAG.com - Factiva, 08/09/2018)
											Go private? Tesla board OK with it (USA Today - Factiva, 08/09/2018)
											Go private? Tesla board OK with it; Musk's tweets startled investors, but discussions have been ongoing (Argus Leader - Factiva, 08/09/2018)
											Go private? Tesla board OK with it; Musk's tweets startled investors, but discussions have been ongoing (Clarion-Ledger - Factiva, 08/09/2018)
											Go private? Tesla board OK with it; Musk's tweets startled investors, but discussions have been ongoing (Green Bay Press-Gazette - Factiva, 08/09/2018)
											Go private? Tesla board OK with it; Musk's tweets startled investors, but discussions have been ongoing (Journal & Courier - Factiva, 08/09/2018)
											Go private? Tesla board OK with it; Musk's tweets startled investors, but discussions have been ongoing (Reno Gazette-Journal - Factiva, 08/09/2018)
											Go private? Tesla board OK with it; Musk's tweets startled investors, but discussions have been ongoing (The Post-Crescent - Factiva, 08/09/2018)
											Go private? Tesla board OK with it; Musk's tweets startled investors, but discussions have been ongoing (The Tallahassee Democrat - Factiva, 08/09/2018)
											Hedge funds defy Musk plan and short-sell Tesla (London Evening Standard - Factiva, 08/09/2018)
											Industry Trend Analysis - Quick View: Tesla Buyout Has Merit But Funding Is A Risk (Corporate Financing Week - Factiva, 08/09/2018)
											Industry Trend Analysis - Quick View: Tesla Buyout Has Merit But Funding Is A Risk (Emerging Markets Monitor - Factiva, 08/09/2018)
											Keep your wallet and your sanity intact and avoid Tesla stock; Elon Musk has shifted what we've apparently come to allow from a public company (The Globe and Mail (Breaking News) - Factiva, 08/09/2018)
											legal requirements; Tesla board weighs CEO's buyout bid as questions swirl (Monterey County Herald - Factiva, 08/09/2018)
											LOOK OUT TESLA, HERE COMES PININFARINA (Waikato Times - Factiva, 08/09/2018)

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											M&A: Elon Musk ready to buy out Tesla shares and delist it (AK&M - Factiva, 08/09/2018)
											MARKET MOVERS (Hannibal Courier-Post - Factiva, 08/09/2018)
											MARKET MOVERS (Mexico Ledger - Factiva, 08/09/2018)
											Moody's Research Report (Capital IQ - Manual Entry, 08/09/2018)
											Moody's Research Report (Capital IQ - Manual Entry, 08/09/2018)
											Morgan Stanley Research Report (Capital IQ - Manual Entry, 08/09/2018)
											Morgan Stanley Research Report (Capital IQ - Manual Entry, 08/09/2018)
											Morgan Stanley Research Report (Capital IQ - Manual Entry, 08/09/2018)
											Morgan Stanley Research Report (Eikon - Manual Entry, 08/09/2018)
											Musk confident that Tesla will go private (Buffalo News - Factiva, 08/09/2018)
											Musk mulls Tesla move (Express & Star - Factiva, 08/09/2018)
											Musk mulls Tesla move (Shropshire Star - Factiva, 08/09/2018)
											Musk startles market with \$94bn Tesla buyout plan (The Australian - Factiva, 08/09/2018)
											Musk's Itchy Twitter Finger Looks Like Bigger Problem For Tesla Shares Than Shorts (Forbes.com - Factiva, 08/09/2018)
											Musk's \$6bn tweet leads Tesla to dead end (The Daily Telegraph - Factiva, 08/09/2018)
											Musk's musings on taking Tesla private show it may be best route (Irish Independent - Factiva, 08/09/2018)
											Mylan, Not Tesla, Is the Buyout to Bet On (The Wall Street Journal - Factiva, 08/09/2018)
											No gain in Tesla going private (Los Angeles Times - Factiva, 08/09/2018)
											Note to Musk: Tesla isn't the only company targeted by short sellers. Here's who tops the list. (Baltimore Business Journal Online - Factiva, 08/09/2018)
											Note to Musk: Tesla isn't the only company targeted by short sellers. Here's who tops the list. (Louisville Business First Online - Factiva, 08/09/2018)
											Note to Musk: Tesla isn't the only company targeted by short sellers. Here's who tops the list. (Philadelphia Business Journal Online - Factiva, 08/09/2018)
											Note to Musk: Tesla isn't the only company targeted by short sellers. Here's who tops the list. (Silicon Valley/San Jose Business Journal Online - Factiva, 08/09/2018)
											Note to Musk: Tesla isn't the only company targeted by short sellers. Here's who tops the St. Louis list (St. Louis Business Journal - Factiva, 08/09/2018)
											OPINION: Visionaries of the 20th century vs. visionaries of the 21st century (CE NoticiasFinancieras - Factiva, 08/09/2018)

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											<p>Pressure mounts on Musk to show he has funding to take Tesla private (latimes.com - Factiva, 08/09/2018)</p> <p>Report: SEC probing whether Elon Musk lied about plans to take Tesla private (Silicon Valley/San Jose Business Journal Online - Factiva, 08/09/2018)</p> <p>Report: SEC probing whether Elon Musk lied about plans to take Tesla private (Triad Business Journal Online - Factiva, 08/09/2018)</p> <p>Report: SEC studying tweets about taking Tesla private (Detroit Free Press - Factiva, 08/09/2018)</p> <p>Saudi wealth fund continues its drive to become \$2trn powerhouse (ArabianBusiness.com - Factiva, 08/09/2018)</p> <p>SEC intensifies Tesla probe (San Francisco Chronicle: Web Edition - Factiva, 08/09/2018)</p> <p>SEC investigating Musk tweet about taking Tesla private (U-Wire - Factiva, 08/09/2018)</p> <p>SEC opens (The Seattle Times - Factiva, 08/09/2018)</p> <p>SEC Probes Musk Tweets On Possible Tesla Buyout (The Wall Street Journal - Factiva, 08/09/2018)</p> <p>SEC questions Tesla over Musk tweet (Houston Chronicle - Factiva, 08/09/2018)</p> <p>Sellers get short shrift as downfall is forecast (The Times - Factiva, 08/09/2018)</p> <p>Sharp drop in Tesla share price in wake of Musk's market withdrawal tweets (EFE News Service - Factiva, 08/09/2018)</p> <p>Speculators indifferent to Musk's plans (CE NoticiasFinancieras - Factiva, 08/09/2018)</p> <p>Sun CITY COMMENT (The Sun - Factiva, 08/09/2018)</p> <p>Tematica Research Research Report (Eikon - Manual Entry, 08/09/2018)</p> <p>Tesla already lost in two days what it won on Tuesday (CE NoticiasFinancieras - Factiva, 08/09/2018)</p> <p>Tesla already lost in two days what it won on Tuesday (CE NoticiasFinancieras - Factiva, 08/09/2018)</p> <p>Tesla announces potential delisting from Nasdaq, shares fall by 1.1% on Tue (French Collection - Factiva, 08/09/2018)</p> <p>Tesla board assessing proposal by CEO Musk to take firm private; 'Risks of added financial leverage' could be reason to avoid move, analyst warns (Calgary Herald - Factiva, 08/09/2018)</p> <p>Tesla board assessing proposal by CEO Musk to take firm private; 'Risks of added financial leverage' could be reason to avoid move, analyst warns (Edmonton Journal - Factiva, 08/09/2018)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Tesla board assessing proposal by CEO Musk to take firm private; 'Risks of added financial leverage' could be reason to avoid move, analyst warns (Vancouver Sun - Factiva, 08/09/2018)</p> <p>Tesla board confirms it's evaluating plan to go private (Los Angeles Times - Factiva, 08/09/2018)</p> <p>Tesla board evaluates taking firm private; Musk Proposal (National Post - Factiva, 08/09/2018)</p> <p>Tesla Board 'Evaluating' Surprise Buyout Plan (Silicon.co.uk - Factiva, 08/09/2018)</p> <p>Tesla board evaluating taking the company private (Platts Megawatt Daily - Factiva, 08/09/2018)</p> <p>Tesla board to weigh go-private as Musk faces questions (The Nation - Factiva, 08/09/2018)</p> <p>Tesla Board Weighs Go-Private Gambit Doubted by the Market; BANKING/FINANCE (Broward Daily Business Review - Factiva, 08/09/2018)</p> <p>Tesla Board Weighs Go-Private Gambit Doubted by the Market; BANKING/FINANCE (Miami Daily Business Review - Factiva, 08/09/2018)</p> <p>Tesla Board Weighs Go-Private Gambit Doubted by the Market; BANKING/FINANCE (Palm Beach Daily Business Review - Factiva, 08/09/2018)</p> <p>Tesla board will meet to discuss taking the company private, may ask Elon Musk to be recused: report (USA Today Online - Factiva, 08/09/2018)</p> <p>Tesla CEO drops latest bombshell with \$72B buyout proposal (Seychelles Nation - Factiva, 08/09/2018)</p> <p>Tesla CEO's buyout bid raises eyebrows and legal concerns; SEC already has opened inquiry into wording of Musk's disclosure; class-action lawsuits could follow (San Diego Union-Tribune - Factiva, 08/09/2018)</p> <p>Tesla CEO's buyout bid raises eyebrows, legal concerns (St. Louis Post-Dispatch - Factiva, 08/09/2018)</p> <p>Tesla CEO's buyout bid raises eyebrows, legal concerns (Telegraph Herald - Factiva, 08/09/2018)</p> <p>Tesla CEO's buyout bid raises legal concerns, lots of eyebrows (Victoria Times Colonist - Factiva, 08/09/2018)</p> <p>Tesla could thrive as private company but feasibility remains murky: Analysts (SNL Financial Extra - Factiva, 08/09/2018)</p> <p>Tesla directors confirm talks with Musk over plans to delist (The Daily Telegraph - Factiva, 08/09/2018)</p> <p>TESLA DIRECTORS DISCUSS GOING PRIVATE; BOARD SAYS IT HAD SEVERAL MEETINGS WITH ELON MUSK ABOUT LONG-TERM INTERESTS (San Jose Mercury News - Factiva, 08/09/2018)</p>

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											Tesla in discussions with Chinese banks to fund \$5b Shanghai factory (Global Times - Factiva, 08/09/2018)
											Tesla investors caught up in buy-out maelstrom (GlobalCapital - Factiva, 08/09/2018)
											Tesla is ditching Nvidia GPUs and developing its own self-driving car AI chips (ETMAG.com - Factiva, 08/09/2018)
											Tesla isn't the only company targeted by short sellers. Here's who tops the list (including one Chandler manufacturer) (Phoenix Business Journal Online - Factiva, 08/09/2018)
											Tesla isn't the only company targeted by short sellers. See where Chipotle and other Colorado companies stand (Denver Business Journal - Factiva, 08/09/2018)
											Tesla Model 3: A giant iPhone -- for better and worse (The Daily Herald - Factiva, 08/09/2018)
											Tesla on the verge of becoming a private firm (AutoX - Factiva, 08/09/2018)
											Tesla shares fall on investor concerns (Washington Post.com - Factiva, 08/09/2018)
											Tesla Stock Exit would be the most expensive ever (CE NoticiasFinancieras - Factiva, 08/09/2018)
											Tesla stock is all over the place as board confirms meeting with advisers (CNET News.com - Factiva, 08/09/2018)
											Tesla Stock's Surge Puts Convertible Bonds in the Money (U-Wire - Factiva, 08/09/2018)
											Tesla under further scrutiny after Musk remarks (The Boston Globe - Factiva, 08/09/2018)
											Tesla's Board Has Met Several Times to Discuss Going-Private Proposal (U-Wire - Factiva, 08/09/2018)
											Tesla's change of direction could put it on a bumpy road (The Daily Telegraph - Factiva, 08/09/2018)
											TESLA'S DRIVE TO STAY AHEAD (Daily Mail - Factiva, 08/09/2018)
											Tesla's drive to stay ahead (Scottish Daily Mail - Factiva, 08/09/2018)
											Tesla's next in-car software update will include classic Atari games (ETMAG.com - Factiva, 08/09/2018)
											Tesla's value underrated by Musk, top investor says (The Times - Factiva, 08/09/2018)
											THE \$57BN QUESTION FOR MUSK (The Sun - Factiva, 08/09/2018)
											The 30 Second Briefing (i - Factiva, 08/09/2018)
											The private musings and short fuse of Elon Musk (Washington Post.com - Factiva, 08/09/2018)
											The SEC is looking into Musk's 'going private' tweet, report claims (Mashable.com - Factiva, 08/09/2018)

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											<p>Thursday Papers: Musk underrated Tesla's value, says top investor (Citywire - Factiva, 08/09/2018)</p> <p>UPDATE: Tesla board evaluating taking the company private (SNL Energy Finance Daily - Factiva, 08/09/2018)</p> <p>UPDATE: Tesla board evaluating taking the company private (SNL Financial Services Daily - Factiva, 08/09/2018)</p> <p>UPDATE: Tesla board evaluating taking the company private (SNL Power Daily with Market Report - Factiva, 08/09/2018)</p> <p>Volty powers (What Car? - Factiva, 08/09/2018)</p> <p>Wall Street Salivates After Elon Musk Floats Taking Tesla Private (The New York Times - Factiva, 08/09/2018)</p> <p>Who's Along For The Ride? (The New York Times - Factiva, 08/09/2018)</p> <p>Why Elon Musk should take Tesla private (The Conversation - Factiva, 08/09/2018)</p> <p>Why Yelp shares soared 27% today (San Francisco Business Times - Factiva, 08/09/2018)</p> <p>Wild and crazy guy puts a few volts through car firm's naysayers (The Australian - Factiva, 08/09/2018)</p> <p>PRESS DIGEST- Wall Street Journal - Aug 9 (Reuters News - Factiva, 08/09/2018 12:25 AM)</p> <p>ANALYSIS-Musk's Tesla buyout plan could test Wall St's nerves (Reuters News - Factiva, 08/09/2018 01:00 AM)</p> <p>Musk's Tesla buyout plan could test Wall Street's nerves (Reuters News - Factiva, 08/09/2018 01:08 AM)</p> <p>SEC probes Tesla CEO Elon Musk's Tweets; The regulator is examining whether Musk's statement was truthful and why the disclosure was made on Twitter (Financial News - Factiva, 08/09/2018 02:15 AM)</p> <p>A Private Tesla May Find It Harder to Raise Capital -- WSJ (Dow Jones Institutional News - Factiva, 08/09/2018 02:32 AM)</p> <p>Heard on the Street: Mylan, Not Tesla, Is the Buyout to Bet On -- WSJ (Dow Jones Institutional News - Factiva, 08/09/2018 02:32 AM)</p> <p>SEC Probes Musk Tweets On Possible Tesla Buyout -- WSJ (Dow Jones Institutional News - Factiva, 08/09/2018 02:32 AM)</p> <p>Why Mylan, Not Tesla, Is the Buyout to Bet On -- Heard on the Street (Dow Jones Newswires Chinese (English) - Factiva, 08/09/2018 02:34 AM)</p> <p>5 Questions for Elon Musk About Tesla Going Private -- Barron's Blog (Dow Jones Newswires Chinese (English) - Factiva, 08/09/2018 03:25 AM)</p>

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											<p>Tesla analysts say they're confused as anyone else; The biggest question is funding with only a few pockets deemed deep enough, including Saudi Arabia's sovereign-wealth fund (MarketWatch - Factiva, 08/09/2018 03:57 AM)</p> <p>Saudi Arabia's Tesla investment builds on pivot to clean energy and tech, analysts say (Mist News - Factiva, 08/09/2018 04:54 AM)</p> <p>Behold the scariest chart for the stock market (MarketWatch - Factiva, 08/09/2018 05:00 AM)</p> <p>The most expensive tweets on record that cost businesses billions (The Telegraph Online - Factiva, 08/09/2018 05:08 AM)</p> <p>Elon Musk's Flawed Plan for Tesla Shareholders (Dow Jones Institutional News - Factiva, 08/09/2018 05:30 AM)</p> <p>Elon Musk's Flawed Plan for Tesla Shareholders; Tesla chief's proposal to take the electric-car maker private amounts to a slap in the face for shareholders (The Wall Street Journal Online - Factiva, 08/09/2018 05:33 AM)</p> <p>DealBook Briefing: Where Is Tesla's Money? (NYTimes.com Feed - Factiva, 08/09/2018 06:31 AM)</p> <p>RPT-ANALYSIS-Musk's Tesla buyout plan could test Wall St's nerves (Reuters News - Factiva, 08/09/2018 07:00 AM)</p> <p>MW UPDATE: Tesla analysts say they're 'as confused as anyone else' (MarketWatch - Factiva, 08/09/2018 07:57 AM)</p> <p>Jim Armitage: We live in strange times in Elon Musk's new world (London Evening Standard Online - Factiva, 08/09/2018 08:13 AM)</p> <p>Hot Stocks to Watch: TSLA (Dow Jones Newswires Chinese (English) - Factiva, 08/09/2018 08:27 AM)</p> <p>Brace for a bear-market drop for Facebook, says this strategist; Critical information for the U.S. trading day (MarketWatch - Factiva, 08/09/2018 08:38 AM)</p> <p>Elon Musk investigated by US financial authorities over Tesla tweet about taking firm private (Independent Online - Factiva, 08/09/2018 08:39 AM)</p> <p>UPDATE - Tesla board members confirm Musk's going private idea (Renewables Now - Factiva, 08/09/2018 09:22 AM)</p> <p>Inspired By Tesla: RBC Speculates On Go-Private Scenario For Celgene (Benzinga.com - Factiva, 08/09/2018 09:24 AM)</p> <p>Stocks to Watch: Tesla, 21st Century Fox, Rite Aid, Sinclair, Viacom, Roku, Yelp (Dow Jones Institutional News - Factiva, 08/09/2018 09:28 AM)</p> <p>Stocks to Watch: Tesla, 21st Century Fox, Rite Aid, Sinclair, Viacom, Roku, Yelp; Here are some of the companies with shares expected to trade actively in Thursday's session (The Wall Street Journal Online - Factiva, 08/09/2018 09:28 AM)</p>

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											<p>Elon Musk is a natural maniac - You can't ask for the maniac parts you like without realizing there are maniac parts that might backfire (MarketWatch - Factiva, 08/09/2018 09:46 AM)</p> <p>4 Conditions Morgan Stanley Considers Critical For Tesla's Successful Move Off The Markets (Benzinga.com - Factiva, 08/09/2018 10:06 AM)</p> <p>Tesla board confirms talks with Musk about delisting (SeeNews Deals - Factiva, 08/09/2018 10:45 AM)</p> <p>From Virgin to Tesla: why companies go cool on public ownership (The Guardian - Factiva, 08/09/2018 11:29 AM)</p> <p>3 Things Elon Musk Needs to Do to Take Tesla Private -- Barron's Blog (Dow Jones Institutional News - Factiva, 08/09/2018 11:44 AM)</p> <p>A deal to take Tesla private probably won't come from Wall Street or Silicon Valley (TSLA) (Business Insider - Factiva, 08/09/2018 12:09 PM)</p> <p>Elon Musk May Need to Raise Cash to Buy Tesla -- Market Talk (Dow Jones Institutional News - Factiva, 08/09/2018 12:10 PM)</p> <p>Elon Musk May Need to Raise Cash to Buy Tesla -- Market Talk (Dow Jones Institutional News - Factiva, 08/09/2018 12:10 PM)</p> <p>BUZZ-U.S. STOCKS ON THE MOVE-Viacom, Belmond, Tesla, Yelp, Roku, Perrigo (Reuters News - Factiva, 08/09/2018 12:21 PM)</p> <p>Seven days: 10 August 2018 (Investors Chronicle - Magazine and Web Content - Factiva, 08/09/2018 12:30 PM)</p> <p>MW UPDATE: Brace for a bear-market drop for Facebook, says this strategist (MarketWatch - Factiva, 08/09/2018 12:38 PM)</p> <p>Millennial investors are ditching Tesla during its wild week (TSLA) (Business Insider - Factiva, 08/09/2018 12:40 PM)</p> <p>Tesla's stock is the company's greatest marketing tool - what happens when it goes away? The electric-car maker's shares help create buzz, which drives demand for its vehicles (MarketWatch - Factiva, 08/09/2018 12:59 PM)</p> <p>Here's what the junk-bond market says about Tesla going private (MarketWatch - Factiva, 08/09/2018 01:00 PM)</p> <p>BUZZ-U.S. STOCKS ON THE MOVE-Viacom, Tesla, Yelp, Roku, Dropbox (Reuters News - Factiva, 08/09/2018 01:11 PM)</p> <p>BREAKINGVIEWS-Viewsroom: Tesla's wild and crazy ride (Reuters News - Factiva, 08/09/2018 01:27 PM)</p> <p>Scott+Scott Attorneys at Law LLP Announces Investigation into Tesla, Inc. (TSLA) (Business Wire - Factiva, 08/09/2018 01:30 PM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Tesla has started offering owners free Autopilot trials (TSLA) (Business Insider - Factiva, 08/09/2018 01:30 PM)</p> <p>Investor Alert: Kaplan Fox Announces Investigation Of Tesla, Inc. (PR Newswire - Factiva, 08/09/2018 01:52 PM)</p> <p>Press Release: Investor Alert: Kaplan Fox Announces Investigation Of Tesla, Inc. (Dow Jones Institutional News - Factiva, 08/09/2018 01:52 PM)</p> <p>TESLA SHARES DOWN 5.3 PCT TO \$350.85, NOW TRADING BELOW ITS LEVEL WHEN ELON MUSK FIRST TWEETED ABOUT TAKING TESLA PRIVATE (Reuters News - Factiva, 08/09/2018 02:01 PM)</p> <p>Tesla appears to be on a hiring spree in the US and in China two months after laying off 9% of its employees (TSLA) (Business Insider - Factiva, 08/09/2018 02:08 PM)</p> <p>MW UPDATE: Elon Musk is a 'natural maniac' -- here's what it means for Tesla investors, in one chart (MarketWatch - Factiva, 08/09/2018 02:09 PM)</p> <p>Q&A-Is SpaceX the model for a private Tesla? (Reuters News - Factiva, 08/09/2018 02:16 PM)</p> <p>Tesla's surging stock has cost short sellers \$3 billion this month (TSLA) (Business Insider - Factiva, 08/09/2018 02:16 PM)</p> <p>Is SpaceX the model for a private Tesla? (Reuters News - Factiva, 08/09/2018 02:22 PM)</p> <p>BREAKINGVIEWS-Tesla gets a lesson in buyout realities (Reuters News - Factiva, 08/09/2018 02:25 PM)</p> <p>Tesla shares fall as investors await Musk's funding plan (Reuters News - Factiva, 08/09/2018 02:30 PM)</p> <p>Tesla shares slip below level before Musk's going private tweet (Reuters News - Factiva, 08/09/2018 02:32 PM)</p> <p>SEC TO INCREASE SCRUTINY ON TESLA AFTER ELON MUSK'S TWEET STORM EARLIER THIS WEEK ABOUT TAKING THE COMPANY PRIVATE - BLOOMBERG TV TWEET (Reuters News - Factiva, 08/09/2018 02:36 PM)</p> <p>BRIEF-SEC To Increase Scrutiny On Tesla After Elon Musk's Tweet Storm Earlier This Week About Taking The Company Private - Bloomberg TV Tweet (Reuters News - Factiva, 08/09/2018 02:37 PM)</p> <p>SEC WAS SAID TO BE LOOKING AT TESLA BEFORE TAKEOVER TWEETS FROM ELON MUSK - BLOOMBERG, CITING SOURCES (Reuters News - Factiva, 08/09/2018 02:39 PM)</p> <p>SEC reportedly 'intensifying' examination of Tesla after Elon Musk tweets about taking the company private (TSLA) (Business Insider - Factiva, 08/09/2018 02:42 PM)</p> <p>SEC reportedly 'intensifying' examination of Tesla after Elon Musk tweets about taking the company private (TSLA) (Business Insider - Factiva, 08/09/2018 02:42 PM)</p> <p>BRIEF-SEC Was Said To Be Looking At Tesla Before Takeover Tweets From Elon Musk - Bloomberg (Reuters News - Factiva, 08/09/2018 02:45 PM)</p>

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											SEC intensifying Tesla probe - Bbg (Reuters News - Factiva, 08/09/2018 02:48 PM)
											Tesla stock drops back near pre-Musk tweet level (The Canadian Press - Broadcast wire - Factiva, 08/09/2018 02:52 PM)
											Moody's Says Tesla's Consideration To Go Private Based On Ceo's Note Is Credit Negative. (Dow Jones Institutional News - Factiva, 08/09/2018 02:57 PM)
											MW SEC 'intensifying' Tesla probe, company already under scrutiny: report (MarketWatch - Factiva, 08/09/2018 02:58 PM)
											SEC 'Intensifying' Tesla Probe, Company Already Under Scrutiny: Report -- MarketWatch (Dow Jones Institutional News - Factiva, 08/09/2018 02:58 PM)
											RPT-SEC WAS SAID TO BE LOOKING AT TESLA BEFORE TAKEOVER TWEETS FROM ELON MUSK - BLOOMBERG, CITING SOURCES (Reuters News - Factiva, 08/09/2018 03:00 PM)
											Tesla is now worth less than it was before Elon Musk's \$420 tweet (TSLA) (Business Insider - Factiva, 08/09/2018 03:00 PM)
											The Saudis Should Buy Tesla, But Not At \$420 Per Share (Benzinga.com - Factiva, 08/09/2018 03:00 PM)
											BRIEF-Moody's Says Tesla's Consideration To Go Private Based On CEO's Note Is Credit Negative (Reuters News - Factiva, 08/09/2018 03:01 PM)
											SEC 'intensifying' Tesla probe, company already under scrutiny: report (Dow Jones Newswires Chinese (English) - Factiva, 08/09/2018 03:22 PM)
											Moody's Calls Musk's Statements a 'Credit Negative' - Market Talk (Dow Jones Institutional News - Factiva, 08/09/2018 03:26 PM)
											3 Things Elon Musk Needs to Do to Take Tesla Private -- Barron's Blog (Dow Jones Institutional News - Factiva, 08/09/2018 03:31 PM)
											Farmland Prices Inch Up in Chicago Fed District -- Market Talk (Dow Jones Institutional News - Factiva, 08/09/2018 04:03 PM)
											Energy Companies Pull Dow, S&P 500 Lower -- Market Talk (Dow Jones Institutional News - Factiva, 08/09/2018 04:05 PM)
											Tesla tumbles as US stocks end mostly lower (Agence France Presse - Factiva, 08/09/2018 04:22 PM)
											Auto & Transport Roundup: Market Talk (Dow Jones Institutional News - Factiva, 08/09/2018 04:50 PM)
											UPDATE 3-Tesla shares fall 5 pct on Wall St skepticism, SEC probe reports (Reuters News - Factiva, 08/09/2018 04:51 PM)
											Tesla shares fall 5 percent on Wall Street skepticism, SEC probe reports (Reuters News - Factiva, 08/09/2018 04:54 PM)
											US STOCKS-S&P 500, Dow end lower with energy, financials; Tesla falls (Reuters News - Factiva, 08/09/2018 04:56 PM)

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											<p>S&P 500, Dow end lower with energy, financials; Tesla falls (Reuters News - Factiva, 08/09/2018 04:57 PM)</p> <p>MW UPDATE: Tesla's stock is the company's greatest marketing tool -- what happens when it goes away? (MarketWatch - Factiva, 08/09/2018 04:59 PM)</p> <p>BC-Business News Digest (Associated Press Newswires - Factiva, 08/09/2018 05:04 PM)</p> <p>MW Tesla board to ramp up going-private talks: report (MarketWatch - Factiva, 08/09/2018 05:18 PM)</p> <p>Tesla Board To Ramp Up Going-private Talks: Report -- MarketWatch (Dow Jones Institutional News - Factiva, 08/09/2018 05:18 PM)</p> <p>Tesla's board may reportedly tell Elon Musk to recuse himself from talks about taking the company private (TSLA) (Business Insider - Factiva, 08/09/2018 05:27 PM)</p> <p>Tesla board to ramp up going-private talks: report (Dow Jones Newswires Chinese (English) - Factiva, 08/09/2018 05:34 PM)</p> <p>Tesla stock drops closer to pre-Musk tweet level (Associated Press Newswires - Factiva, 08/09/2018 05:42 PM)</p> <p>Tesla stock drops closer to pre-Musk tweet level (The Canadian Press - Factiva, 08/09/2018 05:43 PM)</p> <p>EXCLUSIVE-Tesla's board seeking more information on Musk's financing plan - sources (Reuters News - Factiva, 08/09/2018 05:50 PM)</p> <p>Tesla Board Plans to Meet Advisers Next Week About Potential Buyout -CNBC (Dow Jones Institutional News - Factiva, 08/09/2018 05:50 PM)</p> <p>Elon Musk Is Beating Short-Sellers, for Now (NYTimes.com Feed - Factiva, 08/09/2018 05:59 PM)</p> <p>Investors really aren't buying Musk's plan for Tesla (CNN Wire - Factiva, 08/09/2018 06:02 PM)</p> <p>Investors really aren't buying Musk's plan for Tesla (CNN Wire - Factiva, 08/09/2018 06:36 PM)</p> <p>'Oil barons are behind plot to sink Tesla': An extraordinary claim emerges as the car maker's shares dip 5% (Mail Online - Factiva, 08/09/2018 06:56 PM)</p> <p>Elon Musk May Need to Raise Cash to Buy Tesla -- Market Talk (Dow Jones Newswires Chinese (English) - Factiva, 08/09/2018 07:45 PM)</p> <p>Tesla's shorters play the long game against Musk (thetimes.co.uk - Factiva, 08/09/2018 08:01 PM)</p> <p>EXCLUSIVE-Tesla's board seeking more information on Musk's financing plan - sources (Reuters News - Factiva, 08/09/2018 08:24 PM)</p> <p>Exclusive: Tesla's board seeking more information on Musk's financing plan - sources (Reuters News - Factiva, 08/09/2018 08:26 PM)</p>

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8/10/2018 Fri	11,552,044	\$355.49	0.86%	-0.63%	-1.41%	-1.24%	2.11%	0.82	41.15%	\$7.42	<p>BYD Will Need to Differentiate Versus Tesla -- Market Talk (Dow Jones Institutional News - Factiva, 08/09/2018 08:31 PM)</p> <p>Global Equities Roundup: Market Talk (Dow Jones Institutional News - Factiva, 08/09/2018 08:31 PM)</p> <p>BYD Will Need to Differentiate Versus Tesla -- Market Talk (Dow Jones Newswires Chinese (English) - Factiva, 08/09/2018 08:52 PM)</p> <p>Tesla board move forward on Elon Musk's go-private proposal (The Telegraph Online - Factiva, 08/09/2018 09:08 PM)</p> <p>Doug Field returns to Apple after leaving Tesla (CNET News.com - Factiva, 08/10/2018)</p> <p>Elon Musk's Tesla tweets are no longer scaring short sellers (latimes.com - Factiva, 08/10/2018)</p> <p>Teradici Expands its Public Cloud Partnership with Google Cloud To Enable Customers to Deploy and Manage Secure, High-Performance Virtual Workstations (Khaleej Times - Factiva, 08/10/2018)</p> <p>Tesla Motors launches promotional program of free Autopilot (Auto Business News - Factiva, 08/10/2018)</p> <p>08:27 EDT Morgan Stanley says Tesla LBO doesn't seem feasible, equity buyout... (Theflyonthewall.com - Factiva, 08/10/2018)</p> <p>08:41 EDT Tesla former engineering chief goes back to Apple, Reuters says Doug... (Theflyonthewall.com - Factiva, 08/10/2018)</p> <p>14:57 EDT Tesla seeks wide investor pool for go-private plan, Bloomberg says (Theflyonthewall.com - Factiva, 08/10/2018)</p> <p>15:05 EDT Tesla holding early talks with banks about plans, Bloomberg... (Theflyonthewall.com - Factiva, 08/10/2018)</p> <p>15:37 EDT Tesla seeks wide investor pool for go-private plan, Bloomberg... (Theflyonthewall.com - Factiva, 08/10/2018)</p> <p>18:56 EDT Class action suit filed against Elon Musk, Tesla Keller Lenkner LLC... (Theflyonthewall.com - Factiva, 08/10/2018)</p> <p>5 things you need to know to start the day (CE NoticiasFinancieras - Factiva, 08/10/2018)</p> <p>A tweet raises stocks and the stakes for Tesla chief (The Independent - Factiva, 08/10/2018)</p> <p>APPY FAMILIES (Herald-Sun - Factiva, 08/10/2018)</p> <p>APPY FAMILIES (The Advertiser - Factiva, 08/10/2018)</p> <p>BRIEFCASE (Boonville Daily News - Factiva, 08/10/2018)</p> <p>BRIEFCASE (Hannibal Courier-Post - Factiva, 08/10/2018)</p>

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											<p>BUSINESS BEAT; Tesla's stock surge fizzles; Tumble erases gains triggered by Musk's tweet on privatizing electric car maker. (Los Angeles Times - Factiva, 08/10/2018)</p> <p>CFRA Equity Research Research Report (Eikon - Manual Entry, 08/10/2018)</p> <p>Cowen and Company Research Report (Eikon - Manual Entry, 08/10/2018)</p> <p>DealBook Briefing: Where Is Tesla's Money? (The New York Times - Factiva, 08/10/2018)</p> <p>Delo analyses Tesla situation (STA - Factiva, 08/10/2018)</p> <p>Digest (The Washington Post - Factiva, 08/10/2018)</p> <p>Doubts grow about Musk's drive to take Tesla private (Irish Independent - Factiva, 08/10/2018)</p> <p>Dow Jones Futures Fall On Turkey, Intel; Tesla Volatile, These 2 IBD 50 Stocks Rally (Investor's Business Daily - Factiva, 08/10/2018)</p> <p>Dow Jones Futures Fall On Turkey; Tesla, These 2 IBD 50 Stocks Rally (Investor's Business Daily - Factiva, 08/10/2018)</p> <p>Electric dreams our new reality (The Ipswich Advertiser - Factiva, 08/10/2018)</p> <p>Elon Musk and Tesla: Tweet, rattle and roll (EJ Insight - Factiva, 08/10/2018)</p> <p>ELON MUSK TWEETS DRAW SEC SCRUTINY; AGENCY REPORTEDLY LOOKING INTO HOW THE FIRM WOULD FINANCE PLAN TO GO PRIVATE (San Jose Mercury News - Factiva, 08/10/2018)</p> <p>Firm, the bet to a fall of titles of Tesla (CE NoticiasFinancieras - Factiva, 08/10/2018)</p> <p>Former Tesla exec Doug Field is returning to Apple to work on its self-driving car program (San Francisco Business Times Online - Factiva, 08/10/2018)</p> <p>Former Tesla exec Doug Field is returning to Apple to work on its self-driving car program (Silicon Valley/San Jose Business Journal Online - Factiva, 08/10/2018)</p> <p>Here's why Elon Musk should take Tesla private (Smart Company - Factiva, 08/10/2018)</p> <p>How we've gone from a 'raging bull' to a sitting bull' and why you should stay away from Tesla; A roundup of investment ideas for active investors (The Globe and Mail (Breaking News) - Factiva, 08/10/2018)</p> <p>IN BRIEF (The Freeman - Factiva, 08/10/2018)</p> <p>IN BRIEF (Washington County Daily News - Factiva, 08/10/2018)</p> <p>Investment from overseas is strong despite tensions (China Daily-Africa Weekly - Factiva, 08/10/2018)</p> <p>Investment from overseas is strong despite tensions (China Daily-Europe Weekly - Factiva, 08/10/2018)</p>

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											<p>Investors not buying Musk's ability to get Tesla deal done; Most don't believe the flamboyant chief executive could secure the funding to take the company private (The Irish Times - Factiva, 08/10/2018)</p> <p>Investors seriously doubt Musk's plan to get Tesla out of stock market (CE NoticiasFinancieras - Factiva, 08/10/2018)</p> <p>InvestorsObserver; Is it time to buy stock in Advanced Micro Devices, Caesars Entertainment, Microsoft, Square Inc. or Tesla? (Entertainment Newsweekly - Factiva, 08/10/2018)</p> <p>Jefferson Research & Management Research Report (Capital IQ - Manual Entry, 08/10/2018)</p> <p>Keep your wallet and sanity intact and avoid Tesla stock (The Globe and Mail - Factiva, 08/10/2018)</p> <p>LIQUIDITY ALERT: Tesla Inc. Has US\$2.3-Bil. Deficit at March 31 (Lloyds Liquidity Alert - Factiva, 08/10/2018)</p> <p>Markets summary (The Globe and Mail - Factiva, 08/10/2018)</p> <p>Millennium BCP Research Report (Capital IQ - Manual Entry, 08/10/2018)</p> <p>Morgan Stanley Research Report (Capital IQ - Manual Entry, 08/10/2018)</p> <p>Morgan Stanley Research Report (Eikon - Manual Entry, 08/10/2018)</p> <p>Morgan Stanley Research Report (Eikon - Manual Entry, 08/10/2018)</p> <p>Morgan Stanley Research Report (Eikon - Manual Entry, 08/10/2018)</p> <p>Motor Vehicles and Passenger Car Bodies; Tesla, Inc. Files SEC Form 8-K, Current Report: (Jul. 30, 2018) (Journal of Transportation - Factiva, 08/10/2018)</p> <p>Musk 'held talks with SoftBank' (The Standard - Factiva, 08/10/2018)</p> <p>Musk in muck Deeper SEC probe sinks Telsa stock (New York Post - Factiva, 08/10/2018)</p> <p>Musk Is Beating Short-Sellers, for Now (The New York Times - Factiva, 08/10/2018)</p> <p>Note to Musk: Tesla isn't the only company targeted by short sellers. Here's who tops the list in Mass. (Boston Business Journal Online - Factiva, 08/10/2018)</p> <p>Note to Musk: Tesla isn't the only company targeted by short sellers. There are three in the Triad. (Triad Business Journal Online - Factiva, 08/10/2018)</p> <p>'OIL BARONS BEHIND PLOT TO SINK TESLA' (Daily Mail - Factiva, 08/10/2018)</p> <p>'Oil barons behind plot to sink Tesla' (Scottish Daily Mail - Factiva, 08/10/2018)</p> <p>Pressure on Musk to prove his buyout tweet (The Australian - Factiva, 08/10/2018)</p> <p>Probe into Tesla tweet (Gold Coast Bulletin - Factiva, 08/10/2018)</p> <p>Probe into Tesla tweet (Hobart Mercury - Factiva, 08/10/2018)</p> <p>Probe into Tesla tweet (Townsville Bulletin - Factiva, 08/10/2018)</p>

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											<p>Pros and cons of going private (The Australian - Factiva, 08/10/2018)</p> <p>Removing Tesla from Wall Street is easy, but is it? (CE NoticiasFinancieras - Factiva, 08/10/2018)</p> <p>Report: SEC probes Musk tweet (Shanghai Daily - Factiva, 08/10/2018)</p> <p>Report: SEC probing whether Elon Musk lied about plans to take Tesla private (Pacific Business News Online - Factiva, 08/10/2018)</p> <p>Report: Tesla board plans talks with financial advisers to explore buyout (SNL Energy Finance Daily - Factiva, 08/10/2018)</p> <p>Report: Tesla board plans talks with financial advisers to explore buyout (SNL Financial Services Daily - Factiva, 08/10/2018)</p> <p>SEC looking into Tesla after Musk's market-moving tweet (St. Paul Pioneer Press - Factiva, 08/10/2018)</p> <p>SEC said to step up probe of Tesla's public statements (Calgary Herald - Factiva, 08/10/2018)</p> <p>SEC said to step up probe of Tesla's public statements (Edmonton Journal - Factiva, 08/10/2018)</p> <p>SEC said to step up probe of Tesla's public statements (Montreal Gazette - Factiva, 08/10/2018)</p> <p>SEC said to step up probe of Tesla's public statements (Ottawa Citizen - Factiva, 08/10/2018)</p> <p>SEC said to step up probe of Tesla's public statements (Vancouver Sun - Factiva, 08/10/2018)</p> <p>Self driving Cars and Trucks Market Size, Share & Trends Analysis Report By Application (Transportation, Defense), By Region And Segment Forecasts, 2020 - 2030 (iCrowdNewswire - Factiva, 08/10/2018)</p> <p>Selling Tesla stock may not be a bad thing (USA Today - Factiva, 08/10/2018)</p> <p>Stocks - Tesla Volatile in Pre-market; Dropbox, News Corp Sink; ExOne Plummets (Investing.com - Factiva, 08/10/2018)</p> <p>Stocks Near Highs; Elon Musk Whipsaws Tesla; These Top Stocks Move On Earnings: Weekly Review (Investor's Business Daily - Factiva, 08/10/2018)</p> <p>Streetwise: Musk's Slight to Shareholders (The Wall Street Journal - Factiva, 08/10/2018)</p> <p>Susquehanna Financial Group LLLP Research Report (Eikon - Manual Entry, 08/10/2018)</p> <p>Tesla board seeking more info on Musk's financing plan: report (EJ Insight - Factiva, 08/10/2018)</p> <p>Tesla buyout not as big a long shot as it sounds, but would need to go short on leverage (Global Times - Factiva, 08/10/2018)</p>

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											<p>Tesla could thrive as private company but feasibility remains murky: Analysts (SNL Power Daily with Market Report - Factiva, 08/10/2018)</p> <p>Tesla falls, wiping out tweet-fueled rally in just two days (Charleston Gazette - Factiva, 08/10/2018)</p> <p>Tesla falls, wiping out tweet-fueled rally in just two days (Daily Herald - Factiva, 08/10/2018)</p> <p>Tesla falls, wiping out Tweet-fueled rally in just two days (Indiainfoline News Service - Factiva, 08/10/2018)</p> <p>Tesla isn't the only company targeted by short sellers. Here's who tops the list. (Orlando Business Journal Online - Factiva, 08/10/2018)</p> <p>Tesla isn't the only company targeted by short sellers. Here's who tops the list. (Triangle Business Journal Online - Factiva, 08/10/2018)</p> <p>Tesla isn't the only company targeted by short sellers. Here's who tops the list. (Washington Business Journal Online - Factiva, 08/10/2018)</p> <p>Tesla isn't the only company targeted by short sellers. Here's who tops the Tampa Bay list. (Tampa Bay Business Journal Online - Factiva, 08/10/2018)</p> <p>Tesla plunges, wiping out rally in 2 days (The Patriot Ledger - Factiva, 08/10/2018)</p> <p>Tesla stock falls closer to pre-Musk tweet level (Orlando Sentinel - Factiva, 08/10/2018)</p> <p>Tesla under further scrutiny after Musk remarks (The Boston Globe - Factiva, 08/10/2018)</p> <p>Tesla: What You Need to Know about the Federal EV Tax Credit Phase Out (Contify Automotive News - Factiva, 08/10/2018)</p> <p>Tesla's board evaluating Elon Musk's take-private plan, amid deflating investor enthusiasm (San Francisco Business Times Online - Factiva, 08/10/2018)</p> <p>Tesla's board evaluating Elon Musk's take-private plan, amid deflating investor enthusiasm (Silicon Valley/San Jose Business Journal Online - Factiva, 08/10/2018)</p> <p>Tesla's board evaluating Elon Musk's take-private plan, amid deflating investor enthusiasm (St. Louis Business Journal Online - Factiva, 08/10/2018)</p> <p>Tesla's board might not know where Elon's 'secure' funding is coming from (CNET News.com - Factiva, 08/10/2018)</p> <p>Tesla's Board To Meet Adviser on Privatization, Musk Seeking Saudi Sovereign Fund: Report (AAStocks Financial News - Factiva, 08/10/2018)</p> <p>Tesla's retail investors may want to take money and run if electric-car maker goes private (USA Today Online - Factiva, 08/10/2018)</p> <p>Tesla's shorters play the long game against Musk (The Times - Factiva, 08/10/2018)</p>

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											<p>Tesla's troubled New York solar factory tells a gloomy story (Business Times Singapore - Factiva, 08/10/2018)</p> <p>The long unraveling of Tesla's master plan (latimes.com - Factiva, 08/10/2018)</p> <p>The private stock musings and short fuse of Elon Musk (The Kansas City Star - Factiva, 08/10/2018)</p> <p>The S&P 500 and Dow ended down slightly yesterday as gains in Apple and Amazon... (The Herald - Factiva, 08/10/2018)</p> <p>The SEC is intensifying its probe of Tesla (The Plain Dealer - Factiva, 08/10/2018)</p> <p>The spotlight is back on the iCar as Tesla's vehicle engineering chief returns to Apple (Mashable.com - Factiva, 08/10/2018)</p> <p>U.S. sec turns eyes on tesla ceo's plans; Stock rises, then slips on going-private talk (National Post - Factiva, 08/10/2018)</p> <p>Unlikely delta Tesla: shares will fall, according to investors (CE NoticiasFinancieras - Factiva, 08/10/2018)</p> <p>UPDATE: Tesla shares jump 11% after CEO Musk confirms privatization interest (SNL Renewable Energy Weekly - Factiva, 08/10/2018)</p> <p>Valener utility leans on Tesla battery banks to get through Vt. heatwave (SNL Energy Finance Daily - Factiva, 08/10/2018)</p> <p>Valener utility leans on Tesla battery banks to get through Vt. heatwave (SNL Power Daily with Market Report - Factiva, 08/10/2018)</p> <p>WALL ST SCEPTICISM AND SEC PROBE HIT TESLA (City AM - Factiva, 08/10/2018)</p> <p>Whatever you think of Musk, stock markets must work for tech too (London Evening Standard - Factiva, 08/10/2018)</p> <p>WSJ: Musk denies having received funding for Tesla's withdrawal from stock exchange - may be in trouble*** TRANSLATED *** (STT - Factiva, 08/10/2018)</p> <p>WSJ: Musk denies having received funding for Tesla's withdrawal from stock exchange - may be in trouble*** TRANSLATED *** (STT - Factiva, 08/10/2018)</p> <p>WSJ: Musk may be in trouble with Tesla Tie*** TRANSLATED *** (STT - Factiva, 08/10/2018)</p> <p>Message to Elon Musk. If you ever get tired of America, you are very welcome here in Britain (The Telegraph Online - Factiva, 08/10/2018 02:13 AM)</p> <p>Musk's Slight to Shareholders -- WSJ (Dow Jones Institutional News - Factiva, 08/10/2018 02:32 AM)</p> <p>Ex-Tesla engineer Doug Field is back at Apple, working on its self-driving car program, Project Titan (Business Insider - Factiva, 08/10/2018 02:36 AM)</p>

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[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Elon Musk's Flawed Plan for Tesla Shareholders (Dow Jones Newswires Chinese (English) - Factiva, 08/10/2018 03:57 AM)</p> <p>Here's what the junk-bond market says about Tesla going private; Tesla bondholders are looking at things differently, says one fund manager (MarketWatch - Factiva, 08/10/2018 04:26 AM)</p> <p>Investors are overlooking this incredibly valuable part of Tesla's business; Analysts aren't focusing on the cash flow from autonomous taxis (MarketWatch - Factiva, 08/10/2018 04:38 AM)</p> <p>Tesla Board's Independence Is Tested by Musk's Buyout Idea (Dow Jones Institutional News - Factiva, 08/10/2018 05:30 AM)</p> <p>Tesla Board's Independence Is Tested by Musk's Buyout Idea; Most of the directors have close business or personal relationships with company CEO Elon Musk (The Wall Street Journal Online - Factiva, 08/10/2018 05:30 AM)</p> <p>Tesla car chief returns to Apple 'to work on secret car project' (The Telegraph Online - Factiva, 08/10/2018 05:30 AM)</p> <p>Tesla Board's Independence Faces Tough Test (Dow Jones Institutional News - Factiva, 08/10/2018 05:50 AM)</p> <p>Elon Musk is under 'increased scrutiny' from the SEC: Probe into Tesla CEO over tweeted plans to take the electric car company private 'intensifies' (Mail Online - Factiva, 08/10/2018 06:39 AM)</p> <p>DealBook Briefing: Saudi Arabia's Deep Pockets May Need a Top-Up (NYTimes.com Feed - Factiva, 08/10/2018 06:40 AM)</p> <p>Tesla board to meet on Musk's 'go private' plan (MarketLine News and Comment - Factiva, 08/10/2018 07:28 AM)</p> <p>Public or Private, Tesla Fans Are Along for the Ride; Many retail investors say they plan to stick with the electric-car maker for the long haul; one is 'betting on the jockey, not the horse' (The Wall Street Journal Online - Factiva, 08/10/2018 08:00 AM)</p> <p>Tesla Fans: Sign Us Up for Private Ride With Elon Musk (Dow Jones Institutional News - Factiva, 08/10/2018 08:00 AM)</p> <p>Tesla Fans: Sign Us Up for Private Ride With Elon Musk (Dow Jones Institutional News - Factiva, 08/10/2018 08:10 AM)</p> <p>MW UPDATE: Here's what the junk-bond market says about Tesla going private (MarketWatch - Factiva, 08/10/2018 08:26 AM)</p> <p>MW UPDATE: Investors are overlooking this incredibly valuable part of Tesla's business (MarketWatch - Factiva, 08/10/2018 08:38 AM)</p> <p>Tesla's former head of engineering Doug Field has left the company to work on Apple's secretive 'Project Titan' self-driving car experiment (Mail Online - Factiva, 08/10/2018 08:55 AM)</p> <p>Tesla is now worth less than it was before Elon Musk's \$420 tweet (TSLA) (Business Insider - Factiva, 08/10/2018 09:15 AM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Why Musk's Private Tesla Dream Shouldn't Spook Public Markets -- Heard on the Street (Dow Jones Institutional News - Factiva, 08/10/2018 09:29 AM)</p> <p>Why Musk's Private Tesla Dream Shouldn't Spook Public Markets; The number of listed companies may be falling but public equity isn't dying (The Wall Street Journal Online - Factiva, 08/10/2018 09:29 AM)</p> <p>Elon Musk makes good on his promise to send David Einhorn 'a box of short shorts' after Tesla hurt the short-seller's performance (TSLA) (Business Insider - Factiva, 08/10/2018 10:20 AM)</p> <p>TESLA SHARES SOLD SHORT AT 34.75 MLN AS OF AUG 9, UP FROM 34.67 MLN BEFORE ELON MUSK'S GO-PRIVATE TWEET ON AUG 7 - S3 PARTNERS DATA (Reuters News - Factiva, 08/10/2018 11:12 AM)</p> <p>Tesla short-sellers back in force as shares remain shaky (Reuters News - Factiva, 08/10/2018 11:40 AM)</p> <p>Tesla short-sellers back in force as shares remain shaky (Reuters News - Factiva, 08/10/2018 11:46 AM)</p> <p>Tesla to be examined by SEC over Elon Musk's 'funding secured' tweet (The Guardian - Factiva, 08/10/2018 11:46 AM)</p> <p>Riding Tesla's Volatile Shares -- Barrons.com (Dow Jones Institutional News - Factiva, 08/10/2018 02:12 PM)</p> <p>CORRECTED-Doug Field, former Tesla engineering chief, returns to Apple (Reuters News - Factiva, 08/10/2018 02:22 PM)</p> <p>Musk's Buyout Plan May Signal Market Woes Ahead -- Barrons.com (Dow Jones Institutional News - Factiva, 08/10/2018 02:24 PM)</p> <p>Doug Field, former Tesla engineering chief, returns to Apple (Reuters News - Factiva, 08/10/2018 02:27 PM)</p> <p>Elon Musk's 'funding secured' tweet could cost Tesla millions, former SEC chairman says (TSLA) (Business Insider - Factiva, 08/10/2018 02:55 PM)</p> <p>REFILE-TIMELINE-Main events in Tesla's history as a public company (Reuters News - Factiva, 08/10/2018 03:41 PM)</p> <p>Timeline: Main events in Tesla's history as a public company (Reuters News - Factiva, 08/10/2018 03:55 PM)</p> <p>Riding Tesla's Volatile Shares (Barron's Online - Factiva, 08/10/2018 04:27 PM)</p> <p>How Some CEOs Successfully Run More Than One Company (Barron's Online - Factiva, 08/10/2018 04:30 PM)</p> <p>How Some CEOs Successfully Run More Than One Company -- Barrons.com (Dow Jones Institutional News - Factiva, 08/10/2018 04:30 PM)</p> <p>Tesla's Unreal Stock Price Is the Peril of Elon; Enron's problems began with a share price its business couldn't support. Will Tesla do better? (The Wall Street Journal Online - Factiva, 08/10/2018 05:17 PM)</p>

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8/11/2018 Sat											<p>BRIEF-Tesla Says Federal EV Tax Credit Will Exist In Some Form Through End Of 2019 (Reuters News - Factiva, 08/10/2018 06:09 PM)</p> <p>TESLA SHAREHOLDER FILES PROPOSED CLASS-ACTION LAWSUIT ACCUSING COMPANY, CEO ELON MUSK OF SECURITIES FRAUD -- COURT FILING (Reuters News - Factiva, 08/10/2018 06:32 PM)</p> <p>LAWSUIT SAYS DEFENDANTS SCHEMED TO MANIPULATE TESLA STOCK PRICE AND 'COMPLETELY DECIMATE' SHORT-SELLERS, STARTING WITH MUSK TWEET SAYING WAS CONSIDERING TAKING TESLA PRIVATE (Reuters News - Factiva, 08/10/2018 06:34 PM)</p> <p>Tesla CEO Musk accused in lawsuit of defrauding shareholders (Reuters News - Factiva, 08/10/2018 06:50 PM)</p> <p>Keller Lenkner LLC Files Class Action Suit Against Elon Musk and Tesla, Inc. (PR Newswire - Factiva, 08/10/2018 06:51 PM)</p> <p>Press Release: Keller Lenkner LLC Files Class Action Suit Against Elon Musk and Tesla, Inc. (Dow Jones Institutional News - Factiva, 08/10/2018 06:51 PM)</p> <p>Musk's Buyout Plan May Signal Market Woes Ahead (Barron's Online - Factiva, 08/10/2018 07:43 PM)</p> <p>Hagens Berman Sobol Shapiro LLP Files Securities Class Action Against Tesla, Inc. (NASDAQ: TSLA) and Elon Musk For False Market Moving Tweet (GlobeNewswire - Factiva, 08/10/2018 08:18 PM)</p> <p>UPDATE 3-Lawsuits accuse Tesla's Musk of fraud over tweets, going-private proposal (Reuters News - Factiva, 08/10/2018 08:49 PM)</p> <p>Lawsuits accuse Tesla's Musk of fraud over tweets, going-private proposal (Reuters News - Factiva, 08/10/2018 09:02 PM)</p> <p>SHAREHOLDER ALERT: Kaskela Law LLC Announces Shareholder Class Action Lawsuit Filed Against Tesla, Inc. and Elon Musk, and Encourages Investors to Contact the Firm (GlobeNewswire - Factiva, 08/10/2018 10:08 PM)</p> <p>Elon Musk Plans Taking Tesla Private (Financial Deals Tracker - Factiva, 08/11/2018)</p> <p>Elon Musk Plans Taking Tesla Private (Financial Deals Tracker - Factiva, 08/11/2018)</p> <p>Elon Musk's \$82bn quest to silence his critics (ArabianBusiness.com - Factiva, 08/11/2018)</p> <p>12:37 EDT Some CEOs successfully run more than one company, Barron's saysAmazon... (Theflyonthewall.com - Factiva, 08/11/2018)</p> <p>Analysis: How Elon Musk's SpaceX may be model for Tesla going private (Daily Herald - Factiva, 08/11/2018)</p> <p>APPY FAMILIES (Daily Telegraph - Factiva, 08/11/2018)</p> <p>AS SEC SCRUTINISES TESLA, MUSK CATCHES SHORTERS SHORT (Herald-Sun - Factiva, 08/11/2018)</p>

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											<p>Business (The Economist - Factiva, 08/11/2018)</p> <p>By Geoffrey A. Fowler (The Florida Times-Union - Factiva, 08/11/2018)</p> <p>By Russ Mitchell (The Florida Times-Union - Factiva, 08/11/2018)</p> <p>CITY ANALYSIS (The Sun - Factiva, 08/11/2018)</p> <p>CITY ANALYSIS (The Sun - Factiva, 08/11/2018)</p> <p>Corporate cops examine Musk (Hobart Mercury - Factiva, 08/11/2018)</p> <p>Corporate cops to examine Musk tweet (The Advertiser - Factiva, 08/11/2018)</p> <p>DealBook Briefing: Saudi Arabia's Deep Pockets May Need a Top-Up (The New York Times - Factiva, 08/11/2018)</p> <p>EXCHANGE --- Banking & Finance: Fork in Road Looms for Tesla Investors --- If buyout proceeds, some plan to stay aboard, while others may be forced to sell (The Wall Street Journal - Factiva, 08/11/2018)</p> <p>EXCHANGE --- Tesla Buyout Puts Board On Hot Seat --- Many members have close relations with Musk (The Wall Street Journal - Factiva, 08/11/2018)</p> <p>IS APPLE SECRETLY MAKING AN ELECTRIC CAR? (Daily Mail - Factiva, 08/11/2018)</p> <p>Is Apple secretly making an electric car? (Scottish Daily Mail - Factiva, 08/11/2018)</p> <p>LOOK OUT TESLA, HERE COMES PININFARINA (Dominion Post - Factiva, 08/11/2018)</p> <p>Musk trashes Silicon Valley playbook in rejecting Wall Street (San Francisco Chronicle: Web Edition - Factiva, 08/11/2018)</p> <p>One of the major shareholders says it does not intend to fund Tesla's stock exchange exit (CE NoticiasFinancieras - Factiva, 08/11/2018)</p> <p>REPORT: TESLA DIRECTORS TO MEET WITH ADVISERS ON MUSK'S PLANS TO TAKE COMPANY PRIVATE (San Jose Mercury News - Factiva, 08/11/2018)</p> <p>SHAREHOLDER FILES SUIT AGAINST TESLA, MUSK; INVESTOR ALLEGES THE ELECTRIC CAR MAKER AND ITS CEO SCHEMED TO MANIPULATE THE FIRM'S STOCK PRICE (San Jose Mercury News - Factiva, 08/11/2018)</p> <p>Shareholders sue Tesla and Elon Musk in the US (CE NoticiasFinancieras - Factiva, 08/11/2018)</p> <p>SILENT ASSASSIN (The New Zealand Herald - Factiva, 08/11/2018)</p> <p>Speaking of Business: 'We just wanted to build the craziest, coolest stuff we could'; This week's best quotes in business come from skateboarding, drone delivery, retail, Ford Mustangs, and, as happens frequently, the turbulent world of Elon Musk and Tesla. (The Seattle Times: Web Edition - Factiva, 08/11/2018)</p> <p>Tesla and Musk sued over tweet (Houston Chronicle - Factiva, 08/11/2018)</p>

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											<p>Tesla and the markets: Beckoning the barbarians (Economist Intelligence Unit - Executive Briefing - Factiva, 08/11/2018)</p> <p>Tesla and the markets: Beckoning the barbarians (The Economist - Factiva, 08/11/2018)</p> <p>Tesla CEO Musk taunts short sellers amid legal scrutiny (Postmedia Breaking News - Factiva, 08/11/2018)</p> <p>Tesla CEO sued for tweets about possible exit from the stock market (CE NoticiasFinancieras - Factiva, 08/11/2018)</p> <p>Tesla fans in Australia losing faith after Elon Musk's tweets and delays to Model 3 car (Australian Broadcasting Corporation News - Factiva, 08/11/2018)</p> <p>Tesla Model X 100D: Electric show (CE NoticiasFinancieras - Factiva, 08/11/2018)</p> <p>Tesla plunges, wiping out tweet-fuelled rally in just two days (U-Wire - Factiva, 08/11/2018)</p> <p>Tesla Seeking Wide Investor Pool For Go-Private Plan (National Post - Factiva, 08/11/2018)</p> <p>Tesla shareholders who sell if Musk takes electric-car maker private will be big losers for one reason (CPI Financial - Factiva, 08/11/2018)</p> <p>Tesla short makes fashion statement (New York Post - Factiva, 08/11/2018)</p> <p>Tesla's Musk accused of fraud over tweets (AAP Bulletins - Factiva, 08/11/2018)</p> <p>Tesla's Unreal Stock Price Is the Peril of Elon (The Wall Street Journal - Factiva, 08/11/2018)</p> <p>Wall Street not ready to join Musk fan club (The Irish Times - Factiva, 08/11/2018)</p> <p>What happens to an electric vehicle in winter? Many Tesla owners report an overall range reduction of approximately 20 per cent (The Globe and Mail (Breaking News) - Factiva, 08/11/2018)</p> <p>Wright Reports Research Report (Eikon - Manual Entry, 08/11/2018)</p> <p>Aussie Tesla fans left asking 'dude, where's my car?' after Elon Musk's tweets and delays see them waiting more than three years for Model 3 (Mail Online - Factiva, 08/11/2018 12:34 AM)</p> <p>Fork in Road Looms for Tesla Investors -- WSJ (Dow Jones Institutional News - Factiva, 08/11/2018 02:32 AM)</p> <p>Tesla Buyout Puts Board On Hot Seat -- WSJ (Dow Jones Institutional News - Factiva, 08/11/2018 02:32 AM)</p> <p>It's Not Just Jack: Other Chief Executives Who Pull Double Duty -- Barron's (Dow Jones Institutional News - Factiva, 08/11/2018 06:00 AM)</p> <p>Options -- The Striking Price: Riding Tesla's Volatile Shares -- Barron's (Dow Jones Institutional News - Factiva, 08/11/2018 06:00 AM)</p>

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											<p>Up & Down Wall Street: Musk's Minsky Moment? -- Barron's (Dow Jones Institutional News - Factiva, 08/11/2018 06:00 AM)</p> <p>'Fraudster Move': Elon Musk Sued for Manipulating Stock Prices Through Twitter (Sputnik News Service - Factiva, 08/11/2018 06:40 AM)</p> <p>Hey Elon Musk, where's the funding to take Tesla private? Opinion: If Musk can't prove his contention that funding was secured for Tesla to go private, he needs to resign (MarketWatch - Factiva, 08/11/2018 06:59 AM)</p> <p>Musk's plan to take Tesla private and allow outside shareholders is not an easy path; Musk's idea of a special purpose fund is unwieldy, meant for angel investors and small start-ups (MarketWatch - Factiva, 08/11/2018 07:20 AM)</p> <p>Elon Musk's tweet about taking Tesla private might be ethically questionable, but it isn't morally wrong (TSLA) (Business Insider - Factiva, 08/11/2018 08:57 AM)</p> <p>Elon Musk and Tesla accused of fraud by short-sellers after 'going private' tweet (Independent Online - Factiva, 08/11/2018 10:20 AM)</p> <p>MW UPDATE: Hey Elon Musk, where's the funding to take Tesla private? (MarketWatch - Factiva, 08/11/2018 10:59 AM)</p> <p>Musk's half-baked plan threatens Tesla's dream (The Telegraph Online - Factiva, 08/11/2018 11:06 AM)</p> <p>Musk's fight with short sellers advanced by first lawsuit over Tesla's going-private tease; Suit questions funding sources, disclosure as analysts continue to scrutinize unusual proposal (MarketWatch - Factiva, 08/11/2018 11:10 AM)</p> <p>MW UPDATE: Musk's plan to take Tesla private and allow outside shareholders is not an easy path (MarketWatch - Factiva, 08/11/2018 11:20 AM)</p> <p>EXCLUSIVE-Saudi Arabia's PIF has shown no interest in bankrolling Tesla buyout - sources (Reuters News - Factiva, 08/11/2018 11:57 AM)</p> <p>EXCLUSIVE-SAUDI ARABIA'S SOVEREIGN WEALTH FUND PIF HAS SHOWN NO INTEREST IN FINANCING A TAKE-PRIVATE DEAL FOR TESLA INC - SOURCES (Reuters News - Factiva, 08/11/2018 11:57 AM)</p> <p>Combative Tesla chief divides Wall Street (Shanghai Daily Online - Factiva, 08/11/2018 12:01 PM)</p> <p>Tesla's Elon Musk sued following proposal to take firm private (London Evening Standard Online - Factiva, 08/11/2018 12:12 PM)</p> <p>So Apple IS planning to build a driverless car? Silicon valley titan poaches Elon Musk's former chief Tesla engineer (Mail Online - Factiva, 08/11/2018 01:16 PM)</p> <p>Tesla CEO Musk taunts short sellers amid legal scrutiny (The Canadian Press - Broadcast wire - Factiva, 08/11/2018 01:26 PM)</p> <p>S3 Partners: Tesla Shorts Haven't Gone Anywhere (Benzinga.com - Factiva, 08/11/2018 02:01 PM)</p>

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8/12/2018 Sun											<p>Investors sue Tesla's Musk over go-private tweets (Agence France Presse - Factiva, 08/11/2018 02:20 PM)</p> <p>'A private life is a happy life': Here's what Wall Street is saying about Tesla's plan to leave the stock market (TSLA) (Business Insider - Factiva, 08/11/2018 02:55 PM)</p> <p>MW UPDATE: Musk's fight with short sellers advanced by first lawsuit over Tesla's going-private tease (MarketWatch - Factiva, 08/11/2018 03:10 PM)</p> <p>Two lawsuits accuse Elon Musk of false statements to boost Tesla share price (CNN Wire - Factiva, 08/11/2018 05:59 PM)</p> <p>Two lawsuits accuse Elon Musk of false statements to boost Tesla share price (CNN Wire - Factiva, 08/11/2018 06:22 PM)</p> <p>Tesla CEO Musk taunts short sellers amid legal scrutiny (Associated Press Newswires - Factiva, 08/11/2018 06:23 PM)</p> <p>Tesla CEO Musk taunts short sellers amid legal scrutiny (The Canadian Press - Factiva, 08/11/2018 06:23 PM)</p> <p>Two lawsuits accuse Elon Musk of false statements to boost Tesla share price (CNN Wire - Factiva, 08/11/2018 06:28 PM)</p> <p>Musk selects overdrive in battle with Tesla critics (sundaytimes.co.uk - Factiva, 08/11/2018 08:01 PM)</p> <p>Tesla: Musk's tweet a bridge too far? (Agence France Presse - Factiva, 08/11/2018 09:31 PM)</p> <p>Elon Musk's tweet draws Tesla investor lawsuit over share price swings (ArabianBusiness.com - Factiva, 08/12/2018)</p> <p>Elon Musk's wild ambitions road-tested by reality (The Sunday Telegraph - Factiva, 08/12/2018)</p> <p>Apple in car rumour after Tesla swoop (The Sunday Mirror - Factiva, 08/12/2018)</p> <p>Combative Tesla chief divides Wall Street (Shanghai Daily - Factiva, 08/12/2018)</p> <p>Dow Jones Futures: Turkey's Lira Dives, Tesla In Focus; Watch These 3 Top Stocks Near Buy Points (Investor's Business Daily - Factiva, 08/12/2018)</p> <p>Furious investors slam the brakes on Tesla's buyout bid (The Sunday Telegraph - Factiva, 08/12/2018)</p> <p>Musk no longer scaring shorts with Tesla tweets (The Sunday Independent - Factiva, 08/12/2018)</p> <p>Musk rips up playbook with plan to take Tesla private (The San Francisco Chronicle - Factiva, 08/12/2018)</p> <p>Musk selects overdrive in battle with Tesla critics (The Sunday Times - Factiva, 08/12/2018)</p> <p>Musk selects overdrive in war with Tesla critics (The Sunday Times - Factiva, 08/12/2018)</p>

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											<p>Musk taunts 'short' sellers on Twitter despite earlier tweet sparking SEC probe (Boston Herald - Factiva, 08/12/2018)</p> <p>MUSK'S BUYOUT BID RAISES EYEBROWS (Sunday Star-Times - Factiva, 08/12/2018)</p> <p>Musk's halfbaked plan threatens Tesla dream (The Sunday Telegraph - Factiva, 08/12/2018)</p> <p>Saudi Arabia starts to weaponize its wealth (Korea Times - Factiva, 08/12/2018)</p> <p>Saudi Arabia's PIF has no plans to back Tesla buyout - report (ArabianBusiness.com - Factiva, 08/12/2018)</p> <p>Saudi Arabia's PIF has not shown interest in bankrolling Tesla buyout (CPI Financial - Factiva, 08/12/2018)</p> <p>Saudi fund said to be in talks to invest in Tesla buyout deal (latimes.com - Factiva, 08/12/2018)</p> <p>Saudi's PIF in talks to become significant investor in Tesla (ArabianBusiness.com - Factiva, 08/12/2018)</p> <p>Tesla board to meet on Musk's 'go private' plan. (Just-Auto - Factiva, 08/12/2018)</p> <p>Tesla boss lawsuit (Sunday Mail - Factiva, 08/12/2018)</p> <p>Tesla CEO Musk accused in lawsuit of defrauding shareholders (U-Wire - Factiva, 08/12/2018)</p> <p>Tesla taunts through Twitter (The Calgary Sun - Factiva, 08/12/2018)</p> <p>Tesla taunts through Twitter (The Edmonton Sun - Factiva, 08/12/2018)</p> <p>Tesla, Elon Musk facing lawsuits over tweets to take company private (USA Today Online - Factiva, 08/12/2018)</p> <p>Tesla investors angered at Musk's \$420 lowball deal (The Telegraph Online - Factiva, 08/12/2018 03:00 AM)</p> <p>Saudi Arabia's PIF has not shown interest in bankrolling Tesla buyout (Mist News - Factiva, 08/12/2018 06:28 AM)</p> <p>After Tesla Buyout Tweet, Some Investors Wonder: Where Was Nasdaq? (Dow Jones Institutional News - Factiva, 08/12/2018 09:00 AM)</p> <p>After Tesla Buyout Tweet, Some Investors Wonder: Where Was Nasdaq? Elon Musk's 'financing secured' buyout tweet last week touched off 80 minutes of frenzied trading before Nasdaq called a halt (The Wall Street Journal Online - Factiva, 08/12/2018 09:00 AM)</p> <p>Blacklane Introduces Chauffeured Green Class with Teslas (GlobeNewswire - Factiva, 08/12/2018 09:00 AM)</p> <p>Elon Musk's tweeting habits serve as a useful lesson to modern CEOs (Independent Online - Factiva, 08/12/2018 09:05 AM)</p>

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											<p>Saudi Arabia Explores Investment in Tesla's Take-Private Deal - Reports (Sputnik News Service - Factiva, 08/12/2018 12:34 PM)</p> <p>Did Nasdaq drop the ball after Elon Musk's going-private tweet? Criticism over 80-minute delay before halting trading (MarketWatch - Factiva, 08/12/2018 12:37 PM)</p> <p>Elon Musk's ambitions are being road-tested by reality (The Telegraph Online - Factiva, 08/12/2018 01:00 PM)</p> <p>Correction to 'After Tesla Buyout Tweet, Some Investors Wonder: Where Was Nasdaq?' (Dow Jones Institutional News - Factiva, 08/12/2018 01:05 PM)</p> <p>Tesla's surging stock has cost short sellers \$3 billion this month (TSLA) (Business Insider - Factiva, 08/12/2018 03:10 PM)</p> <p>Saudi Arabia eyes enlarged stake in Musk's private Tesla (The Telegraph Online - Factiva, 08/12/2018 04:10 PM)</p> <p>UPDATE 1-EXCLUSIVE-Saudi Arabia's PIF has shown no interest in bankrolling Tesla buyout - sources (Reuters News - Factiva, 08/12/2018 04:16 PM)</p> <p>Exclusive: Saudi Arabia's PIF has shown no interest in bankrolling Tesla buyout - sources (Reuters News - Factiva, 08/12/2018 04:20 PM)</p> <p>Elon Musk sparks fury privatising Tesla 'on the CHEAP' after Twitter announcement (express.co.uk - Factiva, 08/12/2018 04:25 PM)</p> <p>Tesla move shows lack of appeal in market (The Telegraph Online - Factiva, 08/12/2018 04:43 PM)</p> <p>Giant Saudi fund emerges as backer of bid for Elon Musk's Tesla (thetimes.co.uk - Factiva, 08/12/2018 08:01 PM)</p> <p>Report: Saudi Arabia is looking to invest big in Tesla as the company teases going private (Business Insider - Factiva, 08/12/2018 08:45 PM)</p> <p>After Tesla Buyout Tweet, Some Wonder: Where Was Nasdaq? (Dow Jones Institutional News - Factiva, 08/12/2018 09:00 PM)</p> <p>Public or Private, Tesla Fans Are Along for the Ride (Dow Jones Newswires Chinese (English) - Factiva, 08/12/2018 11:14 PM)</p>
8/13/2018 Mon	10,463,881	\$356.41	0.26%	-0.25%	-1.49%	-0.69%	0.95%	0.37	71.12%	\$3.37	<p>Elon Musk Blog Post Reveals How He Plans To Take Tesla Private (Investor's Business Daily - Factiva, 08/13/2018)</p> <p>Elon Musk defends decision to announce plans to take Tesla private (Mashable.com - Factiva, 08/13/2018)</p> <p>Elon Musk names Saudi wealth fund as Tesla's funding source (CNET News.com - Factiva, 08/13/2018)</p> <p>Elon Musk names Saudi wealth fund as Tesla's funding source (CNET News.com - Factiva, 08/13/2018)</p> <p>Elon Musk says in talks with Saudis on taking Tesla private (ArabianBusiness.com - Factiva, 08/13/2018)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Elon Musk says the Saudi sovereign fund wants to get Tesla out of the stock market (CE NoticiasFinancieras - Factiva, 08/13/2018)</p> <p>Hagens Berman Sobol Shapiro LLP Files Securities Class Action Against Tesla, Inc. (NASDAQ: TSLA) and Elon Musk For False Market Moving Tweet (iCrowdNewswire - Factiva, 08/13/2018)</p> <p>Hagens Berman Sobol Shapiro LLP Files Securities Class Action Against Tesla, Inc. (NASDAQ: TSLA) and Elon Musk For False Market Moving Tweet (Public Eye - Factiva, 08/13/2018)</p> <p>Nasdaq Faulted Over Tesla (The Wall Street Journal - Factiva, 08/13/2018)</p> <p>SoftBank to shun Tesla deal as it focuses on ridesharing, autonomous vehicles (ArabianBusiness.com - Factiva, 08/13/2018)</p> <p>*SEC Globe/AP say Musk keeps tweeting despite SEC probe (Canada Stockwatch - Factiva, 08/13/2018)</p> <p>06:13 EDT Saudi Arabia's PIF has shown no interest in funding Tesla buyout... (Theflyonthewall.com - Factiva, 08/13/2018)</p> <p>06:35 EDT SoftBank to shun Tesla deal as it focuses on other car bets, Bloomberg... (Theflyonthewall.com - Factiva, 08/13/2018)</p> <p>09:05 EDT Tesla CEO Musk provides update on taking Tesla private (Theflyonthewall.com - Factiva, 08/13/2018)</p> <p>09:06 EDT Tesla CEO Musk provides update on taking Tesla privateTesla CEO Elon... (Theflyonthewall.com - Factiva, 08/13/2018)</p> <p>09:07 EDT Tesla: Left meeting with 'no question' deal with Saudi fund could be... (Theflyonthewall.com - Factiva, 08/13/2018)</p> <p>09:08 EDT Tesla CEO says said 'funding secured' after meeting with Saudi fund (Theflyonthewall.com - Factiva, 08/13/2018)</p> <p>09:08 EDT Tesla CEO says will continue to talk with investorsCEO Elon Musk says... (Theflyonthewall.com - Factiva, 08/13/2018)</p> <p>09:09 EDT Tesla CEO: Going-private deal 'would not be like standard LBO' (Theflyonthewall.com - Factiva, 08/13/2018)</p> <p>09:09 EDT Tesla CEO: Saudi fund recently bought almost 5% of Tesla stock (Theflyonthewall.com - Factiva, 08/13/2018)</p> <p>09:10 EDT Tesla: Approx. 2/3 of shares owned by investors would roll over into... (Theflyonthewall.com - Factiva, 08/13/2018)</p> <p>5 things you need to know to start the day (CE NoticiasFinancieras - Factiva, 08/13/2018)</p> <p>A Saudi fund would take Tesla out of the Stock Exchange: Elon Musk (CE NoticiasFinancieras - Factiva, 08/13/2018)</p> <p>AN adds mobility tech reporter (Automotive News - Factiva, 08/13/2018)</p>

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											Blacklane Introduces Chauffeured Green Class with Teslas (The Zimbabwean - Factiva, 08/13/2018)
											CFRA Equity Research Research Report (Capital IQ - Manual Entry, 08/13/2018)
											Chinese Tesla rival files to raise \$1.8 billion in U.S. IPO (Silicon Valley/San Jose Business Journal Online - Factiva, 08/13/2018)
											David Booth: Who can afford to take Tesla private? Well, the Saudis for one (Postmedia Breaking News - Factiva, 08/13/2018)
											Denholm's Tesla gig a tidy earner (The Australian - Online - Factiva, 08/13/2018)
											Dow Jones Futures Fall: Turkey's Lira, Tesla In Focus; Watch These 3 Top Stocks Near Buy Points (Investor's Business Daily - Factiva, 08/13/2018)
											Dow Jones Futures: Turkey's Lira, Tesla In Focus; Watch These 3 Top Stocks Near Buy Points (Investor's Business Daily - Factiva, 08/13/2018)
											Dow Jones Futures: Why This Stock Breakout Is Special; Tesla Rival Files For IPO (Investor's Business Daily - Factiva, 08/13/2018)
											EDITORIAL: Time for Tesla to perform (The Buffalo News (Tribune Content Agency) - Factiva, 08/13/2018)
											Elon Musk confirms Saudi sovereign fund wants to pull Tesla off market (EFE News Service - Factiva, 08/13/2018)
											Elon Musk defends his 'funding secured' tweet to take Tesla private (The Hamilton Spectator - Factiva, 08/13/2018)
											Elon Musk faces legal action over 1 little tweet (and a big share price jump) (CNET News.com - Factiva, 08/13/2018)
											Elon Musk reveals funding for taking Tesla private: Saudi oil money (San Francisco Chronicle: Web Edition - Factiva, 08/13/2018)
											Elon Musk says he is talking with the Saudis about pulling Tesla out of the stock exchange*** TRANSLATED *** (STT - Factiva, 08/13/2018)
											Elon Musk says he is talking with the Saudis about pulling Tesla out of the stock exchange*** TRANSLATED *** (STT - Factiva, 08/13/2018)
											Elon Musk Says Saudi Interest Sparked Effort to Take Tesla Private (Industry Week - Factiva, 08/13/2018)
											Elon Musk says Saudi investment fund could help him take Tesla private (Minnesota Public Radio: Web Edition Articles - Factiva, 08/13/2018)
											Elon Musk says Saudi investment fund could help him take Tesla private (Minnesota Public Radio: Web Edition Articles - Factiva, 08/13/2018)
											Elon Musk: Saudi Arabia could finance Tesla's withdrawal from the stock exchange*** TRANSLATED *** (STT - Factiva, 08/13/2018)

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											<p>First lawsuits filed over Elon Musk's Tesla privatisation tweets (V3 - Factiva, 08/13/2018)</p> <p>Former Tesla exec returns to Apple (German Collection - Factiva, 08/13/2018)</p> <p>Founders of these 10 top-valued unicorns are sitting on paper wealth of about \$60B (Silicon Valley/San Jose Business Journal Online - Factiva, 08/13/2018)</p> <p>Giant Saudi fund emerges as backer of bid for Tesla (The Times - Factiva, 08/13/2018)</p> <p>Increased investor nervousness over how Elon Musk uses social media (CE NoticiasFinancieras - Factiva, 08/13/2018)</p> <p>Investors sue Tesla, Musk over going-private proposal (EJ Insight - Factiva, 08/13/2018)</p> <p>Investors sue Tesla's Musk over go-private tweets (The New Paper - Factiva, 08/13/2018)</p> <p>Is Tesla better off private? Avoiding public scrutiny would help, but not enough (Automotive News - Factiva, 08/13/2018)</p> <p>It's Not Just Jack: Other Chief Executives Who Pull Double Duty (Barron's - Factiva, 08/13/2018)</p> <p>Lawsuits accuse Tesla's Musk of fraud over going-private talk (China Daily - Factiva, 08/13/2018)</p> <p>Lawsuits accuse Tesla's Musk of fraud over going-private talk (China Daily-Hong Kong Edition - Factiva, 08/13/2018)</p> <p>Led by Tesla, these big Silicon Valley employers ramped up hiring the most since the Great Recession (Silicon Valley/San Jose Business Journal Online - Factiva, 08/13/2018)</p> <p>LEGAL ROW OVER MUSK TESLA PLAN (City AM - Factiva, 08/13/2018)</p> <p>M&A Opportunity Tesla Inc. (The Deal - Factiva, 08/13/2018)</p> <p>Millennium BCP Research Report (Capital IQ - Manual Entry, 08/13/2018)</p> <p>Morgan Stanley Research Report (Capital IQ - Manual Entry, 08/13/2018)</p> <p>Morgan Stanley Research Report (Capital IQ - Manual Entry, 08/13/2018)</p> <p>Morgan Stanley Research Report (Capital IQ - Manual Entry, 08/13/2018)</p> <p>Morgan Stanley Research Report (Eikon - Manual Entry, 08/13/2018)</p> <p>Morgan Stanley Research Report (Eikon - Manual Entry, 08/13/2018)</p> <p>Morningstar Inc. Research Report (Capital IQ - Manual Entry, 08/13/2018)</p> <p>Morningstar Inc. Research Report (Eikon - Manual Entry, 08/13/2018)</p> <p>Musk Confirms Saudi Wealth Fund Wants To Take Tesla Private; Elaborates Process (CE NoticiasFinancieras - Factiva, 08/13/2018)</p> <p>Musk Confirms Saudi Wealth Fund Wants To Take Tesla Private; Elaborates Process (RTT News - Factiva, 08/13/2018)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											Musk reveals one driver behind taking-Tesla-private plan (Daily News Egypt - Factiva, 08/13/2018)
											Musk says he's talking with Saudi fund to take Tesla private (Postmedia Breaking News - Factiva, 08/13/2018)
											Musk says Saudi fund expressed support for taking Tesla private; Riyadh pushes for Tesla's privatization: Musk (The Daily Star - Factiva, 08/13/2018)
											Musk taunts Tesla 'short sellers' (The New Zealand Herald - Factiva, 08/13/2018)
											Musk touts Saudi backing for \$72bn Tesla buyout (Citywire - Factiva, 08/13/2018)
											Musk will not merge SpaceX with Tesla (Inside Satellite TV - Factiva, 08/13/2018)
											Musk: Saudi sovereign fund can assure Tesla's exit from stock market (CE NoticiasFinancieras - Factiva, 08/13/2018)
											Musk's Backstory On Taking Tesla Private Suggests Tweet Jumped The Gun (Forbes.com - Factiva, 08/13/2018)
											Musk's Backstory On Taking Tesla Private Suggests Tweet Jumped The Gun (Forbes.com - Factiva, 08/13/2018)
											Musk's Minsky Moment? (Barron's - Factiva, 08/13/2018)
											Musk's Strategy, Funding Needs Come Into Focus (The Deal - Factiva, 08/13/2018)
											On Tesla going private, Elon Musk admits he doesn't have 'funding secured' (latimes.com - Factiva, 08/13/2018)
											Report : SoftBank To Avoid Tesla Deal As It Focuses On Other Car Bets (CE NoticiasFinancieras - Factiva, 08/13/2018)
											Report : SoftBank To Avoid Tesla Deal As It Focuses On Other Car Bets (RTT News - Factiva, 08/13/2018)
											Report: Tesla board plans talks with financial advisers to explore buyout (SNL Canada Energy Week - Factiva, 08/13/2018)
											Report: Tesla board plans talks with financial advisers to explore buyout (SNL Power Daily with Market Report - Factiva, 08/13/2018)
											Report: Tesla seeking large group of investors for Musk's take-private proposal (SNL Energy Finance Daily - Factiva, 08/13/2018)
											Report: Tesla seeking large group of investors for Musk's take-private proposal (SNL Financial Services Daily - Factiva, 08/13/2018)
											Riding Tesla's Volatile Shares (Barron's - Factiva, 08/13/2018)
											Saudi Arabia eyes enlarged stake in Musk's private Tesla (The Daily Telegraph - Factiva, 08/13/2018)
											Saudi Arabia might be interested in helping Tesla go private (Mashable.com - Factiva, 08/13/2018)

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											Saudi Arabia's sovereign wealth fund looking to take Tesla private (U-Wire - Factiva, 08/13/2018)
											Saudi fund will be Musk's main source of money to get Tesla out of stock market (CE NoticiasFinancieras - Factiva, 08/13/2018)
											Saudi fund would raise investment in Tesla with Musk plan to take it out of stock (CE NoticiasFinancieras - Factiva, 08/13/2018)
											Saudi oil money may give Elon Musk the private Tesla of his dreams (Washington Post.com - Factiva, 08/13/2018)
											Saudi PIF in talks to fund Tesla's bid to go private CEO (Mubasher - Factiva, 08/13/2018)
											Saudi wealth fund may invest in Musk's electric car; Tesla and Musk sued by investors in proposed US class-action complaints (The Irish Times - Factiva, 08/13/2018)
											Saudis Would Back Deal To Take Tesla Private, Says Musk (Silicon.co.uk - Factiva, 08/13/2018)
											SHAREHOLDER ALERT: Kaskela Law LLC Announces Shareholder Class Action Lawsuit Filed Against Tesla, Inc. and Elon Musk, and Encourages Investors to Contact the Firm (iCrowdNewswire - Factiva, 08/13/2018)
											Short Sellers Sue Tesla Over Shock Elon Musk Tweet (Silicon.co.uk - Factiva, 08/13/2018)
											Social Media And Reporting Issuers (Mondaq Business Briefing - Factiva, 08/13/2018)
											Stocks - Harley Davidson Drops in Pre-market; Tesla Gains; Nielsen Soars (Investing.com - Factiva, 08/13/2018)
											Stocks fall; Tesla CEO says he's talking with Saudi fund (The Post and Courier: Web Edition Articles - Factiva, 08/13/2018)
											Stocks Open Higher As Tesla, Nielsen, Amazon Take Early Gains (Investor's Business Daily - Factiva, 08/13/2018)
											Tesla CEO Elon Musk: Saudis could finance bid to go private (USA Today Online - Factiva, 08/13/2018)
											Tesla CEO's Twitter taunts continue despite legal woes (The Globe and Mail - Factiva, 08/13/2018)
											Tesla is bringing Model 3 to Australia and New Zealand ahead of international launch (The New Dawn - Factiva, 08/13/2018)
											Tesla move shows lack of appeal in market (The Daily Telegraph - Factiva, 08/13/2018)
											Tesla Shuttters a Dozen Solar Facilities (CE Think Tank Newswire - Factiva, 08/13/2018)
											Tesla slapped with short-seller lawsuits as deep-pocketed backer fails to materialize (Pacific Business News Online - Factiva, 08/13/2018)

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											<p>Tesla slapped with short-seller lawsuits as deep-pocketed backer fails to materialize (Silicon Valley/San Jose Business Journal Online - Factiva, 08/13/2018)</p> <p>Tesla statement: Musk admits he doesn't have "funding secured" for Tesla privatisation plan (V3 - Factiva, 08/13/2018)</p> <p>Tesla, Theranos, Yahoo keep SEC's San Francisco office busy (San Francisco Chronicle: Web Edition - Factiva, 08/13/2018)</p> <p>The Daily Deal: Musk and the Saudis; the Turkish Lira and European Banks (The Deal - Factiva, 08/13/2018)</p> <p>The private musings and short fuse of Elon Musk (Chicago Tribune - Factiva, 08/13/2018)</p> <p>The private musings and short fuse of Elon Musk (Daily Southtown - Factiva, 08/13/2018)</p> <p>The private musings and short fuse of Elon Musk (Lake County News-Sun - Factiva, 08/13/2018)</p> <p>The private musings and short fuse of Elon Musk (The Beacon News - Factiva, 08/13/2018)</p> <p>They will decide if Tesla 'reverses' on Wall Street (CE NoticiasFinancieras - Factiva, 08/13/2018)</p> <p>Time for Tesla to perform; It will take time but it wouldn't hurt to adopt some Silicon Valley resilience (Buffalo News - Factiva, 08/13/2018)</p> <p>Two Wall Street investors file complaints against Elon Musk (French Collection - Factiva, 08/13/2018)</p> <p>Valener utility leans on Tesla battery banks to get through Vt. heatwave (SNL Canada Energy Week - Factiva, 08/13/2018)</p> <p>What Musk's Tesla Tweet Can Teach GCs About Damage Control (Broward Daily Business Review - Factiva, 08/13/2018)</p> <p>What Musk's Tesla Tweet Can Teach GCs About Damage Control (Miami Daily Business Review - Factiva, 08/13/2018)</p> <p>What Musk's Tesla Tweet Can Teach GCs About Damage Control (Palm Beach Daily Business Review - Factiva, 08/13/2018)</p> <p>When it comes to Twitter, Elon Musk is teaching other CEOs how it's done (The Independent - Factiva, 08/13/2018)</p> <p>When it comes to Twitter, Elon Musk is teaching other CEOs how its done (The Independent - Factiva, 08/13/2018)</p> <p>Tesla's slow disclosure raises governance, social media concerns (Reuters News - Factiva, 08/13/2018 12:00 AM)</p> <p>Nasdaq Faulted Over Tesla -- WSJ (Dow Jones Institutional News - Factiva, 08/13/2018 02:32 AM)</p>

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											<p>MW Why Elon Musk's \$420 tweet could signal gloom for the stock market (MarketWatch - Factiva, 08/13/2018 05:01 AM)</p> <p>Musk Looks to Take Tesla Private; Tweet on what would be a mammoth buyout surprises investors, drives stock up 11% (Private Equity News - Factiva, 08/13/2018 05:32 AM)</p> <p>Saudi funds in possible talks to invest in Tesla deal (Mist News - Factiva, 08/13/2018 05:51 AM)</p> <p>Saudi Fund in talks to invest in Tesla buyout deal (Mist News - Factiva, 08/13/2018 06:19 AM)</p> <p>Elon Musk's Surprise Tweet Complicates Tesla's Debt Picture (Dow Jones Institutional News - Factiva, 08/13/2018 09:00 AM)</p> <p>Here's the lesson Michael Dell can teach Elon Musk about taking a company private; The case for taking Tesla private may seem compelling but check the data (MarketWatch - Factiva, 08/13/2018 09:01 AM)</p> <p>TESLA INC'S ELON MUSK SAYS ON AUGUST 2ND, NOTIFIED TESLA BOARD THAT, IN HIS PERSONAL CAPACITY, HE WANTED TO TAKE TESLA PRIVATE AT \$420 PER SHARE (Reuters News - Factiva, 08/13/2018 09:03 AM)</p> <p>TESLA'S ELON MUSK SAYS MANAGING DIRECTOR OF SAUDI FUND EXPRESSED REGRET I HAD NOT MOVED FORWARD PREVIOUSLY ON GOING PRIVATE DEAL WITH THEM (Reuters News - Factiva, 08/13/2018 09:04 AM)</p> <p>TESLA'S ELON MUSK SAYS FOLLOWING AUG 7TH ANNOUNCEMENT, I HAVE CONTINUED TO COMMUNICATE WITH MANAGING DIRECTOR OF SAUDI FUND (Reuters News - Factiva, 08/13/2018 09:06 AM)</p> <p>TESLA'S ELON MUSK SAYS IN JULY 31ST MEETING, MANAGING DIRECTOR OF SAUDI FUND EXPRESSED SUPPORT FOR FUNDING GOING PRIVATE DEAL FOR TESLA AT THIS TIME (Reuters News - Factiva, 08/13/2018 09:06 AM)</p> <p>TESLA'S ELON MUSK SAYS CONTINUE TO HAVE TALKS WITH SAUDI FUND, ALSO HAVING DISCUSSIONS WITH OTHER INVESTORS (Reuters News - Factiva, 08/13/2018 09:08 AM)</p> <p>TESLA'S ELON MUSK SAYS SPECIAL COMMITTEE FOR EVALUATION PROCESS TO BE UNDERTAKEN BY BOARD ALREADY IN PROCESS OF BEING SET UP (Reuters News - Factiva, 08/13/2018 09:11 AM)</p> <p>*Elon Musk: Saudi Fund Asked About Taking Tesla Private (Dow Jones Institutional News - Factiva, 08/13/2018 09:13 AM)</p> <p>TESLA'S ELON MUSK SAYS IF BOARD PROCESS RESULTS IN APPROVED PLAN, REGULATORY APPROVALS NEEDED, PLAN TO BE PRESENTED TO SHAREHOLDERS FOR VOTE (Reuters News - Factiva, 08/13/2018 09:13 AM)</p> <p>Musk says Saudi fund expressed support for taking Tesla private (Reuters News - Factiva, 08/13/2018 09:14 AM)</p>

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											Elon Musk: Saudi Fund Asked About Taking Tesla Private (Dow Jones Institutional News - Factiva, 08/13/2018 09:20 AM)
											Elon Musk: Saudi Fund Asked About Taking Tesla Private (Dow Jones Institutional News - Factiva, 08/13/2018 09:24 AM)
											Elon Musk reveals new details about taking Tesla private, says he thought tweeting announcement was 'the right and fair thing to do' (TSLA) (Business Insider - Factiva, 08/13/2018 09:25 AM)
											TESLA'S ELON MUSK SAYS IN JULY 31ST MEETING, MANAGING DIRECTOR OF SAUDI FUND EXPRESSED SUPPORT FOR FUNDING GOING PRIVATE DEAL FOR TESLA AT THIS TIME (Reuters News - Factiva, 08/13/2018 09:26 AM)
											TESLA'S ELON MUSK SAYS RECENTLY, AFTER SAUDI FUND BOUGHT ALMOST 5% OF TESLA STOCK THROUGH PUBLIC MARKETS, THEY REACHED OUT TO ASK FOR ANOTHER MEETING (Reuters News - Factiva, 08/13/2018 09:26 AM)
											TESLA'S ELON MUSK SAYS SPECIAL COMMITTEE FOR EVALUATION PROCESS TO BE UNDERTAKEN BY BOARD ALREADY IN PROCESS OF BEING SET UP (Reuters News - Factiva, 08/13/2018 09:26 AM)
											Elon Musk in talks with investors to take Tesla private (RCOP) (24 Ore Radiocor-Newsire International Edition - Factiva, 08/13/2018 09:27 AM)
											Elon Musk says he expects Saudis to fund plan to take Tesla private (CNN Wire - Factiva, 08/13/2018 09:27 AM)
											Musk says in talks with Saudis, others on taking Tesla private (Agence France Presse - Factiva, 08/13/2018 09:27 AM)
											BRIEF-Tesla's Elon Musk Provides Update On Taking Co Private (Reuters News - Factiva, 08/13/2018 09:29 AM)
											Stocks to Watch: Alphabet, Netflix, Nielsen, Alnylam Pharmaceuticals, Qualcomm, Sysco (Dow Jones Institutional News - Factiva, 08/13/2018 09:29 AM)
											Stocks to Watch: Alphabet, Netflix, Nielsen, Alnylam Pharmaceuticals, Qualcomm, Sysco; Here are some of the companies with shares expected to trade actively in Monday's session (The Wall Street Journal Online - Factiva, 08/13/2018 09:29 AM)
											Elon Musk: Saudi Fund Asked About Taking Tesla Private -- Update (Dow Jones Institutional News - Factiva, 08/13/2018 09:30 AM)
											Musk's Surprise Tweet Complicates Tesla's Debt Picture (Dow Jones Institutional News - Factiva, 08/13/2018 09:30 AM)
											Elon Musk Explains 'funding Secured' Statement Related To Going Private Tweets -- MarketWatch (Dow Jones Institutional News - Factiva, 08/13/2018 09:33 AM)
											MW Elon Musk explains 'funding secured' statement related to going private tweets (MarketWatch - Factiva, 08/13/2018 09:33 AM)
											Elon Musk: Saudi Fund Asked About Taking Tesla Private -- 2nd Update (Dow Jones Institutional News - Factiva, 08/13/2018 09:34 AM)

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Saudi sovereign fund involved in Tesla buyout deal - report (MarketLine News and Comment - Factiva, 08/13/2018 09:34 AM)</p> <p>Elon Musk: Saudi Fund Asked About Taking Tesla Private (Dow Jones Newswires Chinese (English) - Factiva, 08/13/2018 09:44 AM)</p> <p>Elon Musk in talks with investors to take Tesla private (24 Ore Radiocor-Newswire International Edition - Factiva, 08/13/2018 09:46 AM)</p> <p>Two investors sue Tesla, Musk over take-private announcement - report (SeeNews Deals - Factiva, 08/13/2018 09:51 AM)</p> <p>Elon Musk says he expects Saudis to fund plan to take Tesla private (CNN Wire - Factiva, 08/13/2018 09:55 AM)</p> <p>Elon Musk says he expects Saudis to fund plan to take Tesla private (CNN Wire - Factiva, 08/13/2018 09:56 AM)</p> <p>Saudis in talks to take Tesla private: Elon Musk (Agence France Presse - Factiva, 08/13/2018 09:58 AM)</p> <p>US stocks push higher; Tesla gains (Agence France Presse - Factiva, 08/13/2018 10:01 AM)</p> <p>BC-APFN-Business News Preview (Associated Press Newswires - Factiva, 08/13/2018 10:05 AM)</p> <p>Tesla Board Surprised by Elon Musk's Tweet on Taking Carmaker Private (NYTimes.com Feed - Factiva, 08/13/2018 10:05 AM)</p> <p>Weekly renewables M&A round-up (Aug 6-12) (Renewables Now - Factiva, 08/13/2018 10:05 AM)</p> <p>Tesla surges after Elon Musk offers details about his 'funding secured' tweet (TSLA) (Business Insider - Factiva, 08/13/2018 10:09 AM)</p> <p>Musk Tries To Clarify 'Funding Secured' In New Tesla Blog Post (Benzinga.com - Factiva, 08/13/2018 10:11 AM)</p> <p>Elon Musk Met With Saudi Fund About Taking Tesla Private -- 3rd Update (Dow Jones Institutional News - Factiva, 08/13/2018 10:17 AM)</p> <p>Musk confirms talks with Saudis over taking Tesla private (dpa International Service in English - Factiva, 08/13/2018 10:18 AM)</p> <p>Musk says he's talking with Saudi fund to take Tesla private (The Canadian Press - Broadcast wire - Factiva, 08/13/2018 10:20 AM)</p> <p>Elon Musk Met With Saudi Fund About Taking Tesla Private -- 4th Update (Dow Jones Institutional News - Factiva, 08/13/2018 10:32 AM)</p> <p>Elon Musk reveals what he meant by his 'funding secured' tweet (TSLA) (Business Insider - Factiva, 08/13/2018 10:45 AM)</p> <p>Musk reveals one driver behind taking-Tesla-private plan (Deutsche Welle - Factiva, 08/13/2018 10:52 AM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Twitter Stock Gains After Citron Goes Long, Sets \$52 Price Target -- MarketWatch (Dow Jones Institutional News - Factiva, 08/13/2018 10:53 AM)</p> <p>MW Twitter stock gains after Citron goes long, sets \$52 price target (MarketWatch - Factiva, 08/13/2018 10:53 AM)</p> <p>Elon Musk says he expects Saudis to fund plan to take Tesla private (CNN Wire - Factiva, 08/13/2018 10:54 AM)</p> <p>News Highlights: Top Financial Services News of the Day (Dow Jones Institutional News - Factiva, 08/13/2018 11:00 AM)</p> <p>Tesla sinks after Elon Musk offers details about his 'funding secured' tweet (TSLA) (Business Insider - Factiva, 08/13/2018 11:03 AM)</p> <p>Twitter stock gains after Citron goes long, sets \$52 price target (Dow Jones Newswires Chinese (English) - Factiva, 08/13/2018 11:19 AM)</p> <p>If the Saudis do help Elon Musk take Tesla private, the company could actually take over the world (TSLA) (Business Insider - Factiva, 08/13/2018 11:24 AM)</p> <p>Tesla's biggest bull on Wall Street says there's a big problem with taking Tesla private, and it has nothing to do with 'funding secured' (TSLA) (Business Insider - Factiva, 08/13/2018 11:29 AM)</p> <p>Saudis in talks to take Tesla private: Elon Musk (Agence France Presse - Factiva, 08/13/2018 11:33 AM)</p> <p>Elon Musk Met With Saudi Fund About Taking Tesla Private -- 5th Update (Dow Jones Institutional News - Factiva, 08/13/2018 11:35 AM)</p> <p>Elon Musk's plan to take Tesla private is a pipe dream; Investors are driving blind if they expect car maker's CEO to deliver (MarketWatch - Factiva, 08/13/2018 11:36 AM)</p> <p>Wall Street has spoken: Tesla funding is not secured; Price stays well below Elon Musk's stated go-private level after explanation, showing investors' valid doubts (MarketWatch - Factiva, 08/13/2018 11:39 AM)</p> <p>Elon Musk reveals Saudi funds to help turn Tesla private (Financial Adviser - Magazine and Web Content - Factiva, 08/13/2018 11:55 AM)</p> <p>Saudi Arabia's PIF mulls joining Tesla go-private deal, Softbank not interested - report (SeeNews Deals - Factiva, 08/13/2018 11:57 AM)</p> <p>Elon Musk Met With Saudi Fund About Taking Tesla Private -- 6th Update (Dow Jones Institutional News - Factiva, 08/13/2018 11:59 AM)</p> <p>WSJ City: Turkish Lira Plunges Again, Musk Met With Saudis About Taking Tesla Private (Dow Jones Institutional News - Factiva, 08/13/2018 12:05 PM)</p> <p>Tesla BOMBHELL: Elon Musk talking to SAUDI ARABIA in shock bid to take Tesla private (express.co.uk - Factiva, 08/13/2018 12:42 PM)</p> <p>Could SpaceX Help Finance A Tesla Go-Private Deal? Morgan Stanley Weighs In (Benzinga.com - Factiva, 08/13/2018 12:50 PM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>MW UPDATE: Here's the lesson Michael Dell can teach Elon Musk about taking a company private (MarketWatch - Factiva, 08/13/2018 01:01 PM)</p> <p>Tesla shares swing higher amid confusion about Musk's going-private plan; Discussions with Saudi Arabia ongoing, Musk says (MarketWatch - Factiva, 08/13/2018 01:03 PM)</p> <p>Elon Musk says Saudi fund has offered to help take Tesla private (The Guardian - Factiva, 08/13/2018 01:04 PM)</p> <p>Citron: Twitter Shares Could Hit '\$52 Within 52 Weeks' (Benzinga.com - Factiva, 08/13/2018 01:04 PM)</p> <p>Saudi Arabia Weighs Larger Tesla Stake as Part of Plan to Make Electric Cars (Dow Jones Institutional News - Factiva, 08/13/2018 01:13 PM)</p> <p>MEDIA-Saudi Arabia weighs larger Tesla stake as part of plan to make electric cars - WSJ (Reuters News - Factiva, 08/13/2018 01:29 PM)</p> <p>Elon Musk Met With Saudi Fund About Taking Tesla Private -- 6th Update (Dow Jones Newswires Chinese (English) - Factiva, 08/13/2018 01:36 PM)</p> <p>BREAKINGVIEWS-Musk missive reveals more than he might like (Reuters News - Factiva, 08/13/2018 01:46 PM)</p> <p>Tesla's dramatic stock rise and fall shows how skeptical investors are of Elon Musk's go-private plans (TSLA) (Business Insider - Factiva, 08/13/2018 01:58 PM)</p> <p>Musk relies on Saudi fund to take Tesla private (Renewables Now - Factiva, 08/13/2018 02:02 PM)</p> <p>Elon Musk says 'funding secured' claim based on talks with Saudi wealth fund (The Telegraph Online - Factiva, 08/13/2018 02:13 PM)</p> <p>Elon Musk says he expects Saudis to fund plan to take Tesla private (CNN Wire - Factiva, 08/13/2018 02:29 PM)</p> <p>Elon Musk says Tesla privatisation plan is based on Saudi backing (Independent Online - Factiva, 08/13/2018 02:37 PM)</p> <p>Elon Musk Met With Saudi Fund About Taking Tesla Private -- 7th Update (Dow Jones Institutional News - Factiva, 08/13/2018 02:38 PM)</p> <p>Saudi Arabia weighs larger Tesla stake as part of plan to make electric cars; Kingdom is trying to diversify away from oil as basis for its economy (MarketWatch - Factiva, 08/13/2018 02:47 PM)</p> <p>MW Saudi Arabia weighs larger Tesla stake as part of plan to make electric cars (MarketWatch - Factiva, 08/13/2018 02:48 PM)</p> <p>SHAREHOLDER ALERT: Bronstein, Gewirtz & Grossman, LLC Notifies Investors of Class Action Against Tesla, Inc. (TSLA) and Lead Plaintiff Deadline: October 9, 2018 (PR Newswire - Factiva, 08/13/2018 03:00 PM)</p> <p>Tesla short sellers trim exposure but stay the course (Reuters News - Factiva, 08/13/2018 03:05 PM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Mark Cuban Talks Musk, Netflix, Amazon And More (Benzinga.com - Factiva, 08/13/2018 03:17 PM)</p> <p>MW UPDATE: Elon Musk's plan to take Tesla private is a pipe dream (MarketWatch - Factiva, 08/13/2018 03:36 PM)</p> <p>MW UPDATE: Wall Street has spoken: Tesla funding is not 'secured' (MarketWatch - Factiva, 08/13/2018 03:39 PM)</p> <p>Elon Musk says Saudi fund has offered to help take Tesla private (The Guardian - Factiva, 08/13/2018 03:40 PM)</p> <p>Elon Musk says he expects Saudis to fund plan to take Tesla private (CNN Wire - Factiva, 08/13/2018 03:47 PM)</p> <p>It is now abundantly clear that Elon Musk does not have 'funding secured' (Business Insider - Factiva, 08/13/2018 03:47 PM)</p> <p>It is now abundantly clear that Elon Musk does not have 'funding secured' (Business Insider - Factiva, 08/13/2018 03:47 PM)</p> <p>US M&A Deals: Tesla, Tribune Media, Rite Aid Corp (SeeNews Deals - Factiva, 08/13/2018 03:49 PM)</p> <p>News Highlights: Top Financial Services News of the Day (Dow Jones Institutional News - Factiva, 08/13/2018 04:00 PM)</p> <p>Musk's Surprise Tweet Complicates Tesla's Debt Picture; Elon Musk's surprise tweet last week that he is considering taking Tesla Inc. private only intensified questions about the electric-car maker's fundraising needs (The Wall Street Journal Online - Factiva, 08/13/2018 04:43 PM)</p> <p>Elon Musk says in talks with Saudis on taking Tesla private (Agence France Presse - Factiva, 08/13/2018 04:53 PM)</p> <p>Saudi Arabia Weighs Larger Tesla Stake as Part of Plan to Make Electric Cars; Kingdom is trying to diversify away from oil as basis for its economy (The Wall Street Journal Online - Factiva, 08/13/2018 04:53 PM)</p> <p>Elon Musk confirms Saudi Arabian wealth fund IS behind his plan to take Tesla private, and reveals he's been in talks with the foreign investors for nearly two years (Mail Online - Factiva, 08/13/2018 04:56 PM)</p> <p>INVESTOR ALERT: Kirby McInerney LLP Announces the Filing of Securities Class Action Lawsuits Against Tesla, Inc. (Business Wire - Factiva, 08/13/2018 05:03 PM)</p> <p>MW UPDATE: Tesla shares swing higher amid confusion about Musk's going-private plan (MarketWatch - Factiva, 08/13/2018 05:03 PM)</p> <p>UPDATE 1-Tesla short sellers trim exposure but stay the course (Reuters News - Factiva, 08/13/2018 05:07 PM)</p> <p>UPDATE 2-Tesla's slow disclosure raises governance, social media concerns (Reuters News - Factiva, 08/13/2018 05:09 PM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Tesla's slow disclosure raises governance, social media concerns (Reuters News - Factiva, 08/13/2018 05:14 PM)</p> <p>Rapper Azealia Banks claims she was at Elon Musk's house over the weekend as he was 'scrounging for investors' (TSLA) (Business Insider - Factiva, 08/13/2018 05:17 PM)</p> <p>Questions loom over Tesla deal after CEO reveals Saudi link (The Canadian Press - Factiva, 08/13/2018 05:21 PM)</p> <p>NIO, Potential Tesla Rival From China, Files For \$1.8 Billion U.S. IPO -- MarketWatch (Dow Jones Institutional News - Factiva, 08/13/2018 05:32 PM)</p> <p>Keeping Tesla shares may not be an option for some big funds (Reuters News - Factiva, 08/13/2018 05:43 PM)</p> <p>Major Tesla owner Fidelity trimmed stake last quarter - SEC filing (Reuters News - Factiva, 08/13/2018 05:59 PM)</p> <p>COLUMN-Elon Musk just made it easier for shareholders to sue Tesla for fraud: Frankel (Reuters News - Factiva, 08/13/2018 06:00 PM)</p> <p>NIO, potential Tesla rival from China, files for \$1.8 billion U.S. IPO (Dow Jones Newswires Chinese (English) - Factiva, 08/13/2018 06:01 PM)</p> <p>Tesla and Elon Musk are sued by two investors who accuse the company's CEO of sharing 'false and misleading' tweets after announcing his proposal to go private (Mail Online - Factiva, 08/13/2018 06:14 PM)</p> <p>IMPORTANT INVESTOR NOTICE: The Schall Law Firm Announces the Filing of a Class Action Lawsuit Against Tesla, Inc. and Encourages Investors with Losses in Excess of \$100,000 to Contact the Firm (Business Wire - Factiva, 08/13/2018 06:19 PM)</p> <p>Musk: I HAVE got the money to buy Tesla... and most of it has come from Saudi Arabia (Mail Online - Factiva, 08/13/2018 06:23 PM)</p> <p>Press Release: TSLA INVESTOR ALERT: Hagens Berman Sobol Shapiro LLP Files Tesla Securities Tweet Class Action: Notifies Investors of October 9th Lead Plaintiff Deadline (Dow Jones Institutional News - Factiva, 08/13/2018 07:27 PM)</p> <p>Tesla CEO confirms Saudi interest in buyout plan (Xinhua News Agency - Factiva, 08/13/2018 07:27 PM)</p> <p>TSLA INVESTOR ALERT: Hagens Berman Sobol Shapiro LLP Files Tesla Securities Tweet Class Action: Notifies Investors of October 9th Lead Plaintiff Deadline (PR Newswire - Factiva, 08/13/2018 07:27 PM)</p> <p>'It was, at best, hasty and naive, and, at worst, manipulative': Experts slam Elon Musk's confusing defense of why he tweeted 'funding secured' (TSLA) (Business Insider - Factiva, 08/13/2018 07:55 PM)</p> <p>Elon Musk's Tweets on Tesla Started a Tizzy. Someone Should Hit the Brakes. (NYTimes.com Feed - Factiva, 08/13/2018 07:59 PM)</p> <p>Saudis are right behind me on Tesla deal, Elon Musk insists (thetimes.co.uk - Factiva, 08/13/2018 08:01 PM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Larger Tesla Stake Could Aid Saudi Diversification Plan (Dow Jones Institutional News - Factiva, 08/13/2018 08:30 PM)</p> <p>Elon Musk Met With Saudi Fund About Taking Tesla Private -- 8th Update (Dow Jones Newswires Chinese (English) - Factiva, 08/13/2018 08:54 PM)</p> <p>News Highlights: Top Company News of the Day (Dow Jones Institutional News - Factiva, 08/13/2018 09:00 PM)</p> <p>TESLA'S MUSK SAYS EXCITED TO WORK WITH SILVER LAKE AND GOLDMAN SACHS AS FINANCIAL ADVISORS ON THE PROPOSAL TO TAKE TESLA PRIVATE - TWEET (Reuters News - Factiva, 08/13/2018 09:04 PM)</p> <p>TESLA'S MUSK SAYS WORKING WITH WACHTELL, LIPTON, ROSEN & KATZ AND MUNGER, TOLLES & OLSON AS LEGAL ADVISORS ON PROPOSAL TO TAKE TESLA PRIVATE - TWEET (Reuters News - Factiva, 08/13/2018 09:05 PM)</p> <p>Musk says working with Silver Lake, Goldman on proposal to take Tesla private (Reuters News - Factiva, 08/13/2018 09:15 PM)</p> <p>Saudi Fund Backs Plan to Privatize Tesla - CEO Elon Musk (Sputnik News Service - Factiva, 08/13/2018 09:30 PM)</p> <p>Musk Names Advisors in Bid to Take Tesla Private -- Market Talk (Dow Jones Institutional News - Factiva, 08/13/2018 09:42 PM)</p> <p>Musk Names Advisors in Bid to Take Tesla Private -- Market Talk (Dow Jones Institutional News - Factiva, 08/13/2018 09:42 PM)</p> <p>SILVER LAKE IS NOT CURRENTLY DISCUSSING PARTICIPATING AS AN INVESTOR IN ELON MUSK'S PROPOSED TAKE-PRIVATE DEAL FOR TESLA - SOURCE (Reuters News - Factiva, 08/13/2018 09:47 PM)</p> <p>BRIEF-Silver Lake Not Currently Discussing Participating As Investor In Musk's Proposed Take-Private Deal For Tesla - Source (Reuters News - Factiva, 08/13/2018 09:54 PM)</p> <p>Keeping Tesla shares may not be an option for some big funds (Reuters News - Factiva, 08/13/2018 10:02 PM)</p> <p>Major Tesla owner Fidelity trimmed stake last quarter: SEC filing (Reuters News - Factiva, 08/13/2018 10:02 PM)</p> <p>Musk says working with Silver Lake, Goldman on proposal to take Tesla private (Reuters News - Factiva, 08/13/2018 10:02 PM)</p> <p>Tesla short sellers trim exposure but stay the course (Reuters News - Factiva, 08/13/2018 10:02 PM)</p> <p>Musk Names Advisors in Bid to Take Tesla Private -- Market Talk (Dow Jones Newswires Chinese (English) - Factiva, 08/13/2018 10:04 PM)</p> <p>Some of Tesla's board members were reportedly 'totally blindsided' by Elon Musk's tweet about going private (TSLA) (Business Insider - Factiva, 08/13/2018 10:11 PM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
8/14/2018 Tue	6,986,427	\$347.64	-2.46%	0.66%	0.25%	0.85%	-3.32%	-1.30	19.70%	-\$11.82	<p>Saudi Arabia Weighs Larger Tesla Stake as Part of Plan to Make Electric Cars > TSLA (Dow Jones Newswires Chinese (English) - Factiva, 08/13/2018 10:15 PM)</p> <p>Elon Musk's Surprise Tweet Complicates Tesla's Debt Picture (Dow Jones Newswires Chinese (English) - Factiva, 08/13/2018 10:21 PM)</p> <p>Questions loom over Tesla deal after CEO reveals Saudi link (Associated Press Newswires - Factiva, 08/13/2018 10:30 PM)</p> <p>Elon Musk reveals he is working with Goldman Sachs and Silver Lake to help take Tesla private (TSLA, GS) (Business Insider - Factiva, 08/13/2018 10:31 PM)</p> <p>Saudi Fund Backs Plan to Privatize Tesla - Elon Musk (Sputnik News Service - Factiva, 08/13/2018 10:31 PM)</p> <p>Elon Musk Met With Saudi Fund About Taking Tesla Private -- 8th Update (Dow Jones Institutional News - Factiva, 08/13/2018 10:33 PM)</p> <p>Elon Musk Met With Saudi Fund About Taking Tesla Private -- 8th Update (Dow Jones Institutional News - Factiva, 08/13/2018 10:55 PM)</p> <p>Elon Musk Met With Saudi Fund About Taking Tesla Private; In a blog post, Musk said he believes two-thirds of current shareholders would remain with the company (The Wall Street Journal Online - Factiva, 08/13/2018 10:55 PM)</p> <p>Elon Musk hires 'counselors' to decide if Tesla leaves Wall Street (CE NoticiasFinancieras - Factiva, 08/14/2018)</p> <p>Elon Musk names Saudi wealth fund as Tesla's funding source (CNET News.com - Factiva, 08/14/2018)</p> <p>Elon Musk says Saudi fund offered to take Tesla private (Washington Post.com - Factiva, 08/14/2018)</p> <p>Elon Musk tweets about taking Tesla private, shares soar (ETMAG.com - Factiva, 08/14/2018)</p> <p>Elon Musk Tweets of Plans to Open Source Tesla's Self-Driving Software (Open Source FOR You - Factiva, 08/14/2018)</p> <p>Elon Musk: Tesla Privatization Capital Mainly from Saudi, In Talks With Other Investors (AASocks Financial News - Factiva, 08/14/2018)</p> <p>Elon Musk's Tweets on Tesla Started a Tizzy. Someone Should Hit the Brakes.; DealBook (International New York Times - Factiva, 08/14/2018)</p> <p>...AND MOST OF IT HAS COME FROM SAUDI ARABIA (Daily Mail - Factiva, 08/14/2018)</p> <p>04:47 EDT Musk says Tesla working Silver Lake, Goldman Sachs on going... (Theflyonthewall.com - Factiva, 08/14/2018)</p> <p>04:52 EDT Silver Lake not hired by Tesla in official capacity, Reuters... (Theflyonthewall.com - Factiva, 08/14/2018)</p> <p>05:42 EDT Tesla CEO Elon Musk says 'doesn't know' Azealia Banks, Gizmodo... (Theflyonthewall.com - Factiva, 08/14/2018)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>06:19 EDT Keeping Tesla shares may not be an option for some big funds, Reuters... (Theflyonthewall.com - Factiva, 08/14/2018)</p> <p>07:41 EDT Larger Tesla stake by giant Saudi fund faces challenges, WSJ... (Theflyonthewall.com - Factiva, 08/14/2018)</p> <p>08:24 EDT Morgan Stanley auto analysts to hold an analyst/industry conference... (Theflyonthewall.com - Factiva, 08/14/2018)</p> <p>08:30 EDT Tesla forms special committee to evaluate potential going private... (Theflyonthewall.com - Factiva, 08/14/2018)</p> <p>08:31 EDT Tesla forms special committee to evaluate potential going private... (Theflyonthewall.com - Factiva, 08/14/2018)</p> <p>11:57 EDT Another Tesla investor sues company, Musk over tweet, Jalopnik... (Theflyonthewall.com - Factiva, 08/14/2018)</p> <p>12:56 EDT Goldman not hired officially by Tesla at time of tweet, Bloomberg... (Theflyonthewall.com - Factiva, 08/14/2018)</p> <p>Amid Tesla talk, is a \$72B leveraged buyout feasible? (SNL Energy Finance Daily - Factiva, 08/14/2018)</p> <p>Amid Tesla talk, is a \$72B leveraged buyout feasible? (SNL Financial Services Daily - Factiva, 08/14/2018)</p> <p>Amid Tesla talk, is a \$72B leveraged buyout feasible? (SNL Power Daily with Market Report - Factiva, 08/14/2018)</p> <p>Arabian sleights Musk says billions from Saudis secured for Tesla (New York Post - Factiva, 08/14/2018)</p> <p>Aug. 7 funding tweet may put Musk at risk (Charleston Gazette - Factiva, 08/14/2018)</p> <p>Automotive industry; Musk: 'Funding secured' tweet sparked by meeting with Saudis (Press-Telegram - Factiva, 08/14/2018)</p> <p>Automotive industry; Musk: 'Funding secured' tweet sparked by meeting with Saudis (Riverside Press-Enterprise - Factiva, 08/14/2018)</p> <p>BANKELELE: Demolished Kileshwa fuel station a bad omen for petrol industry (Daily Nation - Factiva, 08/14/2018)</p> <p>Banking & Finance: Tesla's New Challenge: Borrowing Costs --- Electric car maker's debt has slipped in days after Elon Musk's 'go-private' tweet (The Wall Street Journal - Factiva, 08/14/2018)</p> <p>Barclays Research Report (Capital IQ - Manual Entry, 08/14/2018)</p> <p>Barclays Research Report (Eikon - Manual Entry, 08/14/2018)</p> <p>CFRA Equity Research Research Report (Eikon - Manual Entry, 08/14/2018)</p> <p>Chinese electric-car start-up Nio seeks IPO even as Musk plans to take Tesla private (scmp.com - Factiva, 08/14/2018)</p>

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											D&O litigation digest: Tesla, Facebook facing shareholder lawsuits (SNL Financial Extra - Factiva, 08/14/2018)
											Denholm Tesla gig a tidy earner (The Australian - Factiva, 08/14/2018)
											Denholm Tesla gig a tidy earner (The Australian - Factiva, 08/14/2018)
											Dow Jones Futures: Why This Stock Breakout Is Special; Tesla Rival Files For IPO (Investor's Business Daily - Factiva, 08/14/2018)
											Dow Jones Futures: Why This Stock Breakout Is Special; Tesla Rival Files For IPO (Investor's Business Daily - Factiva, 08/14/2018)
											Elazar Advisors Research Report (Eikon - Manual Entry, 08/14/2018)
											Elon Musk said to be working with Goldman to take Tesla private (Global Banking News - Factiva, 08/14/2018)
											Foreign-Trade Zone (FTZ) 18--San Jose, California; Notification of Proposed Production Activity; Tesla, Inc. (Electric Passenger Vehicles and Components); Fremont and Palo Alto, California (Department of Commerce Documents - Factiva, 08/14/2018)
											Foreign-Trade Zone (FTZ) 18--San Jose, California; Notification of Proposed Production Activity; Tesla, Inc. (Electric Passenger Vehicles and Components); Fremont and Palo Alto, California (Federal Register - Factiva, 08/14/2018)
											'Funding secured'by Saudi meeting: Musk; Tesla Inc (National Post - Factiva, 08/14/2018)
											How much did Elon Musk's wealth grow in the last month? (CE NoticiasFinancieras - Factiva, 08/14/2018)
											Howes: Saudi-backed buyout solves Tesla's biggest problem - scrutiny (The Detroit News: Web Edition - Factiva, 08/14/2018)
											IS APPLE DOUBLING DOWN ON SELF-DRIVING CARS? COMPANY REQUIRES TESLA EXEC TO WORK ON PROJECT TITAN (San Jose Mercury News - Factiva, 08/14/2018)
											Is your stock going the Elon Musk way: Planning to go private? (Mint - Factiva, 08/14/2018)
											Larger Tesla stake by giant Saudi fund faces hurdles (EFE News Service - Factiva, 08/14/2018)
											Morgan Stanley Research Report (Capital IQ - Manual Entry, 08/14/2018)
											Morgan Stanley Research Report (Eikon - Manual Entry, 08/14/2018)
											Morgan Stanley Research Report (Eikon - Manual Entry, 08/14/2018)
											Musk Met With Saudis On Tesla --- In blog post, CEO explains claim on funding, cautions that no deal has been made (The Wall Street Journal - Factiva, 08/14/2018)
											Musk reveals Saudi fund would take Tesla private (Boston Herald - Factiva, 08/14/2018)

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											Musk reveals Saudi source for plan to take Tesla private (St. Paul Pioneer Press - Factiva, 08/14/2018)
											Musk says Saudi wealth fund keen to back Tesla buyout (Irish Independent - Factiva, 08/14/2018)
											Musk says Saudis back taking Tesla private (The Irish Times - Factiva, 08/14/2018)
											Musk says Silver Lake, Goldman advising on taking Tesla private: Reuters (PE Hub Network - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Argus Leader - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Asbury Park Press - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Asheville Citizen-Times - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Clarion-Ledger - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Courier-Post - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Democrat & Chronicle - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Florida Today - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Fort Collins Coloradoan - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Green Bay Press-Gazette - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Greenville News - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Indianapolis Star - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Journal & Courier - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Lansing State Journal - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Montgomery Advertiser - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (News-Leader - Factiva, 08/14/2018)

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[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											Musk says Tesla could go private using Saudi funds (News-Press - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Pensacola News Journal - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Poughkeepsie Journal - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Press & Sun-Bulletin, Binghamton - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Reno Gazette-Journal - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (St. Cloud Times - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (Statesman Journal - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (The Arizona Republic - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (The Courier-Journal - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (The Daily Times - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (The Des Moines Register - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (The Desert Sun - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (The Journal News (White Plains, NY) - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (The News Journal - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (The Post-Crescent - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (The Tallahassee Democrat - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (The Tennessean - Factiva, 08/14/2018)
											Musk says Tesla could go private using Saudi funds (USA Today - Factiva, 08/14/2018)
											Musk says that Saudi fund requested him to delist Tesla (Cape Times - Factiva, 08/14/2018)

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											Musk says that Saudi fund requested him to delist Tesla (Pretoria News - Factiva, 08/14/2018)
											Musk says that Saudi fund requested him to delist Tesla (The Mercury - Factiva, 08/14/2018)
											Musk says that Saudi fund requested him to delist Tesla (The Star - Factiva, 08/14/2018)
											MUSK SECRET OUT (The Sun - Factiva, 08/14/2018)
											MUSK SECRET OUT (The Sun - Factiva, 08/14/2018)
											MUSK SECRET OUT (The Sun - Factiva, 08/14/2018)
											Musk talking to Saudis about Tesla buyout (Bangkok Post - Factiva, 08/14/2018)
											Musk talking to Saudis to take Tesla private By Tom Krisher (The Florida Times-Union - Factiva, 08/14/2018)
											Musk Tips Saudi Arabia as Major EV Investor (International Oil Daily - Factiva, 08/14/2018)
											Musk Tips Saudi Arabia as Major EV Investor (The Oil Daily - Factiva, 08/14/2018)
											Musk working with top financial firms to take Tesla private (The DayAfter - Factiva, 08/14/2018)
											Musk: I HAVE got the money to buy Tesla (Scottish Daily Mail - Factiva, 08/14/2018)
											Musk: Saudi fund could help take Tesla private; CEO said money 'secured,' but deal; is not finalized (San Diego Union-Tribune - Factiva, 08/14/2018)
											Musk: Saudi fund offered to take company private SEC reportedly looking into possible violation by CEO (Chicago Tribune - Factiva, 08/14/2018)
											Musk: Saudi fund offered to take Tesla private (Orlando Sentinel - Factiva, 08/14/2018)
											Musk: Saudi fund offered to take Tesla private; SEC reportedly looking into possible violation (Daily Press - Factiva, 08/14/2018)
											Musk: Saudis will provide funding for Tesla buyout (The Daily Telegraph - Factiva, 08/14/2018)
											Musk: Tesla could go private using Saudi funds (The Evansville Courier - Factiva, 08/14/2018)
											Musk: Tesla deal still in talking stage (South Florida Sun-Sentinel - Factiva, 08/14/2018)
											MUSK'S MISSIVE Tesla boss says Saudis want to support buyback (City AM - Factiva, 08/14/2018)
											Musk's tweet is useful lesson for modern CEOs (i - Factiva, 08/14/2018)
											Nation/world business briefs (Richmond Times-Dispatch: Web Edition - Factiva, 08/14/2018)

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											Nio, China's Tesla, Will Be First Chinese Automaker With U.S. IPO (Investor's Business Daily - Factiva, 08/14/2018)
											Nio, China's Tesla, Will Be First Chinese Automaker With U.S. IPO (Investor's Business Daily - Factiva, 08/14/2018)
											Questions loom over Tesla deal (The Quad-City Times - Factiva, 08/14/2018)
											Report: Tesla's board was totally blindsided by Musk's go-private tweets (Portland Business Journal Online - Factiva, 08/14/2018)
											Report: Tesla's board was totally blindsided by Musk's go-private tweets (Silicon Valley/San Jose Business Journal Online - Factiva, 08/14/2018)
											Riyadh prepares for life after oil; Saudi Arabia (National Post - Factiva, 08/14/2018)
											S & P 500 records best session in three weeks (CE NoticiasFinancieras - Factiva, 08/14/2018)
											Saudi Arabia eyes enlarged stake in Musk's private Tesla (U-Wire - Factiva, 08/14/2018)
											Saudi Arabia fund is potential Tesla take-private financier, Musk says (SNL Energy Finance Daily - Factiva, 08/14/2018)
											Saudi Arabia fund is potential Tesla take-private financier, Musk says (SNL Financial Services Daily - Factiva, 08/14/2018)
											Saudi deal in works, Musk insists; CEO's tweet about 'funding secured' to take Tesla private still leaves many in doubt. (Los Angeles Times - Factiva, 08/14/2018)
											Saudi fund may be key to taking Tesla private (The Washington Post - Factiva, 08/14/2018)
											Saudi Fund, the secret weapon in plan of Musk (CE NoticiasFinancieras - Factiva, 08/14/2018)
											Saudi Oil Money Behind Tesla Rumors (Valley News - Factiva, 08/14/2018)
											Saudis are right behind me on Tesla deal, Elon Musk insists (The Times - Factiva, 08/14/2018)
											Saudis are right behind me on Tesla deal, Elon Musk insists (The Times - Factiva, 08/14/2018)
											SAUDIS MAY HELP TAKE TESLA PRIVATE; MUSK SAYS HE'S MET WITH OFFICIALS FROM COUNTRY'S SOVEREIGN WEALTH FUND (San Jose Mercury News - Factiva, 08/14/2018)
											SHAREHOLDER ALERT: Bronstein, Gewirtz & Grossman, LLC Notifies Investors of Class Action Against Tesla, Inc. (TSLA) and Lead Plaintiff Deadline: October 9, 2018 (ENP Newswire - Factiva, 08/14/2018)
											Shinhan Investment Corp. Research Report (Capital IQ - Manual Entry, 08/14/2018)

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											Shinhan Investment Corp. Research Report (Capital IQ - Manual Entry, 08/14/2018)
											Sovereign Wealth U.S. Buying Binge May End Soon—Despite Tesla (National Real Estate Investor - Factiva, 08/14/2018)
											Stake Could Help Kingdom Diversify --- Oil-rich nation aims to build electric cars, ramp up solar (The Wall Street Journal - Factiva, 08/14/2018)
											Stocks fall; Tesla CEO says he's talking with Saudi fund (The Post and Courier (South Carolina) - Factiva, 08/14/2018)
											Talk about left Field: Apple lures back Tesla engineering guru (U-Wire - Factiva, 08/14/2018)
											Tesla aiming to tempt investors but buyout realities show boring companies are a safer bet (Global Times - Factiva, 08/14/2018)
											Tesla Announces Formation of Special Committee to Evaluate Potential Going Private Transaction (Contify Automotive News - Factiva, 08/14/2018)
											Tesla board committee to weigh Elon Musk's plan to go private (USA Today Online - Factiva, 08/14/2018)
											Tesla board creates committee to take firm private (EFE News Service - Factiva, 08/14/2018)
											Tesla board moves to explore going private, and shareholders sue over Elon Musk's tweets (latimes.com - Factiva, 08/14/2018)
											Tesla Board To Evaluate Musk's Potential Going Private Transaction (CE NoticiasFinancieras - Factiva, 08/14/2018)
											Tesla Board To Evaluate Musk's Potential Going Private Transaction (RTT News - Factiva, 08/14/2018)
											Tesla buyout now appears unsettled (Greensboro News & Record - Factiva, 08/14/2018)
											Tesla CEO Elon Musk says Saudi Arabia is backing his latest plans for the car... (Radio New Zealand News - Factiva, 08/14/2018)
											Tesla Directory forms special committee to evaluate Elon Musk's proposals (CE NoticiasFinancieras - Factiva, 08/14/2018)
											Tesla forms committee to assess proposal to go private (Postmedia Breaking News - Factiva, 08/14/2018)
											Tesla forms panel to gauge taking company private (U-Wire - Factiva, 08/14/2018)
											Tesla Forms Special Committee In Connection With Musk's Proposal - Quick Facts (CE NoticiasFinancieras - Factiva, 08/14/2018)
											Tesla Forms Special Committee In Connection With Musk's Proposal - Quick Facts (RTT News - Factiva, 08/14/2018)
											Tesla forms three-member panel to look at any Musk deal; Tesla forms three-member panel to look at any Musk deal (The Daily Star - Factiva, 08/14/2018)
											Tesla money source: Saudis (The San Francisco Chronicle - Factiva, 08/14/2018)

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Tesla points to the Saudi sovereign fund to get him out of the stock market (CE NoticiasFinancieras - Factiva, 08/14/2018)</p> <p>Tesla Rival Nio Seeks To Raise \$1.8 Bln In U.S. IPO (CE NoticiasFinancieras - Factiva, 08/14/2018)</p> <p>Tesla Rival Nio Seeks To Raise \$1.8 Bln In U.S. IPO (RTT News - Factiva, 08/14/2018)</p> <p>Tesla Seeks Counsel From Silver Lake, Not Cash (The Deal - Factiva, 08/14/2018)</p> <p>Tesla short sellers trim exposure but stay the course (EJ Insight - Factiva, 08/14/2018)</p> <p>Tesla Special Committee Created To Evaluate Elon Musk Bid To Go Private (Investor's Business Daily - Factiva, 08/14/2018)</p> <p>Tesla Special Committee Created To Evaluate Elon Musk Bid To Go Private (Investor's Business Daily - Factiva, 08/14/2018)</p> <p>Tesla Take-Private Takes Shape With Adviser Assignments (The Deal - Factiva, 08/14/2018)</p> <p>Tesla targeted by short sellers, along with these Wisconsin companies (Milwaukee Business Journal Online - Factiva, 08/14/2018)</p> <p>Tesla's board forms special committee to vet any proposal to go private (CNET News.com - Factiva, 08/14/2018)</p> <p>The Economic Chickens Are Coming Home To Roost, And Certainly When It Comes To The Emerging Markets, Fantasy Football Season Is About To Begin In The United States, And A New League Says Blockchain Can Make People Care About Fantasy Sports Like They Were The Real Thing, One Of President Trump's Cabinet Members Is Under Close Scrutiny For Alleged Conflicts Of Interest. Aired: 4-5p ET (CNN International: Ouest Means Business - Factiva, 08/14/2018)</p> <p>Tuesday Papers: Musk to take Tesla private with Saudi Money (Citywire - Factiva, 08/14/2018)</p> <p>Tweeting Plan, Musk Shocked Tesla Directors (The New York Times - Factiva, 08/14/2018)</p> <p>UPDATE: Tesla shares jump 11% after CEO Musk confirms privatization interest (SNL Generation Markets Week - Factiva, 08/14/2018)</p> <p>US stocks rise, dollar ebbs amid Turkey tumult (Indiaonline News Service - Factiva, 08/14/2018)</p> <p>Volatility has vanished (The Irish Times - Factiva, 08/14/2018)</p> <p>Wells eyes student loan refinancing; Goldman advising on Tesla privatization (SNL Financial Extra - Factiva, 08/14/2018)</p> <p>Why oil is still king in Saudi Arabia despite bets on future with Tesla (ArabianBusiness.com - Factiva, 08/14/2018)</p> <p>UPDATE 10-Musk says Silver Lake, Goldman advising on taking Tesla private (Reuters News - Factiva, 08/14/2018 12:19 AM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											Musk says Silver Lake, Goldman advising on taking Tesla private (Reuters News - Factiva, 08/14/2018 12:20 AM)
											PRESS DIGEST- Wall Street Journal - Aug 14 (Reuters News - Factiva, 08/14/2018 12:47 AM)
											Elon Musk says he expects Saudis to fund plan to take Tesla private (CNN Wire - Factiva, 08/14/2018 01:06 AM)
											Musk calls in Goldman and Silver Lake to help take Tesla private; Chief executive also attempts to clarify his 'funding secured' comment from earlier in August (Financial News - Factiva, 08/14/2018 02:30 AM)
											Musk Met With Saudis On Tesla -- WSJ (Dow Jones Institutional News - Factiva, 08/14/2018 02:32 AM)
											Stake Could Help Kingdom Diversify -- WSJ (Dow Jones Institutional News - Factiva, 08/14/2018 02:32 AM)
											Tesla's New Challenge: Borrowing Costs -- WSJ (Dow Jones Institutional News - Factiva, 08/14/2018 02:32 AM)
											BREAKINGVIEWS-China's Tesla bets on hot-wired dream for IPO (Reuters News - Factiva, 08/14/2018 03:46 AM)
											Elon Musk Met With Saudi Fund About Taking Tesla Private; In a blog post, Musk said he believes two-thirds of current shareholders would remain with the company (Private Equity News - Factiva, 08/14/2018 04:32 AM)
											The stocks that look ripe for buying after a Turkish trouncing \pounds and those to avoid (MarketWatch - Factiva, 08/14/2018 05:00 AM)
											SEC will still have many questions for Tesla and Musk say experts; Securities lawyer says SEC trying to ascertain whether Musk \pounds blowing smoke \pounds (MarketWatch - Factiva, 08/14/2018 05:14 AM)
											Larger Tesla Stake by Giant Saudi Fund Faces Hurdles (Dow Jones Institutional News - Factiva, 08/14/2018 05:30 AM)
											Larger Tesla Stake by Giant Saudi Fund Faces Hurdles; PIF is already on the hook to contribute to initiatives including Neom, the \$500 billion futuristic megacity (The Wall Street Journal Online - Factiva, 08/14/2018 05:30 AM)
											Saudi Fund Faces Hurdles in Financing Larger Tesla Stake (Dow Jones Institutional News - Factiva, 08/14/2018 05:40 AM)
											Chinesischer Tesla-Rivale Nio plant milliardenschweren US-BÄfÄrsengang (Reuters News - Factiva, 08/14/2018 05:56 AM)
											WSJ Wealth Adviser Briefing: Digital Currency, Deposit Rates, Tesla (Dow Jones Institutional News - Factiva, 08/14/2018 06:04 AM)
											DealBook Briefing: Elon Musk Has Answers. We Still Have Questions. (NYTimes.com Feed - Factiva, 08/14/2018 06:34 AM)

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Elon Musk denies Azealia Banks claim he was on Twitter while on acid (Independent Online - Factiva, 08/14/2018 06:36 AM)</p> <p>China's 'Tesla-fighter' plans to go public in New York (CNN Wire - Factiva, 08/14/2018 06:47 AM)</p> <p>LIVE MARKETS-Tesla vs esure: What does "funding secured" look like? (Reuters News - Factiva, 08/14/2018 06:50 AM)</p> <p>Musk's Tweets on Tesla Buyout Face Scrutiny After Saudi Disclosure (Dow Jones Institutional News - Factiva, 08/14/2018 07:00 AM)</p> <p>Musk's Tweets on Tesla Buyout Face Scrutiny After Saudi Disclosure; CEO's statement describes funding that looks less certain than first described (The Wall Street Journal Online - Factiva, 08/14/2018 07:00 AM)</p> <p>Musk's Tweets on Tesla Buyout Face Scrutiny After Saudi Disclosure; CEO's statement describes funding that looks less certain than first described (WSJ Pro Central Banking - Factiva, 08/14/2018 07:00 AM)</p> <p>RPT-Keeping Tesla shares may not be an option for some big funds (Reuters News - Factiva, 08/14/2018 07:00 AM)</p> <p>Elon Musk says he's working with Goldman, Silver Lake to take Tesla private; Many questions remain about controversial bid to go private (MarketWatch - Factiva, 08/14/2018 07:08 AM)</p> <p>Tesla delisting backed by Saudi Arabia, PIF, Silver Lake, Goldman tapped as advisors (SeeNews Deals - Factiva, 08/14/2018 07:45 AM)</p> <p>Saudi Fund May Be Too Stretched for Tesla Buyout -- Energy Journal (Dow Jones Institutional News - Factiva, 08/14/2018 07:53 AM)</p> <p>Musk's Tweets Face More Scrutiny After Saudi Disclosure (Dow Jones Institutional News - Factiva, 08/14/2018 08:00 AM)</p> <p>Hot Stocks to Watch: TSLA (Dow Jones Newswires Chinese (English) - Factiva, 08/14/2018 08:26 AM)</p> <p>Press Release: Tesla Announces Formation of Special Committee to Evaluate Potential Going Private Transaction (Dow Jones Institutional News - Factiva, 08/14/2018 08:30 AM)</p> <p>Tesla Announces Formation of Special Committee to Evaluate Potential Going Private Transaction (GlobeNewswire - Factiva, 08/14/2018 08:30 AM)</p> <p>TESLA INC - SEPARATELY RETAINED WILSON SONSINI GOODRICH & ROSATI AS ITS LEGAL COUNSEL REGARDING POTENTIAL GOING PRIVATE TRANSACTION (Reuters News - Factiva, 08/14/2018 08:31 AM)</p> <p>LIVE MARKETS-Political risk: This time it's (not that) different (Reuters News - Factiva, 08/14/2018 08:31 AM)</p> <p>TESLA INC - SPECIAL COMMITTEE HAS NOT YET REACHED ANY CONCLUSION AS TO ADVISABILITY/FEASIBILITY OF A GOING PRIVATE DEAL (Reuters News - Factiva, 08/14/2018 08:32 AM)</p>

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											Chinese Electric-Vehicle Maker NIO Tees Up U.S. Stock Sale (WSJ Pro Private Equity - Factiva, 08/14/2018 08:32 AM)
											Chinese Electric-Vehicle Maker NIO Tees Up U.S. Stock Sale (WSJ Pro Venture Capital - Factiva, 08/14/2018 08:32 AM)
											Tesla, Inc. 8-K Accepted 2018-08-14 08:34:57 (SEC - SEC Edgar, 08/14/2018 08:34 AM)
											MW Tesla's board forms special committee to evaluate potential going-private deal (MarketWatch - Factiva, 08/14/2018 08:40 AM)
											Tesla's Board Forms Special Committee To Evaluate Potential Going-private Deal -- MarketWatch (Dow Jones Institutional News - Factiva, 08/14/2018 08:40 AM)
											REFILE-LIVE MARKETS-How vulnerable are European banks to Turkey stress? (Reuters News - Factiva, 08/14/2018 08:41 AM)
											Tesla forms special committee, has no formal proposal from Musk (Reuters News - Factiva, 08/14/2018 08:42 AM)
											BRIEF-Tesla Forms Special Committee To Evaluate Potential Going Private Transaction (Reuters News - Factiva, 08/14/2018 08:44 AM)
											Tesla: Not clear yet whether Elon Musk's plan to go private makes sense (CNN Wire - Factiva, 08/14/2018 08:47 AM)
											UPDATE - Goldman, Silver Lake advising on Tesla go-private plan (Renewables Now - Factiva, 08/14/2018 08:50 AM)
											LIVE MARKETS-U.S. futures suggest stocks poised for relief rally (Reuters News - Factiva, 08/14/2018 08:56 AM)
											Tesla Special Committee to Evaluate Possibility of Taking Company Private (Dow Jones Institutional News - Factiva, 08/14/2018 08:59 AM)
											Tesla's board forms special committee to evaluate potential going-private deal (Dow Jones Newswires Chinese (English) - Factiva, 08/14/2018 09:06 AM)
											Tesla board forms committee to consider going private (Agence France Presse - Factiva, 08/14/2018 09:09 AM)
											Tesla Special Committee to Evaluate Possibility of Taking Company Private (Dow Jones Institutional News - Factiva, 08/14/2018 09:10 AM)
											MW UPDATE: SEC will still have many questions for Tesla and Musk say experts (MarketWatch - Factiva, 08/14/2018 09:14 AM)
											Tesla's board has formed a special committee to consider going private (TSLA) (Business Insider - Factiva, 08/14/2018 09:22 AM)
											Tesla's board has formed a special committee to consider going private (TSLA) (Business Insider - Factiva, 08/14/2018 09:22 AM)

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											<p>Stocks to Watch: Tesla, Home Depot, Switch, Express Scripts, Advance Auto Parts, Ford, Tapestry, RH, Coca-Cola (Dow Jones Institutional News - Factiva, 08/14/2018 09:31 AM)</p> <p>Stocks to Watch: Tesla, Home Depot, Switch, Express Scripts, Advance Auto Parts, Ford, Tapestry, RH, Coca-Cola; Here are some of the companies with shares expected to trade actively in Tuesday's session (The Wall Street Journal Online - Factiva, 08/14/2018 09:31 AM)</p> <p>Tesla: Not clear yet whether Elon Musk's plan to go private makes sense (CNN Wire - Factiva, 08/14/2018 09:47 AM)</p> <p>LIVE MARKETS-Value bulls, unite! (Reuters News - Factiva, 08/14/2018 09:51 AM)</p> <p>Tesla forms special committee to study going private proposal (24 Ore Radiocor-Newswire International Edition - Factiva, 08/14/2018 09:55 AM)</p> <p>Tesla: Not clear yet whether Elon Musk's plan to go private makes sense (CNN Wire - Factiva, 08/14/2018 10:09 AM)</p> <p>Elon Musk's Effort to Take Tesla Private to Get Board Oversight (NYTimes.com Feed - Factiva, 08/14/2018 10:50 AM)</p> <p>LIVE MARKETS-A cash equity trading downturn in Europe? (Reuters News - Factiva, 08/14/2018 10:57 AM)</p> <p>Musk Name-Drops Advisors, Tesla Forms Committee To Evaluate Potential Go-Private Deal (Benzinga.com - Factiva, 08/14/2018 11:00 AM)</p> <p>MW UPDATE: Elon Musk says he's working with Goldman, Silver Lake to take Tesla private (MarketWatch - Factiva, 08/14/2018 11:08 AM)</p> <p>LIVE MARKETS-Party like it's 1994! (Reuters News - Factiva, 08/14/2018 11:16 AM)</p> <p>MW UPDATE: NIO, potential Tesla rival from China, files for \$1.8 billion U.S. IPO (MarketWatch - Factiva, 08/14/2018 11:44 AM)</p> <p>Update: NIO, Potential Tesla Rival From China, Files For \$1.8 Billion U.S. IPO -- MarketWatch (Dow Jones Institutional News - Factiva, 08/14/2018 11:44 AM)</p> <p>CORRECTED-UPDATE 2-Tesla forms three-member panel to decide on any Musk deal (Reuters News - Factiva, 08/14/2018 11:57 AM)</p> <p>CORRECTED-FACTBOX-A look at Tesla's nine-member board (Reuters News - Factiva, 08/14/2018 11:58 AM)</p> <p>LIVE MARKETS-Closing snapshot: 384.92 vs 384.91 (Reuters News - Factiva, 08/14/2018 12:40 PM)</p> <p>There's an X-factor in Tesla's go-private deal that no one is considering while they try to figure out what Elon Musk is thinking (TSLA) (Business Insider - Factiva, 08/14/2018 12:53 PM)</p> <p>INVESTOR REMINDER NOTICE: The Schall Law Firm Announces the Filing of a Class Action Lawsuit Against Tesla, Inc. and Encourages Investors with Losses in Excess of \$100,000 to Contact the Firm (Business Wire - Factiva, 08/14/2018 12:58 PM)</p>

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											<p>Tesla forms committee to consider Musk's proposal of going private (The Telegraph Online - Factiva, 08/14/2018 01:15 PM)</p> <p>BREAKINGVIEWS-Tesla is risky vehicle for Saudi reform drive (Reuters News - Factiva, 08/14/2018 01:18 PM)</p> <p>Pressure mounts on Tesla as it gets hit with a third securities fraud lawsuit in wake of Elon Musk's 'funding secured' tweet (TSLA) (Business Insider - Factiva, 08/14/2018 01:43 PM)</p> <p>Elon Musk hit with a THIRD securities fraud lawsuit one week after tweeting plan to take his car company private - as Tesla board forms 'special committee' to examine CEO's proposal (Mail Online - Factiva, 08/14/2018 01:54 PM)</p> <p>Elon Musk says he's hired Goldman Sachs to help take Tesla private even though the bank's analyst is one of the most bearish on Wall Street (TSLA) (Business Insider - Factiva, 08/14/2018 01:54 PM)</p> <p>MW Apple is looking to develop chip for health sensors: report (MarketWatch - Factiva, 08/14/2018 02:30 PM)</p> <p>Apple is looking to develop chip for health sensors: report (Dow Jones Newswires Chinese (English) - Factiva, 08/14/2018 02:45 PM)</p> <p>Tesla latest: Elon Musk forms SPECIAL COMMITTEE in one step closer to making Tesla private (express.co.uk - Factiva, 08/14/2018 02:50 PM)</p> <p>Goldman, Silver Lake Not Officially On Board With Musk's Plan: Report -- MarketWatch (Dow Jones Institutional News - Factiva, 08/14/2018 03:36 PM)</p> <p>MW Goldman, Silver Lake not officially on board with Musk's plan: report (MarketWatch - Factiva, 08/14/2018 03:36 PM)</p> <p>Tesla: Should you buy, sell or short? (CNN Wire - Factiva, 08/14/2018 03:47 PM)</p> <p>Goldman, Silver Lake not officially on board with Musk's plan: report (Dow Jones Newswires Chinese (English) - Factiva, 08/14/2018 03:57 PM)</p> <p>Deals of the day-Mergers and acquisitions (Reuters News - Factiva, 08/14/2018 04:03 PM)</p> <p>MW Dow, S&P 500 halt 4-session skid as Turkish lira angst takes a breather (MarketWatch - Factiva, 08/14/2018 04:08 PM)</p> <p>Major Tesla shareholders trimmed stakes last quarter -filings (Reuters News - Factiva, 08/14/2018 04:09 PM)</p> <p>UPDATE 1-Major Tesla shareholders trimmed stakes last quarter -filings (Reuters News - Factiva, 08/14/2018 06:09 PM)</p> <p>Tesla forms special committee to review Musk's going-private plan (Xinhua News Agency - Factiva, 08/14/2018 06:35 PM)</p> <p>How to Solve a Problem Like Elon? Musk may not be an asset to the abbey, but the SEC knows he makes us laugh. (The Wall Street Journal Online - Factiva, 08/14/2018 06:59 PM)</p>

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8/15/2018 Wed	9,101,258	\$338.69	-2.57%	-1.20%	0.05%	-1.87%	-0.71%	-0.28	78.27%	-\$2.46	<p>TESLA SHAREHOLDER ALERT BY FORMER LOUISIANA ATTORNEY GENERAL: KAHN SWICK & FOTI, LLC REMINDS INVESTORS WITH LOSSES IN EXCESS OF \$100,000 of Lead Plaintiff Deadline in Class Action Lawsuit Against Tesla, Inc. - TSLA (GlobeNewswire - Factiva, 08/14/2018 07:00 PM)</p> <p>Tesla forms committee to assess proposal to go private (Associated Press Newswires - Factiva, 08/14/2018 07:08 PM)</p> <p>Tesla forms committee to assess proposal to go private (The Canadian Press - Factiva, 08/14/2018 07:09 PM)</p> <p>Elon Musk Tweets Another Surprise, Saying Goldman and Silver Lake Are Tesla Advisers; Electric-car maker's CEO and the investment firms hadn't completed any financial deals, though (The Wall Street Journal Online - Factiva, 08/14/2018 07:30 PM)</p> <p>Azealia Banks claims Elon Musk is "beta male who wants to be alpha" (thetimes.co.uk - Factiva, 08/14/2018 08:01 PM)</p> <p>Tesla Directors Do Damage Control After Elon Musk Tweets (NYTimes.com Feed - Factiva, 08/14/2018 08:17 PM)</p> <p>A look at Tesla's nine-member board (Reuters News - Factiva, 08/14/2018 08:53 PM)</p> <p>Major Tesla shareholders trimmed stakes last quarter: filings (Reuters News - Factiva, 08/14/2018 08:53 PM)</p> <p>Musk's Tweets on Tesla Buyout Face Scrutiny After Saudi Disclosure > TSLA (Dow Jones Newswires Chinese (English) - Factiva, 08/14/2018 09:09 PM)</p> <p>MEDIA-Some Tesla directors advise Elon Musk to stop tweeting - NYT (Reuters News - Factiva, 08/14/2018 09:24 PM)</p> <p>Elon Musk Tweets Another Surprise, Saying Goldman and Silver Lake Are Tesla Advisers (Dow Jones Newswires Chinese (English) - Factiva, 08/14/2018 09:25 PM)</p> <p>Larger Tesla Stake by Giant Saudi Fund Faces Hurdles (Dow Jones Newswires Chinese (English) - Factiva, 08/14/2018 10:49 PM)</p> <p>Members of Tesla's board of directors are lawyering up as crisis around Elon Musk deepens (TSLA) (Business Insider - Factiva, 08/14/2018 11:05 PM)</p> <p>Elon Musk and Tesla, in the sights of the US regulatory authorities (CE NoticiasFinancieras - Factiva, 08/15/2018)</p> <p>Elon Musk in talks with Saudi Sovereign Fund to finance delisting of Tesla (French Collection - Factiva, 08/15/2018)</p> <p>Elon Musk may face a national security review in a Tesla-Saudi deal (Los Angeles Daily News - Factiva, 08/15/2018)</p> <p>Elon Musk releases details on his plan to take Tesla private (German Collection - Factiva, 08/15/2018)</p> <p>Elon Musk roundup: The Tesla tweets heard around Wall Street (L.A. Biz - Factiva, 08/15/2018)</p>

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											<p>Elon Musk's Effort to Take Tesla Private to Get Board Oversight (The New York Times - Factiva, 08/15/2018)</p> <p>Goldman Sachs, Silver Lake advise Musk on taking Tesla private (German Collection - Factiva, 08/15/2018)</p> <p>06:15 EDT Tesla directors begin damage control after Elon Musk tweets, NY Times... (Theflyonthewall.com - Factiva, 08/15/2018)</p> <p>09:10 EDT Technical Take: Tesla has an active bearish pattern on daily chartThe... (Theflyonthewall.com - Factiva, 08/15/2018)</p> <p>10:46 EDT Tesla investigation has reached 'formal' stages at SEC, FBN saysFBN's... (Theflyonthewall.com - Factiva, 08/15/2018)</p> <p>12:04 EDT Silver Lake would like to participate in Tesla deal, DealBook... (Theflyonthewall.com - Factiva, 08/15/2018)</p> <p>12:08 EDT Goldman Sachs to act as financial advisor to Tesla, Bloomberg reports (Theflyonthewall.com - Factiva, 08/15/2018)</p> <p>12:10 EDT Tesla moved to Not Rated at Goldman SachsAccording to analyst David... (Theflyonthewall.com - Factiva, 08/15/2018)</p> <p>13:21 EDT Vertical Research says Model 3 demand 'collapsing,' Tesla unlikely to... (Theflyonthewall.com - Factiva, 08/15/2018)</p> <p>15:26 EDT Goldman involvement with Tesla 'doesn't mean anything,' says Vertical... (Theflyonthewall.com - Factiva, 08/15/2018)</p> <p>15:35 EDT Tesla said to receive subpoena from SEC, Bloomberg reportsThe Fly... (Theflyonthewall.com - Factiva, 08/15/2018)</p> <p>4 Tesla EV charging stations installed at Grand Valley town hall (Orangeville Banner - Factiva, 08/15/2018)</p> <p>5 reasons that play against Elon Musk's plan for Tesla (CE NoticiasFinancieras - Factiva, 08/15/2018)</p> <p>APPY FAMILIES (Gold Coast Sun - Central - Factiva, 08/15/2018)</p> <p>Banking & Finance: CEO's Tweets Face More Inquiry (The Wall Street Journal - Factiva, 08/15/2018)</p> <p>Banking & Finance: Saudi Fund Faces Tesla Deal Hurdles (The Wall Street Journal - Factiva, 08/15/2018)</p> <p>Banking Roundup: Citi reorganizes consumer banking unit, Goldman advising Musk on Tesla (Chicago Business Journal Online - Factiva, 08/15/2018)</p> <p>Banking Roundup: Citi reorganizes consumer banking unit, Goldman advising Musk on Tesla (L.A. Biz - Factiva, 08/15/2018)</p> <p>Banking Roundup: Citi reorganizes consumer banking unit, Goldman advising Musk on Tesla (New York Business Journal Online - Factiva, 08/15/2018)</p>

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											Board Tries To Rein In Tesla's Chief After Tweets (The New York Times - Factiva, 08/15/2018)
											Board trio to assess Musk's plan to take carmaker private (The Daily Telegraph - Factiva, 08/15/2018)
											BRIEFCASE (The Patriot Ledger - Factiva, 08/15/2018)
											Business briefs: RBS fined \$4.9 billion in '08 crisis (The Journal Gazette - Factiva, 08/15/2018)
											China's rival to Tesla plans \$1.8bn New York listing (The Daily Telegraph - Factiva, 08/15/2018)
											Class-Action Lawsuit Filed Against Tesla After Elon Musk's Tweet (U-Wire - Factiva, 08/15/2018)
											DealBook Briefing: Elon Musk Has Answers. We Still Have Questions. (The New York Times - Factiva, 08/15/2018)
											Dow Jones Futures: Tech Giant Soars To Buy Zone On Earnings; New Tesla Tweets (Investor's Business Daily - Factiva, 08/15/2018)
											Effort to take Tesla private to get board oversight (The Daily Gazette - Factiva, 08/15/2018)
											Electric car makers sprout in China (Cape Times - Factiva, 08/15/2018)
											Electric car makers sprout in China (Pretoria News - Factiva, 08/15/2018)
											Electric car makers sprout in China (The Mercury - Factiva, 08/15/2018)
											Electric car makers sprout in China (The Star - Factiva, 08/15/2018)
											electric vehicle start-up nio bids on float in u.s. (South China Morning Post - Factiva, 08/15/2018)
											For Musk, a love-hate relationship with oil; Tesla's chief rails at fossil fuel industry but courts its money (Los Angeles Times - Factiva, 08/15/2018)
											FOR THE RECORD (Los Angeles Times - Factiva, 08/15/2018)
											How Nio Is Taking On Tesla In China And What Challenges It Sees (Investor's Business Daily - Factiva, 08/15/2018)
											How to Solve a Problem Like Elon? (The Wall Street Journal - Factiva, 08/15/2018)
											IMPORTANT INVESTOR NOTICE: The Schall Law Firm Announces the Filing of a Class Action Lawsuit Against Tesla, Inc. and Encourages Investors with Losses in Excess of \$500,000 to Contact the Firm (ACCESSWIRE - Factiva, 08/15/2018)
											Is Tesla a cash cow or simply a handful of beans? (The Washington Post - Factiva, 08/15/2018)
											Is Tesla a cash cow, or simply a handful of beans? (Washington Post.com - Factiva, 08/15/2018)
											MORE NEWS (The Denver Post - Factiva, 08/15/2018)

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											<p>Musk facing heat over tweet (Townsville Bulletin - Factiva, 08/15/2018)</p> <p>Musk on Tesla talks (Express & Star - Factiva, 08/15/2018)</p> <p>Musk on Tesla talks Tesla (Shropshire Star - Factiva, 08/15/2018)</p> <p>Musk presents equipment to privatize Tesla (CE NoticiasFinancieras - Factiva, 08/15/2018)</p> <p>Musk says Goldman on board for his Tesla plans (Irish Independent - Factiva, 08/15/2018)</p> <p>Musk says Silver Lake, Goldman advising on taking Tesla private (U-Wire - Factiva, 08/15/2018)</p> <p>Musk says Silver Lake, Goldman Sachs advising on Tesla privatization (SNL Energy Finance Daily - Factiva, 08/15/2018)</p> <p>Musk says Silver Lake, Goldman Sachs advising on Tesla privatization (SNL Financial Services Daily - Factiva, 08/15/2018)</p> <p>Musk's Belated Explanation Is Unlikely to Get SEC Off His Back; BANKING/FINANCE (Broward Daily Business Review - Factiva, 08/15/2018)</p> <p>Musk's Belated Explanation Is Unlikely to Get SEC Off His Back; BANKING/FINANCE (Miami Daily Business Review - Factiva, 08/15/2018)</p> <p>Musk's Belated Explanation Is Unlikely to Get SEC Off His Back; BANKING/FINANCE (Palm Beach Daily Business Review - Factiva, 08/15/2018)</p> <p>Musk's bid to take Tesla private gaining traction; Special committee to study offer (National Post - Factiva, 08/15/2018)</p> <p>Nation/world business briefs (The Richmond Times-Dispatch - Factiva, 08/15/2018)</p> <p>Peso, Elektra, Amazon, talent, credits, reward, Elon Musk: Summary of the day (CE NoticiasFinancieras - Factiva, 08/15/2018)</p> <p>Report: SEC subpoenas Tesla about CEO's buyout plans (Postmedia Breaking News - Factiva, 08/15/2018)</p> <p>Saudi fund seeking to take Tesla private, Musk says (The Australian - Factiva, 08/15/2018)</p> <p>Saudi PIF may partially finance Tesla take-private plan - bankers (Mubasher - Factiva, 08/15/2018)</p> <p>Saudi sovereign fund involved in Tesla buyout deal - report. (Just-Auto - Factiva, 08/15/2018)</p> <p>SEC slaps Tesla with a subpoena over Elon Musk tweets, report says (CNET News.com - Factiva, 08/15/2018)</p> <p>SEC Subpoenas Tesla Over Musk's Taking-Private Tweet (CE NoticiasFinancieras - Factiva, 08/15/2018)</p> <p>SEC Subpoenas Tesla Over Musk's Taking-Private Tweet (RTT News - Factiva, 08/15/2018)</p>

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											Silver Lake, Goldman advising on Tesla move (The Irish Times - Factiva, 08/15/2018)
											Special body to study Tesla going private (Shanghai Daily - Factiva, 08/15/2018)
											Stocks - Tesla Hit Hard Midday After Report of SEC Move (Investing.com - Factiva, 08/15/2018)
											Sure looks like the SEC is investigating Elon Musk's 'funding secured' tweet (Mashable.com - Factiva, 08/15/2018)
											Tencent-Backed Chinese EV Maker Seeks \$1.8 Billion US IPO; BANKING/FINANCE (Broward Daily Business Review - Factiva, 08/15/2018)
											Tencent-Backed Chinese EV Maker Seeks \$1.8 Billion US IPO; BANKING/FINANCE (Miami Daily Business Review - Factiva, 08/15/2018)
											Tencent-Backed Chinese EV Maker Seeks \$1.8 Billion US IPO; BANKING/FINANCE (Palm Beach Daily Business Review - Factiva, 08/15/2018)
											Tesla at greater risk of default as a private company, S&P analysis suggests (SNL Financial Extra - Factiva, 08/15/2018)
											Tesla board explores taking firm private (Orlando Sentinel - Factiva, 08/15/2018)
											Tesla board forms special committee to review Musk's privatization proposal (SNL Energy Finance Daily - Factiva, 08/15/2018)
											Tesla board forms special committee to review Musk's privatization proposal (SNL Financial Services Daily - Factiva, 08/15/2018)
											Tesla board forms special committee to review Musk's privatization proposal (SNL Power Daily with Market Report - Factiva, 08/15/2018)
											Tesla board moves to explore going private (The Spokesman-Review - Factiva, 08/15/2018)
											Tesla board scrambles to do damage control after Elon Musk tweets (The Straits Times - Factiva, 08/15/2018)
											Tesla board scrambles to do damage control after Elon Musk tweets (The Straits Times - Factiva, 08/15/2018)
											Tesla board scrambles to do damage control after Elon Musk tweets (The Straits Times - Factiva, 08/15/2018)
											Tesla board to face many questions about Musk's going-private proposal (Pacific Business News - Factiva, 08/15/2018)
											Tesla board to face many questions about Musk's going-private proposal (Silicon Valley/San Jose Business Journal - Factiva, 08/15/2018)
											Tesla board trio to dissect Musk plan (New York Post - Factiva, 08/15/2018)
											Tesla committee to assess privatization (Victoria Times Colonist - Factiva, 08/15/2018)

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											<p>Tesla committee to evaluate possibility of taking firm private; Special committee of three independent directors hasn't received a proposal from Musk (Waterloo Region Record - Factiva, 08/15/2018)</p> <p>Tesla committee to gauge Musk's plan to go private (USA Today - Factiva, 08/15/2018)</p> <p>Tesla directors do damage control after Elon Musk tweets (San Francisco Chronicle: Web Edition - Factiva, 08/15/2018)</p> <p>Tesla explores going private amid lawsuits (Daily Press - Factiva, 08/15/2018)</p> <p>Tesla explores going private amid lawsuits (South Florida Sun-Sentinel - Factiva, 08/15/2018)</p> <p>Tesla explores going private; Board forming panel to investigate Musk's idea; shareholders file suits (San Diego Union-Tribune - Factiva, 08/15/2018)</p> <p>TESLA EYE MUSK IDEA (The Sun - Factiva, 08/15/2018)</p> <p>TESLA EYE MUSK IDEA (The Sun - Factiva, 08/15/2018)</p> <p>TESLA FACES LAWSUITS (Herald-Sun - Factiva, 08/15/2018)</p> <p>Tesla Forms 3-member Committee to Study Privatization; Major Shareholders Cut Stake (AAStocks Financial News - Factiva, 08/15/2018)</p> <p>Tesla forms committee to consider feasibility of taking company private (The Washington Post - Factiva, 08/15/2018)</p> <p>Tesla forms special committee to consider going private (Washington Post.com - Factiva, 08/15/2018)</p> <p>Tesla is being investigated by the US regulator (CE NoticiasFinancieras - Factiva, 08/15/2018)</p> <p>Tesla is being investigated by the US regulator (CE NoticiasFinancieras - Factiva, 08/15/2018)</p> <p>Tesla panel to assess proposals (The Seattle Times - Factiva, 08/15/2018)</p> <p>Tesla panel will look into taking company private (City AM - Factiva, 08/15/2018)</p> <p>TESLA PLAN TO GET A LOOK; Board forms a special committee to explore CEO's idea of taking the carmaker private. Shareholders file suits. (Los Angeles Times - Factiva, 08/15/2018)</p> <p>Tesla shares drop amid reports of Securities and Exchange Commission subpoena (USA Today Online - Factiva, 08/15/2018)</p> <p>Tesla stock drops on report that the SEC has subpoenaed the automaker (latimes.com - Factiva, 08/15/2018)</p> <p>Tesla submits FTZ request (American Shipper - Factiva, 08/15/2018)</p> <p>TESLA TURMOIL AS BOARD REVEALS MUSK HAS NOT BID FOR HIS FIRM (Daily Mail - Factiva, 08/15/2018)</p>

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											<p>Tesla turmoil as board reveals Musk has NOT bid for his firm (Scottish Daily Mail - Factiva, 08/15/2018)</p> <p>Tesla tycoon 'a beta male who wants to be alpha' (The Times - Factiva, 08/15/2018)</p> <p>Tesla's Advisers Not Ready to Ride --- CEO Musk tweeted of advisory roles for Goldman, Silver Lake as haggling continued (The Wall Street Journal - Factiva, 08/15/2018)</p> <p>Tesla's board panel to study private proposal (Calgary Herald - Factiva, 08/15/2018)</p> <p>Tesla's board panel to study private proposal (Edmonton Journal - Factiva, 08/15/2018)</p> <p>Tesla's board to look at CEO's plan (i - Factiva, 08/15/2018)</p> <p>The US stock market authority demands Tesla information on Elon Musk's tragedy*** TRANSLATED *** (STT - Factiva, 08/15/2018)</p> <p>THREE TESLA BOARD MEMBERS TO EVALUATE ANY TAKE-PRIVATE DEAL; ELECTRIC CARMAKER'S BOARD SETS UP SPECIAL COMMITTEE TO ASSESS ANY POSSIBLE OFFER TO BUY BACK THE COMPANY'S STOCK (San Jose Mercury News - Factiva, 08/15/2018)</p> <p>UBS Equities Research Report (Capital IQ - Manual Entry, 08/15/2018)</p> <p>UBS Equities Research Report (Capital IQ - Manual Entry, 08/15/2018)</p> <p>UBS Equities Research Report (Eikon - Manual Entry, 08/15/2018)</p> <p>UBS Equities Research Report (Eikon - Manual Entry, 08/15/2018)</p> <p>ValueAct Ups Stake in Seagate (The Deal - Factiva, 08/15/2018)</p> <p>What Elon Musk's Tweet Can Teach GCs About Damage Control (Delaware Law Weekly - Factiva, 08/15/2018)</p> <p>Why Elon Musk, Richard Branson and Michael Dell welcome shareholder money but not accountability (semp.com - Factiva, 08/15/2018)</p> <p>PRESS DIGEST- New York Times business news - Aug 15 (Reuters News - Factiva, 08/15/2018 12:57 AM)</p> <p>CEO's Tweets Face More Inquiry -- WSJ (Dow Jones Institutional News - Factiva, 08/15/2018 02:32 AM)</p> <p>Saudi Fund Faces Tesla Deal Hurdles -- WSJ (Dow Jones Institutional News - Factiva, 08/15/2018 02:32 AM)</p> <p>Tesla's Advisers Not Ready to Ride -- WSJ (Dow Jones Institutional News - Factiva, 08/15/2018 02:32 AM)</p> <p>Elon Musk says he's hired Goldman Sachs to help take Tesla private -- even though the bank's analyst is one of the most bearish on Wall Street (TSLA) (Business Insider - Factiva, 08/15/2018 02:47 AM)</p> <p>Elon Musk left plenty of questions about Tesla going private, experts say; Equity-funded buyouts tend to be much smaller (MarketWatch - Factiva, 08/15/2018 03:29 AM)</p>

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											Elon Musk Tweets Another Surprise: Goldman, Silver Lake Advise Tesla; Electric-car maker's CEO and the investment firms hadn't completed any financial deals (Private Equity News - Factiva, 08/15/2018 04:35 AM)
											Tesla in turmoil as special committee reveals Musk has NOT bid for his firm (Mail Online - Factiva, 08/15/2018 04:45 AM)
											ANALYSIS-Saudi fund may only play minor part in Musk's \$72 bln Tesla plan - bankers (Reuters News - Factiva, 08/15/2018 05:11 AM)
											Saudi Arabia Goes High-Tech in Approach to Investing (Dow Jones Institutional News - Factiva, 08/15/2018 05:30 AM)
											Saudi fund may only play minor part in Musk's \$72 billion Tesla plan: bankers (Reuters News - Factiva, 08/15/2018 05:49 AM)
											'Good luck with that': Telstra exec drawn into Elon Musk controversy (The Age - Online - Factiva, 08/15/2018 06:03 AM)
											'Good luck with that': Telstra exec drawn into Elon Musk controversy (The Sydney Morning Herald - Online - Factiva, 08/15/2018 06:03 AM)
											'Good luck with that': Telstra exec drawn into Elon Musk controversy (WAToday.com.au - Factiva, 08/15/2018 06:03 AM)
											DealBook Briefing: Tesla's Board Tries to Calm Its Chaos (NYTimes.com Feed - Factiva, 08/15/2018 06:17 AM)
											Tesla sets up special committee for delisting plan (SeeNews Deals - Factiva, 08/15/2018 07:09 AM)
											MW UPDATE: Elon Musk left plenty of questions about Tesla going private, experts say (MarketWatch - Factiva, 08/15/2018 07:29 AM)
											A Tesla Take-Private Bid Would Be More of the Same for Silver Lake. Sort of. (NYTimes.com Feed - Factiva, 08/15/2018 07:38 AM)
											Tesla sets up special committee to consider upcoming Musk offer (Renewables Now - Factiva, 08/15/2018 08:15 AM)
											Another Tesla investor trims stake in Q2 (SeeNews Deals - Factiva, 08/15/2018 08:31 AM)
											CORRECTED-UPDATE 8-Musk bid for Tesla: no formal offer, no firm deals with advisers (Aug. 14) (Reuters News - Factiva, 08/15/2018 08:31 AM)
											Musk bid for Tesla: no formal offer, no firm deals with advisers (Reuters News - Factiva, 08/15/2018 08:46 AM)
											Elon Musk may only face a minor fee if the SEC investigates his tweet storm about taking Tesla private (Business Insider - Factiva, 08/15/2018 09:09 AM)

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											<p>Kaplan Fox Announces Investor Class Action Lawsuit Filed Against Tesla, Inc. (PR Newswire - Factiva, 08/15/2018 10:08 AM)</p> <p>Press Release: Kaplan Fox Announces Investor Class Action Lawsuit Filed Against Tesla, Inc. (Dow Jones Institutional News - Factiva, 08/15/2018 10:08 AM)</p> <p>Elon Musk says he's hired Goldman Sachs to help take Tesla private even though the bank's analyst is one of the most bearish on Wall Street (TSLA) (Business Insider - Factiva, 08/15/2018 10:48 AM)</p> <p>BRIEF-SEC Sends Subpoenas To Tesla Regarding Privatization Plans- Fox Business' Gasparino (Reuters News - Factiva, 08/15/2018 10:52 AM)</p> <p>The Downfall Of Elon Musk (Benzinga.com - Factiva, 08/15/2018 10:58 AM)</p> <p>U.S. SEC subpoenas Tesla over Musk's tweets -Fox News (Reuters News - Factiva, 08/15/2018 11:03 AM)</p> <p>Tesla Shares Drop on Report of SEC Subpoenas -- Market Talk (Dow Jones Institutional News - Factiva, 08/15/2018 11:07 AM)</p> <p>Tesla Shares Drop on Report of SEC Subpoenas -- Market Talk (Dow Jones Institutional News - Factiva, 08/15/2018 11:07 AM)</p> <p>Marijuana Companies Enjoy Bump from Constellation Deal -- Market Talk (Dow Jones Institutional News - Factiva, 08/15/2018 11:13 AM)</p> <p>Puma Sags on Questions About Breast-Cancer Drug's Prospects -- Market Talk (Dow Jones Institutional News - Factiva, 08/15/2018 11:14 AM)</p> <p>Tesla Shares Drop on Report of SEC Subpoenas -- Market Talk (Dow Jones Newswires Chinese (English) - Factiva, 08/15/2018 11:21 AM)</p> <p>The SEC reportedly sent subpoenas to Tesla concerning Elon Musk's tweets about taking Tesla private (TSLA) (Business Insider - Factiva, 08/15/2018 11:47 AM)</p> <p>MW SEC's Tesla probe is now 'formal investigation': report (MarketWatch - Factiva, 08/15/2018 12:08 PM)</p> <p>SEC's Tesla Probe Is Now 'formal Investigation': Report -- MarketWatch (Dow Jones Institutional News - Factiva, 08/15/2018 12:08 PM)</p> <p>Tesla sinks after report the SEC has issued subpoenas about Elon Musk's 'funding secured' tweet (TSLA) (Business Insider - Factiva, 08/15/2018 12:15 PM)</p> <p>Saudi Arabia Goes High-Tech in Approach to Investing -- Update (Dow Jones Institutional News - Factiva, 08/15/2018 12:16 PM)</p> <p>IT'S OFFICIAL: Goldman Sachs is advising Elon Musk on his plans to take Tesla private (TSLA) (Business Insider - Factiva, 08/15/2018 12:49 PM)</p> <p>Tesla and Elon Musk under fire as SEC issues subpoenas (The Telegraph Online - Factiva, 08/15/2018 01:03 PM)</p> <p>IT'S OFFICIAL: Goldman Sachs is advising Elon Musk on his plans to take Tesla private (TSLA) (Business Insider - Factiva, 08/15/2018 01:39 PM)</p>

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											<p>SEC sends subpoena to Tesla in probe over Musk tweets; Subpoena seeks information from each of Tesla's directors (MarketWatch - Factiva, 08/15/2018 01:44 PM)</p> <p>T. Rowe, Fidelity sold more then 20% of their stakes in Tesla last quarter; Two investment giants are still among company's largest institutional holders (MarketWatch - Factiva, 08/15/2018 01:46 PM)</p> <p>Elon Musk could take Tesla private with the Saudis - here's what their sovereign wealth fund is all about (TSLA) (Business Insider - Factiva, 08/15/2018 01:51 PM)</p> <p>Goldman Sachs says it's advising Tesla (CNN Wire - Factiva, 08/15/2018 01:59 PM)</p> <p>A former Tesla engineer says the company silenced her entire team after they brought up safety and quality issues (TSLA) (Business Insider - Factiva, 08/15/2018 01:59 PM)</p> <p>A former Tesla engineer says the company silenced her entire team after they brought up safety and quality issues (TSLA) (Business Insider - Factiva, 08/15/2018 01:59 PM)</p> <p>SHAREHOLDER ALERT: Bronstein, Gewirtz & Grossman, LLC Notifies Investors of Class Action Against Tesla, Inc. (TSLA) and Lead Plaintiff Deadline: October 9, 2018 (GlobeNewswire - Factiva, 08/15/2018 02:01 PM)</p> <p>ONGOING INVESTIGATION ALERT: The Schall Law Firm Announces it is Investigating Claims Against Tesla, Inc. and Encourages Investors with Losses in Excess of \$100,000 to Contact the Firm (Business Wire - Factiva, 08/15/2018 02:06 PM)</p> <p>Tesla Is Said to Be Subpoenaed by S.E.C. Over Elon Musk Tweet (NYTimes.com Feed - Factiva, 08/15/2018 02:13 PM)</p> <p>Tesla sinks after reports the SEC has issued subpoenas about Elon Musk's 'funding secured' tweet (TSLA) (Business Insider - Factiva, 08/15/2018 02:24 PM)</p> <p>SEC Launches Formal Investigation Over Elon Musk Tweet to Take Tesla Private - Reports (Sputnik News Service - Factiva, 08/15/2018 02:28 PM)</p> <p>Goldman Sachs says it's advising Tesla (CNN Wire - Factiva, 08/15/2018 02:37 PM)</p> <p>Reports: SEC Launches Formal Investigation Over Musk Tweet to Take Tesla Private (Sputnik News Service - Factiva, 08/15/2018 02:39 PM)</p> <p>CORRECTED-BREAKINGVIEWS-Global dominance is key to Tesla buyout payoff (Reuters News - Factiva, 08/15/2018 03:17 PM)</p> <p>Tesla shares fall on reports of SEC subpoena (Agence France Presse - Factiva, 08/15/2018 03:17 PM)</p> <p>Saudi Arabia Goes High-Tech in Approach to Investing; Talks with Tesla show how crown prince's sovereign-wealth fund has become a global player, but some worry about impulsive, risky bets (The Wall Street Journal Online - Factiva, 08/15/2018 03:37 PM)</p>

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											<p>Saudi Arabia Goes High-Tech in Approach to Investing; Talks with Tesla show how crown prince's sovereign-wealth fund has become a global player, but some worry about impulsive, risky bets (WSJ Pro Central Banking - Factiva, 08/15/2018 03:37 PM)</p> <p>Vertical Group Turns More Bearish On Tesla, Doesn't Expect Company To Go Private (Benzinga.com - Factiva, 08/15/2018 03:56 PM)</p> <p>UPDATE: Tesla is no longer rated by Goldman Sachs as bank takes on advisory role (Dow Jones Newswires Chinese (English) - Factiva, 08/15/2018 03:57 PM)</p> <p>A Question for Tesla's Board: What Was Elon Musk's Mental State? (NYTimes.com Feed - Factiva, 08/15/2018 04:02 PM)</p> <p>Global Equities Roundup: Market Talk (Dow Jones Institutional News - Factiva, 08/15/2018 04:25 PM)</p> <p>Tesla Shares Fall as Lawyers Take Aim at Company, Musk -- Market Talk (Dow Jones Institutional News - Factiva, 08/15/2018 04:25 PM)</p> <p>Tesla Shares Fall as Lawyers Take Aim at Company, Musk -- Market Talk (Dow Jones Institutional News - Factiva, 08/15/2018 04:25 PM)</p> <p>Elon Musk's tweets investigated for possibly breaking law: reports (The Guardian - Factiva, 08/15/2018 04:27 PM)</p> <p>Cisco Software Sales Spur 3rd Consecutive Quarter of Growth -- Market Talk (Dow Jones Institutional News - Factiva, 08/15/2018 04:40 PM)</p> <p>Auto & Transport Roundup: Market Talk (Dow Jones Institutional News - Factiva, 08/15/2018 04:50 PM)</p> <p>SEC Sends Subpoena to Tesla in Probe Over Musk Tweets (Dow Jones Institutional News - Factiva, 08/15/2018 04:59 PM)</p> <p>Tesla Shares Fall as Lawyers Take Aim at Company, Musk -- Market Talk (Dow Jones Newswires Chinese (English) - Factiva, 08/15/2018 05:05 PM)</p> <p>SEC Sends Subpoena to Tesla in Probe Over Musk Tweets (Dow Jones Institutional News - Factiva, 08/15/2018 05:10 PM)</p> <p>Tesla Class Action: Bernstein Liebhart LLP Announces That A New Securities Class Action Lawsuit Expanding The Relevant Class Period Has Been Filed Against Tesla, Inc. - TSLA (PR Newswire - Factiva, 08/15/2018 05:10 PM)</p> <p>Cisco in 'Deep Discussions' with Administration on Tariffs -- Market Talk (Dow Jones Institutional News - Factiva, 08/15/2018 05:12 PM)</p> <p>T. Rowe, Fidelity Sold More Than 20% of Their Tesla Shares in Second Quarter (Dow Jones Institutional News - Factiva, 08/15/2018 05:22 PM)</p> <p>T. Rowe, Fidelity Sold More Than 20% of Their Tesla Shares in Second Quarter; Share sales took place before Elon Musk disclosed publicly he wanted to take electric-car maker private (The Wall Street Journal Online - Factiva, 08/15/2018 05:22 PM)</p> <p>SEC Sends Subpoena to Tesla in Probe Over Musk Tweets (Dow Jones Newswires Chinese (English) - Factiva, 08/15/2018 05:24 PM)</p>

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											<p>Tesla shares fall on reports of SEC subpoena (Agence France Presse - Factiva, 08/15/2018 05:33 PM)</p> <p>COLUMN-Tesla, Musk face SEC wrist slap at worst, experts say: Frankel (Reuters News - Factiva, 08/15/2018 05:40 PM)</p> <p>Scott+Scott Attorneys at Law LLP Files Class Action Lawsuit Against Tesla Inc. (TSLA) and Elon Musk on Behalf of Short Sellers and Put Options Investors (Business Wire - Factiva, 08/15/2018 05:41 PM)</p> <p>Tesla Class Action: Bernstein Liebhard LLP Announces that a New Securities Class Action Lawsuit Expanding the Relevant Class Period has been Filed Against Tesla, Inc. - TSLA (GlobeNewswire - Factiva, 08/15/2018 05:42 PM)</p> <p>MW SEC sends subpoena to Tesla in probe over Musk tweets (MarketWatch - Factiva, 08/15/2018 05:44 PM)</p> <p>T. Rowe, Fidelity Sold More Than 20% of Their Tesla Shares in Second Quarter (Dow Jones Newswires Chinese (English) - Factiva, 08/15/2018 06:02 PM)</p> <p>Elon Musk is handed writ over Tesla sale as he defends his decision to make the buyout plans public on social media (Mail Online - Factiva, 08/15/2018 06:39 PM)</p> <p>SHAREHOLDER ALERT: Kaskela Law LLC Announces Expanded Class Period in Investor Class Action Lawsuits Against Tesla, Inc. and Elon Musk, and Encourages Investors with Losses in Excess of \$250,000 to Contact the Firm (GlobeNewswire - Factiva, 08/15/2018 06:51 PM)</p> <p>Report: SEC subpoenas Tesla about CEO's buyout plans (Associated Press Newswires - Factiva, 08/15/2018 06:53 PM)</p> <p>Report: SEC subpoenas Tesla about CEO's buyout plans (The Canadian Press - Factiva, 08/15/2018 06:54 PM)</p> <p>UPDATE 5-SEC scrutiny of Tesla grows as Goldman hints at adviser role (Reuters News - Factiva, 08/15/2018 07:12 PM)</p> <p>Tesla, Inc. 3 Accepted 2018-08-15 19:21:04 (SEC - SEC Edgar, 08/15/2018 07:21 PM)</p> <p>MEDIA-Baupost Group acquired \$200 mln of Tesla convertible bonds during Q2 - Bloomberg (Reuters News - Factiva, 08/15/2018 07:30 PM)</p> <p>Singer Claims Elon Musk Was 'On Acid' Writing Dicey Tesla Tweets (Sputnik News Service - Factiva, 08/15/2018 07:34 PM)</p> <p>SEC Sends Subpoena to Tesla in Probe Over Musk Tweets; Subpoena seeks information from each of Tesla's directors (The Wall Street Journal Online - Factiva, 08/15/2018 07:35 PM)</p> <p>SEC Sends Subpoena to Tesla in Probe Over Musk Tweets; Subpoena seeks information from each of Tesla's directors (WSJ Pro Central Banking - Factiva, 08/15/2018 07:35 PM)</p> <p>SEC scrutiny of Tesla grows as Goldman hints at adviser role (Reuters News - Factiva, 08/15/2018 07:38 PM)</p>

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8/16/2018 Thu	6,064,033	\$335.45	-0.96%	0.43%	0.64%	0.58%	-1.54%	-0.60	54.85%	-\$5.21	<p>SEC Sends Subpoena to Tesla in Probe Over Musk Tweets (Dow Jones Newswires Chinese (English) - Factiva, 08/15/2018 07:56 PM)</p> <p>Watchdog subpoenas Tesla over Musk go-private tweet (thetimes.co.uk - Factiva, 08/15/2018 08:01 PM)</p> <p>Hagens Berman Sobol Shapiro LLP Announces Extended Class Period in Musk "Tweet" Class Action - TSLA (GlobeNewswire - Factiva, 08/15/2018 08:29 PM)</p> <p>SEC Sends Subpoena to Tesla in Probe Over Musk Tweets -- Update (Dow Jones Newswires Chinese (English) - Factiva, 08/15/2018 09:51 PM)</p> <p>Apple rehires ex-Tesla engineering lead, stimulating Project Titan talk (ETMAG.com - Factiva, 08/16/2018)</p> <p>Elon Musk likely to face US national security review in a Tesla-Saudi deal (ArabianBusiness.com - Factiva, 08/16/2018)</p> <p>Elon Musk's Boring Co. proposes to dig a tunnel to Dodger Stadium (L.A. Biz - Factiva, 08/16/2018)</p> <p>Facebook's median pay tops \$240,000 - here's how that compares to 30 other big Bay Area employers (Silicon Valley/San Jose Business Journal Online - Factiva, 08/16/2018)</p> <p>Porsche's first all-electric vehicle will begin production next year (ETMAG.com - Factiva, 08/16/2018)</p> <p>US SEC Reportedly Looking Into Tesla CEO's Post on Privatisation (AAStocks Financial News - Factiva, 08/16/2018)</p> <p>*SEC Globe/wire say SEC sends subpoenas to Tesla's Musk (Canada Stockwatch - Factiva, 08/16/2018)</p> <p>05:59 EDT Tesla silenced team concerned over safety issues, Business Insider... (Theflyonthewall.com - Factiva, 08/16/2018)</p> <p>07:35 EDT Tesla price target raised to \$325 after 'taking company private' tweet... (Theflyonthewall.com - Factiva, 08/16/2018)</p> <p>07:42 EDT After visiting Tesla's Fremont facility, Evercore ISI says Model 3... (Theflyonthewall.com - Factiva, 08/16/2018)</p> <p>07:44 EDT Tesla whistleblower tweets details about allegedly flawed vehicles,... (Theflyonthewall.com - Factiva, 08/16/2018)</p> <p>07:59 EDT Tesla backs out of solar-panel deal with Panasonic, WSJ reportsTesla... (Theflyonthewall.com - Factiva, 08/16/2018)</p> <p>12:09 EDT Gasparino: Tesla's legal team bracing for 'billions' in potential... (Theflyonthewall.com - Factiva, 08/16/2018)</p> <p>14:29 EDT Ex-Tesla worker: Gigafactory workers involved in drug trafficking,... (Theflyonthewall.com - Factiva, 08/16/2018)</p> <p>16:14 EDT SEC presses Tesla directors for info on communications with Musk, WSJ... (Theflyonthewall.com - Factiva, 08/16/2018)</p>

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											<p>20:50 EDT Tesla Fremont facility workers left 3.5 hours early on Wednesday, BL... (Theflyonthewall.com - Factiva, 08/16/2018)</p> <p>4 Firms Handling Elon Musk's Effort to Take Tesla Private (New York Law Journal - Factiva, 08/16/2018)</p> <p>A Tesla Take-Private Bid Would Be More of the Same for Silver Lake. Sort of. (The New York Times - Factiva, 08/16/2018)</p> <p>Another whistleblower: Tesla ignored drug dealing at Gigafactory, spied on employees (Tribune Review - Factiva, 08/16/2018)</p> <p>Auto industry; Elon Musk may face U.S. security review over a Tesla-Saudi deal (Press-Telegram - Factiva, 08/16/2018)</p> <p>Auto industry; Elon Musk may face U.S. security review over a Tesla-Saudi deal (Riverside Press-Enterprise - Factiva, 08/16/2018)</p> <p>Banking & Finance: Saudis Embrace High-Tech Investments (The Wall Street Journal - Factiva, 08/16/2018)</p> <p>Biz briefs (The Virginian-Pilot - Factiva, 08/16/2018)</p> <p>BRIEFCASE (Hannibal Courier-Post - Factiva, 08/16/2018)</p> <p>British police seek motive of suspect in crash at Parliament; NEWS BRIEFING; Staff and news services; U.S. sanctions shipping firms over North Korea trade; Israel eases Gaza restrictions on goods amid cease-fire bid; Conspiracy theorist Alex Jones muzzled by Twitter for a week; Report: SEC subpoenas Tesla about buyout plans; Baker who won at high court sues in new bias case (South Florida Sun-Sentinel - Factiva, 08/16/2018)</p> <p>British police seek motive of suspect in crash at Parliament; NEWS BRIEFING; Staff and news services; U.S. sanctions shipping firms over North Korea trade; Refugee held in connection with Iraqi policeman's slaying; Conspiracy theorist Alex Jones muzzled by Twitter for a week; Report: SEC subpoenas Tesla about buyout plans; Baker who won at high court sues in new bias case (The Baltimore Sun - Factiva, 08/16/2018)</p> <p>British police seek motive of suspect in crash at Parliament; NEWS BRIEFING; Staff and news services; U.S. sanctions shipping firms over North Korea trade; Refugee held in connection with Iraqi policeman's slaying; Conspiracy theorist Alex Jones muzzled by Twitter for a week; Report: SEC subpoenas Tesla about buyout plans; Baker who won at high court sues in new bias case (The Hartford Courant - Factiva, 08/16/2018)</p> <p>British police seek motive of suspect in crash at Parliament; U.S. sanctions shipping firms over North Korea trade; Israel eases Gaza restrictions on goods amid cease-fire bid; Conspiracy theorist Alex Jones muzzled by Twitter for a week; Report: SEC subpoenas Tesla about buyout plans; Baker who won at high court sues in new bias case (Orlando Sentinel - Factiva, 08/16/2018)</p> <p>China's Tesla poised to electrify IPO investors (GlobalCapital - Factiva, 08/16/2018)</p>

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											DealBook Briefing: Tesla's Board Tries to Calm Its Chaos (The New York Times - Factiva, 08/16/2018)
											Directors struggle to control Musk, Tesla; Board hires two law firms following CEO's latest tweets (The Toronto Star - Factiva, 08/16/2018)
											Dow Jones Futures Jump As U.S.-China Trade Talks To Restart; Cisco Soars To Buy Zone (Investor's Business Daily - Factiva, 08/16/2018)
											Dow Jones Futures Jump As U.S.-China Trade Talks To Restart; Cisco Soars To Buy Zone (Investor's Business Daily - Factiva, 08/16/2018)
											ELON MUSK HANDED WRIT OVER TESLA SALE (Daily Mail - Factiva, 08/16/2018)
											Elon Musk handed writ over Tesla sale (Scottish Daily Mail - Factiva, 08/16/2018)
											Elon Musk wants to dig a tunnel to Dodger Stadium (Silicon Valley/San Jose Business Journal Online - Factiva, 08/16/2018)
											ELON MUSK'S MUSINGS (Pittsburgh Post-Gazette - Factiva, 08/16/2018)
											Even as CEO Elon Musk pursues the idea of taking Tesla private, the electric... (The San Francisco Chronicle - Factiva, 08/16/2018)
											Evercore ISI Research Report (Capital IQ - Manual Entry, 08/16/2018)
											Evercore ISI Research Report (Eikon - Manual Entry, 08/16/2018)
											Ex-Tesla employee claiming to be whistleblower has Twitter account suspended (San Francisco Business Times Online - Factiva, 08/16/2018)
											Ex-Tesla employee claiming to be whistleblower has Twitter account suspended (Silicon Valley/San Jose Business Journal Online - Factiva, 08/16/2018)
											FACE THE MUSIC US regulator wants answers over Musk tweet (City AM - Factiva, 08/16/2018)
											IMPORTANT INVESTOR NOTICE: The Schall Law Firm Announces the Filing of a Class Action Lawsuit Against Tesla, Inc. and Encourages Investors with Losses in Excess of \$500,000 to Contact the Firm (ACCESSWIRE - Factiva, 08/16/2018)
											In Musk-SEC Face-Off, Investors Should Brace for Drawn-Out Tussle; BANKING/FINANCE (Broward Daily Business Review - Factiva, 08/16/2018)
											In Musk-SEC Face-Off, Investors Should Brace for Drawn-Out Tussle; BANKING/FINANCE (Miami Daily Business Review - Factiva, 08/16/2018)
											In Musk-SEC Face-Off, Investors Should Brace for Drawn-Out Tussle; BANKING/FINANCE (Palm Beach Daily Business Review - Factiva, 08/16/2018)
											Industry Trend Analysis - Tesla's Choice - Germany Or The Netherlands For Its European Vehicle Production Factory (BMI Industry Insights Reports - Factiva, 08/16/2018)
											Inside the Mind of a Visionary (The New York Times - Factiva, 08/16/2018)

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											<p>Inside the mind of a visionary like Elon Musk (San Francisco Chronicle: Web Edition - Factiva, 08/16/2018)</p> <p>It won't be easy for Musk to get hold of Saudi money (Mail Today - Factiva, 08/16/2018)</p> <p>Latest Musk missive delivers new dose of confusion over future prospects for Tesla (Global Times - Factiva, 08/16/2018)</p> <p>Musk tweets he's 'excited to work' with Silver Lake, Goldman Sachs (Buffalo News - Factiva, 08/16/2018)</p> <p>Musk's Dodger Stadium tunnel is another distraction from his most important task: Making cars (latimes.com - Factiva, 08/16/2018)</p> <p>Privatisation doubts send Tesla CBs down (GlobalCapital - Factiva, 08/16/2018)</p> <p>Red Pulse Research Report (Capital IQ - Manual Entry, 08/16/2018)</p> <p>Report of SEC subpoena gives Tesla shares a jolt (Los Angeles Times - Factiva, 08/16/2018)</p> <p>Report of subpoena; by the SEC gives Tesla shares a jolt; U.S. may probe tweet about going private (San Diego Union-Tribune - Factiva, 08/16/2018)</p> <p>Report: SEC issues subpoenas to Tesla over take-private plan (SNL Financial Services Daily - Factiva, 08/16/2018)</p> <p>Report: SEC issues subpoenas to Tesla over take-private plan (SNL Power Daily with Market Report - Factiva, 08/16/2018)</p> <p>Report: SEC subpoenas (Providence Journal - Factiva, 08/16/2018)</p> <p>Report: SEC subpoenas Tesla about buyout plans (The Courier - Factiva, 08/16/2018)</p> <p>Report: SEC subpoenas Tesla about CEO's buyout plans (St. Paul Pioneer Press - Factiva, 08/16/2018)</p> <p>Report: Tesla no longer committed to buying all solar modules made by Panasonic in Buffalo (Buffalo Business First Online - Factiva, 08/16/2018)</p> <p>Saudi fund may only play minor part in Musk's \$72B Tesla plan, Reuters reports (Theflyonthewall.com - Factiva, 08/16/2018)</p> <p>Saudi sovereign fund would spread itself thin to take Tesla private (Cape Times - Factiva, 08/16/2018)</p> <p>Saudi sovereign fund would spread itself thin to take Tesla private (Pretoria News - Factiva, 08/16/2018)</p> <p>Saudi sovereign fund would spread itself thin to take Tesla private (The Mercury - Factiva, 08/16/2018)</p> <p>Saudi sovereign fund would spread itself thin to take Tesla private (The Star - Factiva, 08/16/2018)</p> <p>SEC investigation into Tesla likely to take some time; Controversy over whether musk misled investors with tweet (National Post - Factiva, 08/16/2018)</p>

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											SEC Serves Tesla With Subpoena (The Wall Street Journal - Factiva, 08/16/2018)
											SEC sparks worry Tesla shares dive on subpoena news (New York Post - Factiva, 08/16/2018)
											SEC subpoenas Tesla about CEO's buyout plans (The Quad-City Times - Factiva, 08/16/2018)
											SHAREHOLDER ALERT: Bronstein, Gewirtz & Grossman, LLC Notifies Investors of Class Action Against Tesla, Inc. (TSLA) and Lead Plaintiff Deadline: October 9, 2018 (Agency Tunis Afrique Press - Factiva, 08/16/2018)
											Shop Talk - Elon Musk goes feral (The Financial Mail - Factiva, 08/16/2018)
											Small role in Tesla plan for Saudi fund (Shanghai Daily - Factiva, 08/16/2018)
											Telstra exec drawn into Elon Musk controversy (Canberra Times - Factiva, 08/16/2018)
											Telstra exec drawn into Elon Musk controversy (The Age - Factiva, 08/16/2018)
											Telstra exec drawn into Elon Musk controversy (The Sydney Morning Herald - Factiva, 08/16/2018)
											Tesla and Musk probe escalates (The Daily Telegraph - Factiva, 08/16/2018)
											Tesla at greater risk of default as a private company, S&P analysis suggests (SNL Power Daily with Market Report - Factiva, 08/16/2018)
											Tesla battery maker eyes investment in HCM City (Vietnam News Summary - Factiva, 08/16/2018)
											Tesla board isn't privy to Musk's plan to take the company private, report claims (ETMAG.com - Factiva, 08/16/2018)
											Tesla board scrambles to do damage control after Elon Musk tweets (The Straits Times - Factiva, 08/16/2018)
											Tesla boss jumps gun on deal advisers (The Australian - Factiva, 08/16/2018)
											Tesla directors are busy doing damage control; Musk ignores request to stop tweeting, adding to chaos engulfing company (Buffalo News - Factiva, 08/16/2018)
											Tesla files lawsuit against Ontario government over electric vehicle rebate program (Postmedia Breaking News - Factiva, 08/16/2018)
											Tesla files lawsuit against Ontario government over vehicle rebates (Postmedia Breaking News - Factiva, 08/16/2018)
											Tesla files lawsuit against Ontario over cancelled electric vehicle rebates (The Hamilton Spectator - Factiva, 08/16/2018)
											Tesla files lawsuit against Ontario over cancelled electric vehicle rebates (The Hamilton Spectator - Factiva, 08/16/2018)

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Tesla forms committee to assess proposal to go private (Delaware State News - Factiva, 08/16/2018)</p> <p>Tesla shares fall on reports of SEC subpoena (Macau Business Daily - Factiva, 08/16/2018)</p> <p>Tesla subpoenaed by SEC over tweets by Musk, say reports; Tesla CEO told of plans to take company private saying funding was secured (The Irish Times - Factiva, 08/16/2018)</p> <p>Tesla sues province over abrupt electric vehicle rebate cancellation (Queen's Park Briefing - Factiva, 08/16/2018)</p> <p>Tesla Take-Private May Have to Face Cfius (The Deal - Factiva, 08/16/2018)</p> <p>Tesla takes Ontario government to court over vehicle rebates (Postmedia Breaking News - Factiva, 08/16/2018)</p> <p>Tesla takes Ontario government to court over vehicle rebates (The Hamilton Spectator - Factiva, 08/16/2018)</p> <p>Tesla whistleblower alleges 'narcotics trafficking' and 'unauthorized wiretapping' in SEC complaint (Mashable.com - Factiva, 08/16/2018)</p> <p>Tesla whistleblower claims rampant theft, drug dealing at Nevada Gigafactory (American News - Factiva, 08/16/2018)</p> <p>Tesla whistleblower claims rampant theft, drug dealing at Nevada Gigafactory (Herald-Times - Factiva, 08/16/2018)</p> <p>Tesla whistleblower claims rampant theft, drug dealing at Nevada Gigafactory (Petoskey News-Review - Factiva, 08/16/2018)</p> <p>Tesla whistleblower claims rampant theft, drug dealing at Nevada Gigafactory (South Bend Tribune: Web Edition - Factiva, 08/16/2018)</p> <p>Tesla whistleblower claims rampant theft, drug dealing at Nevada Gigafactory (The Daily American - Factiva, 08/16/2018)</p> <p>Tesla whistleblower claims rampant theft, drug dealing at Nevada Gigafactory (The Herald-Mail - Factiva, 08/16/2018)</p> <p>Tesla whistleblower claims rampant theft, drug dealing at Nevada Gigafactory (The Reporter-Times - Factiva, 08/16/2018)</p> <p>Tesla whistleblower claims rampant theft, drug dealing at Nevada Gigafactory (The Times-Mail - Factiva, 08/16/2018)</p> <p>Tesla, Musk face SEC wrist slap at worst, experts say; Musk face SEC wrist slap at worst, experts say (The Daily Star - Factiva, 08/16/2018)</p> <p>Tesla, public or private, will still release Autopilot safety data (San Francisco Chronicle: Web Edition - Factiva, 08/16/2018)</p> <p>The Coolest Car Company in the World is Being Funded by Saudi Arabia (Al-Bawaba News - Factiva, 08/16/2018)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>The private life of Tesla; Innovative leaders face challenges in leading public firms, from managing investors' expectations to dealing with short-sellers (South China Morning Post - Factiva, 08/16/2018)</p> <p>The US stock market authority demands Tesla information on Elon Musk's tragedy*** TRANSLATED *** (STT - Factiva, 08/16/2018)</p> <p>Tweet Is Said to Prompt S.E.C. Subpoena for Tesla (The New York Times - Factiva, 08/16/2018)</p> <p>Uber under pressure to sell self-driving car unit (Pacific Business News Online - Factiva, 08/16/2018)</p> <p>Wall Street's yearning for quick Tesla verdict hits securities snarl; Musk's tweet fuels storm, but it isn't a simple case of misleading investors (Calgary Herald - Factiva, 08/16/2018)</p> <p>Watchdog subpoenas Tesla over Musk go-private tweet (The Times - Factiva, 08/16/2018)</p> <p>Elon Musk may face US security probe following BOMBHELL proposal to flog Tesla to Saudis (express.co.uk - Factiva, 08/16/2018 12:57 AM)</p> <p>PRESS DIGEST-New York Times business news - Aug 16 (Reuters News - Factiva, 08/16/2018 01:02 AM)</p> <p>PRESS DIGEST- Wall Street Journal - Aug 16 (Reuters News - Factiva, 08/16/2018 01:23 AM)</p> <p>SEC sends subpoena to Tesla over Elon Musk tweets; Subpoena seeks information from each of Tesla's directors (Financial News - Factiva, 08/16/2018 02:14 AM)</p> <p>Saudis Embrace High-Tech Investments -- WSJ (Dow Jones Institutional News - Factiva, 08/16/2018 02:32 AM)</p> <p>SEC Serves Tesla With Subpoena -- WSJ (Dow Jones Institutional News - Factiva, 08/16/2018 02:32 AM)</p> <p>Tesla is no longer rated by Goldman Sachs as bank takes on advisory role; Investment bank, a major Tesla bear, bows out of coverage (MarketWatch - Factiva, 08/16/2018 03:08 AM)</p> <p>Saudi Arabia Goes High-Tech in Approach to Investing (Dow Jones Newswires Chinese (English) - Factiva, 08/16/2018 04:06 AM)</p> <p>Auto & Transport Roundup: Market Talk (Dow Jones Institutional News - Factiva, 08/16/2018 04:20 AM)</p> <p>Tesla backs off solar panel deal with Panasonic; The news is the latest sign of the uncertain outlook for Tesla's solar business, which has taken a back seat to the electric car business (MarketWatch - Factiva, 08/16/2018 04:20 AM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Banks Reject Volcker Rule Changes Turkey's Red Flags Stand Out Norway Flags Rate Rise SEC Sends Subpoena to Tesla Douglas's Take: U.K. Inflation May Be Cooling Faster Than BOE Thinks; The Wall Street Journal's central banking newsletter for Thursday, August 16, 2018 (WSJ Pro Central Banking - Factiva, 08/16/2018 05:28 AM)</p> <p>RPT-COLUMN-Tesla, Musk face SEC wrist slap at worst, experts say: Frankel (Reuters News - Factiva, 08/16/2018 07:00 AM)</p> <p>MW UPDATE: Tesla is no longer rated by Goldman Sachs as bank takes on advisory role (MarketWatch - Factiva, 08/16/2018 07:08 AM)</p> <p>Correction: Third Parties Buy Solar Equipment From Panasonic-Tesla Factory (Dow Jones Institutional News - Factiva, 08/16/2018 07:11 AM)</p> <p>Tesla whistleblower tweets claims that the firm's car batteries are faulty (The Telegraph Online - Factiva, 08/16/2018 07:14 AM)</p> <p>Serbia turns to tech industry to fight economic stagnation (Reuters News - Factiva, 08/16/2018 07:15 AM)</p> <p>Correction: Third Parties Buy Solar Equipment From Panasonic-Tesla Factory (Dow Jones Institutional News - Factiva, 08/16/2018 07:20 AM)</p> <p>10 things you need to know before the opening bell (Business Insider - Factiva, 08/16/2018 08:00 AM)</p> <p>Hot Stocks to Watch: TSLA (Dow Jones Newswires Chinese (English) - Factiva, 08/16/2018 08:25 AM)</p> <p>Arkansas' Huge Lithium Reserves go Unexploited, Until Now (PR Newswire - Factiva, 08/16/2018 08:45 AM)</p> <p>Arkansas' Huge Lithium Reserves go Unexploited, Until Now (PR Newswire Europe - Factiva, 08/16/2018 08:45 AM)</p> <p>SEC ramps up its investigation into Elon Musk's Tesla privatization plans and sends subpoenas about CEO's 'funding secured' tweet (Mail Online - Factiva, 08/16/2018 09:07 AM)</p> <p>Stocks to Watch: Walmart, J.C. Penney, Cisco, Symantec, Tesla, Freeport-McMoRan, Best Buy and Netflix (Dow Jones Institutional News - Factiva, 08/16/2018 09:20 AM)</p> <p>Stocks to Watch: Walmart, J.C. Penney, Cisco, Symantec, Tesla, Freeport-McMoRan, Best Buy and Netflix; Here are some of the companies with shares expected to trade actively in Thursday's session (The Wall Street Journal Online - Factiva, 08/16/2018 09:20 AM)</p> <p>Tesla founder may face SEC scrutiny over buyout plan tweet, expert says - report (SeeNews Deals - Factiva, 08/16/2018 09:21 AM)</p> <p>Trouble in SolarCity? Tesla Backs Off Panel Deal With Panasonic (Dow Jones Newswires Chinese (English) - Factiva, 08/16/2018 09:24 AM)</p> <p>Press Release: RM LAW Announces Investigation of Tesla, Inc. (Dow Jones Institutional News - Factiva, 08/16/2018 10:30 AM)</p>

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											<p>RM LAW Announces Investigation of Tesla, Inc. (PR Newswire - Factiva, 08/16/2018 10:30 AM)</p> <p>Elon Musk's tunneling company just unveiled a plan to transport people in Los Angeles to Dodgers Stadium in only four minutes – but the timing of the announcement is curious (Business Insider - Factiva, 08/16/2018 11:00 AM)</p> <p>Tesla has reportedly revised an agreement to buy all of the solar cells and modules Panasonic made at their solar panel factory (TSLA) (Business Insider - Factiva, 08/16/2018 11:00 AM)</p> <p>Tesla on track to make 8,000 Model 3s per week, Evercore says (Reuters News - Factiva, 08/16/2018 11:12 AM)</p> <p>Tesla on track to make 8,000 Model 3s per week, Evercore says (Reuters News - Factiva, 08/16/2018 11:15 AM)</p> <p>Elon Musk Is the Id of Tech (NYTimes.com Feed - Factiva, 08/16/2018 11:25 AM)</p> <p>Milberg Tadler Phillips Grossman LLP Announces Extended Class Period in Tesla, Inc. Class Action (PR Newswire - Factiva, 08/16/2018 11:31 AM)</p> <p>BRIEF-Tesla's Legal Team Bracing For Billions Of Dollars In Potential Liability From Private Lawsuits Over Musk's Tweet- Fox Business' Gasparino (Reuters News - Factiva, 08/16/2018 11:57 AM)</p> <p>Trouble in SolarCity? Third Parties Buy Gear From Panasonic-Tesla Factory; Panasonic sells some equipment to non-Tesla customers, another sign of the uncertain outlook for Tesla's SolarCity subsidiary (The Wall Street Journal Online - Factiva, 08/16/2018 12:01 PM)</p> <p>Is a \$35,000 Tesla Model 3 Envisioned by Musk Profitable? UBS Says No (Dow Jones Institutional News - Factiva, 08/16/2018 12:18 PM)</p> <p>Is a \$35,000 Tesla Model 3 Envisioned by Musk Profitable? UBS Says No; Current claims of profitability are based on higher-price version of the sedan, the brokerage says (The Wall Street Journal Online - Factiva, 08/16/2018 12:20 PM)</p> <p>Tesla Model 3's Profitability May Be Fleeting, UBS Report Says (Dow Jones Institutional News - Factiva, 08/16/2018 12:30 PM)</p> <p>SEC wants to know what Elon Musk told Tesla directors about going private; Regulators investigating whether funding secured tweet was true (MarketWatch - Factiva, 08/16/2018 12:44 PM)</p> <p>BC-APFN-Money & Markets Digest (Associated Press Newswires - Factiva, 08/16/2018 12:54 PM)</p> <p>Urban Dictionary is trolling Elon Musk with the definition of 'funding secured' (TSLA) (Business Insider - Factiva, 08/16/2018 01:01 PM)</p> <p>BREAKINGVIEWS-Revamped U.S. deal reviews are skid risk for Tesla (Reuters News - Factiva, 08/16/2018 01:02 PM)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Is a \$35,000 Tesla Model 3 Envisioned by Musk Profitable? UBS Says No (Dow Jones Newswires Chinese (English) - Factiva, 08/16/2018 01:16 PM)</p> <p>It's time for Tesla to call in a grown-up to keep Elon Musk in check (CNN Wire - Factiva, 08/16/2018 01:25 PM)</p> <p>It's time for Tesla to call in a grown-up to keep Elon Musk in check (CNN Wire - Factiva, 08/16/2018 01:59 PM)</p> <p>These Analysts Love Tesla's Potential, But Balk At Its Valuation (Benzinga.com - Factiva, 08/16/2018 02:20 PM)</p> <p>SEC also investigating Tesla over Model 3 production claims; Company could be punished if investors were misled about production delays (MarketWatch - Factiva, 08/16/2018 02:50 PM)</p> <p>Could Elon Musk lose control of Tesla? (CNN Wire - Factiva, 08/16/2018 03:22 PM)</p> <p>Ex-Tesla employee alleges Elon Musk authorized spying on workers in bombshell SEC tip (TSLA) (Business Insider - Factiva, 08/16/2018 04:03 PM)</p> <p>*SEC Pressing Tesla Directors for Details on Communications With Elon Musk--Source (Dow Jones Institutional News - Factiva, 08/16/2018 04:06 PM)</p> <p>Could Elon Musk lose control of Tesla? (CNN Wire - Factiva, 08/16/2018 04:07 PM)</p> <p>SEC PRESSING TESLA DIRECTORS FOR DETAILS ON COMMUNICATIONS WITH ELON MUSK - WSJ, CITING SOURCE (Reuters News - Factiva, 08/16/2018 04:08 PM)</p> <p>BRIEF-SEC Pressing Tesla Directors For Details On Communications With Elon Musk - WSJ (Reuters News - Factiva, 08/16/2018 04:09 PM)</p> <p>Tesla takes Ontario government to court over vehicle rebates (The Canadian Press - Broadcast wire - Factiva, 08/16/2018 04:14 PM)</p> <p>SEC Pressing Tesla Directors for Details on Communications With Elon Musk (Dow Jones Newswires Chinese (English) - Factiva, 08/16/2018 04:29 PM)</p> <p>SEC pressing Tesla directors for details on communications with Musk - WSJ (Reuters News - Factiva, 08/16/2018 04:30 PM)</p> <p>Tesla Was Under Regulator Scrutiny Prior to Musk's Tweet (Dow Jones Institutional News - Factiva, 08/16/2018 04:30 PM)</p> <p>SEC reportedly investigating whether Elon Musk tried to hurt short-sellers with his 'funding secured' tweet (TSLA) (Business Insider - Factiva, 08/16/2018 04:43 PM)</p> <p>News Highlights: Top Company News of the Day (Dow Jones Institutional News - Factiva, 08/16/2018 05:00 PM)</p> <p>Tesla Sues Ontario Over Rebate Program Cancellation -Bloomberg (Dow Jones Institutional News - Factiva, 08/16/2018 05:04 PM)</p> <p>UPDATE 1-SEC pressing Tesla directors for details on communications with Musk - WSJ (Reuters News - Factiva, 08/16/2018 05:08 PM)</p>

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											<p>SEC pressing Tesla directors for details on communications with Musk: Wall Street Journal (Reuters News - Factiva, 08/16/2018 05:12 PM)</p> <p>First crack at Musk could give top Tesla funds an edge (Reuters News - Factiva, 08/16/2018 05:16 PM)</p> <p>First crack at Musk could give top Tesla funds an edge (Reuters News - Factiva, 08/16/2018 05:48 PM)</p> <p>Tesla files lawsuit against Ontario government (Associated Press Newswires - Factiva, 08/16/2018 05:48 PM)</p> <p>Tesla files lawsuit against Ontario government (The Canadian Press - Factiva, 08/16/2018 05:49 PM)</p> <p>A Tesla whistleblower says the electric car maker's security team is staffed with former members of a notorious group from Uber that allegedly spied on rivals (TSLA) (Business Insider - Factiva, 08/16/2018 05:54 PM)</p> <p>Tesla Motors Canada takes Ontario government to court over vehicle rebates (The Canadian Press - Factiva, 08/16/2018 06:05 PM)</p> <p>Top News Advisory for Thursday, Aug. 16 (The Canadian Press - Factiva, 08/16/2018 06:36 PM)</p> <p>Top News Advisory for Thursday, Aug. 16 (The Canadian Press - Broadcast wire - Factiva, 08/16/2018 06:36 PM)</p> <p>MEDIA-U.S. SEC subpoenaed Tesla supplier in 2017 about Model 3 production problems - WSJ (Reuters News - Factiva, 08/16/2018 06:37 PM)</p> <p>SEC Probes Tesla Over Model 3 Production Disclosures (Dow Jones Newswires Chinese (English) - Factiva, 08/16/2018 06:47 PM)</p> <p>CORRECTED-Tesla sues Ontario over canceled electric vehicle rebate (Reuters News - Factiva, 08/16/2018 06:50 PM)</p> <p>SEC Probes Tesla Over Model 3 Production Disclosures; The investigation began before Elon Musk's tweets about taking the auto maker private (WSJ Pro Central Banking - Factiva, 08/16/2018 06:51 PM)</p> <p>Tesla sues Ontario over canceled electric vehicle rebate (Reuters News - Factiva, 08/16/2018 06:54 PM)</p> <p>News Highlights: Top Company News of the Day (Dow Jones Institutional News - Factiva, 08/16/2018 07:00 PM)</p> <p>Tesla employees say the main Model 3 production line has been shutting down early (TSLA) (Business Insider - Factiva, 08/16/2018 07:17 PM)</p> <p>Tesla employees say the main Model 3 production line has been shutting down early (TSLA) (Business Insider - Factiva, 08/16/2018 07:17 PM)</p> <p>Elon Musk reportedly calls the Tesla whistleblower who claimed the company spied on employees a nut (TSLA) (Business Insider - Factiva, 08/16/2018 08:16 PM)</p>

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											<p>Whistleblower accuses Tesla of spying on employees at Gigafactory -attorney (Reuters News - Factiva, 08/16/2018 08:30 PM)</p> <p>News Highlights: Top Company News of the Day (Dow Jones Institutional News - Factiva, 08/16/2018 09:00 PM)</p> <p>SEC Probes Tesla Over Model 3 Production Disclosures -- 3rd Update (Dow Jones Newswires Chinese (English) - Factiva, 08/16/2018 09:06 PM)</p> <p>SEC Probes Tesla Over Model 3 Production Disclosures -- 3rd Update (Dow Jones Newswires Chinese (English) - Factiva, 08/16/2018 09:27 PM)</p> <p>SEC Probes Tesla Over Model 3 Production Disclosures -- 3rd Update (Dow Jones Newswires Chinese (English) - Factiva, 08/16/2018 09:35 PM)</p> <p>SEC Probes Tesla Over Model 3 Production Disclosures -- 3rd Update (Dow Jones Institutional News - Factiva, 08/16/2018 09:40 PM)</p> <p>SEC Probes Tesla Over Model 3 Production Disclosures; The investigation began before Elon Musk's tweets about taking the auto maker private (The Wall Street Journal Online - Factiva, 08/16/2018 09:40 PM)</p> <p>Tesla sues Ontario over scrapped electric car rebate (Agence France Presse - Factiva, 08/16/2018 09:50 PM)</p> <p>UPDATE 1-Whistleblower accuses Tesla of spying on employees at Gigafactory - attorney (Reuters News - Factiva, 08/16/2018 10:12 PM)</p> <p>Whistleblower accuses Tesla of spying on employees at Gigafactory: attorney (Reuters News - Factiva, 08/16/2018 10:13 PM)</p> <p>News Highlights: Top Company News of the Day (Dow Jones Institutional News - Factiva, 08/16/2018 11:00 PM)</p> <p>Elon Musk Details "Excruciating" Personal Toll of Tesla Turmoil (NYTimes.com Feed - Factiva, 08/16/2018 11:22 PM)</p>
8/17/2018 Fri	18,958,612	\$305.50	-8.93%	0.13%	0.86%	0.17%	-9.10%	-3.56	0.05% **	-\$30.53	<p>Doug Ford Versus Elon Musk; Tesla sues ontario over cancelled electric vehicle rebate (National Post - Factiva, 08/17/2018)</p> <p>Elon Musk admits he's had a 'difficult and painful' year (CNET News.com - Factiva, 08/17/2018)</p> <p>Elon Musk is dreaming if he thinks Tesla is worth \$420 a share; CEO will find a price to take his tech company private, but that price is almost certainly not what he wants (The Globe and Mail (Breaking News) - Factiva, 08/17/2018)</p> <p>Elon Musk Is the Id of Tech (The New York Times - Factiva, 08/17/2018)</p> <p>Elon Musk lives the most painful year of his career (CE NoticiasFinancieras - Factiva, 08/17/2018)</p> <p>Elon Musk May Not Be Working All The Hours He Claims, But Boy He Needs Sleep (Forbes.com - Factiva, 08/17/2018)</p> <p>Elon Musk opens up about the personal toll Tesla is taking on him (Mashable.com - Factiva, 08/17/2018)</p>

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											<p>Elon Musk Opens Up And Tesla Shares Go Heading Down, The New CEO Of Air France KLM Was Announced And The Market Is Down 3% In Its Stock, 1,400 Google Workers Signed A Protest Petition After Reports That The Company Would Build A Censored Search Engine Especially For China; Paul Manafort Jury Ask to Leave By 5:00 p.m. Eastern Friday; Worst Flooding in Nearly a Century Claims 324 Lives in the Indian State of Kerala; U.S. to End Funding for Stabilizing Syria; Two Palestinians have Been Shot and Killed in Gaza; Turkey Rejects Appeal for U.S. Pastor's Release; Turks Anxious of Weakened Currency; Trump Postpones Military Parade; WWE Stars Ring the NYSE Closing Bell; Crazy Rich Asians on Track to Top the Meg at Box Office; Amazon's Twitch Becomes Full-Time Job for Video Gamers. Aired: 4-5p ET (CNN International: Quest Means Business - Factiva, 08/17/2018)</p> <p>Elon Musk's O'Hare express project is 'fool's gold,' Vallas says (Chicago Sun-Times - Factiva, 08/17/2018)</p> <p>Elon Musk's tweet makes a big noise and causes a lot of confusion for Tesla (The News-Item - Factiva, 08/17/2018)</p> <p>Facebook's median pay tops \$240,000 - here's how that compares to 30 other big Bay Area employers (Denver Business Journal Online - Factiva, 08/17/2018)</p> <p>Goldman Sachs advising Tesla following Musk's privatization proposal (SNL Financial Services Daily - Factiva, 08/17/2018)</p> <p>Hagens Berman Sobol Shapiro LLP Announces Extended Class Period in Musk "Tweet" Class Action (iCrowdNewswire - Factiva, 08/17/2018)</p> <p>SolarCity Corporation; Patent Issued for Systems And Method For Precision Automated Placement Of Backsheet On PV Modules (USPTO 10,043,937) (Energy Weekly News - Factiva, 08/17/2018)</p> <p>SolarCity Pact With Panasonic Is Redone (The Wall Street Journal - Factiva, 08/17/2018)</p> <p>05:41 EDT Tesla CEO has 'no plans' to relinquish chairman, CEO roles, NYT... (Theflyonthewall.com - Factiva, 08/17/2018)</p> <p>05:50 EDT SEC investigating Tesla over Model 3 production disclosures, WSJ... (Theflyonthewall.com - Factiva, 08/17/2018)</p> <p>05:54 EDT Tesla security head previously oversaw security team at Uber, BL... (Theflyonthewall.com - Factiva, 08/17/2018)</p> <p>06:04 EDT Tesla files suit against Ontario over EV rebate program, Financial... (Theflyonthewall.com - Factiva, 08/17/2018)</p> <p>10:37 EDT Technical Take: Tesla nearing bearish head and shoulders targetIn a... (Theflyonthewall.com - Factiva, 08/17/2018)</p> <p>4 Tesla EV charging stations installed at Grand Valley town hall (Orangeville Banner - Factiva, 08/17/2018)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>A Question for Tesla's Board: What Was Elon Musk's Mental State?; Common Sense (International New York Times - Factiva, 08/17/2018)</p> <p>Amid Tesla talk, is a \$72B leveraged buyout feasible? (SNL Renewable Energy Weekly - Factiva, 08/17/2018)</p> <p>Argus Research Company Research Report (Capital IQ - Manual Entry, 08/17/2018)</p> <p>Argus Research Company Research Report (Eikon - Manual Entry, 08/17/2018)</p> <p>Art of tweeting for business leadership (Cape Times - Factiva, 08/17/2018)</p> <p>Art of tweeting for business leadership (Pretoria News - Factiva, 08/17/2018)</p> <p>Art of tweeting for business leadership (The Mercury - Factiva, 08/17/2018)</p> <p>Art of tweeting for business leadership (The Star - Factiva, 08/17/2018)</p> <p>As Musk admits to job stress, Tesla's board may have to act (Daily Herald - Factiva, 08/17/2018)</p> <p>As Musk admits to job stress, Tesla's board may have to act (Faribault Daily News - Factiva, 08/17/2018)</p> <p>As Musk admits to job stress, Tesla's board may have to act (Janesville Argus - Factiva, 08/17/2018)</p> <p>As Musk admits to job stress, Tesla's board may have to act (Le Sueur County News - Factiva, 08/17/2018)</p> <p>As Musk admits to job stress, Tesla's board may have to act (Lonsdale Area News-Review - Factiva, 08/17/2018)</p> <p>As Musk admits to job stress, Tesla's board may have to act (Owatonna People's Press - Factiva, 08/17/2018)</p> <p>As Musk admits to job stress, Tesla's board may have to act (St. Peter Herald - Factiva, 08/17/2018)</p> <p>As Musk admits to job stress, Tesla's board may have to act (The Kenyon Leader - Factiva, 08/17/2018)</p> <p>As Musk admits to job stress, Tesla's board may have to act (The Northfield News - Factiva, 08/17/2018)</p> <p>As Musk admits to job stress, Tesla's board may have to act (Waseca County News - Factiva, 08/17/2018)</p> <p>As sales surge, lithium-ion battery makers eye profitability (SNL Energy Finance Daily - Factiva, 08/17/2018)</p> <p>As sales surge, lithium-ion battery makers eye profitability (SNL Power Daily with Market Report - Factiva, 08/17/2018)</p> <p>As sales surge, lithium-ion battery makers eye profitability (SNL Renewable Energy Weekly - Factiva, 08/17/2018)</p>

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											At Tesla, It's Time To Face Reality And Fix The Facts (Investor's Business Daily - Factiva, 08/17/2018)
											Automaker Tesla sues Ontario over rebates for electric vehicles (Windsor Star - Factiva, 08/17/2018)
											Bank Questions Model 3's Map to Profit --- Based on teardown of the car, UBS analyst sees mass-market version losing money (The Wall Street Journal - Factiva, 08/17/2018)
											Barclays Research Report (Capital IQ - Manual Entry, 08/17/2018)
											Barclays Research Report (Eikon - Manual Entry, 08/17/2018)
											Can Elon Musk lose control of Tesla? (CE NoticiasFinancieras - Factiva, 08/17/2018)
											Canada's Ontario scraps EV incentives, draws lawsuit by US Tesla (ICIS News - Factiva, 08/17/2018)
											CEOs can't make up their own rules on social media (Philadelphia Business Journal Online - Factiva, 08/17/2018)
											Delisting Capitalism; The strange case of the shrinking stock markets (Handelsblatt Global - Factiva, 08/17/2018)
											Dow Jones Rallies On Cisco, Walmart; Nasdaq Falls On Tesla, Nvidia, China Stocks: Weekly Review (Investor's Business Daily - Factiva, 08/17/2018)
											Elon Musk admits to suffering from exhaustion; Musk spoke to The New York Times, choking up at times during an interview in which he talked about working endless hours trying to meet production deadlines. (The Citizen - Factiva, 08/17/2018)
											Elon Musk calls this year 'the most difficult and painful' of his career (USA Today Online - Factiva, 08/17/2018)
											Ex-employee accuses Tesla of spying on workers and ignoring drug cartel operating in Gigafactory (V3 - Factiva, 08/17/2018)
											Ex-employee accuses Tesla of spying on workers and ignoring drug cartel operating in Gigafactory (V3 - Factiva, 08/17/2018)
											Ex-employee alleges Tesla staff's involvement in drug trafficking (Asian News International - Factiva, 08/17/2018)
											Five things you should know before starting your work day on Aug. 17 (Postmedia Breaking News - Factiva, 08/17/2018)
											FORMER EMPLOYEE FILES CLAIM AGAINST TESLA; ACCUSATIONS INCLUDE DRUG DEALING, SPYING ON WORKERS (San Jose Mercury News - Factiva, 08/17/2018)
											Former employee files complaint against Tesla (French Collection - Factiva, 08/17/2018)
											Friday's Energy Stocks: Broader, energy indexes up on positive trade signals (SNL Financial Extra - Factiva, 08/17/2018)

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[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											'He's not unlike the president': How Elon Musk shapes Tesla coverage (Washington Post.com - Factiva, 08/17/2018)
											I was not on weed, Tesla tycoon Musk says to critics of his buyout tweet (London Evening Standard - Factiva, 08/17/2018)
											Industry: Battery Maker for U.S.-based Car Firm Tesla Considers Investing in Vietnam (Vietnam News Brief Service - Factiva, 08/17/2018)
											Inflation hits 7-year high of 3% as air fares, energy prices spike; Retaliatory tariffs played a small role, too, as consumer prices rise at fastest pace since September, 2011 (The Globe and Mail (Breaking News) - Factiva, 08/17/2018)
											It has been the most difficult year of my career: Elon Musk (CE NoticiasFinancieras - Factiva, 08/17/2018)
											Jefferson Research & Management Research Report (Capital IQ - Manual Entry, 08/17/2018)
											Latest Tesla news: Tesla stock price tanks amid reports of 'widening probe' by SEC and claims the base Model 3 loses money (V3 - Factiva, 08/17/2018)
											MISO role to evolve as it considers market design, technology shifts (SNL Financial Extra - Factiva, 08/17/2018)
											Motor Vehicles and Passenger Car Bodies; Tesla, Inc. Files SEC Form 10-Q, Quarterly Report [Sections 13 Or 15(D)]: (Aug. 6, 2018) (Journal of Transportation - Factiva, 08/17/2018)
											Musk Details 'Excruciating' Year Of Sleepless Nights and Turmoil (The New York Times - Factiva, 08/17/2018)
											Musk says no one reviewed his tweet about the plan to privatize Tesla (CE NoticiasFinancieras - Factiva, 08/17/2018)
											Musk tells newspaper he's cracking under stress of Tesla job (Tribune Review - Factiva, 08/17/2018)
											Musk: The last year "was the most painful of my career" (CE NoticiasFinancieras - Factiva, 08/17/2018)
											Musk's Saudi Gambit Invites Kind of Leverage He Doesn't Want; BANKING/FINANCE (Broward Daily Business Review - Factiva, 08/17/2018)
											Musk's Saudi Gambit Invites Kind of Leverage He Doesn't Want; BANKING/FINANCE (Miami Daily Business Review - Factiva, 08/17/2018)
											Musk's Saudi Gambit Invites Kind of Leverage He Doesn't Want; BANKING/FINANCE (Palm Beach Daily Business Review - Factiva, 08/17/2018)
											Not even the Tesla dip drew Wall Street optimism (CE NoticiasFinancieras - Factiva, 08/17/2018)
											Report: SEC issues subpoenas to Tesla over take-private plan (SNL Renewable Energy Weekly - Factiva, 08/17/2018)

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Report: SEC looking into Musk's intentions behind take-private tweet (SNL Energy Finance Daily - Factiva, 08/17/2018)</p> <p>Report: SEC looking into Musk's intentions behind take-private tweet (SNL Financial Services Daily - Factiva, 08/17/2018)</p> <p>Reuters - The Day Ahead Report Research Report (Eikon - Manual Entry, 08/17/2018)</p> <p>Sadif Analytics Prime Research Report (Capital IQ - Manual Entry, 08/17/2018)</p> <p>SEC Reportedly Probes Tesla Over Model 3 Production Disclosures (CE NoticiasFinancieras - Factiva, 08/17/2018)</p> <p>SEC Reportedly Probes Tesla Over Model 3 Production Disclosures (RTT News - Factiva, 08/17/2018)</p> <p>SEC Reportedly Starts Probing Tesla's Model 3 Production Volume Issue Last Yr (AAStocks Financial News - Factiva, 08/17/2018)</p> <p>SEC summons Tesla by tweet from Elon Musk (CE NoticiasFinancieras - Factiva, 08/17/2018)</p> <p>SEC Was Probing Tesla Before CEO Tweet (The Wall Street Journal - Factiva, 08/17/2018)</p> <p>SHAREHOLDER ALERT: Kaskela Law LLC Announces Expanded Class Period in Investor Class Action Lawsuits Against Tesla, Inc. and Elon Musk, and Encourages Investors with Losses in Excess of \$250,000 to Contact the Firm (iCrowdNewswire - Factiva, 08/17/2018)</p> <p>SILENT ASSASSIN (Northern Advocate - Factiva, 08/17/2018)</p> <p>Stocks - Tesla Sinks Midday; Netflix \$100 off All-Time Highs (Investing.com - Factiva, 08/17/2018)</p> <p>Stocks - Tesla, Nvidia, Applied Materials Sink in Pre-market; Nordstrom Surges (Investing.com - Factiva, 08/17/2018)</p> <p>Stocks Slip As Nvidia, Applied Materials Drag On Chips; Deere Dives (Investor's Business Daily - Factiva, 08/17/2018)</p> <p>Streetwise newsletter: Best reads of the week: Tesla, Constellation-Canopy deal and more; Plus: Wealthsimple launches zero-commission trading platform (The Globe and Mail (Breaking News) - Factiva, 08/17/2018)</p> <p>Tearful Elon Musk recounts 'excruciating' year and fateful tweet (The Hamilton Spectator - Factiva, 08/17/2018)</p> <p>Tesla accused of environmental and safety 'failures' as whistleblower dispute deepens (The Daily Telegraph - Factiva, 08/17/2018)</p> <p>Tesla braced for a big hit from legal claims following Musk's Twitter gaffe (City AM - Factiva, 08/17/2018)</p> <p>Tesla disputes WSJ story, says it never had an exclusive agreement with Panasonic in Buffalo (Buffalo Business First Online - Factiva, 08/17/2018)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Tesla goes to court over cancelled electric car rebates in Ontario (The Globe and Mail - Factiva, 08/17/2018)</p> <p>Tesla Motors Canada takes Ontario to court over vehicle rebates (Victoria Times Colonist - Factiva, 08/17/2018)</p> <p>Tesla probed: report (New York Post - Factiva, 08/17/2018)</p> <p>Tesla shares down 8% in reaction to Elon Musk interview (CE NoticiasFinancieras - Factiva, 08/17/2018)</p> <p>Tesla shares fall as CEO admits job stress is getting to him (Sentinel-Tribune - Factiva, 08/17/2018)</p> <p>Tesla shares sink after Musk interview in which he cries (CE NoticiasFinancieras - Factiva, 08/17/2018)</p> <p>Tesla stock drops 6% after a tearful Elon Musk interview and a report that SEC investigation began last year (latimes.com - Factiva, 08/17/2018)</p> <p>Tesla Stock Tumbles Again, Following CEO Elon Musk's 'NYT' Interview (NPR: All Things Considered - Factiva, 08/17/2018)</p> <p>Tesla Stock Tumbles As Elon Musk Reveals Details Of 'Painful' Year (Investor's Business Daily - Factiva, 08/17/2018)</p> <p>Tesla Stock Tumbles As Elon Musk Reveals Details Of 'Painful' Year (Investor's Business Daily - Factiva, 08/17/2018)</p> <p>Tesla Stock Tumbles As Elon Musk Reveals Details Of 'Painful' Year (Investor's Business Daily - Factiva, 08/17/2018)</p> <p>Tesla Stock, Nvidia Hit Hard But Nasdaq Holds Up; Caterpillar Leads Dow (Investor's Business Daily - Factiva, 08/17/2018)</p> <p>Tesla sues Ontario over cancellation of rebates (Sarnia Observer - Factiva, 08/17/2018)</p> <p>Tesla sues Ontario over EV rebates; Luxury electric carmaker claims it was singled out by Ford government (The Toronto Star - Factiva, 08/17/2018)</p> <p>Tesla sues Ontario over EV rebates; Luxury electric carmaker claims it was singled out by Ford government (The Toronto Star - Factiva, 08/17/2018)</p> <p>Tesla sues Ontario over rebate on electric vehicles; Exclusion from program fuels complaint of alleged 'discriminatory intentions' (Calgary Herald - Factiva, 08/17/2018)</p> <p>Tesla sues Ontario over rebate on electric vehicles; Exclusion from program fuels complaint of alleged 'discriminatory intentions' (Edmonton Journal - Factiva, 08/17/2018)</p> <p>Tesla sues Ontario over rebate on electric vehicles; Exclusion from program fuels complaint of alleged 'discriminatory intentions' (Ottawa Citizen - Factiva, 08/17/2018)</p> <p>Tesla sues Ontario over rebate on electric vehicles; Exclusion from program fuels complaint of alleged 'discriminatory intentions' (Vancouver Sun - Factiva, 08/17/2018)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Tesla sues Ontario; Automaker says it's treated unfairly by province's cancellation of rebate program (The London Free Press - Factiva, 08/17/2018)</p> <p>Tesla suing Ontario (The Ottawa Sun - Factiva, 08/17/2018)</p> <p>Tesla suing Ontario (The Toronto Sun - Factiva, 08/17/2018)</p> <p>Tesla takes Ontario government to court over cancelled vehicle rebates (Peterborough Examiner - Factiva, 08/17/2018)</p> <p>Tesla takes Ontario government to court over cancelled vehicle rebates (The Hamilton Spectator - Factiva, 08/17/2018)</p> <p>Tesla takes Ontario government to court over cancelled vehicle rebates (Waterloo Region Record - Factiva, 08/17/2018)</p> <p>Tesla takes Ontario government to court over vehicle rebates (Niagara Falls Review - Factiva, 08/17/2018)</p> <p>Tesla whistleblower alleges drug trafficking, illegal surveillance at Nevada Gigafactory (The Next Web - Factiva, 08/17/2018)</p> <p>Tesla worker alleges theft, spying, drugs; Former employee's claims revolve around firm's Nevada Gigafactory (Reno Gazette-Journal - Factiva, 08/17/2018)</p> <p>Tesla's Musk says stress, overwork taking heavy toll (Postmedia Breaking News - Factiva, 08/17/2018)</p> <p>The Globe's stars and dogs for the week; A humorous look at the companies that caught our eye, for better or worse, this week (The Globe and Mail (Breaking News) - Factiva, 08/17/2018)</p> <p>The Latest: Tesla shares fall as Musk says stress takes toll (Postmedia Breaking News - Factiva, 08/17/2018)</p> <p>Trouble in SolarCity? Tesla backs off deal with Panasonic; Auto company won't buy the entire output of the solar plant jointly run in Buffalo (Waterloo Region Record - Factiva, 08/17/2018)</p> <p>Trump wants SEC to study half-year company earnings reports (Daily Herald - Factiva, 08/17/2018)</p> <p>Tunnel is Musk's latest diversion (Los Angeles Times - Factiva, 08/17/2018)</p> <p>Tweets prompt SEC writ to Tesla (The Australian - Factiva, 08/17/2018)</p> <p>US Tesla takes legal action against Ontario province (French Collection - Factiva, 08/17/2018)</p> <p>Valener utility leans on Tesla battery banks to get through Vt. heatwave (SNL Renewable Energy Weekly - Factiva, 08/17/2018)</p> <p>What's in a Saudi buyout for Tesla?; Company can bring some cred to oil giant, but Elon Musk may find his fans not so understanding (Vancouver Province - Factiva, 08/17/2018)</p> <p>What If a Female CEO Acted Like Elon Musk? (TheAtlantic.com - Factiva, 08/17/2018)</p>

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Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>What If Elon Musk Succeeds? Tesla, SpaceX Founder Wants to Transform Technology—And Put Humans Out of Work (Newsweek - Factiva, 08/17/2018)</p> <p>WHISTLEBLOWER'S TWITTER PAGE GOES DARK (San Jose Mercury News - Factiva, 08/17/2018)</p> <p>Why Tesla is worth so much (Washington Post.com - Factiva, 08/17/2018)</p> <p>Your morning briefing (Queen's Park Briefing - Factiva, 08/17/2018)</p> <p>BRIEF-Tesla's Elon Musk Said He Had No Plans To Relinquish His Dual Roles As Chairman And Chief Executive - NYT (Reuters News - Factiva, 08/17/2018 12:17 AM)</p> <p>Correction: Third Parties Buy Solar Equipment From Panasonic-Tesla Factory -- Update (Dow Jones Institutional News - Factiva, 08/17/2018 12:38 AM)</p> <p>PRESS DIGEST -Wall Street Journal - Aug 17 (Reuters News - Factiva, 08/17/2018 12:38 AM)</p> <p>PRESS DIGEST- New York Times business news - Aug 17 (Reuters News - Factiva, 08/17/2018 12:42 AM)</p> <p>News Highlights: Top Company News of the Day (Dow Jones Institutional News - Factiva, 08/17/2018 01:00 AM)</p> <p>Tesla's Musk says no plans to relinquish chairman, CEO roles - NYT (Reuters News - Factiva, 08/17/2018 01:03 AM)</p> <p>'The most difficult and painful year of my career': Tesla CEO Elon Musk opens up about personal and professional struggles in revealing interview (TSLA) (Business Insider - Factiva, 08/17/2018 01:23 AM)</p> <p>Tesla Backs Off Solar Panel Deal With Panasonic -- Update (Dow Jones Newswires Chinese (English) - Factiva, 08/17/2018 01:46 AM)</p> <p>Elon Musk describes his 'excruciating' year and says he's had to take Ambien to get to sleep (Business Insider - Factiva, 08/17/2018 01:49 AM)</p> <p>Elon Musk: This has been the most painful year of my career (CNN Wire - Factiva, 08/17/2018 01:52 AM)</p> <p>BR-Tesla-Ontario (The Canadian Press - Broadcast wire - Factiva, 08/17/2018 02:30 AM)</p> <p>Bank Questions Model 3's Map to Profit -- WSJ (Dow Jones Institutional News - Factiva, 08/17/2018 02:32 AM)</p> <p>Correction: SolarCity Pact With Panasonic Is Redone -- WSJ (Dow Jones Institutional News - Factiva, 08/17/2018 02:32 AM)</p> <p>SEC Was Probing Tesla Before CEO Tweet -- WSJ (Dow Jones Institutional News - Factiva, 08/17/2018 02:32 AM)</p> <p>Ex-Employee Accuses Tesla of Covering Up Drug Trafficking - Reports (Sputnik News Service - Factiva, 08/17/2018 02:45 AM)</p>

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											<p>Correction: SolarCity Pact With Panasonic Is Redone -- WSJ (Dow Jones Institutional News - Factiva, 08/17/2018 02:47 AM)</p> <p>News Highlights: Top Company News of the Day (Dow Jones Institutional News - Factiva, 08/17/2018 03:00 AM)</p> <p>Ex-Employee Accuses Tesla of Covering Up Drug Trafficking - Reports (Sputnik News Service - Factiva, 08/17/2018 03:15 AM)</p> <p>Elon Musk repeatedly breaks down in interview as he admits taking pills to sleep and explains bizarre Tesla tweet (Independent Online - Factiva, 08/17/2018 03:37 AM)</p> <p>UPDATE 1-Musk's SpaceX could help fund take-private deal for Tesla - NYT (Reuters News - Factiva, 08/17/2018 03:55 AM)</p> <p>Musk's SpaceX could help fund take-private deal for Tesla: NYT (Reuters News - Factiva, 08/17/2018 03:56 AM)</p> <p>Grappling with tweet aftermath, Musk acknowledges exhaustion (Agence France Presse - Factiva, 08/17/2018 05:00 AM)</p> <p>News Highlights: Top Company News of the Day (Dow Jones Institutional News - Factiva, 08/17/2018 05:00 AM)</p> <p>Recession indicators are flashing a yellow warning signal, Pimco says (MarketWatch - Factiva, 08/17/2018 05:00 AM)</p> <p>This year has been agony, says Musk (thetimes.co.uk - Factiva, 08/17/2018 05:00 AM)</p> <p>Elon Musk speaks; Deere earnings; Nordstrom stock surge (CNN Wire - Factiva, 08/17/2018 05:02 AM)</p> <p>Tesla Model 3 Inverter with SiC Power Module from STMicroelectronics - 2018 Complete Teardown Report - ResearchAndMarkets.com (Business Wire - Factiva, 08/17/2018 05:25 AM)</p> <p>Elon Musk's \$420 target for Tesla stock probably wasn't a reference to weed (TSLA) (Business Insider - Factiva, 08/17/2018 05:29 AM)</p> <p>Bank of Mexico Cautious On Trade RBA Uneasy About U.S. Stimulus SEC Probes Tesla Leveraged Loans Less Safe Derby's Take: New York Fed Continues Indirect Rebuke of Trump Trade Agenda; The Wall Street Journal's central banking newsletter for Friday, August 17, 2018 (WSJ Pro Central Banking - Factiva, 08/17/2018 05:52 AM)</p> <p>5 Takeaways From Elon Musk's Interview With The Times About Tesla (NYTimes.com Feed - Factiva, 08/17/2018 06:06 AM)</p> <p>EXCRUCIATING Elon Musk reveals truth about smoking weed accusations and admits Ambien drug habit during tearful interview about his excruciating year (thescottishsun.co.uk - Factiva, 08/17/2018 06:33 AM)</p> <p>EXCRUCIATING Tearful Elon Musk reveals truth about smoking weed accusations and admits Ambien drug habit during interview about his excruciating year (thesun.co.uk - Factiva, 08/17/2018 06:33 AM)</p>

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											<p>Tesla demand for Buffalo-made PV lower than expected - report (Renewables Now - Factiva, 08/17/2018 06:57 AM)</p> <p>RPT-First crack at Musk could give top Tesla funds an edge (Reuters News - Factiva, 08/17/2018 07:00 AM)</p> <p>Musk admits exhaustion as tweet storm deepens (Agence France Presse - Factiva, 08/17/2018 07:05 AM)</p> <p>Elon Musk strikes back at the Tesla whistleblower who claimed the electric car manufacturer SPIED on him, branding the ex-employee 'super nuts' (Mail Online - Factiva, 08/17/2018 07:20 AM)</p> <p>Elon Musk interview: Tesla boss admits to working 120 hours a week and struggling to deal with 'excruciating' stress in tearful tell-all (London Evening Standard Online - Factiva, 08/17/2018 07:25 AM)</p> <p>Three 'tiebreakers' that will determine if stock market bulls or bears are right (MarketWatch - Factiva, 08/17/2018 08:00 AM)</p> <p>Hot Stocks to Watch: TSLA (Dow Jones Newswires Chinese (English) - Factiva, 08/17/2018 08:27 AM)</p> <p>Hot Stocks to Watch: TSLA (Dow Jones Newswires Chinese (English) - Factiva, 08/17/2018 08:27 AM)</p> <p>US SEC probes into Tesla founder Elon Musk's Twitter posts - report (SeeNews Deals - Factiva, 08/17/2018 08:34 AM)</p> <p>Elon Musk is gearing up for 'months of extreme torture from the short-sellers' (TSLA) (Business Insider - Factiva, 08/17/2018 08:35 AM)</p> <p>Mark Cuban: Elon Musk needs to know the short-sellers 'are his friends' (TSLA) (Business Insider - Factiva, 08/17/2018 08:53 AM)</p> <p>Tesla's Model 3 margins could be dented by costly powertrain - UBS (Reuters News - Factiva, 08/17/2018 09:01 AM)</p> <p>Elon Musk once tried to poach Facebook's Sheryl Sandberg to lighten his 'excruciating' workload at Tesla (Business Insider - Factiva, 08/17/2018 09:07 AM)</p> <p>Elon Musk: Anyone who can do a better job as Tesla's CEO 'can have the reins right now' (TSLA) (Business Insider - Factiva, 08/17/2018 09:08 AM)</p> <p>'All night no friends, nothing:' Elon Musk reveals the lonely 24 hours he spent working at Tesla on his 47th birthday (Business Insider - Factiva, 08/17/2018 09:23 AM)</p> <p>Thinking about buying stock in General Electric, Deere and Co., JC Penney, NVIDIA or Tesla? (PR Newswire - Factiva, 08/17/2018 09:31 AM)</p> <p>Stocks to Watch: Tesla, Nordstrom, Nvidia, Deere, Applied Materials, Alphabet and Acer Therapeutics (Dow Jones Institutional News - Factiva, 08/17/2018 09:36 AM)</p>

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											<p>Stocks to Watch: Tesla, Nordstrom, Nvidia, Deere, Applied Materials, Alphabet and Acer Therapeutics; Here are some of the companies with shares expected to trade actively in Friday's session (The Wall Street Journal Online - Factiva, 08/17/2018 09:36 AM)</p> <p>Tesla shares drop 6 percent after reports of widening SEC probe and amid questions of CEO Musk's ability to run company (Associated Press Newswires - Factiva, 08/17/2018 09:47 AM)</p> <p>ELON MUSK: STRESS TAKING ITS TOLL IN 'EXCRUCIATING' YEAR (Press Association National Newswire - Factiva, 08/17/2018 09:52 AM)</p> <p>Tesla's board is reportedly conducting a serious search for a COO but Elon Musk says he doesn't know about it (TSLA) (Business Insider - Factiva, 08/17/2018 09:52 AM)</p> <p>'Why would I?' Elon Musk says he has no regrets about his infamous 'funding secured' tweet and plans to keep using Twitter (Business Insider - Factiva, 08/17/2018 10:01 AM)</p> <p>BC-APFN-Business News Preview (Associated Press Newswires - Factiva, 08/17/2018 10:02 AM)</p> <p>US stocks fall on Turkey tensions; Tesla drops (Agence France Presse - Factiva, 08/17/2018 10:11 AM)</p> <p>Tesla sinks after Elon Musk opens up about 'the most difficult and painful year' of his career (TSLA) (Business Insider - Factiva, 08/17/2018 10:25 AM)</p> <p>Tesla: Is the Company Looking for Help for Elon Musk? (Barron's Online - Factiva, 08/17/2018 10:30 AM)</p> <p>Tesla: Is the Company Looking for Help for Elon Musk? -- Barrons.com (Dow Jones Institutional News - Factiva, 08/17/2018 10:30 AM)</p> <p>Elon Musk says "I was not on weed" as Tesla tycoon defends his \$420 buyout tweet (London Evening Standard Online - Factiva, 08/17/2018 10:38 AM)</p> <p>Elon Musk Roasted on Twitter as He Admits Poor Sleep, Taking Pills (Sputnik News Service - Factiva, 08/17/2018 10:48 AM)</p> <p>Tesla shares tumble after Musk comments on personal toll (Agence France Presse - Factiva, 08/17/2018 10:50 AM)</p> <p>Tesla CEO Elon Musk: 'From A Personal Pain Standpoint, The Worst Is Yet To Come' (Benzinga.com - Factiva, 08/17/2018 10:55 AM)</p> <p>Tesla sinks after Elon Musk opens up about 'the most difficult and painful year' of his career (TSLA) (Business Insider - Factiva, 08/17/2018 10:57 AM)</p> <p>MW Tesla shares slide 8% on continued fallout from SEC probe of Musk tweet (MarketWatch - Factiva, 08/17/2018 11:05 AM)</p> <p>Tesla Shares Slide 8% On Continued Fallout From SEC Probe Of Musk Tweet -- MarketWatch (Dow Jones Institutional News - Factiva, 08/17/2018 11:05 AM)</p>

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											<p>Tesla news: Elon Musk's tears of a billionaire as he reveals gruelling work schedule (express.co.uk - Factiva, 08/17/2018 11:17 AM)</p> <p>Elon Musk initially said Tesla board members hadn't contacted him about his 'funding secured' tweet, but later had to correct himself (TSLA) (Business Insider - Factiva, 08/17/2018 11:20 AM)</p> <p>Tesla is having Jack White perform a free concert for workers on Friday night at its Fremont factory (TSLA) (Business Insider - Factiva, 08/17/2018 11:24 AM)</p> <p>Tesla is having Jack White perform a free concert for workers on Friday night at its Fremont factory (TSLA) (Business Insider - Factiva, 08/17/2018 11:24 AM)</p> <p>Tesla's stock falls sharply after Elon Musk's tearful interview (CNN Wire - Factiva, 08/17/2018 11:51 AM)</p> <p>Tesla shares tumble after CEO Elon Musk breaks down in interview (Independent Online - Factiva, 08/17/2018 11:54 AM)</p> <p>The Game Has Changed at Tesla -- Heard on the Street (Dow Jones Institutional News - Factiva, 08/17/2018 12:01 PM)</p> <p>The Game Has Changed at Tesla; SEC investigation means Tesla's precarious cash situation could become critical in the coming months (The Wall Street Journal Online - Factiva, 08/17/2018 12:04 PM)</p> <p>Elon Musk Is Stressed, but Don't Bet Against Tesla -- Barrons.com (Dow Jones Institutional News - Factiva, 08/17/2018 12:08 PM)</p> <p>Elon Musk Is Stressed, but Don't Bet Against Tesla (Barron's Online - Factiva, 08/17/2018 12:08 PM)</p> <p>Tesla board members are reportedly worried about Elon Musk's Ambien use here's what the drug does to your brain and body (Business Insider - Factiva, 08/17/2018 12:11 PM)</p> <p>How Trump could ruin Elon Musk's plan to take Tesla private (CNN Wire - Factiva, 08/17/2018 12:14 PM)</p> <p>Tesla shares tumble after Musk comments on personal toll (Agence France Presse - Factiva, 08/17/2018 12:18 PM)</p> <p>How Trump could ruin Elon Musk's plan to take Tesla private (CNN Wire - Factiva, 08/17/2018 12:22 PM)</p> <p>Dow logs highest close since February on optimism over trade talks; Tesla sinks following Elon Musk's soul-baring interview (MarketWatch - Factiva, 08/17/2018 12:40 PM)</p> <p>Tesla's stock falls sharply after Elon Musk's tearful interview (CNN Wire - Factiva, 08/17/2018 01:10 PM)</p> <p>ANALYSIS-Investors query funding costs at a private Tesla (Reuters News - Factiva, 08/17/2018 01:16 PM)</p> <p>Congress, Look at Tesla (NYTimes.com Feed - Factiva, 08/17/2018 01:16 PM)</p>

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[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Investors query funding costs at a private Tesla (Reuters News - Factiva, 08/17/2018 01:19 PM)</p> <p>Tesla shares slide after Elon Musk describes his 'excruciating year' in NYT interview (Dow Jones Newswires Chinese (English) - Factiva, 08/17/2018 01:31 PM)</p> <p>INVESTIGATION ALERT REMINDER: The Schall Law Firm Announces it is Investigating Claims Against Tesla, Inc. and Encourages Investors with Losses in Excess of \$100,000 to Contact the Firm (Business Wire - Factiva, 08/17/2018 01:36 PM)</p> <p>JIM CRAMER: Elon Musk should take medical leave from Tesla (TSLA) (Business Insider - Factiva, 08/17/2018 01:45 PM)</p> <p>JIM CRAMER: Elon Musk should take medical leave from Tesla (TSLA) (Business Insider - Factiva, 08/17/2018 01:45 PM)</p> <p>MEDIA-Odey says Tesla feels like it's entering final stage of life - Bloomberg (Reuters News - Factiva, 08/17/2018 01:57 PM)</p> <p>Tesla Model 3 Inverter with SiC Power Module from STMicroelectronics - 2018 Complete Teardown Report with a Technical and Cost Comparison with the Mitsubishi J-Series TP-M Power Module (PR Newswire - Factiva, 08/17/2018 02:30 PM)</p> <p>Tesla whistleblower claims its staff in Nevada trafficked cocaine and meth for a Mexican drug cartel and covered up the theft of \$37m in raw materials (Mail Online - Factiva, 08/17/2018 02:30 PM)</p> <p>Tesla Stocks Nosedive After CEO Elon Musk Details Take-Private Tweet (Sputnik News Service - Factiva, 08/17/2018 03:15 PM)</p> <p>Elon Musk didn't used to care about short sellers Āġā, -â€ here's why he does now (TSLA) (Business Insider - Factiva, 08/17/2018 03:34 PM)</p> <p>UPDATE 3-Tesla stock sinks after Musk gives tearful NYT interview (Reuters News - Factiva, 08/17/2018 03:58 PM)</p> <p>Tesla stock sinks after Musk gives tearful NYT interview (Reuters News - Factiva, 08/17/2018 04:00 PM)</p> <p>MW Dow, S&P 500 end the day and week higher buttressed by optimism over China-U.S. trade talks (MarketWatch - Factiva, 08/17/2018 04:09 PM)</p> <p>TSLA INVESTORS ALERT: Lief Cabraser Announces Securities Class Action Against Tesla, Inc. (Business Wire - Factiva, 08/17/2018 04:10 PM)</p> <p>The Latest: Tesla shares drop 9 per cent after Musk interview (The Canadian Press - Factiva, 08/17/2018 04:14 PM)</p> <p>The Latest: Tesla shares drop 9 per cent after Musk interview (The Canadian Press - Broadcast wire - Factiva, 08/17/2018 04:14 PM)</p> <p>The Latest: Tesla shares drop 9 percent after Musk interview (Associated Press Newswires - Factiva, 08/17/2018 04:14 PM)</p>

Appendix D
Tesla News Chronology with Daily Statistics

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Date	Volume	Price	Return	Market Return	Excess Industry Return	Predicted Return	Abnormal Return	t-stat	p-Value	Abnormal Price Reaction	Events
											<p>Tech Down as Tesla, Nvidia Weigh -- Tech Roundup (Dow Jones Institutional News - Factiva, 08/17/2018 04:27 PM)</p> <p>MW UPDATE: Dow logs highest close since February on optimism over trade talks (MarketWatch - Factiva, 08/17/2018 04:40 PM)</p> <p>Zoe's and Nordstrom rise while Tesla and Nvidia skid (Associated Press Newswires - Factiva, 08/17/2018 04:40 PM)</p> <p>Zoe's and Nordstrom rise while Tesla and Nvidia skid (The Canadian Press - Factiva, 08/17/2018 04:41 PM)</p> <p>Tesla shares tumble after Musk interview sparks fresh fears (Agence France Presse - Factiva, 08/17/2018 04:44 PM)</p> <p>Tesla investors spooked as tearful Elon Musk talks 120-hour weeks, exhaustion and Ambien (The Telegraph Online - Factiva, 08/17/2018 05:11 PM)</p> <p>Nasdaq SUMMARY (Associated Press Newswires - Factiva, 08/17/2018 05:27 PM)</p> <p>Tesla's stock falls sharply after Elon Musk reveals 'excruciating' year (The Guardian - Factiva, 08/17/2018 05:31 PM)</p> <p>Tesla Investigation: Bernstein Liebhart LLP Announces Investigation Of Tesla, Inc. - TSLA (PR Newswire - Factiva, 08/17/2018 05:40 PM)</p> <p>Business Highlights (Associated Press Newswires - Factiva, 08/17/2018 06:07 PM)</p> <p>Business Highlights (The Canadian Press - Factiva, 08/17/2018 06:07 PM)</p> <p>As Musk admits to job stress, Tesla's board may have to act (Associated Press Newswires - Factiva, 08/17/2018 06:08 PM)</p> <p>As Musk admits to job stress, Tesla's board may have to act (The Canadian Press - Factiva, 08/17/2018 06:08 PM)</p> <p>Tesla shares SINK after Elon Musk details "EXCRUCIATING year" in emotional interview (express.co.uk - Factiva, 08/17/2018 06:09 PM)</p> <p>Weekend at Elon's: A Tesla Subplot With Azealia Banks (NYTimes.com Feed - Factiva, 08/17/2018 06:28 PM)</p> <p>Elon Musk reveals he is feeling the strain as billions are wiped from Tesla value (Mail Online - Factiva, 08/17/2018 06:54 PM)</p>

Notes:

[1] to [10] See Appendix F.

[11] = [8] * [3] on prior trading day.

[12] For the Tesla chronology, I compiled lists of SEC filings, analyst reports, and news articles. I compiled the list of all of Tesla SEC filings from August 7, 2018 to August 17, 2018 from the SEC website. The list of analyst reports is based on reports available from the Thomson Eikon and Capital IQ electronic databases. While some other reports may exist, this is a reasonably comprehensive list of the analyst reports issued concerning Tesla. For news articles contained in the chronology, I searched Factiva. For Factiva, I searched all sources for the company code for "Tesla, Inc." To eliminate duplicate stories, a news story was considered a duplicate and eliminated if it had exactly the same date, timestamp, headline, news source, and lead paragraph as another news story from the same provider.

Appendix E

A. Regression Specification Used in the Event Study

1. For event study analysis, I use generally-accepted econometric methods and specify a regression model that includes certain explanatory variables – *i.e.*, the variables that explain the outside influences on the variation in the daily returns to Tesla common stock. I use a widely-used market model that includes as explanatory variables the general market returns and the returns to an industry index. This specification can be written as:

$$R_t = \alpha + \beta_1(R_{m_t}) + \beta_2(\text{INDUSTRY}_t) + e_t.^1$$

2. In this equation, R_t is daily percentage return of Tesla common stock, R_{m_t} is a proxy for the daily market return (represented by the Nasdaq Composite Total Return Index with Bloomberg identifier “XCMP”) and INDUSTRY_t is a proxy for the daily industry return (represented by the Dow Jones US Automobiles & Parts Total Return Index

¹ This equation is a time-series where the variables are measured at comparable times. In this case, the time interval is at the daily close of trading.

with Bloomberg identifier “DJUSAPT”).^{2,3} The parameter α represents the intercept coefficient or constant term, while the β coefficients represent the empirical relationship between movements of Tesla common stock prices and the movements of the market and industry indexes. The e_t term represents an estimation error for each date. Data from a period immediately prior to each date when the firm-specific abnormal return is to be

² For stock performance comparison purposes, Tesla used the “NASDAQ Composite Index” and a group of public companies sharing the same SIC code as Tesla of 3711, “Motor Vehicles and Passenger Car Bodies.” See Tesla Forms 10-K filed February 23, 2018 (p. 37) and February 19, 2019 (p. 40). For choice of industry index used in the market model, I tried the following eight indexes (Bloomberg identifier in parentheses): the Dow Jones US Automobiles Total Return Index (DJUSAUT); an equal-weighted version of the DJUSAUT; the Dow Jones US Automobiles & Parts Total Return Index (DJUSAPT); an equal-weighted version of DJUSAPT; the S&P Supercomposite Automobiles Total Return Index (STRAUTO); and the S&P Supercomposite Automobile Manufacturers Total Return Index (STRAUTM). I chose the NASDAQ Composite Total Return Index as the market index because it was selected by Tesla to evaluate its investment performance during the Class Period. I chose the Dow Jones US Automobiles & Parts Total Return Index to reflect the “industry” because the R-Squared measure during the estimation window of 120 days prior to the Class Period was similar or better than the other indexes. When comparing the R-Squared of models with different industry indexes, I exclude returns on dummy dates as listed below in footnote 6.

The industry index is measured net of market. To net the market return, I regress the industry return on the market return and use the obtained residual return (i.e., the industry return netting out market effects) as the industry return in my market models for Tesla.

³ When comparing the R-Squared of models with different industry indexes, I also remove the impact of Tesla’s daily return from the industry index using daily weights obtained from Bloomberg. Tesla was a member of the Dow Jones industry indexes, but not the S&P industry indexes. I removed the impact of Tesla’s daily stock price movements from the changes in the daily value of the industry index, where the daily industry return on date t is equal to: Return of the industry index on date t minus the product of Tesla’s weight on date $t-1$ times Tesla’s daily return on date t , all divided by one minus Tesla’s weight on date $t-1$. For the equal-weighted version of the two Dow Jones industry indexes, I compute a series of equal weighted returns as the average return of the members in respective index (other than Tesla).

examined is generally used as the Control (or estimation) Period to estimate the parameters or coefficients of the regression.⁴

3. Given the short Class Period of 9 trading days, I use a single control period of 120 trading ending on August 6, 2018, the day prior to the start of the Class Period, to estimate a set of parameters or coefficients (namely α , β_1 , and β_2) used to calculate the abnormal return and the standard error for each day in the Class Period.

4. In addition to the two explanatory variables, I include “dummy variables”⁵ to account and adjust for atypical variation in the daily returns to the common stock that results from the disclosures during the Control Period of significant firm-specific information. I use a dummy variable on 2 dates on which the Company announced earnings results during the Control Period.⁶ These are dates on which Tesla’s stock price might be affected by disclosures of unexpected firm-specific material information. For each disclosure, I determined whether the disclosure was after the market closed and, if so, the following trading day was used as the price impact date.⁷

5. I include a dummy variable when there is a release of important Tesla-specific information, because should that single date have a large abnormal return caused not by chance, but by Tesla’s disclosure of material, unanticipated firm-specific information, this could possibly change the mix of information in the market that is important to investors. The use of dummy, indicator, control, or intervention variables, as well as simply excluding

⁴ “There are essentially four choices for the estimation period: before the event window, during the window, after the window, and around the window. The majority of events studies use an estimation period before the event.” Glenn V. Henderson, Jr., *Problems and Solutions in Conducting Event Studies*, 57 *J. of Risk and Ins.*, 282-306, 291 (June 1990).

⁵ A dummy variable is an additional explanatory variable that takes on the value of 1 on the date indicated and 0 for all other dates. In econometric time-series analysis, dummy variables are often used to indicate a non-recurring event that is unique, unusual or anomalous, such as a specific earnings announcement.

⁶ The impact dates for the 2 earnings-related dates are: May 3, 2018 and August 2, 2018.

⁷ I obtained the time stamps and determined the impact date for the releases. Source: GlobeNewswirevia Factiva.

anomalous dates or periods, is a widely used and generally accepted econometric technique employed in the academic finance literature.⁸ For example, Professor Carol Alexander states that “one might consider creating a dummy [variable] to model the timing of important news announcements... [or] whenever the data period covers ... a temporary shift due to an extreme market movement.”⁹ Prof. Alexander adds, “If dummies are omitted there will be residual problems that lead to inefficient parameter estimates on the real explanatory variables.”¹⁰ It is also consistent with methods courts have relied upon to certify securities classes.¹¹

⁸ For example, see Nihat Aktas, Eric de Bodt, & Jean-Gabriel Cousin, *Event Studies with a Contaminated Estimation Period*, 13 J. Corp. Fin., 129-145, 131 (2007); Ekkehart Boehmer, Jim Musumeci, & Annette B. Poulsen, *Event-study Methodology under Conditions of Event-Induced Variance*, 30 J. Fin. Econ., 253-272, 254 (1991); G. E. P. Box & G. C. Tiao, *Intervention Analysis with Applications to Economic and Environmental Problems*, 70 J. Am. Stat. Assn., 70-79, 71 (1975); David F. Larcker, Lawrence A. Gordon & George E. Pinches, *Testing for Market Efficiency: A Comparison of the Cumulative Average Residual Methodology and Intervention Analysis*, 15 J. Fin. & Quant. Analysis, 267-287, 272 (1980); Paul H. Malatesta, *Measuring Abnormal Performance: The Event Parameter Approach Using Joint Generalized Least Squares*, 21 J. Fin. & Quant. Analysis, 27-38, 27-28 (1986).

⁹ Carol Alexander, *Market Models: A Guide to Financial Data Analysis*, 440 (John Wiley & Sons 2001). Carol Alexander is a Professor of Finance at the University of Sussex and Managing Editor of the *Journal of Banking and Finance*.

¹⁰ *Id.* at 441. If there is a large abnormal return caused by the release of material, unanticipated *firm-specific* important information, which is obviously not a random event, its influence on the Tesla common stock price movement must be accounted for. If it is not accounted for via a dummy variable, this non-random influence might contaminate the estimation process during the Control Period and induce a distortion or bias in the parameter estimate, predicted returns, and thus the abnormal returns and standard error. Using dummy variables to control for the price impact of potentially important non-random or atypical informational disclosures in the Control Period, results in regression model coefficients that more precisely reflect the normal or typical return relationship between Tesla and the market and industry indexes, and thus improves the efficiency of the estimated parameters, predicted returns and abnormal returns.

¹¹ For example, see *In re Groupon, Inc. Sec. Litig.*, 2015 WL 1043321, at *7: “Dr. Feinstein explained that dummy variables are widely used during a control period to extract atypical days. Consistent with other experts, he used dummy variables to control for potentially abnormal returns related to earnings announcements.

6. Using the specifications of the market model above, including the dummy variables, and a Control Period of 120 trading days prior to the Class Period, I estimate a set of parameters to be applied in the Class Period. For the regression I ran over the Control Period, the coefficients explaining the variation in the returns of Tesla common stock was 1.4527 for β_1 and 0.1344 for β_2 . The adjusted R-squared measure is 41.22%. The daily results for applying the regression over the Class Period are provided in **Appendix F**.

B. Estimating Tesla-Specific Price Movements

7. The second step of the event study methodology uses the estimated coefficients from the Control Period regression, namely measures of α , β_1 , and β_2 , and multiplies them by the actual observed daily return measures for their respective explanatory variables on each day of the Class Period. On each day during the Class Period, the products of these multiplications are summed to calculate the predicted daily return. On each of the 9 days of the Class Period, the portion of Tesla's stock price movement or the "firm-specific effect" is calculated as the *abnormal return* (also referred to as the excess return or residual). The abnormal return is calculated by subtracting the predicted daily return from the actual daily return. This subtraction yields the portion of the daily return (*i.e.*, the firm-specific portion of the return) that is *not* predicted or explained by market- and industry-wide influences.

C. Determining Whether Tesla-Specific Price Movements Are Outside the Bounds of What Would Be Expected by Chance

8. In the third step of the event study, I determine whether the abnormal return on each date is outside the bounds of what would be expected by chance. I do this by presenting empirical evidence showing whether or not the 9 firm-specific abnormal returns are what economists call statistically significantly different from zero (hereinafter referred to as "significant returns").

Accordingly, he used dummy variables during the control period for all earnings-related trading dates, including the event days. He also used a dummy variable for May 14, 2012, because it was not only an unusual trading day, but also because it was contemporaneously described as atypical by the news media." (citations omitted).

9. A statistical test called the t-test is employed to assess the statistical significance of Tesla's abnormal return for each date. The t-test is based on a t-statistic, which is calculated by taking the estimated abnormal return and dividing it by the standard error of the regression. The standard error represents the typical or normal volatility of the unexplained or residual price movements of the common stock. This statistical test is used to determine whether the abnormal return is outside the bounds of what would be expected from random volatility alone; or, in other words, whether it is significantly different from zero with a specified degree of certainty. I use the scientifically accepted level of certainty and declare statistical significance at a 95% level. This means that when Tesla's abnormal return is statistically significant, I can conclude that the Tesla's abnormal return is outside the bounds of what would be expected by chance, with at least 95% confidence.

Appendix F
Tesla, Inc. Common Stock Data

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
Date	Volume	Price	Return	Excess				t-statistic	p-Value
				Market Return	Industry Return	Predicted Return	Abnormal Return		
2/14/18	3,950,743	\$322.31	-0.42%	1.90%	0.35%	2.68%	-3.09%	-1.21	22.85%
2/15/18	5,912,917	\$334.07	3.65%	1.58%	-0.74%	2.07%	1.58%	0.62	53.74%
2/16/18	5,642,637	\$335.49	0.43%	-0.23%	-1.04%	-0.61%	1.04%	0.41	68.57%
2/20/18	4,009,435	\$334.77	-0.21%	-0.07%	-0.38%	-0.28%	0.07%	0.03	97.84%
2/21/18	3,219,649	\$333.30	-0.44%	-0.22%	0.12%	-0.43%	-0.01%	0.00	99.84%
2/22/18	6,969,808	\$346.17	3.86%	-0.11%	0.33%	-0.25%	4.11%	1.61	11.04%
2/23/18	5,817,387	\$352.05	1.70%	1.77%	-0.86%	2.32%	-0.62%	-0.24	80.82%
2/26/18	4,339,985	\$357.42	1.53%	1.15%	0.44%	1.59%	-0.07%	-0.03	97.93%
2/27/18	4,797,419	\$350.99	-1.80%	-1.22%	-1.49%	-2.10%	0.30%	0.12	90.59%
2/28/18	6,069,658	\$343.06	-2.26%	-0.78%	-0.55%	-1.34%	-0.92%	-0.36	71.85%
3/1/18	6,885,601	\$330.93	-3.54%	-1.26%	-1.38%	-2.15%	-1.39%	-0.54	58.75%
3/2/18	5,092,829	\$335.12	1.27%	1.08%	-0.62%	1.36%	-0.09%	-0.04	97.20%
3/5/18	3,823,769	\$333.35	-0.53%	1.00%	0.46%	1.39%	-1.92%	-0.75	45.48%
3/6/18	4,285,744	\$328.20	-1.54%	0.56%	0.43%	0.74%	-2.29%	-0.90	37.20%
3/7/18	5,007,297	\$332.30	1.25%	0.33%	-0.48%	0.29%	0.96%	0.38	70.79%
3/8/18	3,566,244	\$329.10	-0.96%	0.44%	0.07%	0.52%	-1.48%	-0.58	56.34%
3/9/18	5,506,764	\$327.17	-0.59%	1.79%	0.18%	2.49%	-3.08%	-1.21	23.03%
3/12/18	8,264,035	\$345.51	5.61%	0.36%	-0.44%	0.34%	5.27%	2.06	4.14% *
3/13/18	5,965,805	\$341.84	-1.06%	-1.01%	0.84%	-1.49%	0.43%	0.17	86.59%
3/14/18	7,967,370	\$326.63	-4.45%	-0.18%	-0.29%	-0.44%	-4.01%	-1.57	11.91%
3/15/18	6,564,801	\$325.60	-0.32%	-0.19%	0.38%	-0.36%	0.05%	0.02	98.59%
3/16/18	6,117,279	\$321.35	-1.31%	0.01%	0.83%	-0.01%	-1.29%	-0.51	61.37%
3/19/18	7,484,294	\$313.56	-2.42%	-1.84%	0.04%	-2.80%	0.38%	0.15	88.30%
3/20/18	4,764,293	\$310.55	-0.96%	0.28%	-0.34%	0.22%	-1.18%	-0.46	64.44%
3/21/18	5,958,411	\$316.53	1.93%	-0.25%	1.48%	-0.30%	2.22%	0.87	38.57%
3/22/18	4,939,771	\$309.10	-2.35%	-2.43%	-1.22%	-3.83%	1.48%	0.58	56.34%
3/23/18	6,654,899	\$301.54	-2.45%	-2.43%	-0.57%	-3.74%	1.29%	0.51	61.45%
3/26/18	8,375,175	\$304.18	0.88%	3.26%	0.59%	4.68%	-3.81%	-1.49	13.91%
3/27/18	13,872,029	\$279.18	-8.22%	-2.93%	0.93%	-4.27%	-3.95%	-1.55	12.47%
3/28/18	21,001,437	\$257.78	-7.67%	-0.84%	0.47%	-1.28%	-6.38%	-2.50	1.39% *
3/29/18	15,170,749	\$266.13	3.24%	1.65%	1.07%	2.40%	0.84%	0.33	74.34%
4/2/18	16,113,968	\$252.48	-5.13%	-2.74%	-0.04%	-4.11%	-1.02%	-0.40	69.17%
4/3/18	18,844,384	\$267.53	5.96%	1.04%	1.93%	1.64%	4.32%	1.69	9.38%
4/4/18	19,896,746	\$286.94	7.26%	1.47%	0.99%	2.13%	5.12%	2.01	4.73% *
4/5/18	19,121,101	\$305.72	6.54%	0.49%	0.39%	0.63%	5.91%	2.31	2.24% *
4/6/18	13,520,286	\$299.30	-2.10%	-2.28%	0.24%	-3.41%	1.31%	0.51	60.81%
4/9/18	10,249,805	\$289.66	-3.22%	0.51%	-0.07%	0.60%	-3.82%	-1.50	13.76%
4/10/18	11,024,259	\$304.70	5.19%	2.07%	1.03%	3.01%	2.18%	0.85	39.57%
4/11/18	7,482,945	\$300.93	-1.24%	-0.36%	0.03%	-0.65%	-0.59%	-0.23	81.75%
4/12/18	7,608,769	\$294.08	-2.28%	1.01%	-0.64%	1.25%	-3.52%	-1.38	17.06%
4/13/18	7,327,223	\$300.34	2.13%	-0.47%	-0.14%	-0.83%	2.96%	1.16	24.85%
4/16/18	6,338,488	\$291.21	-3.04%	0.70%	0.85%	1.00%	-4.04%	-1.58	11.69%
4/17/18	7,000,023	\$287.69	-1.21%	1.74%	-0.89%	2.28%	-3.49%	-1.37	17.45%
4/18/18	6,557,700	\$293.35	1.97%	0.19%	-0.47%	0.09%	1.88%	0.74	46.32%
4/19/18	6,090,599	\$300.08	2.29%	-0.78%	-1.49%	-1.47%	3.76%	1.47	14.34%

Appendix F
Tesla, Inc. Common Stock Data

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
Date	Volume	Price	Return	Excess				t-statistic	p-Value
				Market Return	Industry Return	Predicted Return	Abnormal Return		
4/20/18	5,627,928	\$290.24	-3.28%	-1.27%	0.37%	-1.93%	-1.35%	-0.53	59.80%
4/23/18	4,893,378	\$283.37	-2.37%	-0.25%	0.98%	-0.36%	-2.01%	-0.79	43.32%
4/24/18	5,685,308	\$283.46	0.03%	-1.70%	0.95%	-2.47%	2.51%	0.98	32.86%
4/25/18	4,013,574	\$280.69	-0.98%	-0.05%	0.42%	-0.15%	-0.83%	-0.32	74.68%
4/26/18	4,356,013	\$285.48	1.71%	1.64%	-0.19%	2.23%	-0.52%	-0.20	83.91%
4/27/18	4,364,626	\$294.08	3.01%	0.02%	-1.01%	-0.24%	3.25%	1.27	20.61%
4/30/18	4,228,172	\$293.90	-0.06%	-0.75%	-1.24%	-1.39%	1.33%	0.52	60.41%
5/1/18	4,625,603	\$299.92	2.05%	0.91%	-0.71%	1.10%	0.95%	0.37	71.02%
5/2/18	8,970,370	\$301.15	0.41%	-0.42%	0.99%	-0.61%	1.02%	0.40	69.14%
5/3/18	17,352,130	\$284.45	-5.55%	-0.18%	-0.01%	-0.39%	-5.15%	-2.01	4.70% *
5/4/18	8,569,354	\$294.09	3.39%	1.73%	0.16%	2.41%	0.98%	0.38	70.15%
5/7/18	8,678,224	\$302.77	2.95%	0.77%	-0.63%	0.91%	2.04%	0.80	42.51%
5/8/18	5,930,000	\$301.97	-0.26%	0.03%	0.08%	-0.08%	-0.18%	-0.07	94.40%
5/9/18	5,727,365	\$306.85	1.62%	1.01%	-0.79%	1.23%	0.39%	0.15	87.94%
5/10/18	5,651,561	\$305.02	-0.60%	0.89%	1.02%	1.30%	-1.89%	-0.74	45.99%
5/11/18	4,679,649	\$301.06	-1.30%	0.01%	0.01%	-0.12%	-1.18%	-0.46	64.54%
5/14/18	7,286,804	\$291.97	-3.02%	0.12%	-0.03%	0.03%	-3.05%	-1.20	23.45%
5/15/18	9,519,173	\$284.18	-2.67%	-0.80%	1.15%	-1.15%	-1.52%	-0.60	55.30%
5/16/18	5,674,019	\$286.48	0.81%	0.67%	1.54%	1.05%	-0.24%	-0.10	92.39%
5/17/18	4,420,612	\$284.54	-0.68%	-0.20%	0.89%	-0.30%	-0.37%	-0.15	88.44%
5/18/18	7,251,887	\$276.82	-2.71%	-0.38%	-0.31%	-0.72%	-1.99%	-0.78	43.76%
5/21/18	9,182,571	\$284.49	2.77%	0.54%	0.60%	0.74%	2.04%	0.80	42.73%
5/22/18	8,945,756	\$275.01	-3.33%	-0.21%	0.11%	-0.42%	-2.91%	-1.14	25.70%
5/23/18	5,985,053	\$279.07	1.48%	0.65%	-1.29%	0.63%	0.84%	0.33	74.24%
5/24/18	4,176,708	\$277.85	-0.44%	-0.02%	0.58%	-0.08%	-0.35%	-0.14	89.00%
5/25/18	3,875,082	\$278.85	0.36%	0.13%	-0.38%	0.00%	0.36%	0.14	88.91%
5/29/18	5,666,640	\$283.76	1.76%	-0.49%	-1.35%	-1.03%	2.79%	1.09	27.68%
5/30/18	7,489,686	\$291.72	2.81%	0.90%	0.29%	1.21%	1.60%	0.63	53.30%
5/31/18	5,919,721	\$284.73	-2.40%	-0.26%	3.28%	-0.06%	-2.33%	-0.91	36.32%
6/1/18	5,424,386	\$291.82	2.49%	1.51%	0.16%	2.08%	0.41%	0.16	87.35%
6/4/18	4,797,810	\$296.74	1.69%	0.69%	0.63%	0.96%	0.73%	0.29	77.55%
6/5/18	5,995,157	\$291.13	-1.89%	0.42%	0.00%	0.47%	-2.36%	-0.92	35.75%
6/6/18	18,767,269	\$319.50	9.74%	0.67%	0.81%	0.95%	8.79%	3.44	0.08% **
6/7/18	14,345,271	\$316.09	-1.07%	-0.69%	1.02%	-1.00%	-0.07%	-0.03	97.89%
6/8/18	8,205,202	\$317.66	0.50%	0.14%	0.41%	0.12%	0.37%	0.15	88.37%
6/11/18	13,183,473	\$332.10	4.55%	0.19%	0.15%	0.16%	4.38%	1.72	8.89%
6/12/18	22,347,403	\$342.77	3.21%	0.57%	-0.64%	0.61%	2.60%	1.02	31.12%
6/13/18	9,469,804	\$344.78	0.59%	-0.10%	-0.16%	-0.31%	0.89%	0.35	72.77%
6/14/18	10,981,023	\$357.72	3.75%	0.86%	-1.03%	0.98%	2.77%	1.08	28.05%
6/15/18	10,848,254	\$358.17	0.13%	-0.19%	0.47%	-0.34%	0.47%	0.18	85.55%
6/18/18	12,073,226	\$370.83	3.53%	0.01%	0.40%	-0.07%	3.60%	1.41	16.14%
6/19/18	12,761,903	\$352.55	-4.93%	-0.27%	-1.51%	-0.73%	-4.20%	-1.65	10.26%
6/20/18	8,383,656	\$362.22	2.74%	0.72%	-0.60%	0.84%	1.90%	0.75	45.76%
6/21/18	7,967,145	\$347.51	-4.06%	-0.88%	-1.04%	-1.55%	-2.51%	-0.98	32.82%
6/22/18	10,266,059	\$333.63	-3.99%	-0.26%	-0.18%	-0.54%	-3.46%	-1.35	17.85%

Appendix F
Tesla, Inc. Common Stock Data

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
Date	Volume	Price	Return	Excess				t-statistic	p-Value
				Market Return	Industry Return	Predicted Return	Abnormal Return		
6/25/18	6,931,304	\$333.01	-0.19%	-2.09%	0.34%	-3.12%	2.94%	1.15	25.25%
6/26/18	7,452,487	\$342.00	2.70%	0.39%	0.12%	0.46%	2.24%	0.88	38.15%
6/27/18	8,333,727	\$344.50	0.73%	-1.54%	0.15%	-2.35%	3.08%	1.21	23.02%
6/28/18	8,398,005	\$349.93	1.58%	0.80%	-1.44%	0.83%	0.74%	0.29	77.17%
6/29/18	6,492,396	\$342.95	-1.99%	0.09%	-1.19%	-0.16%	-1.83%	-0.72	47.50%
7/2/18	18,759,765	\$335.07	-2.30%	0.77%	-0.30%	0.95%	-3.25%	-1.27	20.64%
7/3/18	12,282,638	\$310.86	-7.23%	-0.86%	-0.18%	-1.40%	-5.82%	-2.28	2.46% *
7/5/18	17,476,374	\$309.16	-0.55%	1.13%	0.76%	1.61%	-2.16%	-0.85	39.96%
7/6/18	8,865,451	\$308.90	-0.08%	1.34%	-0.90%	1.70%	-1.78%	-0.70	48.64%
7/9/18	7,596,753	\$318.51	3.11%	0.88%	1.03%	1.29%	1.82%	0.71	47.72%
7/10/18	9,471,498	\$322.47	1.24%	0.04%	0.86%	0.04%	1.20%	0.47	63.82%
7/11/18	4,884,076	\$318.96	-1.09%	-0.55%	-1.51%	-1.13%	0.04%	0.02	98.62%
7/12/18	5,721,166	\$316.71	-0.71%	1.39%	-1.02%	1.75%	-2.46%	-0.96	33.81%
7/13/18	5,875,770	\$318.87	0.68%	0.03%	0.21%	-0.07%	0.75%	0.29	77.02%
7/16/18	7,818,655	\$310.10	-2.75%	-0.26%	0.06%	-0.50%	-2.25%	-0.88	38.04%
7/17/18	6,996,232	\$322.69	4.06%	0.63%	0.82%	0.90%	3.16%	1.24	21.81%
7/18/18	5,624,211	\$323.85	0.36%	-0.01%	0.31%	-0.10%	0.46%	0.18	85.66%
7/19/18	5,915,345	\$320.23	-1.12%	-0.37%	-0.57%	-0.75%	-0.37%	-0.14	88.54%
7/20/18	5,166,547	\$313.58	-2.08%	-0.07%	-0.80%	-0.34%	-1.74%	-0.68	49.69%
7/23/18	10,992,947	\$303.20	-3.31%	0.28%	-0.46%	0.21%	-3.52%	-1.38	17.12%
7/24/18	9,590,784	\$297.43	-1.90%	-0.01%	0.54%	-0.08%	-1.82%	-0.71	47.67%
7/25/18	7,094,180	\$308.74	3.80%	1.17%	-1.85%	1.31%	2.49%	0.97	33.19%
7/26/18	4,630,522	\$306.65	-0.68%	-1.01%	-1.56%	-1.81%	1.13%	0.44	65.89%
7/27/18	5,703,326	\$297.18	-3.09%	-1.46%	2.49%	-1.92%	-1.17%	-0.46	64.75%
7/30/18	6,814,072	\$290.17	-2.36%	-1.38%	1.81%	-1.90%	-0.46%	-0.18	85.72%
7/31/18	5,076,916	\$298.14	2.75%	0.55%	0.89%	0.79%	1.96%	0.77	44.51%
8/1/18	10,129,430	\$300.84	0.91%	0.46%	-2.26%	0.24%	0.67%	0.26	79.37%
8/2/18	23,214,962	\$349.54	16.19%	1.24%	-0.71%	1.57%	14.62%	5.65	0.00% **
8/3/18	13,656,486	\$348.17	-0.39%	0.12%	1.65%	0.26%	-0.66%	-0.26	79.79%
8/6/18	8,564,331	\$341.99	-1.77%	0.62%	-0.42%	0.72%	-2.49%	-0.98	33.10%
8/7/18	30,875,768	\$379.57	10.99%	0.31%	0.49%	0.38%	10.61%	4.15	0.01% **
8/8/18	24,571,163	\$370.34	-2.43%	0.06%	-0.23%	-0.07%	-2.36%	-0.92	35.71%
8/9/18	17,183,811	\$352.45	-4.83%	0.05%	-0.73%	-0.17%	-4.67%	-1.83	7.04%
8/10/18	11,552,044	\$355.49	0.86%	-0.63%	-1.41%	-1.24%	2.11%	0.82	41.15%
8/13/18	10,463,881	\$356.41	0.26%	-0.25%	-1.49%	-0.69%	0.95%	0.37	71.12%
8/14/18	6,986,427	\$347.64	-2.46%	0.66%	0.25%	0.85%	-3.32%	-1.30	19.70%
8/15/18	9,101,258	\$338.69	-2.57%	-1.20%	0.05%	-1.87%	-0.71%	-0.28	78.27%
8/16/18	6,064,033	\$335.45	-0.96%	0.43%	0.64%	0.58%	-1.54%	-0.60	54.85%
8/17/18	18,958,612	\$305.50	-8.93%	0.13%	0.86%	0.17%	-9.10%	-3.56	0.05% **

Notes:

[1] Trading day.

[2] Reported composite U.S. volume. Source: Bloomberg.

[3] Reported composite U.S. price. Source: Bloomberg.

[4] = {[3] / [3] on previous trading day} - 1.

Appendix F
Tesla, Inc. Common Stock Data

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
			Excess						
			Market	Industry	Predicted	Abnormal			
Date	Volume	Price	Return	Return	Return	Return	Return	t-statistic	p-Value
[5] Daily return for the Nasdaq Composite Total Return Index. Source: Bloomberg.									
[6] Daily industry return is the daily return for the Dow Jones US Automobiles & Parts Total Return Index (after removing Tesla's daily return based on its daily index weight from the index return). Source: Bloomberg. The Excess $INDUSTRY_t$ returns are used to account for industry-wide effects in the market model, after removing the effect of market returns. The formula for removing the effect of market returns from the industry return is $\{\text{industry return} - (\text{intercept} + \text{beta} * \text{market return})\}$. The intercept (-0.0012) and beta (0.7487) are estimated by regressing daily industry returns on market returns over the period 2/14/2018 to 8/17/2018.									
[7] = Intercept + $\{\text{coefficient for market return} \times [5]\} + \{\text{coefficient for excess industry return} \times [6]\}$. Intercept, coefficients for market returns and excess industry returns are from a market model regression estimated over the 120-trading days prior to the Class Period (2/14/2018 - 8/6/2018). The market model includes two dummy dates: 5/3/2018 and 8/2/2018. See the intercept, coefficients for the market return and excess industry return of the market model are -0.0013, 1.4527, and 0.1344, respectively.									
[8] On dummy dates, [8] = coefficient on respective dummy variables; for other dates, [8] = [4] - [7].									
[9] On dummy dates, [9] = t-statistics of coefficients on respective dummy variables; for other dates, [9] = [8] / Root MSE of the market model estimated over the 120-trading days prior to the Class Period (2/14/2018 - 8/6/2018). The Root MSE of the market model is equal to 0.0255.									
[10] Two-tailed p-value associated with the t-statistic in [9]. ** denotes p-value is less than or equal to 1% and * denotes p-value is less than or equal to 5%.									

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
C	TSLA	2018-08-10	\$110.00	1	\$252.25	\$252.25	\$252.25	\$3.29	0.91%	1,560	0	0.0%	---	0.8	1	166.7%	125.0%
C	TSLA	2018-08-10	\$165.00	3	\$183.40	\$194.70	\$190.93	\$3.59	1.00%	1,560	0	0.0%	---	1.3	2	300.0%	187.5%
C	TSLA	2018-08-10	\$170.00	2	\$206.94	\$207.56	\$207.25	\$3.54	0.98%	1,560	0	0.0%	---	0.5	1	500.0%	250.0%
C	TSLA	2018-08-10	\$180.00	2	\$196.96	\$197.54	\$197.25	\$3.54	0.98%	1,560	0	0.0%	---	0.5	1	500.0%	250.0%
C	TSLA	2018-08-10	\$190.00	2	\$183.94	\$184.16	\$184.05	\$3.66	1.01%	1,560	0	0.0%	---	1.5	2	166.7%	125.0%
C	TSLA	2018-08-10	\$200.00	13	\$155.50	\$181.80	\$166.48	\$3.56	0.99%	1,560	0	0.0%	---	3.0	6	541.7%	270.8%
C	TSLA	2018-08-10	\$210.00	2	\$135.78	\$136.51	\$136.15	\$3.56	0.99%	1,560	0	0.0%	---	1.3	2	200.0%	125.0%
C	TSLA	2018-08-10	\$225.00	1	\$149.15	\$149.15	\$149.15	\$3.54	0.98%	1,560	0	0.0%	---	0.5	1	250.0%	125.0%
C	TSLA	2018-08-10	\$245.00	1	\$107.00	\$107.00	\$107.00	\$3.58	0.99%	1,560	0	0.0%	---	8.0	8	15.6%	15.6%
C	TSLA	2018-08-10	\$260.00	7	\$84.12	\$121.55	\$101.24	\$3.12	0.87%	1,560	0	0.0%	---	106.8	109	8.2%	8.0%
C	TSLA	2018-08-10	\$265.00	1	\$79.10	\$79.10	\$79.10	\$3.60	1.00%	1,560	0	0.0%	---	1.3	2	100.0%	62.5%
C	TSLA	2018-08-10	\$270.00	20	\$74.84	\$104.25	\$96.33	\$3.33	0.92%	1,560	0	0.0%	---	34.5	45	72.5%	55.6%
C	TSLA	2018-08-10	\$272.50	1	\$92.00	\$92.00	\$92.00	\$3.52	0.98%	1,560	0	0.0%	---	3.5	8	35.7%	15.6%
C	TSLA	2018-08-10	\$280.00	167	\$63.09	\$98.80	\$86.48	\$3.12	0.87%	1,560	0	0.0%	---	125.0	201	167.0%	103.9%
C	TSLA	2018-08-10	\$285.00	80	\$61.37	\$96.57	\$71.54	\$3.09	0.86%	1,463	0	0.0%	---	94.5	154	105.8%	64.9%
C	TSLA	2018-08-10	\$290.00	7	\$62.85	\$75.50	\$69.31	\$3.34	0.93%	1,560	0	0.0%	---	90.0	91	9.7%	9.6%
C	TSLA	2018-08-10	\$292.50	15	\$51.15	\$81.55	\$62.97	\$3.30	0.91%	1,463	0	0.0%	---	47.8	48	39.3%	39.1%
C	TSLA	2018-08-10	\$295.00	51	\$46.17	\$79.25	\$55.41	\$3.18	0.88%	1,560	0	0.0%	---	94.0	121	67.8%	52.7%
C	TSLA	2018-08-10	\$297.50	17	\$44.04	\$78.44	\$56.63	\$3.20	0.89%	1,560	0	0.0%	---	99.0	101	21.5%	21.0%
C	TSLA	2018-08-10	\$300.00	462	\$42.22	\$81.94	\$61.59	\$2.81	0.78%	1,560	0	0.0%	---	416.0	435	138.8%	132.8%
C	TSLA	2018-08-10	\$302.50	110	\$41.00	\$59.20	\$49.32	\$2.87	0.79%	1,560	0	0.0%	---	153.0	159	89.9%	86.5%
C	TSLA	2018-08-10	\$305.00	146	\$40.00	\$81.00	\$54.60	\$2.92	0.81%	1,560	0	0.0%	---	244.3	290	74.7%	62.9%
C	TSLA	2018-08-10	\$307.50	61	\$36.01	\$75.00	\$57.94	\$2.90	0.80%	1,560	0	0.0%	---	105.3	112	72.4%	68.1%
C	TSLA	2018-08-10	\$310.00	235	\$30.98	\$71.80	\$55.57	\$2.84	0.79%	1,560	0	0.0%	---	446.3	501	65.8%	58.6%
C	TSLA	2018-08-10	\$312.50	35	\$43.67	\$69.16	\$58.81	\$2.94	0.82%	1,560	0	0.0%	---	151.3	157	28.9%	27.9%
C	TSLA	2018-08-10	\$315.00	96	\$26.50	\$68.40	\$48.52	\$2.88	0.80%	1,560	0	0.0%	---	684.5	707	17.5%	17.0%
C	TSLA	2018-08-10	\$317.50	55	\$31.35	\$63.50	\$46.51	\$3.02	0.84%	1,560	0	0.0%	---	103.3	111	66.6%	61.9%
C	TSLA	2018-08-10	\$320.00	405	\$20.61	\$63.44	\$38.43	\$2.60	0.72%	1,560	0	0.0%	---	399.0	439	126.9%	115.3%
C	TSLA	2018-08-10	\$322.50	23	\$26.25	\$59.10	\$43.59	\$2.84	0.78%	1,560	0	0.0%	---	276.8	283	10.4%	10.2%
C	TSLA	2018-08-10	\$325.00	563	\$17.07	\$56.60	\$32.89	\$2.71	0.75%	1,560	0	0.0%	---	453.8	497	155.1%	141.6%
C	TSLA	2018-08-10	\$327.50	134	\$14.80	\$53.95	\$27.58	\$2.70	0.75%	1,560	0	0.0%	---	245.3	273	68.3%	61.4%
C	TSLA	2018-08-10	\$330.00	1,114	\$12.00	\$58.55	\$30.07	\$2.15	0.60%	1,560	0	0.0%	---	931.8	1,037	149.4%	134.3%
C	TSLA	2018-08-10	\$332.50	404	\$10.80	\$45.40	\$20.37	\$2.48	0.68%	1,560	0	0.0%	---	354.8	390	142.4%	129.5%
C	TSLA	2018-08-10	\$335.00	1,585	\$8.85	\$48.10	\$30.26	\$2.31	0.64%	1,560	0	0.0%	---	1,269.8	1,542	156.0%	128.5%
C	TSLA	2018-08-10	\$337.50	1,171	\$7.40	\$39.87	\$12.85	\$2.44	0.67%	1,560	0	0.0%	---	537.8	549	272.2%	266.6%
C	TSLA	2018-08-10	\$340.00	4,112	\$5.80	\$45.00	\$14.93	\$1.44	0.40%	1,463	0	0.0%	---	1,278.8	1,375	402.0%	373.8%
C	TSLA	2018-08-10	\$342.50	1,749	\$4.62	\$50.35	\$12.27	\$1.79	0.49%	1,560	0	0.0%	---	649.5	728	336.6%	300.3%
C	TSLA	2018-08-10	\$345.00	8,688	\$3.40	\$39.36	\$11.06	\$1.46	0.40%	1,560	0	0.0%	---	2,415.5	2,563	449.6%	423.7%
C	TSLA	2018-08-10	\$347.50	4,337	\$2.70	\$37.00	\$8.58	\$2.76	0.76%	1,560	0	0.0%	---	766.3	860	707.5%	630.4%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
C	TSLA	2018-08-10	\$350.00	26,072	\$1.82	\$37.00	\$6.91	\$1.84	0.51%	1,560	2	0.1%	0.09%	3,044.0	3,949	1070.6%	825.3%
C	TSLA	2018-08-10	\$352.50	11,290	\$1.01	\$35.75	\$4.94	\$0.94	0.26%	1,463	1	0.1%	0.02%	1,068.8	1,541	1320.5%	915.8%
C	TSLA	2018-08-10	\$355.00	35,677	\$0.18	\$30.00	\$4.07	\$0.74	0.20%	1,463	1	0.1%	0.07%	2,447.3	2,838	1822.3%	1571.4%
C	TSLA	2018-08-10	\$357.50	20,418	\$0.01	\$28.60	\$2.66	\$0.72	0.20%	1,463	0	0.0%	---	742.5	1,256	3437.4%	2032.0%
C	TSLA	2018-08-10	\$360.00	46,209	\$0.04	\$26.00	\$3.68	\$0.81	0.22%	1,560	1	0.1%	0.09%	3,442.3	5,419	1678.0%	1065.9%
C	TSLA	2018-08-10	\$362.50	18,533	\$0.01	\$24.00	\$2.77	\$1.12	0.30%	1,560	0	0.0%	---	1,481.5	2,788	1563.7%	830.9%
C	TSLA	2018-08-10	\$365.00	31,592	\$0.01	\$22.00	\$3.65	\$1.03	0.28%	1,560	1	0.1%	0.05%	3,852.5	4,729	1025.0%	835.1%
C	TSLA	2018-08-10	\$367.50	9,289	\$0.01	\$23.00	\$3.55	\$1.05	0.29%	1,560	0	0.0%	---	1,260.8	1,328	921.0%	874.3%
C	TSLA	2018-08-10	\$370.00	36,559	\$0.01	\$18.00	\$3.62	\$0.55	0.15%	1,463	1	0.1%	0.18%	4,493.5	5,581	1017.0%	818.8%
C	TSLA	2018-08-10	\$372.50	9,365	\$0.01	\$18.50	\$4.26	\$0.58	0.16%	1,560	0	0.0%	---	1,501.5	1,912	779.6%	612.3%
C	TSLA	2018-08-10	\$375.00	25,015	\$0.01	\$14.00	\$4.18	\$0.33	0.09%	1,560	0	0.0%	---	2,467.0	3,058	1267.5%	1022.5%
C	TSLA	2018-08-10	\$377.50	6,986	\$0.01	\$14.30	\$3.83	\$0.81	0.22%	1,463	0	0.0%	---	798.8	1,252	1093.3%	697.5%
C	TSLA	2018-08-10	\$380.00	35,434	\$0.01	\$12.00	\$3.21	\$0.29	0.08%	1,560	0	0.0%	---	4,583.5	6,358	966.3%	696.6%
C	TSLA	2018-08-10	\$382.50	5,994	\$0.01	\$12.75	\$3.49	\$0.48	0.13%	1,560	0	0.0%	---	640.3	1,137	1170.2%	659.0%
C	TSLA	2018-08-10	\$385.00	13,684	\$0.01	\$8.95	\$2.46	\$0.38	0.10%	1,560	1	0.1%	0.11%	2,407.0	3,449	710.6%	495.9%
C	TSLA	2018-08-10	\$387.50	3,725	\$0.01	\$9.40	\$2.05	\$0.46	0.13%	1,560	0	0.0%	---	427.8	738	1088.5%	630.9%
C	TSLA	2018-08-10	\$390.00	21,168	\$0.01	\$7.50	\$2.13	\$0.24	0.07%	1,560	0	0.0%	---	3,224.3	4,358	820.7%	607.2%
C	TSLA	2018-08-10	\$392.50	2,888	\$0.01	\$6.33	\$1.65	\$0.46	0.13%	1,560	0	0.0%	---	522.5	876	690.9%	412.1%
C	TSLA	2018-08-10	\$395.00	7,756	\$0.01	\$6.00	\$1.29	\$0.17	0.05%	1,560	0	0.0%	---	1,371.0	2,011	707.1%	482.1%
C	TSLA	2018-08-10	\$397.50	923	\$0.01	\$9.00	\$1.26	\$0.27	0.07%	1,560	0	0.0%	---	168.5	266	684.7%	433.7%
C	TSLA	2018-08-10	\$400.00	31,846	\$0.01	\$4.50	\$1.24	\$0.10	0.03%	1,560	0	0.0%	---	4,990.0	6,719	797.7%	592.5%
C	TSLA	2018-08-10	\$402.50	2,389	\$0.01	\$4.00	\$0.74	\$0.45	0.12%	1,560	0	0.0%	---	697.5	1,318	428.1%	226.6%
C	TSLA	2018-08-10	\$405.00	5,482	\$0.01	\$3.30	\$0.82	\$0.40	0.11%	1,560	0	0.0%	---	1,086.3	1,561	630.8%	439.0%
C	TSLA	2018-08-10	\$410.00	11,416	\$0.01	\$2.75	\$0.53	\$0.07	0.02%	1,463	0	0.0%	---	2,661.3	4,090	536.2%	348.9%
C	TSLA	2018-08-10	\$415.00	6,915	\$0.01	\$1.80	\$0.34	\$0.37	0.10%	1,560	0	0.0%	---	1,512.0	2,336	571.7%	370.0%
C	TSLA	2018-08-10	\$420.00	9,885	\$0.01	\$1.43	\$0.28	\$0.35	0.10%	1,560	0	0.0%	---	2,194.8	3,827	563.0%	322.9%
C	TSLA	2018-08-10	\$425.00	2,608	\$0.01	\$1.74	\$0.25	\$0.36	0.10%	1,560	0	0.0%	---	1,291.3	1,477	252.5%	220.7%
C	TSLA	2018-08-10	\$430.00	1,374	\$0.01	\$2.49	\$0.19	\$0.36	0.10%	1,560	0	0.0%	---	597.5	854	287.4%	201.1%
C	TSLA	2018-08-10	\$435.00	746	\$0.01	\$1.50	\$0.16	\$0.36	0.10%	1,560	0	0.0%	---	528.3	668	176.5%	139.6%
C	TSLA	2018-08-10	\$440.00	1,815	\$0.01	\$0.33	\$0.09	\$0.10	0.03%	1,560	0	0.0%	---	773.3	1,227	293.4%	184.9%
C	TSLA	2018-08-10	\$445.00	727	\$0.01	\$0.21	\$0.06	\$0.35	0.10%	1,560	0	0.0%	---	328.0	565	277.1%	160.8%
C	TSLA	2018-08-10	\$450.00	1,597	\$0.01	\$0.40	\$0.06	\$0.15	0.04%	1,560	0	0.0%	---	862.5	1,355	231.4%	147.3%
C	TSLA	2018-08-10	\$455.00	306	\$0.01	\$2.54	\$0.07	\$0.38	0.10%	1,560	0	0.0%	---	266.0	363	143.8%	105.4%
C	TSLA	2018-08-10	\$460.00	814	\$0.01	\$0.58	\$0.08	\$0.36	0.10%	1,560	0	0.0%	---	525.5	715	193.6%	142.3%
C	TSLA	2018-08-10	\$465.00	130	\$0.01	\$0.10	\$0.06	\$0.35	0.10%	1,560	0	0.0%	---	75.5	96	215.2%	169.3%
C	TSLA	2018-08-10	\$470.00	558	\$0.01	\$0.15	\$0.05	\$0.08	0.02%	1,560	0	0.0%	---	279.0	439	250.0%	158.9%
C	TSLA	2018-08-10	\$475.00	162	\$0.03	\$0.10	\$0.07	\$0.04	0.01%	1,560	0	0.0%	---	351.8	371	57.6%	54.6%
C	TSLA	2018-08-10	\$480.00	63	\$0.02	\$0.11	\$0.07	\$0.45	0.12%	1,560	0	0.0%	---	34.8	50	226.6%	157.5%
C	TSLA	2018-08-10	\$485.00	42	\$0.02	\$0.10	\$0.09	\$0.40	0.11%	1,560	0	0.0%	---	144.0	155	36.5%	33.9%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
C	TSLA	2018-08-10	\$490.00	39	\$0.02	\$0.10	\$0.07	\$0.19	0.05%	1,560	0	0.0%	---	25.8	39	189.3%	125.0%
C	TSLA	2018-08-10	\$495.00	27	\$0.02	\$0.10	\$0.09	\$0.24	0.07%	1,560	0	0.0%	---	28.8	36	117.4%	93.8%
C	TSLA	2018-08-10	\$500.00	533	\$0.01	\$0.10	\$0.06	\$0.02	0.01%	1,560	0	0.0%	---	493.3	640	135.1%	104.1%
C	TSLA	2018-08-10	\$510.00	38	\$0.01	\$2.38	\$0.32	\$0.42	0.11%	1,560	0	0.0%	---	37.3	54	127.5%	88.0%
C	TSLA	2018-08-10	\$520.00	31	\$0.01	\$0.02	\$0.01	\$0.41	0.11%	1,560	0	0.0%	---	34.3	50	113.1%	77.5%
C	TSLA	2018-08-10	\$530.00	195	\$0.01	\$0.04	\$0.01	\$0.33	0.09%	1,560	0	0.0%	---	148.8	257	163.9%	94.8%
C	TSLA	2018-08-10	\$540.00	477	\$0.01	\$0.04	\$0.02	\$0.35	0.09%	1,560	0	0.0%	---	712.8	849	83.7%	70.2%
C	TSLA	2018-08-10	\$550.00	2	\$0.03	\$0.03	\$0.03	\$0.34	0.09%	1,560	0	0.0%	---	1.5	2	166.7%	125.0%
C	TSLA	2018-08-17	\$40.00	1	\$327.00	\$327.00	\$327.00	\$3.24	0.93%	3,510	0	0.0%	---	0.0	0	---	---
C	TSLA	2018-08-17	\$180.00	3	\$158.00	\$177.00	\$169.67	\$2.98	0.85%	3,510	0	0.0%	---	100.1	101	1.7%	1.7%
C	TSLA	2018-08-17	\$200.00	56	\$107.50	\$172.10	\$118.76	\$3.15	0.90%	3,510	0	0.0%	---	48.0	50	64.8%	62.2%
C	TSLA	2018-08-17	\$220.00	17	\$134.00	\$140.40	\$134.40	\$3.10	0.89%	3,510	0	0.0%	---	173.3	301	5.4%	3.1%
C	TSLA	2018-08-17	\$230.00	1	\$104.70	\$104.70	\$104.70	\$3.18	0.91%	3,510	0	0.0%	---	7.0	8	7.9%	6.9%
C	TSLA	2018-08-17	\$240.00	17	\$67.75	\$125.30	\$75.91	\$3.16	0.90%	3,413	0	0.0%	---	20.0	20	47.2%	47.2%
C	TSLA	2018-08-17	\$245.00	3	\$119.74	\$119.74	\$119.74	\$3.15	0.90%	3,510	0	0.0%	---	10.7	14	15.6%	11.9%
C	TSLA	2018-08-17	\$250.00	78	\$55.00	\$132.35	\$98.84	\$3.03	0.87%	3,510	0	0.0%	---	86.4	92	50.1%	47.1%
C	TSLA	2018-08-17	\$255.00	4	\$83.52	\$116.45	\$91.75	\$3.11	0.89%	3,510	0	0.0%	---	20.1	21	11.0%	10.6%
C	TSLA	2018-08-17	\$260.00	210	\$54.48	\$128.35	\$80.65	\$2.86	0.82%	3,510	0	0.0%	---	372.6	402	31.3%	29.0%
C	TSLA	2018-08-17	\$265.00	27	\$54.00	\$116.02	\$90.23	\$2.97	0.85%	3,510	0	0.0%	---	63.4	72	23.6%	20.8%
C	TSLA	2018-08-17	\$270.00	82	\$33.50	\$105.00	\$61.33	\$2.79	0.80%	3,510	0	0.0%	---	187.2	196	24.3%	23.2%
C	TSLA	2018-08-17	\$275.00	473	\$29.18	\$94.10	\$44.53	\$2.67	0.76%	3,510	0	0.0%	---	602.8	618	43.6%	42.5%
C	TSLA	2018-08-17	\$280.00	375	\$24.80	\$101.09	\$66.24	\$2.64	0.76%	3,413	0	0.0%	---	326.7	356	63.8%	58.5%
C	TSLA	2018-08-17	\$282.50	830	\$34.00	\$70.90	\$34.87	\$2.62	0.75%	3,510	0	0.0%	---	812.2	820	56.8%	56.2%
C	TSLA	2018-08-17	\$285.00	691	\$19.50	\$98.00	\$35.27	\$2.61	0.75%	3,510	0	0.0%	---	842.3	874	45.6%	43.9%
C	TSLA	2018-08-17	\$287.50	10	\$17.29	\$17.29	\$17.29	\$2.96	0.85%	3,510	0	0.0%	---	0.0	0	---	---
C	TSLA	2018-08-17	\$290.00	567	\$14.05	\$93.50	\$39.99	\$2.60	0.75%	3,510	0	0.0%	---	590.1	655	53.4%	48.1%
C	TSLA	2018-08-17	\$292.50	33	\$12.00	\$78.62	\$38.63	\$2.79	0.80%	3,510	0	0.0%	---	77.6	84	23.6%	21.8%
C	TSLA	2018-08-17	\$295.00	381	\$9.95	\$80.42	\$29.34	\$2.59	0.74%	3,510	0	0.0%	---	570.3	591	37.1%	35.8%
C	TSLA	2018-08-17	\$297.50	145	\$7.14	\$88.85	\$24.98	\$2.59	0.74%	3,510	0	0.0%	---	246.2	251	32.7%	32.1%
C	TSLA	2018-08-17	\$300.00	3,406	\$3.40	\$83.50	\$24.97	\$2.35	0.67%	3,510	0	0.0%	---	2,417.4	2,576	78.3%	73.5%
C	TSLA	2018-08-17	\$302.50	883	\$1.80	\$83.75	\$13.56	\$2.44	0.70%	3,510	0	0.0%	---	238.6	243	205.6%	201.9%
C	TSLA	2018-08-17	\$305.00	3,536	\$0.50	\$77.00	\$7.67	\$2.30	0.65%	3,510	0	0.0%	---	1,535.8	1,579	127.9%	124.4%
C	TSLA	2018-08-17	\$307.50	5,222	\$0.02	\$67.78	\$2.17	\$2.32	0.66%	3,510	0	0.0%	---	318.1	325	912.0%	892.6%
C	TSLA	2018-08-17	\$310.00	19,969	\$0.01	\$77.00	\$3.63	\$2.19	0.62%	3,510	0	0.0%	---	2,148.1	2,350	516.4%	472.1%
C	TSLA	2018-08-17	\$312.50	6,778	\$0.01	\$56.00	\$1.66	\$2.30	0.65%	3,510	0	0.0%	---	124.8	141	3017.8%	2670.6%
C	TSLA	2018-08-17	\$315.00	9,460	\$0.01	\$68.00	\$3.21	\$2.05	0.58%	3,510	0	0.0%	---	1,503.3	1,559	349.6%	337.1%
C	TSLA	2018-08-17	\$317.50	6,257	\$0.01	\$63.75	\$1.89	\$2.08	0.59%	3,510	0	0.0%	---	120.0	135	2896.8%	2574.9%
C	TSLA	2018-08-17	\$320.00	12,104	\$0.01	\$67.80	\$5.28	\$1.59	0.45%	3,413	0	0.0%	---	3,253.6	3,311	206.7%	203.1%
C	TSLA	2018-08-17	\$322.50	2,332	\$0.01	\$53.84	\$1.81	\$1.86	0.52%	3,413	0	0.0%	---	111.7	117	1160.2%	1107.3%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open
C	TSLA	2018-08-17	\$325.00	7,432	\$0.01	\$58.93	\$2.90	\$2.70	0.75%	3,510	0	0.0%	---	1,523.9	1,554	270.9%	265.7%
C	TSLA	2018-08-17	\$327.50	4,200	\$0.01	\$51.85	\$3.40	\$1.39	0.39%	3,413	0	0.0%	---	287.7	685	811.1%	340.6%
C	TSLA	2018-08-17	\$330.00	6,201	\$0.01	\$62.00	\$8.01	\$1.23	0.35%	3,413	0	0.0%	---	4,165.6	4,343	82.7%	79.3%
C	TSLA	2018-08-17	\$332.50	3,074	\$0.01	\$52.50	\$5.26	\$1.14	0.32%	3,510	0	0.0%	---	366.4	896	466.0%	190.6%
C	TSLA	2018-08-17	\$335.00	9,933	\$0.01	\$52.86	\$6.59	\$0.99	0.28%	3,510	0	0.0%	---	2,549.7	3,598	216.4%	153.4%
C	TSLA	2018-08-17	\$337.50	7,569	\$0.01	\$47.35	\$4.72	\$0.88	0.24%	3,510	0	0.0%	---	623.1	1,525	674.8%	275.7%
C	TSLA	2018-08-17	\$340.00	23,022	\$0.01	\$48.00	\$6.32	\$0.79	0.22%	3,510	0	0.0%	---	3,641.1	5,492	351.3%	232.9%
C	TSLA	2018-08-17	\$342.50	9,786	\$0.01	\$40.22	\$3.88	\$0.61	0.17%	3,413	0	0.0%	---	1,037.9	2,951	523.8%	184.2%
C	TSLA	2018-08-17	\$345.00	18,375	\$0.01	\$40.04	\$4.57	\$0.53	0.15%	3,413	0	0.0%	---	2,457.6	4,577	415.4%	223.0%
C	TSLA	2018-08-17	\$347.50	7,425	\$0.01	\$35.86	\$5.51	\$0.63	0.17%	3,413	0	0.0%	---	856.7	1,558	481.5%	264.8%
C	TSLA	2018-08-17	\$350.00	35,501	\$0.01	\$39.40	\$8.03	\$0.92	0.25%	3,510	1	0.0%	0.12%	7,570.0	7,982	260.5%	247.1%
C	TSLA	2018-08-17	\$352.50	13,425	\$0.01	\$33.20	\$4.76	\$0.41	0.11%	3,413	0	0.0%	---	1,251.4	2,853	596.0%	261.4%
C	TSLA	2018-08-17	\$355.00	20,625	\$0.01	\$31.91	\$6.37	\$0.87	0.24%	3,413	2	0.1%	0.12%	2,085.8	3,395	549.4%	337.5%
C	TSLA	2018-08-17	\$357.50	8,002	\$0.01	\$28.88	\$6.63	\$0.43	0.12%	3,510	0	0.0%	---	761.7	1,461	583.7%	304.3%
C	TSLA	2018-08-17	\$360.00	40,554	\$0.01	\$30.10	\$6.18	\$1.44	0.39%	3,510	2	0.1%	0.02%	4,533.7	6,321	496.9%	356.4%
C	TSLA	2018-08-17	\$362.50	7,179	\$0.01	\$25.20	\$6.10	\$0.40	0.11%	3,510	0	0.0%	---	702.8	1,269	567.5%	314.3%
C	TSLA	2018-08-17	\$365.00	18,654	\$0.01	\$25.00	\$5.26	\$0.35	0.10%	3,510	0	0.0%	---	2,152.7	2,743	481.4%	377.8%
C	TSLA	2018-08-17	\$367.50	6,144	\$0.01	\$24.60	\$5.19	\$0.65	0.18%	3,510	0	0.0%	---	721.1	1,043	473.3%	327.3%
C	TSLA	2018-08-17	\$370.00	34,931	\$0.01	\$22.55	\$4.89	\$0.28	0.08%	3,413	0	0.0%	---	7,102.8	8,113	273.2%	239.2%
C	TSLA	2018-08-17	\$372.50	7,316	\$0.01	\$25.90	\$4.48	\$0.55	0.15%	3,413	0	0.0%	---	950.4	1,413	427.6%	287.6%
C	TSLA	2018-08-17	\$375.00	19,055	\$0.01	\$18.00	\$5.54	\$0.26	0.07%	3,510	0	0.0%	---	3,950.7	4,634	268.0%	228.4%
C	TSLA	2018-08-17	\$377.50	4,996	\$0.01	\$25.08	\$4.42	\$0.48	0.13%	3,510	0	0.0%	---	1,058.9	1,516	262.1%	183.1%
C	TSLA	2018-08-17	\$380.00	36,478	\$0.01	\$16.00	\$3.40	\$0.23	0.06%	3,510	2	0.1%	0.17%	5,830.1	8,048	347.6%	251.8%
C	TSLA	2018-08-17	\$382.50	3,350	\$0.01	\$18.00	\$3.30	\$0.29	0.08%	3,510	0	0.0%	---	615.2	1,082	302.5%	172.0%
C	TSLA	2018-08-17	\$385.00	14,777	\$0.01	\$16.00	\$3.02	\$0.39	0.11%	3,510	0	0.0%	---	2,635.3	3,921	311.5%	209.4%
C	TSLA	2018-08-17	\$387.50	2,426	\$0.01	\$12.70	\$2.18	\$0.28	0.08%	3,510	0	0.0%	---	420.2	692	320.7%	194.8%
C	TSLA	2018-08-17	\$390.00	18,064	\$0.01	\$11.05	\$2.78	\$0.27	0.07%	3,510	0	0.0%	---	3,772.6	4,493	266.0%	223.4%
C	TSLA	2018-08-17	\$392.50	1,613	\$0.01	\$10.00	\$2.25	\$0.27	0.07%	3,510	0	0.0%	---	401.7	652	223.1%	137.4%
C	TSLA	2018-08-17	\$395.00	9,101	\$0.01	\$9.50	\$1.62	\$0.24	0.07%	3,510	0	0.0%	---	1,982.1	3,062	255.1%	165.1%
C	TSLA	2018-08-17	\$397.50	1,486	\$0.01	\$8.00	\$1.48	\$0.26	0.07%	3,510	0	0.0%	---	327.0	527	252.5%	156.7%
C	TSLA	2018-08-17	\$400.00	39,663	\$0.01	\$7.95	\$1.89	\$0.10	0.03%	3,510	0	0.0%	---	9,725.0	11,594	226.6%	190.1%
C	TSLA	2018-08-17	\$402.50	3,076	\$0.01	\$6.00	\$2.33	\$0.23	0.06%	3,510	0	0.0%	---	672.7	1,111	254.0%	153.8%
C	TSLA	2018-08-17	\$405.00	6,426	\$0.01	\$5.29	\$1.28	\$0.23	0.06%	3,510	0	0.0%	---	2,298.3	2,991	155.3%	119.4%
C	TSLA	2018-08-17	\$407.50	190	\$0.01	\$0.85	\$0.36	\$0.07	0.02%	2,340	0	0.0%	---	105.0	147	150.8%	107.7%
C	TSLA	2018-08-17	\$410.00	9,278	\$0.01	\$6.70	\$1.25	\$0.21	0.06%	3,510	0	0.0%	---	2,536.6	3,355	203.2%	153.6%
C	TSLA	2018-08-17	\$412.50	199	\$0.03	\$0.63	\$0.24	\$0.08	0.02%	2,340	0	0.0%	---	58.7	76	282.7%	218.2%
C	TSLA	2018-08-17	\$415.00	6,532	\$0.01	\$3.00	\$1.08	\$0.22	0.06%	3,510	0	0.0%	---	2,361.3	2,907	153.7%	124.8%
C	TSLA	2018-08-17	\$420.00	16,252	\$0.01	\$2.81	\$0.71	\$0.09	0.02%	3,510	0	0.0%	---	4,916.7	6,152	183.6%	146.8%
C	TSLA	2018-08-17	\$425.00	7,022	\$0.01	\$2.01	\$0.77	\$0.09	0.03%	3,510	0	0.0%	---	2,844.9	3,583	137.1%	108.9%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
C	TSLA	2018-08-17	\$430.00	2,605	\$0.01	\$1.66	\$0.52	\$0.22	0.06%	3,510	0	0.0%	---	1,037.9	1,442	139.4%	100.4%
C	TSLA	2018-08-17	\$435.00	424	\$0.01	\$1.10	\$0.32	\$0.22	0.06%	3,510	0	0.0%	---	448.1	504	52.6%	46.7%
C	TSLA	2018-08-17	\$440.00	2,851	\$0.01	\$0.85	\$0.24	\$0.16	0.04%	3,510	0	0.0%	---	1,572.3	1,841	100.7%	86.0%
C	TSLA	2018-08-17	\$445.00	190	\$0.01	\$0.67	\$0.24	\$0.24	0.07%	3,510	0	0.0%	---	193.6	209	54.5%	50.5%
C	TSLA	2018-08-17	\$450.00	4,968	\$0.01	\$0.80	\$0.14	\$0.08	0.02%	3,510	0	0.0%	---	3,299.0	4,028	83.7%	68.5%
C	TSLA	2018-08-17	\$455.00	1,410	\$0.01	\$0.46	\$0.12	\$0.22	0.06%	3,510	0	0.0%	---	999.6	1,417	78.4%	55.3%
C	TSLA	2018-08-17	\$460.00	3,099	\$0.01	\$0.45	\$0.09	\$0.06	0.02%	3,510	0	0.0%	---	3,470.1	4,034	49.6%	42.7%
C	TSLA	2018-08-17	\$465.00	519	\$0.03	\$0.70	\$0.11	\$0.22	0.06%	3,510	0	0.0%	---	325.6	424	88.6%	68.0%
C	TSLA	2018-08-17	\$470.00	367	\$0.01	\$0.20	\$0.05	\$0.25	0.07%	3,510	0	0.0%	---	259.7	355	78.5%	57.4%
C	TSLA	2018-08-17	\$475.00	545	\$0.03	\$0.50	\$0.06	\$0.06	0.02%	3,510	0	0.0%	---	598.7	693	50.6%	43.7%
C	TSLA	2018-08-17	\$480.00	193	\$0.01	\$0.25	\$0.07	\$0.20	0.06%	3,510	0	0.0%	---	273.8	329	39.2%	32.6%
C	TSLA	2018-08-17	\$485.00	460	\$0.01	\$0.32	\$0.04	\$0.15	0.04%	3,510	0	0.0%	---	522.2	629	48.9%	40.6%
C	TSLA	2018-08-17	\$490.00	20	\$0.01	\$0.20	\$0.05	\$0.28	0.08%	3,510	0	0.0%	---	81.2	84	13.7%	13.2%
C	TSLA	2018-08-17	\$495.00	161	\$0.01	\$0.20	\$0.01	\$0.26	0.07%	3,510	0	0.0%	---	228.0	317	39.2%	28.2%
C	TSLA	2018-08-17	\$500.00	2,682	\$0.01	\$0.30	\$0.04	\$0.03	0.01%	3,510	0	0.0%	---	3,638.6	4,254	41.0%	35.0%
C	TSLA	2018-08-17	\$505.00	201	\$0.01	\$0.01	\$0.01	\$0.22	0.06%	3,510	0	0.0%	---	285.9	397	39.1%	28.1%
C	TSLA	2018-08-17	\$515.00	3	\$0.03	\$0.03	\$0.03	\$0.23	0.06%	3,510	0	0.0%	---	298.3	301	0.6%	0.6%
C	TSLA	2018-08-17	\$520.00	265	\$0.01	\$0.10	\$0.03	\$0.18	0.05%	3,510	0	0.0%	---	2,033.9	2,103	7.2%	7.0%
C	TSLA	2018-08-17	\$525.00	2,587	\$0.02	\$0.08	\$0.03	\$0.16	0.04%	3,510	0	0.0%	---	2,196.2	3,012	65.4%	47.7%
C	TSLA	2018-08-17	\$530.00	10	\$0.06	\$0.06	\$0.06	\$0.35	0.10%	3,510	0	0.0%	---	8.9	10	62.5%	55.6%
C	TSLA	2018-08-17	\$545.00	216	\$0.01	\$0.10	\$0.01	\$0.26	0.07%	3,510	0	0.0%	---	152.6	244	78.7%	49.2%
C	TSLA	2018-08-17	\$550.00	108	\$0.01	\$0.14	\$0.02	\$0.19	0.05%	3,510	0	0.0%	---	283.7	284	21.2%	21.1%
C	TSLA	2018-08-17	\$555.00	105	\$0.01	\$0.05	\$0.01	\$0.20	0.05%	3,510	0	0.0%	---	145.4	146	40.1%	40.0%
C	TSLA	2018-08-17	\$560.00	105	\$0.03	\$0.10	\$0.04	\$0.10	0.03%	3,510	0	0.0%	---	54.2	61	107.6%	95.6%
C	TSLA	2018-08-17	\$570.00	140	\$0.01	\$0.08	\$0.05	\$0.18	0.05%	3,510	0	0.0%	---	119.3	132	65.2%	58.9%
C	TSLA	2018-08-17	\$575.00	40	\$0.07	\$0.07	\$0.07	\$0.31	0.08%	3,510	0	0.0%	---	23.2	41	95.7%	54.2%
C	TSLA	2018-08-17	\$580.00	2	\$0.01	\$0.07	\$0.04	\$0.33	0.09%	3,510	0	0.0%	---	0.4	1	250.0%	111.1%
C	TSLA	2018-08-17	\$590.00	3	\$0.01	\$0.01	\$0.01	\$0.34	0.10%	3,510	0	0.0%	---	1.4	3	115.4%	55.6%
C	TSLA	2018-08-17	\$600.00	265	\$0.01	\$0.05	\$0.03	\$0.16	0.04%	3,510	0	0.0%	---	562.7	592	26.2%	24.9%
C	TSLA	2018-08-24	\$100.00	20	\$261.45	\$263.15	\$262.30	\$3.76	1.07%	3,510	0	0.0%	---	9.0	10	123.5%	111.1%
C	TSLA	2018-08-24	\$160.00	2	\$197.10	\$198.20	\$197.65	\$3.64	1.04%	3,510	0	0.0%	---	0.0	0	---	---
C	TSLA	2018-08-24	\$200.00	4	\$153.13	\$153.40	\$153.27	\$3.59	1.02%	3,510	0	0.0%	---	2.8	4	79.4%	55.6%
C	TSLA	2018-08-24	\$220.00	4	\$89.70	\$136.42	\$113.06	\$3.52	1.00%	3,510	0	0.0%	---	0.8	2	277.8%	111.1%
C	TSLA	2018-08-24	\$240.00	6	\$68.10	\$69.51	\$68.81	\$3.42	0.97%	3,510	0	0.0%	---	15.6	21	21.4%	15.9%
C	TSLA	2018-08-24	\$250.00	2	\$58.19	\$59.78	\$58.99	\$3.37	0.96%	3,510	0	0.0%	---	0.0	0	---	---
C	TSLA	2018-08-24	\$255.00	1	\$90.88	\$90.88	\$90.88	\$3.33	0.95%	3,510	0	0.0%	---	6.0	6	9.3%	9.3%
C	TSLA	2018-08-24	\$260.00	19	\$56.48	\$95.71	\$89.73	\$3.28	0.93%	3,510	0	0.0%	---	14.4	21	73.3%	50.3%
C	TSLA	2018-08-24	\$265.00	2	\$80.98	\$116.55	\$98.77	\$3.23	0.92%	3,510	0	0.0%	---	2.0	2	55.6%	55.6%
C	TSLA	2018-08-24	\$270.00	23	\$42.60	\$67.28	\$46.63	\$3.17	0.90%	3,510	0	0.0%	---	23.4	42	54.6%	30.4%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
C	TSLA	2018-08-24	\$275.00	526	\$36.48	\$83.50	\$43.42	\$3.09	0.88%	3,510	0	0.0%	---	79.5	546	367.6%	53.5%
C	TSLA	2018-08-24	\$277.50	6	\$35.89	\$35.89	\$35.89	\$3.06	0.87%	3,510	0	0.0%	---	0.6	6	555.6%	55.6%
C	TSLA	2018-08-24	\$280.00	273	\$29.00	\$94.45	\$32.43	\$3.01	0.85%	3,510	0	0.0%	---	19.2	102	789.9%	148.7%
C	TSLA	2018-08-24	\$282.50	812	\$30.66	\$36.55	\$36.54	\$2.80	0.80%	3,510	0	0.0%	---	88.2	819	511.5%	55.1%
C	TSLA	2018-08-24	\$285.00	411	\$26.05	\$33.10	\$32.98	\$2.73	0.78%	3,510	0	0.0%	---	71.9	440	317.6%	51.9%
C	TSLA	2018-08-24	\$287.50	6	\$23.70	\$70.01	\$32.47	\$2.67	0.76%	3,510	0	0.0%	---	12.5	16	26.7%	20.8%
C	TSLA	2018-08-24	\$290.00	201	\$20.41	\$50.07	\$22.30	\$2.61	0.74%	3,510	0	0.0%	---	42.1	158	265.2%	70.7%
C	TSLA	2018-08-24	\$292.50	29	\$18.95	\$85.25	\$31.63	\$2.50	0.71%	3,510	0	0.0%	---	18.2	39	88.5%	41.3%
C	TSLA	2018-08-24	\$295.00	104	\$17.07	\$66.25	\$25.41	\$2.38	0.67%	3,510	0	0.0%	---	81.0	112	71.3%	51.6%
C	TSLA	2018-08-24	\$297.50	93	\$15.45	\$61.00	\$21.36	\$2.29	0.65%	3,510	0	0.0%	---	42.0	82	123.0%	63.0%
C	TSLA	2018-08-24	\$300.00	993	\$13.98	\$77.50	\$20.87	\$1.89	0.54%	3,413	0	0.0%	---	173.3	628	318.3%	87.8%
C	TSLA	2018-08-24	\$302.50	237	\$12.25	\$61.00	\$21.76	\$2.07	0.58%	3,510	0	0.0%	---	34.6	109	380.5%	120.8%
C	TSLA	2018-08-24	\$305.00	911	\$10.83	\$69.09	\$12.84	\$1.99	0.56%	3,510	0	0.0%	---	134.6	554	376.0%	91.4%
C	TSLA	2018-08-24	\$307.50	811	\$9.50	\$70.15	\$13.42	\$1.92	0.54%	3,510	1	0.0%	0.01%	72.6	437	620.6%	103.1%
C	TSLA	2018-08-24	\$310.00	3,183	\$8.40	\$69.05	\$10.88	\$1.81	0.51%	3,510	0	0.0%	---	203.6	1,342	868.5%	131.8%
C	TSLA	2018-08-24	\$312.50	573	\$7.30	\$62.04	\$10.47	\$1.75	0.49%	3,510	0	0.0%	---	55.6	278	572.5%	114.5%
C	TSLA	2018-08-24	\$315.00	3,074	\$6.30	\$60.00	\$8.78	\$1.66	0.47%	3,510	0	0.0%	---	183.2	1,002	932.2%	170.4%
C	TSLA	2018-08-24	\$317.50	913	\$5.45	\$40.35	\$7.65	\$1.59	0.45%	3,510	0	0.0%	---	65.7	315	772.0%	161.0%
C	TSLA	2018-08-24	\$320.00	3,763	\$3.92	\$63.05	\$8.80	\$1.50	0.42%	3,510	0	0.0%	---	212.0	945	986.1%	221.2%
C	TSLA	2018-08-24	\$322.50	871	\$4.33	\$55.20	\$8.61	\$1.44	0.40%	3,510	0	0.0%	---	131.9	378	366.9%	128.0%
C	TSLA	2018-08-24	\$325.00	1,643	\$2.63	\$54.30	\$7.05	\$1.30	0.36%	3,510	0	0.0%	---	98.2	495	929.5%	184.4%
C	TSLA	2018-08-24	\$327.50	480	\$3.10	\$51.90	\$7.51	\$1.22	0.34%	3,413	0	0.0%	---	84.7	237	314.8%	112.5%
C	TSLA	2018-08-24	\$330.00	4,750	\$2.69	\$53.00	\$6.97	\$1.05	0.29%	3,510	0	0.0%	---	367.6	1,491	717.9%	177.0%
C	TSLA	2018-08-24	\$332.50	809	\$2.40	\$33.45	\$5.29	\$0.99	0.28%	3,510	0	0.0%	---	129.8	460	346.3%	97.7%
C	TSLA	2018-08-24	\$335.00	2,416	\$2.04	\$46.00	\$8.17	\$1.53	0.42%	3,510	0	0.0%	---	208.9	764	642.5%	175.7%
C	TSLA	2018-08-24	\$337.50	894	\$1.73	\$44.50	\$6.16	\$0.88	0.24%	3,510	0	0.0%	---	102.9	332	482.7%	149.6%
C	TSLA	2018-08-24	\$340.00	6,716	\$1.50	\$44.15	\$8.43	\$0.83	0.23%	3,510	1	0.0%	0.01%	495.2	1,866	753.5%	200.0%
C	TSLA	2018-08-24	\$342.50	1,017	\$1.30	\$37.95	\$7.90	\$0.66	0.18%	3,413	0	0.0%	---	127.0	394	444.9%	143.4%
C	TSLA	2018-08-24	\$345.00	1,806	\$1.10	\$41.11	\$7.58	\$0.73	0.20%	3,510	0	0.0%	---	420.6	797	238.5%	125.9%
C	TSLA	2018-08-24	\$347.50	1,003	\$0.88	\$36.16	\$8.09	\$0.71	0.20%	3,510	0	0.0%	---	193.1	417	288.6%	133.6%
C	TSLA	2018-08-24	\$350.00	5,504	\$0.76	\$37.75	\$8.28	\$0.66	0.18%	3,510	0	0.0%	---	677.3	1,469	451.5%	208.2%
C	TSLA	2018-08-24	\$352.50	2,304	\$0.70	\$33.68	\$6.96	\$0.64	0.18%	3,510	0	0.0%	---	318.3	793	402.1%	161.4%
C	TSLA	2018-08-24	\$355.00	3,740	\$0.47	\$35.00	\$8.78	\$0.61	0.17%	3,510	0	0.0%	---	569.3	1,263	365.0%	164.5%
C	TSLA	2018-08-24	\$357.50	1,614	\$0.53	\$28.70	\$7.42	\$0.59	0.16%	3,510	0	0.0%	---	206.7	361	433.8%	248.4%
C	TSLA	2018-08-24	\$360.00	10,249	\$0.45	\$30.00	\$7.31	\$0.52	0.14%	3,510	0	0.0%	---	759.1	1,608	750.1%	354.1%
C	TSLA	2018-08-24	\$362.50	1,591	\$0.40	\$26.20	\$6.20	\$0.31	0.09%	3,120	0	0.0%	---	184.0	410	540.4%	242.5%
C	TSLA	2018-08-24	\$365.00	3,735	\$0.33	\$26.45	\$8.06	\$0.49	0.14%	3,510	0	0.0%	---	662.0	954	313.4%	217.5%
C	TSLA	2018-08-24	\$367.50	1,638	\$0.29	\$22.50	\$3.17	\$0.29	0.08%	3,120	0	0.0%	---	228.6	793	447.9%	129.1%
C	TSLA	2018-08-24	\$370.00	4,392	\$0.24	\$23.00	\$6.03	\$0.47	0.13%	3,510	0	0.0%	---	475.5	873	513.1%	279.5%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
C	TSLA	2018-08-24	\$372.50	1,034	\$0.23	\$18.90	\$5.26	\$0.28	0.08%	3,120	0	0.0%	---	148.8	239	434.4%	270.4%
C	TSLA	2018-08-24	\$375.00	2,578	\$0.21	\$20.00	\$5.74	\$0.34	0.10%	3,413	0	0.0%	---	358.8	650	399.2%	220.3%
C	TSLA	2018-08-24	\$377.50	778	\$0.18	\$18.50	\$8.73	\$0.25	0.07%	3,120	0	0.0%	---	184.3	238	263.8%	204.3%
C	TSLA	2018-08-24	\$380.00	5,478	\$0.17	\$20.00	\$4.37	\$0.49	0.14%	3,510	0	0.0%	---	901.3	1,575	337.7%	193.2%
C	TSLA	2018-08-24	\$382.50	875	\$0.19	\$15.40	\$3.27	\$0.25	0.07%	3,120	0	0.0%	---	212.8	438	257.0%	124.9%
C	TSLA	2018-08-24	\$385.00	2,876	\$0.13	\$22.00	\$3.16	\$0.42	0.12%	3,510	0	0.0%	---	661.9	1,137	241.4%	140.5%
C	TSLA	2018-08-24	\$387.50	1,405	\$0.13	\$12.75	\$3.15	\$0.23	0.07%	3,120	0	0.0%	---	660.1	1,036	133.0%	84.8%
C	TSLA	2018-08-24	\$390.00	3,196	\$0.10	\$12.34	\$2.56	\$0.39	0.11%	3,510	0	0.0%	---	685.1	1,253	259.2%	141.7%
C	TSLA	2018-08-24	\$392.50	390	\$0.13	\$9.95	\$2.69	\$0.24	0.07%	3,120	0	0.0%	---	89.4	189	272.5%	129.0%
C	TSLA	2018-08-24	\$395.00	2,012	\$0.09	\$11.00	\$2.17	\$0.41	0.11%	3,510	0	0.0%	---	627.5	1,082	178.1%	103.3%
C	TSLA	2018-08-24	\$397.50	975	\$0.11	\$7.20	\$2.12	\$0.24	0.07%	3,120	0	0.0%	---	529.0	872	115.2%	69.9%
C	TSLA	2018-08-24	\$400.00	9,468	\$0.06	\$11.00	\$2.67	\$0.33	0.09%	3,510	0	0.0%	---	2,471.7	3,503	212.8%	150.2%
C	TSLA	2018-08-24	\$402.50	184	\$0.12	\$2.58	\$0.97	\$0.23	0.07%	2,730	0	0.0%	---	57.1	110	230.1%	119.5%
C	TSLA	2018-08-24	\$405.00	2,455	\$0.07	\$6.90	\$3.67	\$0.39	0.11%	3,510	0	0.0%	---	1,472.7	1,922	92.6%	71.0%
C	TSLA	2018-08-24	\$407.50	894	\$0.10	\$2.50	\$1.04	\$0.21	0.06%	2,730	0	0.0%	---	541.1	843	118.0%	75.7%
C	TSLA	2018-08-24	\$410.00	1,279	\$0.04	\$8.05	\$1.38	\$0.39	0.11%	3,510	0	0.0%	---	372.2	579	190.9%	122.7%
C	TSLA	2018-08-24	\$412.50	63	\$0.05	\$1.07	\$0.67	\$0.18	0.05%	2,340	0	0.0%	---	35.1	54	149.4%	97.2%
C	TSLA	2018-08-24	\$415.00	999	\$0.05	\$4.15	\$1.19	\$0.38	0.11%	3,510	0	0.0%	---	230.2	380	241.1%	146.1%
C	TSLA	2018-08-24	\$420.00	2,335	\$0.05	\$8.50	\$0.66	\$0.19	0.05%	3,413	0	0.0%	---	586.6	1,400	221.1%	92.7%
C	TSLA	2018-08-24	\$425.00	1,419	\$0.03	\$2.55	\$0.41	\$0.24	0.07%	3,413	0	0.0%	---	383.2	1,022	205.7%	77.1%
C	TSLA	2018-08-24	\$430.00	1,430	\$0.04	\$1.87	\$0.38	\$0.34	0.09%	3,510	0	0.0%	---	294.5	1,087	269.8%	73.1%
C	TSLA	2018-08-24	\$435.00	415	\$0.02	\$1.08	\$0.14	\$0.36	0.10%	3,510	0	0.0%	---	77.8	297	296.3%	77.6%
C	TSLA	2018-08-24	\$440.00	588	\$0.02	\$1.30	\$0.33	\$0.35	0.10%	3,510	0	0.0%	---	230.3	423	141.8%	77.2%
C	TSLA	2018-08-24	\$445.00	388	\$0.08	\$1.20	\$0.41	\$0.34	0.09%	3,510	0	0.0%	---	200.3	274	107.6%	78.7%
C	TSLA	2018-08-24	\$450.00	448	\$0.05	\$1.08	\$0.27	\$0.33	0.09%	3,510	0	0.0%	---	160.5	292	155.1%	85.2%
C	TSLA	2018-08-24	\$455.00	73	\$0.05	\$0.49	\$0.13	\$0.39	0.11%	3,510	0	0.0%	---	29.8	71	136.1%	57.1%
C	TSLA	2018-08-24	\$460.00	439	\$0.05	\$0.73	\$0.12	\$0.29	0.08%	3,510	0	0.0%	---	194.2	427	125.6%	57.1%
C	TSLA	2018-08-24	\$465.00	352	\$0.05	\$0.18	\$0.09	\$0.33	0.09%	3,510	0	0.0%	---	105.1	343	186.1%	57.0%
C	TSLA	2018-08-24	\$470.00	253	\$0.03	\$0.10	\$0.07	\$0.36	0.10%	3,510	0	0.0%	---	149.8	250	93.8%	56.2%
C	TSLA	2018-08-24	\$475.00	33	\$0.01	\$0.39	\$0.11	\$0.30	0.08%	3,510	0	0.0%	---	106.6	119	17.2%	15.4%
C	TSLA	2018-08-24	\$480.00	47	\$0.01	\$0.53	\$0.09	\$0.36	0.10%	3,510	0	0.0%	---	21.9	41	119.2%	63.7%
C	TSLA	2018-08-24	\$490.00	31	\$0.03	\$0.15	\$0.07	\$0.36	0.10%	3,510	0	0.0%	---	10.3	21	167.2%	82.0%
C	TSLA	2018-08-24	\$500.00	970	\$0.01	\$0.56	\$0.06	\$0.24	0.07%	3,510	0	0.0%	---	329.4	885	163.6%	60.9%
C	TSLA	2018-08-24	\$510.00	108	\$0.03	\$0.25	\$0.11	\$0.25	0.07%	3,510	0	0.0%	---	57.2	77	104.9%	77.9%
C	TSLA	2018-08-24	\$520.00	3	\$0.03	\$0.13	\$0.09	\$0.29	0.08%	3,510	0	0.0%	---	2.2	3	75.8%	55.6%
C	TSLA	2018-08-24	\$550.00	90	\$0.01	\$0.15	\$0.10	\$0.21	0.06%	3,510	0	0.0%	---	71.5	82	69.9%	61.0%
C	TSLA	2018-08-31	\$180.00	1	\$128.31	\$128.31	\$128.31	\$3.63	1.04%	3,510	0	0.0%	---	0.1	1	555.6%	55.6%
C	TSLA	2018-08-31	\$200.00	2	\$110.00	\$110.00	\$110.00	\$3.56	1.02%	3,413	0	0.0%	---	10.2	12	10.9%	9.3%
C	TSLA	2018-08-31	\$250.00	9	\$60.05	\$115.48	\$76.16	\$3.23	0.92%	3,413	0	0.0%	---	2.7	4	185.2%	125.0%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
C	TSLA	2018-08-31	\$260.00	6	\$53.20	\$59.24	\$56.22	\$3.11	0.88%	3,510	0	0.0%	---	1.0	1	333.3%	333.3%
C	TSLA	2018-08-31	\$265.00	2	\$56.50	\$56.50	\$56.50	\$3.04	0.86%	3,510	0	0.0%	---	4.2	6	26.5%	18.5%
C	TSLA	2018-08-31	\$270.00	4	\$44.20	\$44.20	\$44.20	\$2.95	0.84%	3,510	0	0.0%	---	37.4	41	5.9%	5.4%
C	TSLA	2018-08-31	\$280.00	103	\$37.49	\$79.12	\$73.99	\$2.73	0.77%	3,510	1	0.0%	0.09%	92.7	114	61.7%	50.2%
C	TSLA	2018-08-31	\$282.50	17	\$30.73	\$90.10	\$83.13	\$2.63	0.75%	3,510	0	0.0%	---	15.1	16	62.5%	59.0%
C	TSLA	2018-08-31	\$285.00	1	\$32.57	\$32.57	\$32.57	\$2.40	0.68%	3,510	0	0.0%	---	5.0	5	11.1%	11.1%
C	TSLA	2018-08-31	\$290.00	142	\$24.50	\$69.00	\$39.45	\$2.23	0.63%	3,510	0	0.0%	---	59.3	143	133.0%	55.2%
C	TSLA	2018-08-31	\$292.50	11	\$24.65	\$74.30	\$36.15	\$2.16	0.61%	3,510	0	0.0%	---	26.4	27	23.1%	22.6%
C	TSLA	2018-08-31	\$295.00	20	\$21.66	\$68.00	\$51.67	\$2.07	0.59%	3,510	0	0.0%	---	69.1	74	16.1%	15.0%
C	TSLA	2018-08-31	\$297.50	46	\$19.15	\$80.50	\$25.04	\$1.99	0.56%	3,413	0	0.0%	---	50.7	52	50.4%	49.1%
C	TSLA	2018-08-31	\$300.00	333	\$18.00	\$82.40	\$43.80	\$1.91	0.54%	3,510	0	0.0%	---	146.3	183	126.5%	101.1%
C	TSLA	2018-08-31	\$302.50	143	\$16.50	\$78.30	\$25.32	\$1.89	0.53%	3,510	0	0.0%	---	32.4	99	245.2%	80.2%
C	TSLA	2018-08-31	\$305.00	141	\$14.90	\$77.81	\$19.86	\$1.83	0.52%	3,510	0	0.0%	---	128.5	212	61.0%	36.9%
C	TSLA	2018-08-31	\$307.50	272	\$13.65	\$47.70	\$14.92	\$1.78	0.50%	3,510	0	0.0%	---	37.5	141	403.0%	107.2%
C	TSLA	2018-08-31	\$310.00	866	\$12.31	\$66.35	\$16.80	\$1.69	0.48%	3,510	0	0.0%	---	103.8	454	463.5%	106.0%
C	TSLA	2018-08-31	\$312.50	255	\$11.50	\$29.15	\$14.00	\$1.64	0.46%	3,510	0	0.0%	---	35.8	203	395.7%	69.8%
C	TSLA	2018-08-31	\$315.00	320	\$10.20	\$50.00	\$16.86	\$1.58	0.44%	3,510	0	0.0%	---	212.5	297	83.7%	59.9%
C	TSLA	2018-08-31	\$317.50	112	\$9.10	\$67.60	\$19.71	\$1.50	0.42%	3,510	0	0.0%	---	126.7	164	49.1%	37.9%
C	TSLA	2018-08-31	\$320.00	1,125	\$8.20	\$60.88	\$22.54	\$1.44	0.40%	3,510	1	0.0%	0.04%	400.3	676	156.1%	92.5%
C	TSLA	2018-08-31	\$322.50	47	\$7.44	\$57.90	\$22.58	\$1.38	0.39%	3,510	0	0.0%	---	38.5	40	67.8%	65.3%
C	TSLA	2018-08-31	\$325.00	270	\$6.90	\$56.74	\$15.30	\$1.33	0.37%	3,510	0	0.0%	---	102.7	180	146.1%	83.3%
C	TSLA	2018-08-31	\$327.50	121	\$6.20	\$48.25	\$13.40	\$1.28	0.36%	3,510	0	0.0%	---	26.0	57	258.5%	117.9%
C	TSLA	2018-08-31	\$330.00	428	\$5.30	\$51.00	\$18.81	\$1.22	0.34%	3,413	2	0.1%	0.05%	179.9	218	132.2%	109.1%
C	TSLA	2018-08-31	\$332.50	124	\$4.90	\$55.00	\$13.65	\$1.01	0.28%	3,510	1	0.0%	0.01%	35.7	72	193.0%	95.7%
C	TSLA	2018-08-31	\$335.00	418	\$4.39	\$50.55	\$13.81	\$0.96	0.27%	3,510	0	0.0%	---	191.0	246	121.6%	94.4%
C	TSLA	2018-08-31	\$337.50	178	\$3.90	\$48.39	\$12.89	\$0.92	0.26%	3,510	3	0.1%	0.01%	58.9	96	167.9%	103.0%
C	TSLA	2018-08-31	\$340.00	1,080	\$3.36	\$48.00	\$10.50	\$0.85	0.24%	3,509	2	0.1%	0.01%	344.9	615	174.0%	97.6%
C	TSLA	2018-08-31	\$342.50	342	\$3.00	\$40.57	\$16.57	\$0.84	0.23%	3,510	4	0.1%	0.02%	121.6	197	156.3%	96.4%
C	TSLA	2018-08-31	\$345.00	682	\$2.73	\$42.70	\$15.03	\$0.79	0.22%	3,510	5	0.1%	0.01%	193.1	306	196.2%	123.8%
C	TSLA	2018-08-31	\$347.50	432	\$2.49	\$40.13	\$10.60	\$0.78	0.22%	3,510	3	0.1%	0.01%	96.2	182	249.5%	131.9%
C	TSLA	2018-08-31	\$350.00	1,779	\$2.18	\$38.19	\$12.81	\$0.71	0.20%	3,510	9	0.3%	0.01%	390.2	570	253.3%	173.4%
C	TSLA	2018-08-31	\$352.50	795	\$1.96	\$35.30	\$12.02	\$0.72	0.20%	3,510	3	0.1%	0.02%	194.1	237	227.5%	186.4%
C	TSLA	2018-08-31	\$355.00	929	\$1.70	\$35.00	\$12.20	\$0.68	0.19%	3,510	7	0.2%	0.02%	144.4	202	357.4%	255.5%
C	TSLA	2018-08-31	\$357.50	727	\$1.53	\$30.14	\$12.52	\$0.66	0.19%	3,510	4	0.1%	0.03%	353.4	402	114.3%	100.5%
C	TSLA	2018-08-31	\$360.00	3,088	\$1.31	\$31.50	\$9.89	\$1.56	0.43%	3,510	8	0.2%	0.02%	687.3	1,224	249.6%	140.2%
C	TSLA	2018-08-31	\$362.50	188	\$1.34	\$25.80	\$11.51	\$0.42	0.12%	3,120	3	0.1%	0.02%	47.6	80	247.1%	146.9%
C	TSLA	2018-08-31	\$365.00	665	\$1.10	\$28.18	\$11.38	\$0.59	0.17%	3,510	3	0.1%	0.01%	218.4	248	169.2%	149.0%
C	TSLA	2018-08-31	\$367.50	161	\$1.00	\$19.23	\$11.30	\$0.41	0.12%	3,120	1	0.0%	0.01%	41.1	61	244.8%	165.0%
C	TSLA	2018-08-31	\$370.00	1,744	\$0.85	\$27.95	\$9.14	\$0.55	0.15%	3,510	2	0.1%	0.01%	382.6	563	253.2%	172.1%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open Interest
C	TSLA	2018-08-31	\$372.50	351	\$0.74	\$21.96	\$8.08	\$0.38	0.11%	3,120	0	0.0%	---	114.3	193	191.9%	113.7%
C	TSLA	2018-08-31	\$375.00	1,095	\$0.67	\$31.05	\$8.59	\$0.54	0.15%	3,510	0	0.0%	---	308.0	400	197.5%	152.1%
C	TSLA	2018-08-31	\$377.50	156	\$0.61	\$19.00	\$7.51	\$0.36	0.10%	3,120	0	0.0%	---	37.1	53	262.7%	184.0%
C	TSLA	2018-08-31	\$380.00	2,450	\$0.54	\$22.00	\$6.13	\$0.51	0.14%	3,510	0	0.0%	---	1,219.2	1,401	111.6%	97.2%
C	TSLA	2018-08-31	\$382.50	248	\$0.53	\$17.05	\$6.95	\$0.37	0.10%	3,120	0	0.0%	---	103.7	162	149.5%	95.7%
C	TSLA	2018-08-31	\$385.00	857	\$0.42	\$20.00	\$7.27	\$0.53	0.15%	3,510	0	0.0%	---	295.1	353	161.3%	134.9%
C	TSLA	2018-08-31	\$387.50	355	\$0.44	\$13.75	\$7.84	\$0.35	0.10%	3,120	0	0.0%	---	137.8	191	161.0%	116.2%
C	TSLA	2018-08-31	\$390.00	1,094	\$0.37	\$17.00	\$3.92	\$0.51	0.14%	3,510	0	0.0%	---	302.7	500	200.8%	121.6%
C	TSLA	2018-08-31	\$392.50	233	\$0.36	\$12.10	\$1.13	\$0.35	0.10%	3,120	0	0.0%	---	40.6	214	359.1%	68.0%
C	TSLA	2018-08-31	\$395.00	1,222	\$0.32	\$11.65	\$4.06	\$0.66	0.18%	3,510	0	0.0%	---	324.5	473	209.2%	143.5%
C	TSLA	2018-08-31	\$397.50	640	\$0.33	\$8.50	\$3.55	\$0.32	0.09%	3,120	0	0.0%	---	213.6	322	187.3%	124.2%
C	TSLA	2018-08-31	\$400.00	2,832	\$0.25	\$15.00	\$3.34	\$0.41	0.11%	3,510	0	0.0%	---	1,170.2	1,462	134.4%	107.6%
C	TSLA	2018-08-31	\$402.50	247	\$0.30	\$3.35	\$2.48	\$0.26	0.08%	2,730	0	0.0%	---	188.1	235	93.8%	75.1%
C	TSLA	2018-08-31	\$405.00	696	\$0.21	\$10.00	\$3.29	\$0.50	0.14%	3,510	0	0.0%	---	342.9	442	112.8%	87.5%
C	TSLA	2018-08-31	\$407.50	26	\$1.49	\$2.40	\$2.13	\$0.31	0.09%	2,730	0	0.0%	---	11.6	16	159.8%	116.1%
C	TSLA	2018-08-31	\$410.00	1,970	\$0.19	\$6.50	\$2.53	\$0.43	0.12%	3,510	0	0.0%	---	890.6	1,091	122.9%	100.3%
C	TSLA	2018-08-31	\$415.00	357	\$0.17	\$10.14	\$4.24	\$0.43	0.12%	3,510	0	0.0%	---	223.3	270	88.8%	73.5%
C	TSLA	2018-08-31	\$420.00	2,728	\$0.10	\$5.60	\$1.56	\$0.24	0.07%	3,413	0	0.0%	---	847.3	1,093	178.9%	138.7%
C	TSLA	2018-08-31	\$425.00	454	\$0.10	\$5.20	\$1.18	\$0.46	0.13%	3,510	0	0.0%	---	272.3	371	92.6%	68.0%
C	TSLA	2018-08-31	\$430.00	1,341	\$0.09	\$5.00	\$0.79	\$0.40	0.11%	3,510	0	0.0%	---	540.0	908	138.0%	82.0%
C	TSLA	2018-08-31	\$435.00	322	\$0.17	\$1.94	\$0.84	\$0.43	0.12%	3,510	0	0.0%	---	156.7	221	114.2%	80.9%
C	TSLA	2018-08-31	\$440.00	327	\$0.08	\$1.50	\$0.68	\$0.42	0.12%	3,510	0	0.0%	---	159.0	215	114.3%	84.5%
C	TSLA	2018-08-31	\$445.00	168	\$0.12	\$1.75	\$0.75	\$0.37	0.10%	3,510	0	0.0%	---	86.4	96	108.0%	97.2%
C	TSLA	2018-08-31	\$450.00	797	\$0.03	\$1.53	\$1.14	\$0.39	0.11%	3,510	0	0.0%	---	596.7	690	74.2%	64.2%
C	TSLA	2018-08-31	\$455.00	2	\$0.18	\$0.23	\$0.21	\$0.46	0.13%	3,510	0	0.0%	---	16.9	17	6.6%	6.5%
C	TSLA	2018-08-31	\$460.00	62	\$0.11	\$0.90	\$0.40	\$0.39	0.11%	3,510	0	0.0%	---	46.2	55	74.6%	62.6%
C	TSLA	2018-08-31	\$465.00	72	\$0.05	\$0.77	\$0.67	\$0.40	0.11%	3,510	0	0.0%	---	55.7	62	71.8%	64.5%
C	TSLA	2018-08-31	\$550.00	54	\$0.01	\$0.15	\$0.04	\$0.12	0.03%	3,510	0	0.0%	---	14.3	50	209.8%	60.0%
C	TSLA	2018-09-07	\$240.00	6	\$68.35	\$132.33	\$105.91	\$3.11	0.88%	3,510	0	0.0%	---	2.8	4	119.0%	83.3%
C	TSLA	2018-09-07	\$245.00	11	\$118.50	\$118.50	\$118.50	\$3.05	0.87%	3,510	0	0.0%	---	1.1	11	555.6%	55.6%
C	TSLA	2018-09-07	\$250.00	23	\$60.00	\$70.00	\$67.66	\$2.99	0.85%	3,510	0	0.0%	---	11.1	21	115.1%	60.8%
C	TSLA	2018-09-07	\$270.00	5	\$108.50	\$108.50	\$108.50	\$2.66	0.76%	3,510	0	0.0%	---	17.0	21	16.3%	13.2%
C	TSLA	2018-09-07	\$280.00	8	\$36.43	\$84.85	\$72.92	\$2.40	0.68%	3,510	0	0.0%	---	0.8	6	555.6%	74.1%
C	TSLA	2018-09-07	\$282.50	1	\$86.50	\$86.50	\$86.50	\$2.34	0.66%	3,510	0	0.0%	---	1.0	1	55.6%	55.6%
C	TSLA	2018-09-07	\$290.00	8	\$27.50	\$93.44	\$53.91	\$1.98	0.56%	3,510	0	0.0%	---	20.1	24	22.1%	18.5%
C	TSLA	2018-09-07	\$292.50	3	\$30.12	\$65.23	\$49.03	\$1.93	0.55%	3,510	0	0.0%	---	22.7	23	7.3%	7.2%
C	TSLA	2018-09-07	\$295.00	24	\$24.20	\$77.80	\$46.81	\$1.87	0.53%	3,510	0	0.0%	---	38.9	42	34.3%	31.7%
C	TSLA	2018-09-07	\$297.50	31	\$25.30	\$82.45	\$49.19	\$1.83	0.52%	3,510	0	0.0%	---	28.7	34	60.0%	50.7%
C	TSLA	2018-09-07	\$300.00	233	\$20.20	\$82.00	\$36.91	\$1.77	0.50%	3,510	1	0.0%	0.01%	53.4	150	242.4%	86.3%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open Interest
C	TSLA	2018-09-07	\$302.50	5	\$18.90	\$80.79	\$31.45	\$1.73	0.49%	3,510	0	0.0%	---	13.3	16	20.9%	17.4%
C	TSLA	2018-09-07	\$305.00	78	\$17.55	\$78.21	\$26.34	\$1.68	0.47%	3,510	0	0.0%	---	54.2	84	80.0%	51.6%
C	TSLA	2018-09-07	\$307.50	69	\$16.35	\$53.50	\$20.23	\$1.62	0.46%	3,510	0	0.0%	---	8.1	42	473.3%	91.3%
C	TSLA	2018-09-07	\$310.00	153	\$15.20	\$67.43	\$32.52	\$1.57	0.44%	3,510	2	0.1%	0.06%	92.4	120	92.0%	70.8%
C	TSLA	2018-09-07	\$312.50	61	\$13.76	\$51.70	\$23.93	\$1.53	0.43%	3,510	0	0.0%	---	16.3	37	207.9%	91.6%
C	TSLA	2018-09-07	\$315.00	124	\$12.70	\$61.35	\$17.89	\$1.47	0.41%	3,510	4	0.1%	0.02%	45.4	82	151.7%	84.0%
C	TSLA	2018-09-07	\$317.50	32	\$11.79	\$57.80	\$36.40	\$1.43	0.40%	3,510	2	0.1%	0.01%	26.7	33	66.6%	53.9%
C	TSLA	2018-09-07	\$320.00	178	\$11.00	\$58.95	\$14.59	\$1.37	0.39%	3,510	2	0.1%	0.01%	42.2	164	234.3%	60.3%
C	TSLA	2018-09-07	\$322.50	91	\$9.50	\$46.65	\$18.00	\$1.33	0.37%	3,510	4	0.1%	0.01%	23.7	69	213.3%	73.3%
C	TSLA	2018-09-07	\$325.00	157	\$8.80	\$57.40	\$14.28	\$1.28	0.36%	3,510	4	0.1%	0.02%	32.0	135	272.6%	64.6%
C	TSLA	2018-09-07	\$327.50	46	\$8.00	\$53.81	\$22.01	\$1.23	0.35%	3,510	5	0.1%	0.01%	30.1	54	84.9%	47.3%
C	TSLA	2018-09-07	\$330.00	384	\$7.15	\$55.15	\$15.51	\$1.18	0.33%	3,413	12	0.4%	0.02%	76.5	236	278.9%	90.4%
C	TSLA	2018-09-07	\$332.50	143	\$6.70	\$49.70	\$10.02	\$0.98	0.28%	3,510	13	0.4%	0.01%	47.0	155	169.0%	51.3%
C	TSLA	2018-09-07	\$335.00	268	\$6.00	\$50.20	\$18.02	\$0.94	0.26%	3,510	14	0.4%	0.02%	77.2	163	192.9%	91.3%
C	TSLA	2018-09-07	\$337.50	297	\$5.40	\$48.13	\$13.19	\$0.91	0.25%	3,510	16	0.5%	0.01%	33.1	149	498.5%	110.7%
C	TSLA	2018-09-07	\$340.00	421	\$4.70	\$45.25	\$19.32	\$0.87	0.25%	3,510	23	0.7%	0.01%	189.5	231	123.4%	101.3%
C	TSLA	2018-09-07	\$342.50	276	\$4.44	\$27.75	\$9.89	\$0.53	0.15%	2,730	24	0.9%	0.01%	39.8	128	496.0%	154.0%
C	TSLA	2018-09-07	\$345.00	445	\$3.95	\$41.27	\$15.67	\$0.81	0.23%	3,510	25	0.7%	0.01%	117.9	210	209.7%	117.7%
C	TSLA	2018-09-07	\$347.50	136	\$3.65	\$24.03	\$14.94	\$0.50	0.14%	2,730	26	1.0%	0.02%	43.9	87	221.4%	111.7%
C	TSLA	2018-09-07	\$350.00	1,126	\$3.15	\$39.80	\$18.88	\$0.75	0.21%	3,510	28	0.8%	0.02%	347.6	486	180.0%	128.7%
C	TSLA	2018-09-07	\$352.50	144	\$2.98	\$29.15	\$16.44	\$0.51	0.15%	3,120	20	0.6%	0.01%	45.7	71	197.1%	126.8%
C	TSLA	2018-09-07	\$355.00	509	\$2.60	\$35.85	\$14.36	\$0.73	0.21%	3,510	23	0.7%	0.02%	94.3	200	299.9%	141.4%
C	TSLA	2018-09-07	\$357.50	305	\$2.32	\$25.90	\$16.97	\$0.48	0.14%	3,120	17	0.5%	0.02%	79.4	137	239.9%	139.1%
C	TSLA	2018-09-07	\$360.00	1,682	\$2.00	\$38.30	\$13.13	\$0.69	0.19%	3,510	19	0.5%	0.02%	301.1	482	310.3%	193.9%
C	TSLA	2018-09-07	\$362.50	125	\$2.00	\$26.26	\$6.87	\$0.46	0.13%	3,120	10	0.3%	0.01%	26.4	89	295.4%	87.8%
C	TSLA	2018-09-07	\$365.00	434	\$1.71	\$30.00	\$13.43	\$0.55	0.15%	3,413	9	0.3%	0.01%	123.3	157	195.5%	153.6%
C	TSLA	2018-09-07	\$367.50	36	\$1.50	\$13.90	\$5.16	\$0.44	0.13%	3,120	10	0.3%	0.01%	6.6	16	343.2%	140.6%
C	TSLA	2018-09-07	\$370.00	791	\$1.36	\$31.85	\$10.87	\$0.61	0.17%	3,510	6	0.2%	0.03%	184.1	245	238.7%	179.4%
C	TSLA	2018-09-07	\$372.50	68	\$1.20	\$22.10	\$12.59	\$0.43	0.12%	3,120	4	0.1%	0.02%	33.7	55	126.2%	77.3%
C	TSLA	2018-09-07	\$375.00	791	\$1.10	\$26.20	\$10.88	\$0.60	0.17%	3,510	4	0.1%	0.02%	295.6	351	148.7%	125.2%
C	TSLA	2018-09-07	\$377.50	178	\$1.00	\$19.35	\$13.24	\$0.41	0.12%	3,120	2	0.1%	0.02%	103.4	132	107.5%	84.3%
C	TSLA	2018-09-07	\$380.00	1,103	\$0.90	\$24.00	\$7.79	\$0.58	0.16%	3,510	2	0.1%	0.01%	300.7	546	203.8%	112.2%
C	TSLA	2018-09-07	\$382.50	294	\$0.83	\$15.85	\$4.04	\$0.40	0.12%	3,120	0	0.0%	---	57.6	212	319.3%	86.7%
C	TSLA	2018-09-07	\$385.00	224	\$0.75	\$18.00	\$7.27	\$0.60	0.17%	3,510	1	0.0%	0.02%	109.5	144	113.6%	86.4%
C	TSLA	2018-09-07	\$387.50	55	\$1.63	\$12.75	\$4.41	\$0.40	0.11%	3,120	1	0.0%	0.02%	19.8	44	173.8%	78.1%
C	TSLA	2018-09-07	\$390.00	590	\$0.67	\$16.17	\$5.53	\$0.56	0.16%	3,510	1	0.0%	0.01%	166.0	259	197.5%	126.6%
C	TSLA	2018-09-07	\$392.50	320	\$0.51	\$11.25	\$3.03	\$0.40	0.11%	3,120	1	0.0%	0.01%	106.6	160	187.7%	125.0%
C	TSLA	2018-09-07	\$395.00	146	\$0.52	\$12.77	\$5.40	\$0.49	0.14%	3,413	0	0.0%	---	56.8	76	142.8%	106.7%
C	TSLA	2018-09-07	\$397.50	45	\$0.55	\$10.40	\$6.03	\$0.38	0.11%	3,120	0	0.0%	---	20.2	24	139.1%	117.2%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open Interest
C	TSLA	2018-09-07	\$400.00	6,085	\$0.25	\$11.00	\$2.33	\$0.49	0.14%	3,510	0	0.0%	---	970.7	1,866	348.3%	181.2%
C	TSLA	2018-09-07	\$402.50	467	\$0.78	\$3.46	\$1.55	\$0.35	0.10%	2,730	0	0.0%	---	103.3	185	323.1%	180.3%
C	TSLA	2018-09-07	\$405.00	429	\$0.36	\$9.88	\$4.68	\$0.57	0.16%	3,510	0	0.0%	---	191.2	207	124.7%	115.1%
C	TSLA	2018-09-07	\$407.50	24	\$0.50	\$3.23	\$1.78	\$0.37	0.11%	2,730	0	0.0%	---	10.4	17	165.2%	100.8%
C	TSLA	2018-09-07	\$410.00	294	\$0.29	\$10.00	\$2.51	\$0.52	0.15%	3,510	0	0.0%	---	99.7	168	163.8%	97.2%
C	TSLA	2018-09-07	\$415.00	128	\$0.23	\$5.14	\$2.06	\$0.55	0.15%	3,510	0	0.0%	---	70.1	98	101.4%	72.6%
C	TSLA	2018-09-07	\$420.00	838	\$0.21	\$5.00	\$1.48	\$0.47	0.13%	3,510	0	0.0%	---	270.0	509	172.4%	91.5%
C	TSLA	2018-09-07	\$425.00	306	\$0.16	\$3.40	\$1.75	\$0.44	0.12%	3,413	0	0.0%	---	135.5	177	125.5%	96.0%
C	TSLA	2018-09-07	\$430.00	220	\$0.18	\$6.36	\$2.03	\$0.53	0.15%	3,510	0	0.0%	---	88.3	106	138.4%	115.3%
C	TSLA	2018-09-07	\$435.00	129	\$0.25	\$2.54	\$0.60	\$0.53	0.15%	3,510	0	0.0%	---	58.3	79	122.9%	90.7%
C	TSLA	2018-09-07	\$440.00	149	\$0.12	\$2.35	\$0.60	\$0.53	0.15%	3,510	0	0.0%	---	178.0	208	46.5%	39.8%
C	TSLA	2018-09-07	\$445.00	47	\$0.12	\$1.57	\$0.90	\$0.54	0.15%	3,510	0	0.0%	---	25.0	33	104.4%	79.1%
C	TSLA	2018-09-07	\$450.00	411	\$0.12	\$1.62	\$0.42	\$0.51	0.14%	3,510	0	0.0%	---	118.1	313	193.3%	72.9%
C	TSLA	2018-09-07	\$455.00	85	\$0.19	\$1.20	\$0.77	\$0.51	0.14%	3,510	0	0.0%	---	40.1	53	117.8%	89.1%
C	TSLA	2018-09-07	\$460.00	98	\$0.14	\$0.60	\$0.31	\$0.52	0.15%	3,510	0	0.0%	---	37.9	57	143.7%	95.5%
C	TSLA	2018-09-07	\$465.00	32	\$0.38	\$0.52	\$0.39	\$0.52	0.14%	3,510	0	0.0%	---	25.6	32	69.4%	55.6%
C	TSLA	2018-09-07	\$470.00	47	\$0.11	\$1.21	\$0.35	\$0.46	0.13%	3,510	0	0.0%	---	27.7	32	94.3%	81.6%
C	TSLA	2018-09-07	\$480.00	57	\$0.09	\$0.67	\$0.35	\$0.37	0.10%	3,510	0	0.0%	---	34.9	42	90.7%	75.4%
C	TSLA	2018-09-07	\$490.00	24	\$0.12	\$0.22	\$0.16	\$0.48	0.13%	3,510	0	0.0%	---	16.8	24	79.4%	55.6%
C	TSLA	2018-09-07	\$500.00	92	\$0.05	\$0.59	\$0.21	\$0.36	0.10%	3,510	0	0.0%	---	41.3	84	123.8%	60.8%
C	TSLA	2018-09-07	\$510.00	4	\$0.05	\$0.11	\$0.10	\$0.45	0.13%	3,510	0	0.0%	---	1.2	3	185.2%	74.1%
C	TSLA	2018-09-07	\$520.00	16	\$0.09	\$0.10	\$0.10	\$0.46	0.13%	3,510	0	0.0%	---	4.7	16	189.1%	55.6%
C	TSLA	2018-09-07	\$530.00	5	\$0.21	\$0.21	\$0.21	\$0.44	0.12%	3,510	0	0.0%	---	4.5	5	61.7%	55.6%
C	TSLA	2018-09-07	\$550.00	203	\$0.05	\$0.45	\$0.13	\$0.27	0.07%	3,510	0	0.0%	---	111.7	200	101.0%	56.4%
C	TSLA	2018-09-14	\$277.50	3	\$45.98	\$45.98	\$45.98	\$2.29	0.65%	3,510	0	0.0%	---	0.3	3	555.6%	55.6%
C	TSLA	2018-09-14	\$280.00	1	\$40.85	\$40.85	\$40.85	\$2.23	0.63%	3,413	0	0.0%	---	0.1	1	555.6%	55.6%
C	TSLA	2018-09-14	\$285.00	6	\$45.00	\$96.65	\$62.55	\$1.98	0.56%	3,510	1	0.0%	0.01%	1.6	2	208.3%	166.7%
C	TSLA	2018-09-14	\$290.00	12	\$30.10	\$35.60	\$32.89	\$1.90	0.54%	3,510	1	0.0%	0.03%	1.2	12	555.6%	55.6%
C	TSLA	2018-09-14	\$292.50	3	\$30.70	\$34.00	\$32.68	\$1.85	0.52%	3,510	1	0.0%	0.03%	0.2	2	833.3%	83.3%
C	TSLA	2018-09-14	\$295.00	2	\$26.88	\$32.35	\$29.62	\$1.79	0.51%	3,510	1	0.0%	0.01%	0.2	2	555.6%	55.6%
C	TSLA	2018-09-14	\$300.00	36	\$23.00	\$79.60	\$48.81	\$1.71	0.48%	3,510	5	0.1%	0.03%	8.0	17	250.0%	117.6%
C	TSLA	2018-09-14	\$302.50	16	\$21.73	\$81.45	\$29.36	\$1.66	0.47%	3,510	2	0.1%	0.02%	2.0	13	444.4%	68.4%
C	TSLA	2018-09-14	\$305.00	50	\$19.90	\$52.60	\$26.74	\$1.62	0.46%	3,510	4	0.1%	0.02%	14.8	34	187.7%	81.7%
C	TSLA	2018-09-14	\$307.50	49	\$18.92	\$39.15	\$21.27	\$1.58	0.44%	3,510	2	0.1%	0.02%	3.6	32	756.2%	85.1%
C	TSLA	2018-09-14	\$310.00	176	\$17.52	\$68.35	\$32.13	\$1.53	0.43%	3,510	3	0.1%	0.02%	45.9	70	213.0%	139.7%
C	TSLA	2018-09-14	\$312.50	49	\$16.30	\$52.27	\$21.10	\$1.50	0.42%	3,510	3	0.1%	0.02%	4.3	39	633.1%	69.8%
C	TSLA	2018-09-14	\$315.00	64	\$14.55	\$50.22	\$20.02	\$1.35	0.38%	3,510	8	0.2%	0.02%	4.9	48	725.6%	74.1%
C	TSLA	2018-09-14	\$317.50	18	\$14.15	\$19.90	\$18.81	\$1.41	0.40%	3,510	6	0.2%	0.02%	3.4	16	294.1%	62.5%
C	TSLA	2018-09-14	\$320.00	76	\$12.90	\$33.42	\$16.00	\$1.37	0.38%	3,510	8	0.2%	0.01%	9.1	47	464.0%	89.8%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open Interest
C	TSLA	2018-09-14	\$322.50	44	\$12.30	\$55.72	\$15.05	\$1.33	0.37%	3,510	10	0.3%	0.02%	10.2	48	239.7%	50.9%
C	TSLA	2018-09-14	\$325.00	100	\$10.95	\$42.00	\$18.39	\$1.29	0.36%	3,510	16	0.5%	0.02%	16.6	54	334.7%	102.9%
C	TSLA	2018-09-14	\$327.50	71	\$10.10	\$43.20	\$18.11	\$1.25	0.35%	3,510	14	0.4%	0.03%	30.2	50	130.6%	78.9%
C	TSLA	2018-09-14	\$330.00	161	\$9.00	\$52.00	\$15.75	\$1.20	0.34%	3,510	17	0.5%	0.02%	49.2	127	181.8%	70.4%
C	TSLA	2018-09-14	\$332.50	99	\$8.50	\$40.60	\$21.61	\$1.17	0.33%	3,510	27	0.8%	0.02%	15.4	42	357.1%	131.0%
C	TSLA	2018-09-14	\$335.00	94	\$7.68	\$47.51	\$18.18	\$0.98	0.28%	3,510	30	0.9%	0.02%	31.0	50	168.5%	104.4%
C	TSLA	2018-09-14	\$337.50	64	\$9.10	\$30.47	\$16.07	\$0.65	0.19%	2,730	35	1.3%	0.02%	9.8	25	468.9%	182.9%
C	TSLA	2018-09-14	\$340.00	232	\$6.25	\$47.88	\$16.62	\$0.92	0.26%	3,510	32	0.9%	0.02%	80.8	183	159.5%	70.4%
C	TSLA	2018-09-14	\$342.50	51	\$6.31	\$30.13	\$16.83	\$0.60	0.17%	2,730	38	1.4%	0.02%	10.0	31	364.3%	117.5%
C	TSLA	2018-09-14	\$345.00	119	\$5.31	\$41.78	\$19.66	\$0.87	0.25%	3,510	38	1.1%	0.02%	34.0	48	194.4%	137.7%
C	TSLA	2018-09-14	\$347.50	26	\$4.86	\$30.10	\$17.75	\$0.57	0.17%	2,730	54	2.0%	0.02%	8.5	15	218.5%	123.8%
C	TSLA	2018-09-14	\$350.00	778	\$4.37	\$42.00	\$20.14	\$0.78	0.22%	3,510	71	2.0%	0.02%	174.4	306	247.8%	141.2%
C	TSLA	2018-09-14	\$352.50	77	\$4.20	\$26.05	\$15.78	\$0.58	0.17%	3,120	54	1.7%	0.02%	26.0	53	185.1%	90.8%
C	TSLA	2018-09-14	\$355.00	348	\$3.65	\$38.76	\$18.48	\$0.80	0.22%	3,510	69	2.0%	0.02%	105.1	190	184.0%	101.8%
C	TSLA	2018-09-14	\$357.50	146	\$3.50	\$34.90	\$20.41	\$0.55	0.16%	3,120	59	1.9%	0.02%	51.7	69	176.6%	132.2%
C	TSLA	2018-09-14	\$360.00	613	\$2.82	\$34.67	\$16.52	\$0.73	0.21%	3,510	59	1.7%	0.02%	161.5	255	210.9%	133.6%
C	TSLA	2018-09-14	\$362.50	76	\$2.75	\$28.90	\$18.17	\$0.53	0.15%	3,120	49	1.6%	0.02%	14.6	22	326.3%	215.9%
C	TSLA	2018-09-14	\$365.00	334	\$2.45	\$30.93	\$16.08	\$0.75	0.21%	3,510	37	1.1%	0.02%	52.9	81	350.8%	229.1%
C	TSLA	2018-09-14	\$367.50	28	\$3.30	\$23.64	\$17.45	\$0.51	0.15%	3,120	27	0.9%	0.02%	17.9	23	97.8%	76.1%
C	TSLA	2018-09-14	\$370.00	564	\$1.94	\$27.65	\$15.49	\$0.67	0.19%	3,510	27	0.8%	0.02%	229.9	284	136.3%	110.3%
C	TSLA	2018-09-14	\$372.50	260	\$1.74	\$23.28	\$18.74	\$0.49	0.14%	3,120	23	0.7%	0.02%	157.9	187	102.9%	86.9%
C	TSLA	2018-09-14	\$375.00	743	\$1.58	\$24.10	\$11.27	\$0.66	0.19%	3,510	27	0.8%	0.02%	165.4	243	249.6%	169.9%
C	TSLA	2018-09-14	\$377.50	200	\$1.58	\$20.60	\$10.34	\$0.47	0.13%	3,120	17	0.5%	0.01%	79.8	104	156.7%	120.2%
C	TSLA	2018-09-14	\$380.00	701	\$1.40	\$21.65	\$10.73	\$0.64	0.18%	3,510	10	0.3%	0.02%	137.8	192	282.6%	202.8%
C	TSLA	2018-09-14	\$382.50	117	\$1.20	\$16.96	\$10.72	\$0.45	0.13%	3,120	9	0.3%	0.01%	46.8	66	156.3%	110.8%
C	TSLA	2018-09-14	\$385.00	136	\$1.10	\$18.80	\$9.83	\$0.66	0.19%	3,510	8	0.2%	0.03%	57.6	78	131.2%	96.9%
C	TSLA	2018-09-14	\$387.50	3	\$2.99	\$6.95	\$4.40	\$0.46	0.13%	3,120	2	0.1%	0.01%	1.2	3	153.4%	62.5%
C	TSLA	2018-09-14	\$390.00	231	\$1.00	\$16.20	\$7.10	\$0.64	0.18%	3,510	2	0.1%	0.02%	67.2	94	191.0%	136.5%
C	TSLA	2018-09-14	\$392.50	64	\$0.96	\$12.38	\$7.31	\$0.44	0.13%	3,120	1	0.0%	0.01%	26.8	38	149.4%	105.3%
C	TSLA	2018-09-14	\$395.00	199	\$1.05	\$15.00	\$6.23	\$0.65	0.18%	3,510	1	0.0%	0.04%	74.2	94	149.0%	117.6%
C	TSLA	2018-09-14	\$397.50	13	\$1.76	\$13.00	\$5.66	\$0.45	0.13%	3,120	0	0.0%	---	5.8	9	140.6%	90.3%
C	TSLA	2018-09-14	\$400.00	636	\$0.64	\$14.10	\$4.39	\$0.57	0.16%	3,510	0	0.0%	---	227.6	339	155.2%	104.2%
C	TSLA	2018-09-14	\$402.50	106	\$0.05	\$5.50	\$3.87	\$0.40	0.12%	2,730	0	0.0%	---	61.3	90	123.6%	84.1%
C	TSLA	2018-09-14	\$405.00	73	\$0.54	\$9.90	\$4.20	\$0.63	0.18%	3,510	1	0.0%	0.01%	29.2	46	138.9%	88.2%
C	TSLA	2018-09-14	\$407.50	69	\$1.40	\$4.03	\$3.55	\$0.41	0.12%	2,730	0	0.0%	---	50.0	69	98.6%	71.4%
C	TSLA	2018-09-14	\$410.00	347	\$0.44	\$7.00	\$3.08	\$0.60	0.17%	3,510	0	0.0%	---	111.2	179	173.4%	107.7%
C	TSLA	2018-09-14	\$415.00	178	\$0.41	\$8.15	\$4.38	\$0.61	0.17%	3,510	0	0.0%	---	110.3	148	89.7%	66.8%
C	TSLA	2018-09-14	\$420.00	235	\$0.35	\$4.90	\$2.32	\$0.61	0.17%	3,510	0	0.0%	---	89.1	138	146.5%	94.6%
C	TSLA	2018-09-14	\$425.00	241	\$0.28	\$4.75	\$1.61	\$0.61	0.17%	3,510	0	0.0%	---	90.5	147	147.9%	91.1%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
C	TSLA	2018-09-14	\$430.00	90	\$0.28	\$4.10	\$1.32	\$0.58	0.16%	3,510	0	0.0%	---	40.7	68	122.9%	73.5%
C	TSLA	2018-09-14	\$435.00	21	\$0.26	\$3.43	\$1.50	\$0.59	0.17%	3,510	0	0.0%	---	8.9	13	131.1%	89.7%
C	TSLA	2018-09-14	\$440.00	79	\$0.40	\$1.75	\$0.74	\$0.61	0.17%	3,510	0	0.0%	---	24.0	43	182.9%	102.1%
C	TSLA	2018-09-14	\$445.00	38	\$0.47	\$1.54	\$1.05	\$0.61	0.17%	3,510	0	0.0%	---	9.7	12	217.6%	175.9%
C	TSLA	2018-09-14	\$450.00	75	\$0.40	\$2.21	\$0.89	\$0.53	0.15%	3,510	0	0.0%	---	32.1	43	129.8%	96.9%
C	TSLA	2018-09-14	\$455.00	20	\$0.31	\$0.94	\$0.44	\$0.58	0.16%	3,510	0	0.0%	---	7.3	15	152.2%	74.1%
C	TSLA	2018-09-14	\$460.00	94	\$0.15	\$1.86	\$0.69	\$0.52	0.15%	3,510	0	0.0%	---	45.3	63	115.3%	82.9%
C	TSLA	2018-09-14	\$465.00	7	\$0.41	\$1.19	\$0.83	\$0.55	0.16%	3,510	0	0.0%	---	2.7	3	144.0%	129.6%
C	TSLA	2018-09-14	\$470.00	23	\$0.14	\$0.48	\$0.27	\$0.54	0.15%	3,510	0	0.0%	---	12.4	16	103.0%	79.9%
C	TSLA	2018-09-14	\$475.00	43	\$0.16	\$1.50	\$0.53	\$0.53	0.15%	3,510	0	0.0%	---	27.2	32	87.8%	74.7%
C	TSLA	2018-09-14	\$480.00	14	\$0.26	\$0.37	\$0.34	\$0.54	0.15%	3,510	0	0.0%	---	11.2	14	69.4%	55.6%
C	TSLA	2018-09-14	\$485.00	1	\$0.18	\$0.18	\$0.18	\$0.36	0.11%	2,340	0	0.0%	---	0.7	1	116.7%	83.3%
C	TSLA	2018-09-14	\$490.00	25	\$0.18	\$0.67	\$0.25	\$0.54	0.15%	3,510	0	0.0%	---	9.2	23	151.0%	60.4%
C	TSLA	2018-09-14	\$500.00	18	\$0.10	\$0.29	\$0.19	\$0.51	0.14%	3,510	0	0.0%	---	11.3	15	88.5%	66.7%
C	TSLA	2018-09-14	\$550.00	107	\$0.03	\$0.18	\$0.07	\$0.31	0.08%	3,510	0	0.0%	---	33.1	103	179.6%	57.7%
C	TSLA	2018-09-21	\$50.00	1	\$258.43	\$258.43	\$258.43	\$3.82	1.09%	3,510	0	0.0%	---	5.0	5	11.1%	11.1%
C	TSLA	2018-09-21	\$75.00	12	\$299.43	\$299.43	\$299.43	\$3.71	1.06%	3,413	0	0.0%	---	5.0	5	133.3%	133.3%
C	TSLA	2018-09-21	\$100.00	12	\$274.42	\$274.42	\$274.42	\$3.71	1.06%	3,510	0	0.0%	---	32.8	34	20.3%	19.6%
C	TSLA	2018-09-21	\$200.00	72	\$107.40	\$180.00	\$118.88	\$2.75	0.79%	3,413	3	0.1%	0.04%	173.4	227	23.1%	17.6%
C	TSLA	2018-09-21	\$205.00	1	\$103.50	\$103.50	\$103.50	\$3.19	0.91%	3,510	0	0.0%	---	2.0	2	27.8%	27.8%
C	TSLA	2018-09-21	\$210.00	2	\$145.11	\$145.11	\$145.11	\$3.14	0.89%	3,510	0	0.0%	---	13.0	13	8.5%	8.5%
C	TSLA	2018-09-21	\$215.00	1	\$160.24	\$160.24	\$160.24	\$3.09	0.88%	3,510	0	0.0%	---	2.0	2	27.8%	27.8%
C	TSLA	2018-09-21	\$220.00	3	\$133.00	\$135.30	\$134.53	\$3.05	0.87%	3,510	1	0.0%	0.03%	17.4	19	9.6%	8.8%
C	TSLA	2018-09-21	\$225.00	6	\$128.20	\$130.71	\$130.09	\$3.01	0.86%	3,510	2	0.1%	0.04%	5.0	5	66.7%	66.7%
C	TSLA	2018-09-21	\$230.00	40	\$107.35	\$152.00	\$135.04	\$2.94	0.84%	3,510	5	0.1%	0.02%	179.5	184	12.4%	12.1%
C	TSLA	2018-09-21	\$235.00	3	\$109.55	\$134.10	\$122.47	\$2.93	0.83%	3,510	0	0.0%	---	2.1	3	79.4%	55.6%
C	TSLA	2018-09-21	\$240.00	24	\$77.96	\$139.21	\$95.89	\$2.84	0.81%	3,510	3	0.1%	0.03%	167.8	172	7.9%	7.8%
C	TSLA	2018-09-21	\$245.00	12	\$99.80	\$119.00	\$117.40	\$2.75	0.78%	3,510	2	0.1%	0.06%	89.0	90	7.5%	7.4%
C	TSLA	2018-09-21	\$250.00	116	\$63.00	\$134.95	\$98.03	\$2.61	0.74%	3,510	10	0.3%	0.04%	284.8	303	22.6%	21.3%
C	TSLA	2018-09-21	\$255.00	13	\$62.35	\$129.42	\$93.01	\$2.53	0.72%	3,510	23	0.7%	0.02%	220.4	223	3.3%	3.2%
C	TSLA	2018-09-21	\$260.00	205	\$53.53	\$119.17	\$78.47	\$2.42	0.68%	3,510	35	1.0%	0.02%	373.9	471	30.5%	24.2%
C	TSLA	2018-09-21	\$265.00	28	\$49.96	\$115.98	\$63.14	\$2.30	0.65%	3,510	47	1.3%	0.02%	1,515.1	1,528	1.0%	1.0%
C	TSLA	2018-09-21	\$270.00	95	\$46.00	\$110.64	\$56.86	\$2.21	0.62%	3,510	55	1.6%	0.02%	331.0	362	15.9%	14.6%
C	TSLA	2018-09-21	\$275.00	41	\$42.42	\$105.26	\$85.39	\$2.11	0.59%	3,510	56	1.6%	0.03%	529.0	535	4.3%	4.3%
C	TSLA	2018-09-21	\$280.00	265	\$38.08	\$105.67	\$77.48	\$2.05	0.58%	3,510	90	2.6%	0.02%	634.2	656	23.2%	22.4%
C	TSLA	2018-09-21	\$285.00	324	\$34.00	\$95.10	\$63.15	\$1.80	0.51%	3,510	91	2.6%	0.02%	534.8	613	33.7%	29.4%
C	TSLA	2018-09-21	\$290.00	251	\$31.37	\$95.54	\$54.19	\$1.67	0.47%	3,510	235	6.7%	0.02%	794.1	839	17.6%	16.6%
C	TSLA	2018-09-21	\$295.00	176	\$28.15	\$88.78	\$46.72	\$1.59	0.45%	3,510	346	9.9%	0.02%	574.9	599	17.0%	16.3%
C	TSLA	2018-09-21	\$300.00	3,385	\$24.65	\$86.00	\$56.16	\$1.22	0.34%	3,413	461	13.5%	0.03%	4,135.9	5,277	45.5%	35.6%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
C	TSLA	2018-09-21	\$305.00	353	\$21.70	\$80.85	\$34.64	\$1.19	0.34%	3,413	447	13.1%	0.02%	596.0	697	32.9%	28.1%
C	TSLA	2018-09-21	\$310.00	1,750	\$18.90	\$76.00	\$31.56	\$1.14	0.32%	3,413	613	18.0%	0.02%	2,715.3	3,275	35.8%	29.7%
C	TSLA	2018-09-21	\$315.00	612	\$16.40	\$72.19	\$29.39	\$1.19	0.33%	3,510	809	23.0%	0.03%	500.9	662	67.9%	51.4%
C	TSLA	2018-09-21	\$320.00	3,998	\$14.21	\$70.00	\$34.13	\$0.96	0.27%	3,413	938	27.5%	0.03%	3,315.8	3,727	67.0%	59.6%
C	TSLA	2018-09-21	\$325.00	1,402	\$12.15	\$64.85	\$25.68	\$0.99	0.28%	3,510	1,230	35.0%	0.03%	2,154.1	2,328	36.2%	33.5%
C	TSLA	2018-09-21	\$330.00	9,961	\$10.34	\$59.90	\$26.74	\$0.90	0.25%	3,510	1,417	40.4%	0.03%	2,841.3	5,200	194.8%	106.4%
C	TSLA	2018-09-21	\$335.00	2,511	\$8.90	\$54.72	\$21.92	\$0.94	0.26%	3,510	1,505	42.9%	0.03%	954.9	1,680	146.1%	83.0%
C	TSLA	2018-09-21	\$340.00	5,264	\$7.35	\$55.00	\$20.65	\$2.21	0.61%	3,510	1,517	43.2%	0.04%	3,189.0	4,320	91.7%	67.7%
C	TSLA	2018-09-21	\$345.00	1,853	\$6.16	\$46.00	\$21.05	\$0.76	0.21%	3,510	1,517	43.2%	0.04%	1,397.9	1,500	73.6%	68.6%
C	TSLA	2018-09-21	\$350.00	8,889	\$5.15	\$45.00	\$21.47	\$1.49	0.41%	3,510	1,476	42.1%	0.04%	5,739.8	5,941	86.0%	83.1%
C	TSLA	2018-09-21	\$355.00	4,377	\$4.32	\$40.00	\$17.75	\$0.51	0.14%	3,412	1,310	38.4%	0.04%	1,965.5	2,200	123.7%	110.5%
C	TSLA	2018-09-21	\$360.00	10,498	\$3.52	\$36.00	\$18.42	\$0.43	0.12%	3,413	1,172	34.3%	0.04%	3,995.0	4,428	146.0%	131.7%
C	TSLA	2018-09-21	\$365.00	4,422	\$2.95	\$32.37	\$14.79	\$0.56	0.16%	3,510	845	24.1%	0.03%	1,620.7	1,823	151.6%	134.8%
C	TSLA	2018-09-21	\$370.00	8,889	\$2.44	\$31.44	\$14.20	\$0.76	0.21%	3,510	685	19.5%	0.03%	2,168.4	2,525	227.7%	195.6%
C	TSLA	2018-09-21	\$375.00	12,763	\$2.00	\$27.00	\$11.22	\$0.47	0.13%	3,413	499	14.6%	0.03%	3,537.0	4,590	200.5%	154.5%
C	TSLA	2018-09-21	\$380.00	15,088	\$1.61	\$24.80	\$9.02	\$0.29	0.08%	3,413	249	7.3%	0.03%	3,717.1	4,976	225.5%	168.5%
C	TSLA	2018-09-21	\$385.00	5,357	\$1.35	\$28.00	\$7.30	\$0.89	0.25%	3,413	159	4.7%	0.03%	1,878.7	2,739	158.4%	108.7%
C	TSLA	2018-09-21	\$390.00	9,557	\$0.88	\$19.00	\$8.93	\$0.81	0.22%	3,510	73	2.1%	0.02%	2,580.8	3,403	205.7%	156.0%
C	TSLA	2018-09-21	\$395.00	2,565	\$0.93	\$16.23	\$6.29	\$0.27	0.08%	3,413	46	1.3%	0.02%	674.8	812	211.2%	175.5%
C	TSLA	2018-09-21	\$400.00	26,746	\$0.50	\$14.80	\$5.64	\$0.50	0.14%	3,510	36	1.0%	0.02%	5,670.4	6,877	262.0%	216.1%
C	TSLA	2018-09-21	\$405.00	2,632	\$0.57	\$11.37	\$4.38	\$1.00	0.28%	3,508	13	0.4%	0.02%	825.2	1,021	177.2%	143.2%
C	TSLA	2018-09-21	\$410.00	12,500	\$0.56	\$10.00	\$3.46	\$0.44	0.12%	3,510	7	0.2%	0.02%	2,720.8	3,870	255.2%	179.4%
C	TSLA	2018-09-21	\$415.00	3,857	\$0.47	\$7.55	\$3.51	\$0.39	0.11%	3,510	4	0.1%	0.02%	990.3	1,533	216.4%	139.8%
C	TSLA	2018-09-21	\$420.00	12,509	\$0.32	\$6.90	\$2.47	\$0.29	0.08%	3,510	3	0.1%	0.02%	3,698.4	5,196	187.9%	133.7%
C	TSLA	2018-09-21	\$425.00	5,168	\$0.37	\$5.80	\$2.58	\$0.30	0.08%	3,510	1	0.0%	0.01%	2,009.2	2,703	142.9%	106.2%
C	TSLA	2018-09-21	\$430.00	5,148	\$0.31	\$4.65	\$2.31	\$0.32	0.09%	3,510	1	0.0%	0.01%	1,379.7	1,766	207.3%	161.9%
C	TSLA	2018-09-21	\$435.00	3,448	\$0.21	\$4.24	\$1.50	\$0.32	0.09%	3,509	0	0.0%	---	1,080.5	1,389	177.3%	137.9%
C	TSLA	2018-09-21	\$440.00	1,941	\$0.21	\$3.68	\$1.65	\$0.32	0.09%	3,510	0	0.0%	---	965.9	1,034	111.6%	104.3%
C	TSLA	2018-09-21	\$445.00	923	\$0.25	\$3.18	\$1.13	\$0.37	0.10%	3,510	0	0.0%	---	542.9	652	94.5%	78.6%
C	TSLA	2018-09-21	\$450.00	5,917	\$0.20	\$2.85	\$0.99	\$0.14	0.04%	3,413	0	0.0%	---	3,020.1	3,539	108.8%	92.9%
C	TSLA	2018-09-21	\$455.00	983	\$0.17	\$2.87	\$0.76	\$0.26	0.07%	3,510	0	0.0%	---	464.0	631	117.7%	86.5%
C	TSLA	2018-09-21	\$460.00	1,991	\$0.10	\$1.85	\$0.46	\$0.34	0.10%	3,510	0	0.0%	---	856.9	1,227	129.1%	90.1%
C	TSLA	2018-09-21	\$465.00	597	\$0.20	\$2.00	\$0.84	\$0.37	0.10%	3,510	0	0.0%	---	301.3	367	110.1%	90.4%
C	TSLA	2018-09-21	\$470.00	304	\$0.15	\$1.67	\$0.53	\$0.35	0.10%	3,510	0	0.0%	---	318.1	327	53.1%	51.6%
C	TSLA	2018-09-21	\$475.00	106	\$0.12	\$1.15	\$0.57	\$0.28	0.08%	3,413	0	0.0%	---	181.9	194	32.4%	30.4%
C	TSLA	2018-09-21	\$480.00	238	\$0.01	\$1.14	\$0.40	\$0.36	0.10%	3,510	0	0.0%	---	191.4	209	69.1%	63.3%
C	TSLA	2018-09-21	\$485.00	8	\$0.28	\$1.00	\$0.45	\$0.45	0.13%	3,510	0	0.0%	---	42.8	43	10.4%	10.3%
C	TSLA	2018-09-21	\$490.00	144	\$0.06	\$0.97	\$0.42	\$0.37	0.10%	3,510	0	0.0%	---	502.4	511	15.9%	15.7%
C	TSLA	2018-09-21	\$495.00	21	\$0.10	\$0.28	\$0.18	\$0.47	0.13%	3,510	0	0.0%	---	14.1	20	82.7%	58.3%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open Interest
C	TSLA	2018-09-21	\$500.00	3,538	\$0.08	\$1.99	\$0.35	\$0.10	0.03%	3,510	0	0.0%	---	3,501.3	4,033	56.1%	48.7%
C	TSLA	2018-09-21	\$505.00	21	\$0.09	\$0.49	\$0.22	\$0.44	0.12%	3,510	0	0.0%	---	7.0	10	166.7%	116.7%
C	TSLA	2018-09-21	\$510.00	16	\$0.08	\$0.48	\$0.18	\$0.47	0.13%	3,510	0	0.0%	---	33.0	33	26.9%	26.9%
C	TSLA	2018-09-21	\$520.00	344	\$0.04	\$0.62	\$0.16	\$0.18	0.05%	3,510	0	0.0%	---	1,691.0	1,722	11.3%	11.1%
C	TSLA	2018-09-21	\$525.00	839	\$0.03	\$0.40	\$0.14	\$0.21	0.06%	3,510	0	0.0%	---	716.4	919	65.1%	50.7%
C	TSLA	2018-09-21	\$550.00	61	\$0.04	\$0.20	\$0.07	\$0.33	0.09%	3,510	0	0.0%	---	56.0	102	60.5%	33.2%
C	TSLA	2018-09-21	\$570.00	4	\$0.07	\$0.17	\$0.11	\$0.35	0.10%	3,510	0	0.0%	---	3.6	4	61.7%	55.6%
C	TSLA	2018-09-21	\$580.00	610	\$0.01	\$0.25	\$0.07	\$0.18	0.05%	3,510	0	0.0%	---	192.5	519	176.0%	65.3%
C	TSLA	2018-09-21	\$590.00	1	\$0.10	\$0.10	\$0.10	\$0.34	0.09%	3,510	0	0.0%	---	0.6	1	92.6%	55.6%
C	TSLA	2018-09-21	\$600.00	8,983	\$0.02	\$0.12	\$0.03	\$0.19	0.05%	3,510	0	0.0%	---	1,845.1	8,786	270.5%	56.8%
C	TSLA	2018-09-28	\$250.00	1	\$113.47	\$113.47	\$113.47	\$1.99	0.59%	1,950	5	0.3%	0.02%	0.8	1	120.0%	100.0%
C	TSLA	2018-09-28	\$270.00	1	\$50.26	\$50.26	\$50.26	\$1.69	0.49%	2,340	48	2.1%	0.02%	0.1	1	583.3%	83.3%
C	TSLA	2018-09-28	\$280.00	7	\$45.61	\$81.96	\$76.77	\$2.05	0.59%	2,730	36	1.3%	0.02%	5.4	7	93.0%	71.4%
C	TSLA	2018-09-28	\$285.00	1	\$72.00	\$72.00	\$72.00	\$1.98	0.57%	2,730	53	1.9%	0.02%	0.9	1	81.6%	71.4%
C	TSLA	2018-09-28	\$290.00	1	\$34.60	\$34.60	\$34.60	\$1.92	0.55%	2,730	80	2.9%	0.02%	0.1	1	571.4%	71.4%
C	TSLA	2018-09-28	\$295.00	5	\$30.45	\$32.08	\$30.78	\$1.86	0.53%	2,730	93	3.4%	0.03%	0.5	4	714.3%	89.3%
C	TSLA	2018-09-28	\$300.00	47	\$26.59	\$68.11	\$40.26	\$1.80	0.52%	2,730	135	4.9%	0.02%	11.6	36	288.8%	93.3%
C	TSLA	2018-09-28	\$305.00	33	\$24.13	\$30.75	\$28.18	\$1.73	0.50%	2,730	176	6.4%	0.02%	4.0	32	589.3%	73.7%
C	TSLA	2018-09-28	\$310.00	75	\$20.84	\$55.10	\$25.88	\$1.66	0.48%	2,730	252	9.2%	0.02%	11.1	71	481.5%	75.5%
C	TSLA	2018-09-28	\$315.00	62	\$18.75	\$37.05	\$23.57	\$1.58	0.45%	2,730	351	12.9%	0.02%	10.1	54	437.4%	82.0%
C	TSLA	2018-09-28	\$320.00	98	\$16.00	\$49.46	\$31.37	\$1.52	0.44%	2,730	426	15.6%	0.02%	26.4	71	265.4%	98.6%
C	TSLA	2018-09-28	\$325.00	93	\$14.27	\$45.82	\$17.91	\$1.46	0.42%	2,730	525	19.2%	0.03%	13.8	83	483.1%	80.0%
C	TSLA	2018-09-28	\$330.00	549	\$11.94	\$40.03	\$21.76	\$1.38	0.40%	2,730	607	22.2%	0.03%	58.9	251	666.1%	156.2%
C	TSLA	2018-09-28	\$335.00	70	\$10.45	\$36.73	\$17.72	\$1.35	0.39%	2,730	617	22.6%	0.03%	11.6	42	430.1%	119.0%
C	TSLA	2018-09-28	\$337.50	47	\$10.00	\$33.90	\$17.08	\$1.31	0.38%	2,730	618	22.6%	0.03%	7.6	24	440.3%	139.9%
C	TSLA	2018-09-28	\$340.00	102	\$8.95	\$35.65	\$16.94	\$1.29	0.37%	2,730	623	22.8%	0.03%	16.3	60	448.4%	121.4%
C	TSLA	2018-09-28	\$342.50	19	\$8.40	\$29.00	\$13.18	\$1.27	0.36%	2,730	585	21.4%	0.03%	2.8	15	493.5%	90.5%
C	TSLA	2018-09-28	\$345.00	53	\$7.41	\$32.60	\$17.24	\$1.25	0.36%	2,730	578	21.2%	0.03%	10.8	26	352.2%	145.6%
C	TSLA	2018-09-28	\$347.50	14	\$7.11	\$29.70	\$17.03	\$1.24	0.35%	2,730	552	20.2%	0.03%	3.3	9	307.7%	111.1%
C	TSLA	2018-09-28	\$350.00	537	\$6.25	\$32.10	\$18.80	\$1.18	0.34%	2,730	547	20.0%	0.03%	120.0	221	319.6%	173.6%
C	TSLA	2018-09-28	\$352.50	31	\$5.85	\$26.85	\$18.77	\$1.22	0.35%	2,730	513	18.8%	0.03%	11.5	21	192.5%	105.4%
C	TSLA	2018-09-28	\$355.00	181	\$5.25	\$27.60	\$19.17	\$1.17	0.33%	2,730	550	20.1%	0.03%	50.5	80	256.0%	161.6%
C	TSLA	2018-09-28	\$357.50	23	\$5.03	\$26.05	\$16.93	\$1.18	0.34%	2,730	464	17.0%	0.03%	7.6	14	215.5%	117.3%
C	TSLA	2018-09-28	\$360.00	111	\$4.58	\$25.70	\$11.14	\$1.14	0.33%	2,730	434	15.9%	0.03%	25.4	67	312.5%	118.3%
C	TSLA	2018-09-28	\$362.50	34	\$5.23	\$22.80	\$18.39	\$1.13	0.32%	2,730	385	14.1%	0.03%	11.3	15	215.9%	161.9%
C	TSLA	2018-09-28	\$365.00	128	\$3.77	\$23.43	\$14.82	\$1.11	0.32%	2,730	334	12.2%	0.03%	39.4	85	232.2%	107.6%
C	TSLA	2018-09-28	\$367.50	41	\$3.54	\$19.10	\$14.07	\$1.12	0.32%	2,730	281	10.3%	0.03%	18.4	34	159.4%	86.1%
C	TSLA	2018-09-28	\$370.00	103	\$3.39	\$20.00	\$10.93	\$1.10	0.31%	2,730	222	8.1%	0.03%	26.1	62	281.6%	118.7%
C	TSLA	2018-09-28	\$372.50	25	\$3.40	\$16.65	\$10.38	\$1.10	0.31%	2,730	182	6.7%	0.03%	9.4	23	190.5%	77.6%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open Interest
C	TSLA	2018-09-28	\$375.00	135	\$2.60	\$16.50	\$6.36	\$1.08	0.31%	2,730	147	5.4%	0.03%	28.0	88	344.4%	109.6%
C	TSLA	2018-09-28	\$377.50	131	\$2.38	\$13.00	\$11.54	\$1.07	0.31%	2,730	120	4.4%	0.03%	60.8	122	154.0%	76.7%
C	TSLA	2018-09-28	\$380.00	84	\$2.05	\$16.25	\$6.73	\$1.04	0.30%	2,730	108	4.0%	0.03%	15.3	39	393.4%	153.8%
C	TSLA	2018-09-28	\$382.50	36	\$2.34	\$14.15	\$3.39	\$1.04	0.30%	2,730	83	3.0%	0.02%	5.8	30	447.2%	85.7%
C	TSLA	2018-09-28	\$385.00	160	\$1.79	\$14.00	\$8.32	\$1.01	0.29%	2,730	70	2.6%	0.02%	68.6	138	166.5%	82.8%
C	TSLA	2018-09-28	\$387.50	22	\$1.61	\$12.16	\$4.95	\$1.06	0.30%	2,730	44	1.6%	0.02%	4.5	10	349.2%	157.1%
C	TSLA	2018-09-28	\$390.00	53	\$1.60	\$13.40	\$6.96	\$1.01	0.29%	2,730	32	1.2%	0.02%	18.0	28	210.3%	135.2%
C	TSLA	2018-09-28	\$392.50	45	\$1.42	\$9.00	\$2.73	\$1.05	0.30%	2,730	24	0.9%	0.02%	7.4	33	435.8%	97.4%
C	TSLA	2018-09-28	\$395.00	55	\$1.40	\$9.70	\$6.71	\$0.98	0.28%	2,730	16	0.6%	0.02%	18.5	29	212.4%	135.5%
C	TSLA	2018-09-28	\$397.50	15	\$1.75	\$7.18	\$3.57	\$0.98	0.28%	2,730	14	0.5%	0.02%	4.3	11	252.1%	97.4%
C	TSLA	2018-09-28	\$400.00	166	\$1.10	\$9.85	\$4.69	\$0.88	0.25%	2,730	9	0.3%	0.02%	24.0	69	494.0%	171.8%
C	TSLA	2018-09-28	\$402.50	21	\$0.98	\$6.29	\$3.49	\$0.97	0.28%	2,730	4	0.1%	0.03%	5.4	11	279.1%	136.4%
C	TSLA	2018-09-28	\$405.00	21	\$0.85	\$5.87	\$3.87	\$0.96	0.27%	2,730	4	0.1%	0.02%	4.6	8	324.3%	187.5%
C	TSLA	2018-09-28	\$407.50	208	\$1.74	\$4.98	\$2.80	\$0.97	0.28%	2,730	3	0.1%	0.01%	48.3	103	307.9%	144.2%
C	TSLA	2018-09-28	\$410.00	32	\$0.74	\$5.55	\$2.71	\$0.96	0.28%	2,730	0	0.0%	---	9.4	23	243.8%	99.4%
C	TSLA	2018-09-28	\$415.00	124	\$0.70	\$4.93	\$2.66	\$0.95	0.27%	2,730	1	0.0%	0.01%	56.3	111	157.5%	79.8%
C	TSLA	2018-09-28	\$420.00	236	\$0.44	\$4.78	\$1.89	\$0.80	0.23%	2,730	0	0.0%	---	80.4	161	209.7%	104.7%
C	TSLA	2018-09-28	\$425.00	48	\$0.59	\$4.02	\$1.29	\$0.98	0.28%	2,730	0	0.0%	---	12.1	31	282.8%	110.6%
C	TSLA	2018-09-28	\$430.00	33	\$0.40	\$3.20	\$1.29	\$1.01	0.29%	2,730	0	0.0%	---	7.8	13	304.1%	181.3%
C	TSLA	2018-09-28	\$435.00	8	\$0.67	\$1.66	\$1.23	\$0.95	0.27%	2,730	0	0.0%	---	2.1	5	268.9%	114.3%
C	TSLA	2018-09-28	\$440.00	23	\$0.87	\$1.50	\$0.98	\$1.01	0.29%	2,730	0	0.0%	---	6.4	12	257.7%	136.9%
C	TSLA	2018-09-28	\$445.00	319	\$0.56	\$1.25	\$0.89	\$1.00	0.29%	2,730	0	0.0%	---	180.0	318	126.6%	71.7%
C	TSLA	2018-09-28	\$450.00	3	\$0.27	\$0.45	\$0.33	\$1.06	0.30%	2,730	0	0.0%	---	0.5	3	428.6%	71.4%
C	TSLA	2018-09-28	\$465.00	3	\$0.23	\$0.23	\$0.23	\$1.04	0.30%	2,730	0	0.0%	---	0.4	3	571.4%	71.4%
C	TSLA	2018-09-28	\$470.00	408	\$0.24	\$0.50	\$0.33	\$0.88	0.25%	2,730	0	0.0%	---	186.4	405	156.4%	72.0%
C	TSLA	2018-10-19	\$25.00	1	\$312.00	\$312.00	\$312.00	\$3.49	1.02%	2,730	0	0.0%	---	0.0	0	---	---
C	TSLA	2018-10-19	\$50.00	10	\$289.67	\$289.72	\$289.71	\$3.49	1.02%	2,730	0	0.0%	---	0.8	2	952.4%	357.1%
C	TSLA	2018-10-19	\$85.00	10	\$277.50	\$277.50	\$277.50	\$4.11	1.17%	3,510	0	0.0%	---	0.0	0	---	---
C	TSLA	2018-10-19	\$150.00	3	\$159.35	\$160.00	\$159.57	\$3.84	1.09%	3,510	0	0.0%	---	0.3	3	555.6%	55.6%
C	TSLA	2018-10-19	\$185.00	6	\$179.52	\$179.52	\$179.52	\$3.48	0.99%	3,510	0	0.0%	---	3.5	8	95.2%	41.7%
C	TSLA	2018-10-19	\$190.00	6	\$174.58	\$174.58	\$174.58	\$3.43	0.98%	3,510	0	0.0%	---	2.4	6	138.9%	55.6%
C	TSLA	2018-10-19	\$200.00	4	\$111.25	\$156.00	\$133.63	\$3.35	0.95%	3,510	4	0.1%	0.02%	7.9	10	28.1%	22.2%
C	TSLA	2018-10-19	\$210.00	7	\$101.50	\$146.62	\$114.39	\$3.24	0.92%	3,510	8	0.2%	0.03%	2.4	7	162.0%	55.6%
C	TSLA	2018-10-19	\$220.00	302	\$134.35	\$137.05	\$135.40	\$3.13	0.89%	3,413	36	1.1%	0.03%	168.2	302	99.7%	55.6%
C	TSLA	2018-10-19	\$225.00	10	\$132.61	\$135.10	\$134.10	\$3.08	0.87%	3,510	47	1.3%	0.02%	7.4	10	75.1%	55.6%
C	TSLA	2018-10-19	\$230.00	9	\$127.95	\$149.50	\$138.17	\$3.01	0.85%	3,510	99	2.8%	0.02%	74.5	75	6.7%	6.7%
C	TSLA	2018-10-19	\$240.00	9	\$76.00	\$123.27	\$94.22	\$2.82	0.80%	3,510	444	12.6%	0.03%	14.1	20	35.5%	25.0%
C	TSLA	2018-10-19	\$245.00	2	\$83.00	\$100.50	\$91.75	\$2.72	0.77%	3,510	639	18.2%	0.04%	0.3	1	370.4%	111.1%
C	TSLA	2018-10-19	\$250.00	28	\$70.50	\$130.42	\$110.81	\$2.60	0.74%	3,510	957	27.3%	0.05%	96.2	101	16.2%	15.4%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open
C	TSLA	2018-10-19	\$255.00	10	\$92.70	\$130.20	\$119.14	\$2.53	0.72%	3,510	1,075	30.6%	0.05%	10.4	12	53.4%	46.3%
C	TSLA	2018-10-19	\$260.00	26	\$97.00	\$112.40	\$101.40	\$2.46	0.70%	3,510	1,249	35.6%	0.05%	76.2	90	19.0%	16.0%
C	TSLA	2018-10-19	\$265.00	1	\$98.60	\$98.60	\$98.60	\$2.42	0.68%	3,510	1,424	40.6%	0.05%	7.4	8	7.5%	6.9%
C	TSLA	2018-10-19	\$270.00	66	\$52.50	\$111.59	\$86.15	\$2.34	0.66%	3,510	1,572	44.8%	0.06%	74.9	82	49.0%	44.7%
C	TSLA	2018-10-19	\$275.00	8	\$61.27	\$90.75	\$70.44	\$2.26	0.64%	3,510	1,673	47.7%	0.06%	7.2	12	61.7%	37.0%
C	TSLA	2018-10-19	\$280.00	22	\$47.15	\$92.38	\$72.42	\$2.17	0.61%	3,510	1,775	50.6%	0.07%	436.1	439	2.8%	2.8%
C	TSLA	2018-10-19	\$285.00	5	\$42.85	\$98.85	\$55.35	\$2.17	0.61%	3,510	1,841	52.5%	0.07%	18.6	22	14.9%	12.6%
C	TSLA	2018-10-19	\$290.00	179	\$37.50	\$94.00	\$45.07	\$1.93	0.54%	3,510	1,907	54.3%	0.08%	300.8	392	33.1%	25.4%
C	TSLA	2018-10-19	\$295.00	19	\$38.95	\$85.74	\$56.36	\$1.87	0.53%	3,510	1,966	56.0%	0.08%	65.8	68	16.0%	15.5%
C	TSLA	2018-10-19	\$300.00	2,080	\$31.51	\$88.90	\$67.75	\$1.77	0.50%	3,510	2,048	58.3%	0.09%	1,536.6	1,959	75.2%	59.0%
C	TSLA	2018-10-19	\$305.00	72	\$28.64	\$78.02	\$44.24	\$1.74	0.49%	3,510	2,032	57.9%	0.09%	38.3	63	104.4%	63.5%
C	TSLA	2018-10-19	\$310.00	406	\$25.65	\$75.00	\$37.35	\$1.64	0.46%	3,510	2,009	57.2%	0.10%	2,149.8	2,333	10.5%	9.7%
C	TSLA	2018-10-19	\$315.00	353	\$23.76	\$71.62	\$35.06	\$1.57	0.44%	3,510	2,019	57.5%	0.10%	114.8	202	170.8%	97.1%
C	TSLA	2018-10-19	\$320.00	533	\$21.00	\$71.00	\$39.12	\$12.23	3.36%	3,510	2,008	57.2%	0.10%	913.9	974	32.4%	30.4%
C	TSLA	2018-10-19	\$325.00	352	\$18.96	\$60.50	\$29.32	\$1.45	0.41%	3,510	2,044	58.2%	0.10%	84.1	148	232.5%	132.1%
C	TSLA	2018-10-19	\$330.00	6,354	\$16.36	\$63.00	\$42.91	\$1.31	0.37%	3,510	2,085	59.4%	0.10%	2,593.2	3,720	136.1%	94.9%
C	TSLA	2018-10-19	\$335.00	1,168	\$14.70	\$59.35	\$33.04	\$1.50	0.42%	3,510	1,977	56.3%	0.10%	416.8	677	155.7%	95.8%
C	TSLA	2018-10-19	\$340.00	1,808	\$13.02	\$55.00	\$33.35	\$1.24	0.35%	3,510	1,997	56.9%	0.10%	932.1	1,144	107.8%	87.8%
C	TSLA	2018-10-19	\$345.00	454	\$11.30	\$50.00	\$27.59	\$0.94	0.26%	3,413	1,940	56.8%	0.10%	149.5	211	168.7%	119.5%
C	TSLA	2018-10-19	\$350.00	3,914	\$9.75	\$47.00	\$22.70	\$1.33	0.37%	3,510	1,953	55.6%	0.10%	1,273.6	1,919	170.7%	113.3%
C	TSLA	2018-10-19	\$355.00	3,651	\$8.55	\$43.50	\$23.17	\$0.78	0.22%	3,413	1,865	54.6%	0.09%	1,103.7	2,068	183.8%	98.1%
C	TSLA	2018-10-19	\$360.00	2,943	\$7.30	\$42.70	\$22.31	\$0.71	0.20%	3,413	1,883	55.2%	0.09%	1,737.8	2,116	94.1%	77.3%
C	TSLA	2018-10-19	\$365.00	782	\$6.30	\$41.74	\$18.45	\$0.72	0.20%	3,413	1,858	54.4%	0.08%	213.0	420	204.0%	103.4%
C	TSLA	2018-10-19	\$370.00	2,487	\$5.27	\$40.00	\$19.19	\$0.69	0.19%	3,510	1,748	49.8%	0.08%	1,037.9	1,183	133.1%	116.8%
C	TSLA	2018-10-19	\$375.00	1,362	\$4.51	\$32.00	\$19.55	\$0.69	0.19%	3,509	1,418	40.4%	0.07%	919.3	1,109	82.3%	68.2%
C	TSLA	2018-10-19	\$380.00	2,867	\$3.85	\$40.20	\$14.61	\$0.70	0.20%	3,510	1,318	37.5%	0.07%	1,353.0	1,806	117.7%	88.2%
C	TSLA	2018-10-19	\$385.00	877	\$3.30	\$33.05	\$10.87	\$0.73	0.20%	3,510	1,035	29.5%	0.06%	247.8	396	196.6%	123.0%
C	TSLA	2018-10-19	\$390.00	1,438	\$2.80	\$22.35	\$12.67	\$0.68	0.19%	3,510	853	24.3%	0.06%	823.0	1,062	97.1%	75.2%
C	TSLA	2018-10-19	\$395.00	2,628	\$2.45	\$19.90	\$15.71	\$0.66	0.19%	3,510	677	19.3%	0.05%	438.7	1,116	332.8%	130.8%
C	TSLA	2018-10-19	\$400.00	7,080	\$1.82	\$18.00	\$9.73	\$0.60	0.17%	3,510	490	14.0%	0.04%	2,126.1	2,458	185.0%	160.0%
C	TSLA	2018-10-19	\$405.00	344	\$1.67	\$16.40	\$7.29	\$0.69	0.19%	3,509	304	8.7%	0.04%	174.6	234	109.5%	81.7%
C	TSLA	2018-10-19	\$410.00	5,086	\$1.37	\$20.00	\$10.78	\$0.61	0.17%	3,510	249	7.1%	0.04%	2,539.1	2,704	111.3%	104.5%
C	TSLA	2018-10-19	\$415.00	381	\$1.14	\$13.55	\$6.10	\$0.89	0.25%	3,509	135	3.8%	0.03%	158.4	204	133.6%	103.8%
C	TSLA	2018-10-19	\$420.00	5,721	\$0.79	\$12.70	\$5.18	\$0.68	0.19%	3,510	92	2.6%	0.03%	1,733.5	2,440	183.3%	130.3%
C	TSLA	2018-10-19	\$425.00	834	\$0.73	\$9.62	\$3.97	\$0.67	0.19%	3,510	61	1.7%	0.03%	314.5	477	147.3%	97.1%
C	TSLA	2018-10-19	\$430.00	775	\$0.69	\$8.65	\$3.42	\$0.55	0.16%	3,510	40	1.1%	0.03%	268.4	373	160.4%	115.4%
C	TSLA	2018-10-19	\$435.00	570	\$0.63	\$5.90	\$2.94	\$0.63	0.18%	3,510	21	0.6%	0.03%	134.9	198	234.7%	159.9%
C	TSLA	2018-10-19	\$440.00	1,059	\$0.54	\$7.00	\$4.23	\$0.57	0.16%	3,510	7	0.2%	0.03%	764.0	816	77.0%	72.1%
C	TSLA	2018-10-19	\$445.00	222	\$0.52	\$5.20	\$2.47	\$0.56	0.16%	3,510	7	0.2%	0.03%	346.3	393	35.6%	31.4%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
C	TSLA	2018-10-19	\$450.00	2,029	\$0.41	\$6.60	\$3.01	\$0.51	0.14%	3,510	1	0.0%	0.01%	887.7	993	127.0%	113.5%
C	TSLA	2018-10-19	\$455.00	86	\$0.40	\$5.00	\$2.13	\$0.53	0.15%	3,510	0	0.0%	---	54.1	66	88.3%	72.4%
C	TSLA	2018-10-19	\$460.00	2,584	\$0.15	\$5.00	\$0.78	\$0.59	0.16%	3,510	0	0.0%	---	934.6	1,543	153.6%	93.0%
C	TSLA	2018-10-19	\$465.00	129	\$0.32	\$4.06	\$3.46	\$0.57	0.16%	3,510	0	0.0%	---	66.4	68	107.9%	105.4%
C	TSLA	2018-10-19	\$470.00	219	\$0.34	\$3.09	\$0.77	\$0.51	0.14%	3,510	0	0.0%	---	152.6	249	79.7%	48.9%
C	TSLA	2018-10-19	\$475.00	148	\$0.23	\$1.01	\$0.88	\$0.60	0.17%	3,510	0	0.0%	---	58.4	98	140.8%	83.9%
C	TSLA	2018-10-19	\$480.00	848	\$0.29	\$2.81	\$1.56	\$0.69	0.19%	3,510	0	0.0%	---	472.1	557	99.8%	84.6%
C	TSLA	2018-10-19	\$485.00	18	\$0.22	\$1.85	\$0.92	\$0.58	0.16%	3,510	0	0.0%	---	6.0	9	166.7%	111.1%
C	TSLA	2018-10-19	\$490.00	295	\$0.31	\$3.50	\$1.56	\$0.53	0.15%	3,510	0	0.0%	---	220.0	232	74.5%	70.6%
C	TSLA	2018-10-19	\$495.00	1	\$0.44	\$0.44	\$0.44	\$0.59	0.17%	3,510	0	0.0%	---	0.6	1	92.6%	55.6%
C	TSLA	2018-10-19	\$500.00	759	\$0.10	\$2.00	\$0.76	\$0.35	0.10%	3,510	0	0.0%	---	666.3	746	63.3%	56.5%
C	TSLA	2018-10-19	\$505.00	3	\$1.50	\$1.50	\$1.50	\$0.62	0.18%	3,510	0	0.0%	---	2.7	3	61.7%	55.6%
C	TSLA	2018-10-19	\$510.00	30	\$0.23	\$1.22	\$0.46	\$0.60	0.17%	3,510	0	0.0%	---	59.4	60	28.1%	27.8%
C	TSLA	2018-10-19	\$515.00	1	\$0.22	\$0.22	\$0.22	\$0.62	0.17%	3,510	0	0.0%	---	0.6	1	92.6%	55.6%
C	TSLA	2018-10-19	\$520.00	46	\$0.15	\$1.35	\$0.45	\$0.53	0.15%	3,510	0	0.0%	---	83.9	87	30.5%	29.4%
C	TSLA	2018-10-19	\$530.00	84	\$0.12	\$1.30	\$0.76	\$0.57	0.16%	3,510	0	0.0%	---	74.5	82	62.6%	56.9%
C	TSLA	2018-10-19	\$540.00	44	\$0.15	\$0.97	\$0.47	\$0.56	0.16%	3,510	0	0.0%	---	81.8	116	29.9%	21.1%
C	TSLA	2018-10-19	\$550.00	37	\$0.08	\$1.00	\$0.18	\$0.53	0.15%	3,510	0	0.0%	---	53.1	55	38.7%	37.4%
C	TSLA	2018-10-19	\$560.00	87	\$0.07	\$0.82	\$0.37	\$0.37	0.10%	3,510	0	0.0%	---	336.8	342	14.4%	14.1%
C	TSLA	2018-10-19	\$650.00	92	\$0.03	\$0.12	\$0.07	\$0.10	0.03%	2,730	0	0.0%	---	53.4	92	123.1%	71.4%
C	TSLA	2018-11-16	\$40.00	10	\$275.81	\$275.81	\$275.81	\$3.54	1.03%	2,730	0	0.0%	---	0.0	0	---	---
C	TSLA	2018-11-16	\$200.00	1	\$144.00	\$144.00	\$144.00	\$3.31	0.94%	3,510	1,777	50.6%	0.10%	0.3	1	185.2%	55.6%
C	TSLA	2018-11-16	\$230.00	2	\$119.45	\$134.73	\$127.09	\$2.95	0.84%	3,510	2,052	58.5%	0.15%	0.4	1	277.8%	111.1%
C	TSLA	2018-11-16	\$250.00	8	\$73.00	\$118.75	\$89.33	\$2.71	0.77%	3,510	2,074	59.1%	0.18%	1.7	7	261.4%	63.5%
C	TSLA	2018-11-16	\$255.00	2	\$69.00	\$69.00	\$69.00	\$2.65	0.75%	3,510	2,075	59.1%	0.18%	0.2	2	555.6%	55.6%
C	TSLA	2018-11-16	\$260.00	2	\$102.90	\$102.90	\$102.90	\$2.59	0.73%	3,510	2,093	59.6%	0.19%	1.2	2	92.6%	55.6%
C	TSLA	2018-11-16	\$270.00	5	\$81.50	\$112.00	\$95.71	\$2.47	0.70%	3,510	2,221	63.3%	0.19%	1.6	3	173.6%	92.6%
C	TSLA	2018-11-16	\$275.00	3	\$55.00	\$97.20	\$76.60	\$2.42	0.68%	3,510	2,202	62.7%	0.20%	1.0	2	166.7%	83.3%
C	TSLA	2018-11-16	\$280.00	3	\$55.00	\$89.50	\$77.68	\$2.36	0.66%	3,510	2,304	65.6%	0.20%	0.4	1	416.7%	166.7%
C	TSLA	2018-11-16	\$290.00	10	\$75.10	\$75.10	\$75.10	\$2.25	0.63%	3,510	2,273	64.8%	0.21%	7.0	10	79.4%	55.6%
C	TSLA	2018-11-16	\$295.00	2	\$79.25	\$79.75	\$79.50	\$2.03	0.57%	3,510	2,272	64.7%	0.21%	0.1	1	1111.1%	111.1%
C	TSLA	2018-11-16	\$300.00	131	\$38.16	\$90.00	\$51.91	\$1.95	0.55%	3,510	2,359	67.2%	0.21%	26.9	89	270.5%	81.8%
C	TSLA	2018-11-16	\$305.00	49	\$35.00	\$76.32	\$37.92	\$1.91	0.54%	3,510	2,322	66.2%	0.21%	5.1	44	533.8%	61.9%
C	TSLA	2018-11-16	\$310.00	297	\$32.25	\$78.85	\$49.16	\$1.83	0.51%	3,510	2,355	67.1%	0.21%	58.5	170	282.1%	97.1%
C	TSLA	2018-11-16	\$315.00	112	\$30.00	\$74.18	\$32.61	\$1.80	0.51%	3,510	2,329	66.4%	0.21%	12.3	104	505.9%	59.8%
C	TSLA	2018-11-16	\$320.00	127	\$27.00	\$72.29	\$40.54	\$1.73	0.49%	3,510	2,364	67.4%	0.21%	27.4	106	257.5%	66.6%
C	TSLA	2018-11-16	\$325.00	69	\$25.00	\$71.00	\$35.84	\$1.66	0.47%	3,510	2,380	67.8%	0.21%	13.7	61	279.8%	62.8%
C	TSLA	2018-11-16	\$330.00	561	\$22.85	\$53.40	\$29.08	\$1.63	0.46%	3,510	2,356	67.1%	0.20%	46.8	316	666.0%	98.6%
C	TSLA	2018-11-16	\$335.00	156	\$20.70	\$49.82	\$37.18	\$1.58	0.44%	3,510	2,348	66.9%	0.20%	35.6	73	243.4%	118.7%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
C	TSLA	2018-11-16	\$340.00	328	\$18.91	\$56.52	\$29.54	\$1.48	0.42%	3,510	2,359	67.2%	0.19%	60.3	224	302.2%	81.3%
C	TSLA	2018-11-16	\$345.00	95	\$17.55	\$52.38	\$34.98	\$1.46	0.41%	3,510	2,336	66.6%	0.19%	74.6	96	70.7%	55.0%
C	TSLA	2018-11-16	\$350.00	625	\$15.10	\$49.99	\$33.94	\$1.40	0.39%	3,510	2,362	67.3%	0.18%	161.9	296	214.5%	117.3%
C	TSLA	2018-11-16	\$355.00	315	\$13.65	\$49.01	\$31.27	\$1.25	0.35%	3,510	2,242	63.9%	0.18%	84.5	152	207.1%	115.1%
C	TSLA	2018-11-16	\$360.00	3,864	\$12.00	\$45.00	\$22.43	\$1.22	0.34%	3,510	2,210	63.0%	0.17%	903.8	3,322	237.5%	64.6%
C	TSLA	2018-11-16	\$365.00	492	\$10.70	\$40.00	\$17.49	\$1.23	0.35%	3,510	2,056	58.6%	0.17%	92.2	390	296.5%	70.1%
C	TSLA	2018-11-16	\$370.00	395	\$9.40	\$36.46	\$27.46	\$1.20	0.34%	3,510	1,936	55.2%	0.16%	114.5	198	191.7%	110.8%
C	TSLA	2018-11-16	\$375.00	230	\$8.25	\$39.00	\$25.64	\$1.16	0.33%	3,510	1,801	51.3%	0.16%	67.0	101	190.7%	126.5%
C	TSLA	2018-11-16	\$380.00	1,248	\$7.35	\$35.00	\$22.16	\$1.12	0.32%	3,510	1,705	48.6%	0.15%	411.1	764	168.7%	90.8%
C	TSLA	2018-11-16	\$385.00	131	\$6.20	\$33.80	\$17.64	\$1.14	0.32%	3,510	1,526	43.5%	0.15%	171.1	196	42.5%	37.1%
C	TSLA	2018-11-16	\$390.00	1,400	\$5.75	\$32.00	\$16.39	\$1.08	0.30%	3,510	1,480	42.2%	0.14%	332.5	541	233.9%	143.8%
C	TSLA	2018-11-16	\$395.00	83	\$5.17	\$25.00	\$13.20	\$1.13	0.32%	3,510	1,387	39.5%	0.12%	23.5	57	196.2%	80.9%
C	TSLA	2018-11-16	\$400.00	3,044	\$4.13	\$27.00	\$14.94	\$2.06	0.57%	3,510	1,402	39.9%	0.11%	613.3	860	275.7%	196.6%
C	TSLA	2018-11-16	\$405.00	307	\$3.52	\$21.05	\$8.75	\$1.09	0.31%	3,510	1,205	34.3%	0.10%	93.1	251	183.2%	68.0%
C	TSLA	2018-11-16	\$410.00	588	\$2.98	\$19.46	\$9.98	\$1.02	0.29%	3,510	1,038	29.6%	0.09%	228.0	425	143.3%	76.9%
C	TSLA	2018-11-16	\$415.00	457	\$2.66	\$18.00	\$9.05	\$1.02	0.29%	3,510	888	25.3%	0.08%	168.2	299	150.9%	84.9%
C	TSLA	2018-11-16	\$420.00	932	\$2.30	\$17.00	\$7.70	\$0.94	0.26%	3,510	754	21.5%	0.07%	300.9	495	172.1%	104.6%
C	TSLA	2018-11-16	\$425.00	469	\$2.00	\$15.35	\$7.29	\$1.02	0.29%	3,510	644	18.3%	0.06%	205.9	311	126.5%	83.8%
C	TSLA	2018-11-16	\$430.00	757	\$1.60	\$14.70	\$8.12	\$0.91	0.26%	3,510	538	15.3%	0.05%	265.5	337	158.4%	124.8%
C	TSLA	2018-11-16	\$435.00	201	\$1.42	\$10.85	\$3.21	\$1.06	0.30%	3,510	320	9.1%	0.04%	44.8	152	249.3%	73.5%
C	TSLA	2018-11-16	\$440.00	313	\$0.87	\$10.60	\$5.22	\$1.01	0.28%	3,510	130	3.7%	0.03%	110.7	150	157.1%	115.9%
C	TSLA	2018-11-16	\$445.00	50	\$1.15	\$5.99	\$3.38	\$1.08	0.30%	3,510	64	1.8%	0.03%	26.3	57	105.6%	48.7%
C	TSLA	2018-11-16	\$450.00	3,891	\$0.91	\$10.80	\$4.40	\$0.92	0.26%	3,510	34	1.0%	0.03%	1,349.0	1,893	160.2%	114.2%
C	TSLA	2018-11-16	\$460.00	98	\$0.75	\$3.60	\$2.08	\$1.06	0.30%	3,510	2	0.1%	0.03%	37.0	94	147.1%	57.9%
C	TSLA	2018-11-16	\$470.00	134	\$0.53	\$6.87	\$2.09	\$0.92	0.26%	3,510	0	0.0%	---	62.3	88	119.5%	84.6%
C	TSLA	2018-11-16	\$480.00	696	\$0.55	\$5.80	\$3.21	\$0.95	0.27%	3,510	0	0.0%	---	198.6	281	194.7%	137.6%
C	TSLA	2018-11-16	\$490.00	59	\$0.79	\$3.15	\$0.99	\$1.00	0.28%	3,510	0	0.0%	---	24.2	57	135.4%	57.5%
C	TSLA	2018-11-16	\$500.00	352	\$0.45	\$3.89	\$0.88	\$0.86	0.24%	3,510	0	0.0%	---	123.3	328	158.6%	59.6%
C	TSLA	2018-11-16	\$510.00	91	\$0.53	\$0.80	\$0.66	\$0.52	0.15%	2,730	0	0.0%	---	58.3	91	111.6%	71.4%
C	TSLA	2018-11-16	\$520.00	32	\$0.49	\$2.89	\$1.71	\$1.06	0.30%	3,510	0	0.0%	---	11.6	22	153.3%	80.8%
C	TSLA	2018-11-16	\$530.00	12	\$0.30	\$0.43	\$0.37	\$0.63	0.18%	2,730	0	0.0%	---	5.4	12	159.5%	71.4%
C	TSLA	2018-11-16	\$600.00	3	\$0.25	\$0.25	\$0.25	\$0.60	0.17%	2,730	0	0.0%	---	2.6	3	81.6%	71.4%
C	TSLA	2018-12-21	\$140.00	1	\$215.00	\$215.00	\$215.00	\$3.75	1.07%	3,510	1,776	50.6%	0.11%	13.0	13	4.3%	4.3%
C	TSLA	2018-12-21	\$200.00	18	\$115.09	\$174.35	\$135.06	\$3.11	0.88%	3,510	2,453	69.9%	0.23%	26.1	30	38.3%	33.3%
C	TSLA	2018-12-21	\$205.00	1	\$161.35	\$161.35	\$161.35	\$3.06	0.87%	3,510	2,429	69.2%	0.23%	3.9	4	14.2%	13.9%
C	TSLA	2018-12-21	\$215.00	1	\$166.00	\$166.00	\$166.00	\$2.94	0.83%	3,510	2,466	70.3%	0.25%	1.8	2	30.9%	27.8%
C	TSLA	2018-12-21	\$220.00	6	\$159.80	\$159.80	\$159.80	\$2.86	0.81%	3,510	2,527	72.0%	0.26%	23.0	23	14.5%	14.5%
C	TSLA	2018-12-21	\$225.00	3	\$95.20	\$123.00	\$113.73	\$2.80	0.79%	3,510	2,577	73.4%	0.27%	15.4	17	10.8%	9.8%
C	TSLA	2018-12-21	\$235.00	1	\$87.36	\$87.36	\$87.36	\$2.73	0.77%	3,510	2,560	72.9%	0.28%	3.1	4	17.9%	13.9%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
C	TSLA	2018-12-21	\$240.00	4	\$125.70	\$141.85	\$137.33	\$2.64	0.75%	3,510	2,588	73.7%	0.29%	14.3	15	15.5%	14.8%
C	TSLA	2018-12-21	\$250.00	28	\$114.00	\$132.80	\$129.70	\$2.52	0.71%	3,510	2,666	76.0%	0.30%	23.7	42	65.6%	37.0%
C	TSLA	2018-12-21	\$260.00	33	\$90.46	\$118.92	\$93.19	\$2.43	0.69%	3,510	2,662	75.8%	0.31%	38.5	54	47.6%	34.0%
C	TSLA	2018-12-21	\$265.00	2	\$103.70	\$103.70	\$103.70	\$2.38	0.67%	3,510	2,671	76.1%	0.31%	8.4	9	13.2%	12.3%
C	TSLA	2018-12-21	\$270.00	223	\$61.95	\$114.10	\$101.43	\$2.32	0.66%	3,510	2,683	76.4%	0.31%	1,125.9	1,247	11.0%	9.9%
C	TSLA	2018-12-21	\$275.00	10	\$84.26	\$84.26	\$84.26	\$2.28	0.64%	3,510	2,697	76.8%	0.31%	82.0	82	6.8%	6.8%
C	TSLA	2018-12-21	\$280.00	39	\$55.00	\$108.70	\$81.99	\$2.22	0.63%	3,413	2,696	79.0%	0.32%	93.7	117	23.1%	18.5%
C	TSLA	2018-12-21	\$285.00	23	\$51.50	\$76.58	\$75.15	\$2.17	0.61%	3,510	2,680	76.4%	0.32%	83.0	85	15.4%	15.0%
C	TSLA	2018-12-21	\$290.00	33	\$49.56	\$98.00	\$63.51	\$2.10	0.59%	3,510	2,714	77.3%	0.32%	166.0	183	11.0%	10.0%
C	TSLA	2018-12-21	\$295.00	15	\$48.22	\$94.00	\$53.68	\$2.06	0.58%	3,510	2,710	77.2%	0.32%	108.9	109	7.7%	7.6%
C	TSLA	2018-12-21	\$300.00	208	\$42.00	\$93.00	\$67.14	\$1.81	0.51%	3,510	2,741	78.1%	0.32%	1,204.9	1,223	9.6%	9.4%
C	TSLA	2018-12-21	\$305.00	27	\$40.00	\$86.75	\$62.40	\$1.76	0.50%	3,510	2,719	77.5%	0.32%	267.5	271	5.6%	5.5%
C	TSLA	2018-12-21	\$310.00	171	\$37.11	\$85.00	\$63.66	\$1.71	0.48%	3,510	2,730	77.8%	0.31%	577.9	626	16.4%	15.2%
C	TSLA	2018-12-21	\$315.00	63	\$34.51	\$76.10	\$49.89	\$1.65	0.46%	3,510	2,728	77.7%	0.31%	160.0	165	21.9%	21.2%
C	TSLA	2018-12-21	\$320.00	230	\$31.94	\$80.00	\$49.14	\$1.59	0.45%	3,510	2,733	77.9%	0.31%	299.5	343	42.7%	37.3%
C	TSLA	2018-12-21	\$325.00	153	\$29.11	\$76.50	\$44.08	\$1.55	0.43%	3,510	2,722	77.5%	0.30%	466.3	490	18.2%	17.3%
C	TSLA	2018-12-21	\$330.00	185	\$27.16	\$71.65	\$39.14	\$1.22	0.34%	3,413	2,708	79.3%	0.30%	354.8	366	29.0%	28.1%
C	TSLA	2018-12-21	\$335.00	84	\$25.15	\$62.20	\$45.35	\$1.46	0.41%	3,510	2,655	75.6%	0.29%	262.9	270	17.8%	17.3%
C	TSLA	2018-12-21	\$340.00	359	\$22.60	\$62.14	\$41.14	\$1.25	0.35%	3,510	2,698	76.9%	0.29%	907.1	941	22.0%	21.2%
C	TSLA	2018-12-21	\$345.00	214	\$20.40	\$55.43	\$40.91	\$1.18	0.33%	3,509	2,689	76.6%	0.28%	471.2	482	25.2%	24.7%
C	TSLA	2018-12-21	\$350.00	1,592	\$18.70	\$58.10	\$36.47	\$1.19	0.33%	3,510	2,748	78.3%	0.27%	1,509.2	1,668	58.6%	53.0%
C	TSLA	2018-12-21	\$355.00	309	\$16.98	\$51.30	\$35.69	\$1.25	0.35%	3,510	2,666	76.0%	0.26%	199.3	229	86.1%	75.0%
C	TSLA	2018-12-21	\$360.00	1,920	\$15.40	\$55.00	\$34.80	\$1.30	0.36%	3,510	2,671	76.1%	0.25%	909.6	1,047	117.3%	101.9%
C	TSLA	2018-12-21	\$365.00	414	\$14.00	\$47.40	\$33.59	\$1.10	0.31%	3,510	2,587	73.7%	0.23%	449.0	503	51.2%	45.7%
C	TSLA	2018-12-21	\$370.00	620	\$12.45	\$45.10	\$31.63	\$1.10	0.31%	3,510	2,608	74.3%	0.22%	625.7	681	55.0%	50.6%
C	TSLA	2018-12-21	\$375.00	485	\$11.30	\$48.25	\$26.71	\$1.09	0.31%	3,510	2,525	71.9%	0.21%	4,661.4	4,689	5.8%	5.7%
C	TSLA	2018-12-21	\$380.00	574	\$9.80	\$41.00	\$22.37	\$0.96	0.27%	3,413	2,479	72.6%	0.20%	457.3	539	69.7%	59.2%
C	TSLA	2018-12-21	\$385.00	172	\$8.70	\$35.90	\$17.13	\$1.10	0.31%	3,510	2,300	65.5%	0.19%	166.9	228	57.3%	41.9%
C	TSLA	2018-12-21	\$390.00	2,604	\$7.92	\$36.34	\$21.30	\$1.04	0.29%	3,510	2,127	60.6%	0.18%	1,063.9	1,312	136.0%	110.3%
C	TSLA	2018-12-21	\$395.00	180	\$6.95	\$27.00	\$18.49	\$1.04	0.29%	3,510	1,925	54.8%	0.18%	130.8	165	76.5%	60.6%
C	TSLA	2018-12-21	\$400.00	2,283	\$6.00	\$30.35	\$15.38	\$0.86	0.24%	3,413	1,783	52.2%	0.17%	2,795.6	2,926	45.4%	43.3%
C	TSLA	2018-12-21	\$410.00	646	\$4.45	\$27.50	\$15.24	\$0.97	0.27%	3,510	1,527	43.5%	0.15%	229.3	327	156.5%	109.8%
C	TSLA	2018-12-21	\$420.00	2,298	\$2.95	\$21.30	\$11.56	\$1.31	0.37%	3,510	1,352	38.5%	0.11%	1,535.0	2,023	83.2%	63.1%
C	TSLA	2018-12-21	\$430.00	3,329	\$2.54	\$18.93	\$9.73	\$1.30	0.36%	3,510	1,034	29.5%	0.09%	4,560.8	5,176	40.6%	35.7%
C	TSLA	2018-12-21	\$440.00	319	\$1.82	\$15.00	\$7.15	\$0.90	0.25%	3,510	636	18.1%	0.07%	978.2	996	18.1%	17.8%
C	TSLA	2018-12-21	\$450.00	554	\$1.36	\$14.00	\$5.87	\$0.81	0.23%	3,510	422	12.0%	0.05%	397.1	472	77.5%	65.2%
C	TSLA	2018-12-21	\$460.00	491	\$0.95	\$12.23	\$6.26	\$0.83	0.23%	3,510	175	5.0%	0.03%	782.5	849	34.9%	32.1%
C	TSLA	2018-12-21	\$470.00	105	\$0.91	\$10.05	\$2.75	\$0.86	0.24%	3,510	24	0.7%	0.02%	143.5	155	40.7%	37.6%
C	TSLA	2018-12-21	\$480.00	161	\$0.62	\$9.65	\$2.35	\$0.88	0.25%	3,510	1	0.0%	0.01%	96.4	108	92.8%	82.8%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
C	TSLA	2018-12-21	\$490.00	80	\$0.50	\$7.30	\$2.59	\$0.90	0.25%	3,510	0	0.0%	---	124.6	131	35.7%	33.9%
C	TSLA	2018-12-21	\$500.00	996	\$0.40	\$7.15	\$1.08	\$0.75	0.21%	3,510	0	0.0%	---	358.8	836	154.2%	66.2%
C	TSLA	2018-12-21	\$510.00	2	\$0.60	\$1.00	\$0.80	\$0.61	0.18%	2,730	0	0.0%	---	1.0	2	142.9%	71.4%
C	TSLA	2018-12-21	\$520.00	112	\$0.30	\$4.50	\$1.19	\$0.84	0.23%	3,510	0	0.0%	---	222.5	230	28.0%	27.1%
C	TSLA	2018-12-21	\$530.00	32	\$0.34	\$0.80	\$0.57	\$0.69	0.20%	2,730	0	0.0%	---	9.1	22	250.5%	103.9%
C	TSLA	2018-12-21	\$540.00	1,327	\$0.15	\$3.85	\$0.82	\$0.70	0.20%	3,510	0	0.0%	---	904.5	1,387	81.5%	53.2%
C	TSLA	2018-12-21	\$560.00	24	\$0.35	\$0.36	\$0.35	\$0.73	0.21%	2,730	0	0.0%	---	13.1	24	130.6%	71.4%
C	TSLA	2018-12-21	\$570.00	46	\$0.30	\$0.31	\$0.30	\$0.72	0.21%	2,730	0	0.0%	---	23.0	46	142.9%	71.4%
C	TSLA	2018-12-21	\$630.00	1	\$0.21	\$0.21	\$0.21	\$0.64	0.19%	2,730	0	0.0%	---	0.1	1	571.4%	71.4%
C	TSLA	2019-01-18	\$50.00	1	\$325.40	\$325.40	\$325.40	\$4.76	1.36%	3,510	0	0.0%	---	21.5	116	2.6%	0.5%
C	TSLA	2019-01-18	\$75.00	33	\$278.25	\$281.40	\$279.66	\$4.46	1.27%	3,510	273	7.8%	0.34%	100.7	116	18.2%	15.8%
C	TSLA	2019-01-18	\$80.00	90	\$254.60	\$294.24	\$289.91	\$4.67	1.33%	3,510	61	1.7%	0.14%	156.0	159	32.1%	31.4%
C	TSLA	2019-01-18	\$85.00	80	\$289.21	\$289.21	\$289.21	\$4.66	1.33%	3,510	122	3.5%	0.04%	254.5	270	17.5%	16.5%
C	TSLA	2019-01-18	\$100.00	249	\$209.85	\$277.47	\$252.33	\$3.49	1.00%	3,510	2,647	75.4%	0.33%	3,030.0	3,054	4.6%	4.5%
C	TSLA	2019-01-18	\$105.00	3	\$237.65	\$272.53	\$260.90	\$4.54	1.30%	3,510	811	23.1%	0.06%	108.4	110	1.5%	1.5%
C	TSLA	2019-01-18	\$150.00	18	\$164.77	\$228.00	\$194.36	\$4.17	1.19%	3,510	2,369	67.5%	0.15%	885.7	890	1.1%	1.1%
C	TSLA	2019-01-18	\$160.00	5	\$201.00	\$201.00	\$201.00	\$3.97	1.13%	3,510	2,405	68.5%	0.17%	294.0	294	0.9%	0.9%
C	TSLA	2019-01-18	\$170.00	5	\$190.75	\$190.75	\$190.75	\$3.87	1.10%	3,510	2,452	69.9%	0.19%	637.2	638	0.4%	0.4%
C	TSLA	2019-01-18	\$175.00	30	\$185.55	\$186.90	\$186.07	\$3.81	1.08%	3,510	2,492	71.0%	0.20%	93.6	107	17.8%	15.6%
C	TSLA	2019-01-18	\$180.00	14	\$134.75	\$184.00	\$168.02	\$3.75	1.07%	3,510	2,531	72.1%	0.21%	515.5	520	1.5%	1.5%
C	TSLA	2019-01-18	\$185.00	6	\$182.00	\$189.07	\$183.18	\$3.70	1.05%	3,510	2,541	72.4%	0.22%	387.5	392	0.9%	0.9%
C	TSLA	2019-01-18	\$190.00	21	\$125.00	\$188.00	\$167.76	\$3.65	1.04%	3,510	2,571	73.2%	0.23%	1,974.2	1,975	0.6%	0.6%
C	TSLA	2019-01-18	\$195.00	6	\$129.00	\$170.00	\$160.60	\$3.58	1.02%	3,510	2,580	73.5%	0.24%	369.7	372	0.9%	0.9%
C	TSLA	2019-01-18	\$200.00	122	\$117.00	\$185.00	\$157.40	\$3.47	0.98%	3,510	2,743	78.1%	0.26%	2,874.5	2,903	2.4%	2.3%
C	TSLA	2019-01-18	\$210.00	17	\$155.80	\$167.06	\$156.48	\$3.38	0.96%	3,510	2,666	76.0%	0.27%	1,239.1	1,240	0.8%	0.8%
C	TSLA	2019-01-18	\$220.00	21	\$128.22	\$157.79	\$151.31	\$3.25	0.92%	3,510	2,707	77.1%	0.30%	812.1	818	1.4%	1.4%
C	TSLA	2019-01-18	\$230.00	72	\$95.50	\$153.19	\$127.90	\$3.12	0.88%	3,510	2,758	78.6%	0.31%	1,663.4	1,673	2.4%	2.4%
C	TSLA	2019-01-18	\$240.00	29	\$84.90	\$145.85	\$115.98	\$2.99	0.85%	3,510	2,775	79.1%	0.32%	1,491.9	1,496	1.1%	1.1%
C	TSLA	2019-01-18	\$250.00	194	\$82.00	\$137.80	\$116.26	\$2.84	0.80%	3,510	2,846	81.1%	0.34%	2,165.1	2,197	5.0%	4.9%
C	TSLA	2019-01-18	\$260.00	304	\$73.75	\$127.00	\$102.02	\$2.74	0.77%	3,510	2,823	80.4%	0.35%	1,132.4	1,245	14.9%	13.6%
C	TSLA	2019-01-18	\$270.00	153	\$64.15	\$119.00	\$97.66	\$2.17	0.62%	3,413	2,846	83.4%	0.36%	882.3	938	9.6%	9.1%
C	TSLA	2019-01-18	\$280.00	148	\$57.77	\$106.06	\$88.66	\$2.49	0.70%	3,510	2,851	81.2%	0.37%	1,307.8	1,330	6.3%	6.2%
C	TSLA	2019-01-18	\$290.00	86	\$51.47	\$100.00	\$77.30	\$2.35	0.66%	3,510	2,866	81.7%	0.37%	1,742.5	1,759	2.7%	2.7%
C	TSLA	2019-01-18	\$300.00	7,568	\$45.40	\$96.00	\$73.16	\$1.66	0.47%	3,413	2,934	86.0%	0.38%	10,487.7	11,798	40.1%	35.6%
C	TSLA	2019-01-18	\$310.00	285	\$40.00	\$86.30	\$65.79	\$1.90	0.53%	3,510	2,885	82.2%	0.37%	2,988.7	2,998	5.3%	5.3%
C	TSLA	2019-01-18	\$320.00	1,304	\$34.64	\$83.00	\$57.25	\$1.43	0.40%	3,413	2,897	84.9%	0.37%	3,338.3	3,643	21.7%	19.9%
C	TSLA	2019-01-18	\$330.00	1,484	\$29.50	\$77.00	\$46.41	\$1.57	0.44%	3,413	2,853	83.6%	0.36%	5,247.7	5,437	15.7%	15.2%
C	TSLA	2019-01-18	\$340.00	1,094	\$25.60	\$65.00	\$46.15	\$1.19	0.33%	3,413	2,818	82.6%	0.34%	6,028.9	6,095	10.1%	10.0%
C	TSLA	2019-01-18	\$350.00	5,252	\$21.45	\$60.97	\$44.51	\$2.64	0.73%	3,510	2,870	81.8%	0.32%	11,483.0	12,188	25.4%	23.9%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open Interest
C	TSLA	2019-01-18	\$360.00	3,634	\$17.66	\$51.25	\$40.15	\$1.12	0.32%	3,510	2,808	80.0%	0.30%	7,688.6	7,977	26.3%	25.3%
C	TSLA	2019-01-18	\$365.00	397	\$16.97	\$50.00	\$35.65	\$1.09	0.31%	3,510	2,780	79.2%	0.27%	1,438.9	1,510	15.3%	14.6%
C	TSLA	2019-01-18	\$370.00	2,622	\$14.35	\$47.75	\$31.43	\$2.06	0.57%	3,510	2,775	79.1%	0.26%	3,137.6	3,313	46.4%	44.0%
C	TSLA	2019-01-18	\$375.00	1,163	\$13.30	\$50.00	\$30.31	\$2.38	0.66%	3,510	2,721	77.5%	0.25%	2,837.2	2,923	22.8%	22.1%
C	TSLA	2019-01-18	\$380.00	3,359	\$11.95	\$42.00	\$27.56	\$1.04	0.29%	3,510	2,708	77.2%	0.23%	3,335.7	3,630	55.9%	51.4%
C	TSLA	2019-01-18	\$385.00	474	\$10.85	\$42.70	\$26.94	\$1.06	0.30%	3,510	2,656	75.7%	0.21%	795.2	836	33.1%	31.5%
C	TSLA	2019-01-18	\$390.00	2,031	\$9.35	\$35.00	\$23.85	\$1.01	0.28%	3,509	2,555	72.8%	0.20%	3,168.6	3,321	35.6%	34.0%
C	TSLA	2019-01-18	\$395.00	1,319	\$8.58	\$30.90	\$11.34	\$1.01	0.28%	3,510	2,392	68.1%	0.18%	1,516.6	1,554	48.3%	47.2%
C	TSLA	2019-01-18	\$400.00	13,632	\$7.55	\$34.00	\$20.39	\$1.13	0.32%	3,510	2,301	65.6%	0.17%	11,793.7	11,966	64.2%	63.3%
C	TSLA	2019-01-18	\$405.00	634	\$6.65	\$33.00	\$20.27	\$0.97	0.27%	3,510	2,099	59.8%	0.15%	865.3	917	40.7%	38.4%
C	TSLA	2019-01-18	\$410.00	2,869	\$5.80	\$30.25	\$17.15	\$0.89	0.25%	3,510	1,950	55.6%	0.13%	2,001.2	2,308	79.6%	69.1%
C	TSLA	2019-01-18	\$415.00	1,238	\$5.15	\$24.50	\$9.69	\$0.91	0.26%	3,510	1,716	48.9%	0.12%	537.4	791	128.0%	87.0%
C	TSLA	2019-01-18	\$420.00	11,687	\$4.35	\$25.85	\$14.41	\$0.76	0.22%	3,510	1,562	44.5%	0.15%	5,634.3	7,495	115.2%	86.6%
C	TSLA	2019-01-18	\$430.00	2,923	\$3.10	\$22.00	\$11.84	\$0.83	0.23%	3,510	942	26.8%	0.09%	2,498.7	2,795	65.0%	58.1%
C	TSLA	2019-01-18	\$440.00	1,157	\$2.60	\$22.26	\$9.95	\$0.76	0.22%	3,510	580	16.5%	0.07%	2,518.6	2,570	25.5%	25.0%
C	TSLA	2019-01-18	\$450.00	6,628	\$1.77	\$19.50	\$8.01	\$1.66	0.46%	3,510	374	10.7%	0.07%	7,118.2	7,303	51.7%	50.4%
C	TSLA	2019-01-18	\$460.00	2,331	\$1.19	\$14.10	\$5.20	\$0.70	0.20%	3,510	215	6.1%	0.05%	1,421.2	1,724	91.1%	75.1%
C	TSLA	2019-01-18	\$470.00	736	\$1.10	\$13.50	\$4.37	\$0.68	0.19%	3,510	86	2.5%	0.04%	2,159.3	2,228	18.9%	18.4%
C	TSLA	2019-01-18	\$480.00	2,514	\$1.00	\$11.50	\$5.05	\$0.69	0.19%	3,510	21	0.6%	0.02%	2,593.1	2,795	53.9%	50.0%
C	TSLA	2019-01-18	\$490.00	488	\$0.62	\$11.00	\$1.72	\$0.75	0.21%	3,510	0	0.0%	---	1,315.3	1,508	20.6%	18.0%
C	TSLA	2019-01-18	\$500.00	10,404	\$0.60	\$9.80	\$3.04	\$0.35	0.10%	3,510	1	0.0%	0.15%	12,847.2	13,506	45.0%	42.8%
C	TSLA	2019-01-18	\$510.00	160	\$0.63	\$6.40	\$1.41	\$0.88	0.25%	3,510	0	0.0%	---	521.4	545	17.0%	16.3%
C	TSLA	2019-01-18	\$520.00	417	\$0.52	\$6.10	\$2.08	\$0.81	0.23%	3,510	0	0.0%	---	905.4	939	25.6%	24.7%
C	TSLA	2019-01-18	\$530.00	263	\$0.50	\$4.15	\$1.95	\$0.91	0.26%	3,510	0	0.0%	---	627.2	649	23.3%	22.5%
C	TSLA	2019-01-18	\$540.00	180	\$0.24	\$4.00	\$1.19	\$1.06	0.30%	3,510	0	0.0%	---	416.3	442	24.0%	22.6%
C	TSLA	2019-01-18	\$550.00	1,228	\$0.35	\$4.75	\$1.22	\$0.88	0.25%	3,510	0	0.0%	---	3,418.8	3,647	20.0%	18.7%
C	TSLA	2019-01-18	\$560.00	28	\$0.40	\$3.95	\$2.55	\$0.96	0.27%	3,510	0	0.0%	---	1,142.8	1,161	1.4%	1.3%
C	TSLA	2019-01-18	\$570.00	152	\$0.41	\$3.13	\$0.94	\$0.80	0.23%	3,510	0	0.0%	---	353.7	367	23.9%	23.0%
C	TSLA	2019-01-18	\$580.00	431	\$0.30	\$3.29	\$0.99	\$1.05	0.30%	3,510	0	0.0%	---	905.9	962	26.4%	24.9%
C	TSLA	2019-01-18	\$590.00	24	\$0.15	\$2.24	\$0.62	\$1.15	0.32%	3,510	0	0.0%	---	756.4	759	1.8%	1.8%
C	TSLA	2019-01-18	\$600.00	3,655	\$0.25	\$3.00	\$1.12	\$0.29	0.08%	3,510	0	0.0%	---	24,686.6	24,907	8.2%	8.2%
C	TSLA	2019-01-18	\$610.00	14	\$0.40	\$0.60	\$0.46	\$1.15	0.32%	3,510	0	0.0%	---	525.2	530	1.5%	1.5%
C	TSLA	2019-01-18	\$620.00	135	\$0.19	\$2.20	\$0.83	\$0.93	0.26%	3,510	0	0.0%	---	657.3	665	11.4%	11.3%
C	TSLA	2019-01-18	\$630.00	6	\$0.30	\$0.30	\$0.30	\$1.01	0.28%	3,510	0	0.0%	---	365.0	365	0.9%	0.9%
C	TSLA	2019-01-18	\$640.00	61	\$0.20	\$0.50	\$0.29	\$0.58	0.16%	3,510	0	0.0%	---	456.6	469	7.4%	7.2%
C	TSLA	2019-01-18	\$650.00	1,177	\$0.15	\$2.50	\$0.31	\$0.17	0.05%	3,413	0	0.0%	---	2,455.0	2,589	26.6%	25.3%
C	TSLA	2019-01-18	\$660.00	112	\$0.14	\$1.54	\$0.28	\$0.46	0.13%	3,510	0	0.0%	---	425.7	445	14.6%	14.0%
C	TSLA	2019-01-18	\$670.00	353	\$0.13	\$1.17	\$0.33	\$0.26	0.07%	3,510	0	0.0%	---	512.6	560	38.3%	35.0%
C	TSLA	2019-01-18	\$680.00	2,131	\$0.05	\$1.45	\$0.36	\$0.10	0.03%	3,510	0	0.0%	---	10,839.4	11,034	10.9%	10.7%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly Volume to Average Open Interest	Weekly Volume to Maximum Open Interest
C	TSLA	2019-02-15	\$200.00	1	\$159.75	\$159.75	\$159.75	\$3.47	0.99%	3,510	2,737	78.0%	0.26%	0.7	1	79.4%	55.6%
C	TSLA	2019-02-15	\$230.00	2	\$154.35	\$154.55	\$154.45	\$3.10	0.88%	3,510	2,746	78.2%	0.31%	0.0	0	---	---
C	TSLA	2019-02-15	\$250.00	11	\$82.50	\$103.50	\$88.29	\$2.88	0.82%	3,510	2,802	79.8%	0.32%	0.8	7	763.9%	87.3%
C	TSLA	2019-02-15	\$270.00	22	\$66.85	\$108.00	\$86.59	\$2.66	0.75%	3,510	2,807	80.0%	0.34%	8.9	20	137.3%	61.1%
C	TSLA	2019-02-15	\$280.00	24	\$61.60	\$80.50	\$62.72	\$2.56	0.72%	3,510	2,802	79.8%	0.33%	2.1	20	634.9%	66.7%
C	TSLA	2019-02-15	\$290.00	17	\$54.00	\$92.70	\$57.18	\$2.47	0.70%	3,510	2,782	79.3%	0.33%	2.5	17	377.8%	55.6%
C	TSLA	2019-02-15	\$300.00	20	\$48.46	\$91.31	\$70.80	\$2.36	0.66%	3,510	2,779	79.2%	0.33%	10.4	19	106.8%	58.5%
C	TSLA	2019-02-15	\$310.00	41	\$42.94	\$58.35	\$45.77	\$2.08	0.59%	3,510	2,785	79.3%	0.32%	4.0	37	569.4%	61.6%
C	TSLA	2019-02-15	\$320.00	16	\$38.52	\$43.12	\$41.66	\$1.98	0.56%	3,510	2,774	79.0%	0.31%	1.6	16	555.6%	55.6%
C	TSLA	2019-02-15	\$330.00	32	\$34.10	\$70.11	\$46.47	\$1.92	0.54%	3,510	2,750	78.3%	0.29%	7.4	29	240.2%	61.3%
C	TSLA	2019-02-15	\$340.00	62	\$29.50	\$62.75	\$40.19	\$1.85	0.52%	3,510	2,739	78.0%	0.27%	20.6	49	167.2%	70.3%
C	TSLA	2019-02-15	\$350.00	137	\$24.65	\$64.85	\$46.61	\$1.79	0.50%	3,510	2,659	75.8%	0.26%	63.2	86	120.4%	88.5%
C	TSLA	2019-02-15	\$360.00	232	\$20.85	\$52.50	\$36.72	\$1.77	0.50%	3,510	2,560	72.9%	0.23%	126.3	201	102.0%	64.1%
C	TSLA	2019-02-15	\$370.00	57	\$16.80	\$48.00	\$34.21	\$1.59	0.45%	3,510	2,413	68.7%	0.21%	29.0	51	109.2%	62.1%
C	TSLA	2019-02-15	\$380.00	125	\$15.20	\$43.05	\$32.27	\$1.55	0.44%	3,510	2,212	63.0%	0.18%	60.0	92	115.7%	75.5%
C	TSLA	2019-02-15	\$390.00	87	\$12.02	\$40.00	\$25.81	\$1.55	0.44%	3,510	1,767	50.3%	0.17%	34.0	72	142.2%	67.1%
C	TSLA	2019-02-15	\$400.00	232	\$9.95	\$33.00	\$17.19	\$1.54	0.44%	3,510	1,354	38.6%	0.15%	76.8	215	167.8%	59.9%
C	TSLA	2019-02-15	\$410.00	40	\$8.01	\$24.70	\$13.73	\$1.54	0.44%	3,510	1,069	30.5%	0.12%	11.9	35	186.7%	63.5%
C	TSLA	2019-02-15	\$420.00	915	\$6.42	\$27.50	\$17.58	\$1.38	0.39%	3,413	777	22.8%	0.10%	412.6	583	123.2%	87.2%
C	TSLA	2019-02-15	\$430.00	277	\$5.20	\$16.75	\$9.62	\$1.47	0.42%	3,510	482	13.7%	0.08%	72.9	196	211.1%	78.5%
C	TSLA	2019-02-15	\$440.00	110	\$5.95	\$21.50	\$9.43	\$1.48	0.42%	3,510	295	8.4%	0.06%	38.8	93	157.5%	65.7%
C	TSLA	2019-02-15	\$450.00	297	\$3.20	\$20.00	\$10.83	\$1.38	0.39%	3,510	147	4.2%	0.05%	155.0	202	106.5%	81.7%
C	TSLA	2019-02-15	\$460.00	20	\$3.60	\$7.75	\$6.41	\$1.44	0.41%	3,510	39	1.1%	0.03%	7.2	20	154.3%	55.6%
C	TSLA	2019-02-15	\$470.00	15	\$2.77	\$7.87	\$3.97	\$1.37	0.39%	3,510	8	0.2%	0.03%	5.2	14	160.3%	59.5%
C	TSLA	2019-02-15	\$480.00	53	\$1.48	\$13.35	\$9.42	\$1.46	0.41%	3,510	0	0.0%	---	34.1	53	86.3%	55.6%
C	TSLA	2019-02-15	\$490.00	83	\$0.94	\$11.80	\$6.44	\$1.44	0.41%	3,510	2	0.1%	0.03%	43.2	77	106.7%	59.9%
C	TSLA	2019-02-15	\$500.00	50	\$0.65	\$8.65	\$4.71	\$1.34	0.38%	3,413	0	0.0%	---	18.7	35	148.5%	79.4%
C	TSLA	2019-02-15	\$520.00	40	\$0.36	\$6.70	\$1.33	\$1.41	0.40%	3,510	0	0.0%	---	7.7	36	288.6%	61.7%
C	TSLA	2019-03-15	\$70.00	5	\$286.35	\$286.35	\$286.35	\$5.17	1.48%	3,510	4	0.1%	0.27%	45.0	45	6.2%	6.2%
C	TSLA	2019-03-15	\$75.00	2	\$303.25	\$303.25	\$303.25	\$5.14	1.47%	3,510	0	0.0%	---	167.2	168	0.7%	0.7%
C	TSLA	2019-03-15	\$100.00	5	\$256.40	\$257.62	\$256.64	\$5.00	1.43%	3,509	2,230	63.6%	0.10%	209.5	212	1.3%	1.3%
C	TSLA	2019-03-15	\$200.00	39	\$119.90	\$165.72	\$134.20	\$4.12	1.17%	3,510	2,191	62.4%	0.25%	17.6	45	123.1%	48.1%
C	TSLA	2019-03-15	\$205.00	1	\$147.90	\$147.90	\$147.90	\$4.07	1.16%	3,510	2,045	58.3%	0.25%	25.9	26	2.1%	2.1%
C	TSLA	2019-03-15	\$230.00	6	\$97.15	\$120.00	\$101.19	\$3.87	1.10%	3,510	2,006	57.2%	0.28%	140.4	144	2.4%	2.3%
C	TSLA	2019-03-15	\$245.00	3	\$88.65	\$94.75	\$92.72	\$3.70	1.05%	3,510	2,019	57.5%	0.29%	50.7	51	3.3%	3.3%
C	TSLA	2019-03-15	\$250.00	64	\$86.00	\$134.00	\$118.10	\$3.65	1.03%	3,510	2,102	59.9%	0.29%	824.5	825	4.3%	4.3%
C	TSLA	2019-03-15	\$255.00	3	\$101.90	\$128.74	\$110.85	\$3.60	1.02%	3,510	2,059	58.7%	0.30%	41.0	41	4.1%	4.1%
C	TSLA	2019-03-15	\$270.00	6	\$80.91	\$118.00	\$92.18	\$3.43	0.97%	3,510	2,117	60.3%	0.30%	427.0	427	0.8%	0.8%
C	TSLA	2019-03-15	\$275.00	3	\$102.62	\$108.55	\$106.13	\$3.39	0.96%	3,510	1,990	56.7%	0.30%	8.9	11	18.7%	15.2%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
C	TSLA	2019-03-15	\$280.00	15	\$63.50	\$109.37	\$88.87	\$3.36	0.95%	3,510	2,025	57.7%	0.30%	452.7	454	1.8%	1.8%
C	TSLA	2019-03-15	\$285.00	22	\$60.00	\$102.50	\$74.92	\$3.25	0.92%	3,510	1,987	56.6%	0.30%	51.8	65	23.6%	18.8%
C	TSLA	2019-03-15	\$290.00	49	\$59.10	\$105.90	\$84.30	\$3.20	0.90%	3,510	1,929	55.0%	0.30%	361.7	381	7.5%	7.1%
C	TSLA	2019-03-15	\$295.00	59	\$55.80	\$103.00	\$88.24	\$3.13	0.88%	3,510	1,881	53.6%	0.32%	87.5	94	37.5%	34.9%
C	TSLA	2019-03-15	\$300.00	121	\$51.00	\$99.25	\$71.08	\$2.66	0.75%	3,413	1,948	57.1%	0.31%	425.6	430	15.8%	15.6%
C	TSLA	2019-03-15	\$305.00	42	\$49.75	\$88.00	\$62.18	\$2.88	0.81%	3,510	1,833	52.2%	0.31%	71.9	80	32.5%	29.2%
C	TSLA	2019-03-15	\$310.00	124	\$46.00	\$90.00	\$71.48	\$2.79	0.79%	3,510	1,832	52.2%	0.31%	106.2	145	64.9%	47.5%
C	TSLA	2019-03-15	\$315.00	30	\$46.15	\$81.70	\$66.18	\$2.73	0.77%	3,510	1,857	52.9%	0.30%	29.0	44	57.5%	37.9%
C	TSLA	2019-03-15	\$320.00	2,101	\$41.35	\$82.15	\$76.71	\$2.63	0.74%	3,510	1,845	52.6%	0.29%	1,342.3	2,230	87.0%	52.3%
C	TSLA	2019-03-15	\$325.00	50	\$39.35	\$75.20	\$58.73	\$2.64	0.75%	3,510	1,758	50.1%	0.30%	1,199.8	1,216	2.3%	2.3%
C	TSLA	2019-03-15	\$330.00	169	\$36.33	\$73.00	\$64.60	\$2.60	0.73%	3,510	1,760	50.1%	0.30%	378.2	408	24.8%	23.0%
C	TSLA	2019-03-15	\$335.00	24	\$33.74	\$67.48	\$49.85	\$2.58	0.73%	3,510	1,696	48.3%	0.29%	1,194.0	1,202	1.1%	1.1%
C	TSLA	2019-03-15	\$340.00	118	\$31.81	\$69.60	\$46.57	\$2.53	0.71%	3,510	1,687	48.1%	0.28%	739.0	762	8.9%	8.6%
C	TSLA	2019-03-15	\$345.00	38	\$30.30	\$66.00	\$40.86	\$3.99	1.11%	3,510	1,673	47.7%	0.27%	353.6	362	6.0%	5.8%
C	TSLA	2019-03-15	\$350.00	1,865	\$27.25	\$64.00	\$55.13	\$4.02	1.12%	3,510	1,675	47.7%	0.25%	1,281.1	1,782	80.9%	58.1%
C	TSLA	2019-03-15	\$355.00	14	\$27.11	\$55.15	\$41.74	\$2.46	0.69%	3,510	1,592	45.4%	0.24%	237.7	240	3.3%	3.2%
C	TSLA	2019-03-15	\$360.00	744	\$23.80	\$60.25	\$41.43	\$2.40	0.68%	3,510	1,603	45.7%	0.23%	2,992.3	3,212	13.8%	12.9%
C	TSLA	2019-03-15	\$365.00	169	\$22.00	\$52.45	\$45.74	\$2.44	0.69%	3,510	1,538	43.8%	0.21%	579.2	590	16.2%	15.9%
C	TSLA	2019-03-15	\$370.00	960	\$19.58	\$51.95	\$42.39	\$2.43	0.69%	3,510	1,466	41.8%	0.20%	1,260.1	1,501	42.3%	35.5%
C	TSLA	2019-03-15	\$375.00	94	\$19.32	\$47.10	\$38.45	\$2.29	0.64%	3,510	1,376	39.2%	0.19%	97.3	122	53.7%	42.8%
C	TSLA	2019-03-15	\$380.00	750	\$16.47	\$47.35	\$39.39	\$2.22	0.63%	3,510	1,282	36.5%	0.18%	832.3	1,055	50.1%	39.5%
C	TSLA	2019-03-15	\$385.00	42	\$17.18	\$44.30	\$31.47	\$2.26	0.64%	3,510	1,170	33.3%	0.17%	86.9	105	26.9%	22.2%
C	TSLA	2019-03-15	\$390.00	47	\$14.62	\$44.30	\$24.18	\$2.28	0.64%	3,510	1,057	30.1%	0.16%	150.0	152	17.4%	17.2%
C	TSLA	2019-03-15	\$395.00	3	\$15.16	\$21.35	\$18.34	\$2.28	0.64%	3,510	995	28.3%	0.15%	47.0	48	3.5%	3.5%
C	TSLA	2019-03-15	\$400.00	393	\$11.50	\$40.90	\$25.40	\$2.11	0.60%	3,510	917	26.1%	0.12%	402.1	429	54.3%	50.9%
C	TSLA	2019-03-15	\$405.00	50	\$23.70	\$31.55	\$30.94	\$2.26	0.64%	3,510	768	21.9%	0.11%	53.2	58	52.2%	47.9%
C	TSLA	2019-03-15	\$410.00	23	\$10.47	\$29.95	\$23.61	\$2.27	0.64%	3,510	515	14.7%	0.09%	109.0	116	11.7%	11.0%
C	TSLA	2019-03-15	\$415.00	73	\$14.96	\$22.57	\$21.97	\$2.23	0.63%	3,510	393	11.2%	0.10%	50.7	72	80.0%	56.3%
C	TSLA	2019-03-15	\$420.00	1,290	\$7.25	\$30.77	\$14.81	\$2.01	0.57%	3,413	404	11.8%	0.10%	573.4	1,194	125.0%	60.0%
C	TSLA	2019-03-15	\$430.00	558	\$6.20	\$28.00	\$9.02	\$2.04	0.57%	3,510	207	5.9%	0.08%	105.9	444	292.7%	69.8%
C	TSLA	2019-03-15	\$440.00	105	\$5.00	\$23.10	\$15.58	\$2.14	0.60%	3,510	30	0.9%	0.06%	349.4	370	16.7%	15.8%
C	TSLA	2019-03-15	\$450.00	1,180	\$4.25	\$23.00	\$12.23	\$1.88	0.53%	3,510	29	0.8%	0.08%	1,109.6	1,383	59.1%	47.4%
C	TSLA	2019-03-15	\$460.00	286	\$3.35	\$20.00	\$9.16	\$1.88	0.53%	3,510	17	0.5%	0.05%	230.6	263	68.9%	60.4%
C	TSLA	2019-03-15	\$470.00	99	\$2.62	\$18.35	\$7.26	\$1.95	0.55%	3,510	7	0.2%	0.03%	91.9	126	59.8%	43.7%
C	TSLA	2019-03-15	\$480.00	32	\$2.00	\$7.85	\$3.28	\$1.96	0.55%	3,510	1	0.0%	0.01%	32.6	39	54.5%	45.6%
C	TSLA	2019-03-15	\$490.00	31	\$1.32	\$6.08	\$3.05	\$1.85	0.52%	3,510	2	0.1%	0.05%	216.9	218	7.9%	7.9%
C	TSLA	2019-03-15	\$500.00	751	\$0.97	\$14.15	\$9.45	\$1.73	0.49%	3,510	0	0.0%	---	396.9	461	105.1%	90.5%
C	TSLA	2019-03-15	\$510.00	34	\$1.60	\$10.10	\$6.49	\$2.11	0.59%	3,510	0	0.0%	---	34.9	38	54.1%	49.7%
C	TSLA	2019-03-15	\$520.00	6	\$1.35	\$2.30	\$1.83	\$2.16	0.61%	3,510	0	0.0%	---	173.3	176	1.9%	1.9%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
C	TSLA	2019-03-15	\$530.00	4	\$0.90	\$2.93	\$2.06	\$2.21	0.62%	3,510	0	0.0%	---	11.4	13	19.5%	17.1%
C	TSLA	2019-03-15	\$540.00	31	\$0.81	\$5.10	\$0.95	\$2.26	0.64%	3,510	0	0.0%	---	4.9	31	351.5%	55.6%
C	TSLA	2019-03-15	\$550.00	27	\$0.70	\$2.68	\$2.04	\$2.23	0.63%	3,510	0	0.0%	---	69.1	70	21.7%	21.4%
C	TSLA	2019-03-15	\$560.00	4	\$3.85	\$6.70	\$4.56	\$2.22	0.63%	3,510	0	0.0%	---	68.7	69	3.2%	3.2%
C	TSLA	2019-03-15	\$570.00	4	\$0.50	\$0.50	\$0.50	\$2.14	0.60%	3,510	0	0.0%	---	14.6	15	15.2%	14.8%
C	TSLA	2019-03-15	\$580.00	4	\$1.51	\$6.00	\$3.76	\$2.11	0.60%	3,510	0	0.0%	---	186.2	188	1.2%	1.2%
C	TSLA	2019-03-15	\$600.00	140	\$0.40	\$1.50	\$0.69	\$1.68	0.47%	3,510	0	0.0%	---	165.1	223	47.1%	34.9%
C	TSLA	2019-03-15	\$620.00	217	\$0.50	\$1.59	\$1.40	\$0.96	0.27%	3,510	0	0.0%	---	233.6	255	51.6%	47.3%
C	TSLA	2019-03-15	\$700.00	756	\$0.20	\$2.50	\$0.60	\$0.44	0.13%	3,510	0	0.0%	---	617.3	647	68.0%	64.9%
C	TSLA	2019-06-21	\$80.00	4	\$277.95	\$291.30	\$284.63	\$6.17	1.76%	3,412	1,615	47.3%	0.12%	211.0	211	1.1%	1.1%
C	TSLA	2019-06-21	\$145.00	1	\$226.00	\$226.00	\$226.00	\$5.95	1.69%	3,510	2,176	62.0%	0.31%	29.0	29	1.9%	1.9%
C	TSLA	2019-06-21	\$170.00	8	\$200.00	\$200.00	\$200.00	\$5.53	1.57%	3,510	2,492	71.0%	0.38%	8.0	8	55.6%	55.6%
C	TSLA	2019-06-21	\$200.00	33	\$160.56	\$178.00	\$169.22	\$5.29	1.50%	3,510	3,089	88.0%	0.41%	47.8	64	38.4%	28.6%
C	TSLA	2019-06-21	\$220.00	2	\$154.96	\$156.85	\$155.91	\$5.06	1.43%	3,510	2,557	72.8%	0.40%	3.0	3	37.0%	37.0%
C	TSLA	2019-06-21	\$230.00	10	\$106.40	\$106.40	\$106.40	\$4.97	1.41%	3,510	2,610	74.4%	0.39%	3.7	10	150.2%	55.6%
C	TSLA	2019-06-21	\$235.00	1	\$102.00	\$102.00	\$102.00	\$4.94	1.40%	3,510	2,548	72.6%	0.40%	90.1	91	0.6%	0.6%
C	TSLA	2019-06-21	\$250.00	6	\$95.50	\$140.00	\$116.33	\$4.80	1.36%	3,413	3,043	89.2%	0.49%	38.4	40	8.7%	8.3%
C	TSLA	2019-06-21	\$255.00	1	\$133.75	\$133.75	\$133.75	\$4.82	1.36%	3,510	2,441	69.5%	0.40%	12.0	12	4.6%	4.6%
C	TSLA	2019-06-21	\$260.00	2	\$102.16	\$118.83	\$110.50	\$4.76	1.34%	3,510	2,333	66.5%	0.40%	3.4	4	32.7%	27.8%
C	TSLA	2019-06-21	\$270.00	2	\$115.00	\$115.00	\$115.00	\$4.64	1.31%	3,509	2,399	68.4%	0.39%	33.0	33	3.4%	3.4%
C	TSLA	2019-06-21	\$275.00	1	\$76.50	\$76.50	\$76.50	\$4.59	1.30%	3,510	2,290	65.2%	0.39%	289.1	290	0.2%	0.2%
C	TSLA	2019-06-21	\$280.00	27	\$70.60	\$108.00	\$92.41	\$4.55	1.28%	3,510	2,326	66.3%	0.38%	177.3	183	8.5%	8.2%
C	TSLA	2019-06-21	\$290.00	21	\$64.80	\$111.00	\$97.10	\$4.45	1.25%	3,510	2,204	62.8%	0.38%	439.4	443	2.7%	2.6%
C	TSLA	2019-06-21	\$295.00	1	\$76.70	\$76.70	\$76.70	\$4.42	1.25%	3,510	2,106	60.0%	0.37%	367.0	367	0.2%	0.2%
C	TSLA	2019-06-21	\$300.00	155	\$58.50	\$103.60	\$86.42	\$4.37	1.23%	3,510	2,327	66.3%	0.35%	999.3	1,022	8.6%	8.4%
C	TSLA	2019-06-21	\$305.00	10	\$56.35	\$97.00	\$77.28	\$3.98	1.12%	3,510	2,088	59.5%	0.35%	405.6	407	1.4%	1.4%
C	TSLA	2019-06-21	\$310.00	24	\$53.15	\$93.62	\$69.73	\$3.92	1.10%	3,510	2,072	59.0%	0.34%	86.4	87	15.4%	15.3%
C	TSLA	2019-06-21	\$315.00	10	\$51.79	\$80.25	\$55.27	\$3.88	1.09%	3,510	2,020	57.5%	0.34%	251.7	252	2.2%	2.2%
C	TSLA	2019-06-21	\$320.00	14	\$48.25	\$85.30	\$61.75	\$3.81	1.07%	3,510	2,069	58.9%	0.32%	903.2	907	0.9%	0.9%
C	TSLA	2019-06-21	\$325.00	35	\$46.00	\$48.25	\$47.13	\$3.73	1.05%	3,510	2,029	57.8%	0.31%	631.7	638	3.1%	3.0%
C	TSLA	2019-06-21	\$330.00	51	\$45.10	\$79.90	\$68.70	\$5.77	1.61%	3,510	1,950	55.6%	0.30%	394.9	407	7.2%	7.0%
C	TSLA	2019-06-21	\$335.00	30	\$53.52	\$79.62	\$65.76	\$3.65	1.03%	3,510	1,931	55.0%	0.29%	205.2	208	8.1%	8.0%
C	TSLA	2019-06-21	\$340.00	76	\$40.05	\$74.00	\$55.79	\$3.60	1.02%	3,509	1,790	51.0%	0.28%	218.5	249	19.3%	17.0%
C	TSLA	2019-06-21	\$345.00	95	\$38.65	\$70.76	\$58.94	\$3.56	1.00%	3,509	1,782	50.8%	0.26%	1,255.1	1,273	4.2%	4.1%
C	TSLA	2019-06-21	\$350.00	1,386	\$35.00	\$74.00	\$59.52	\$2.89	0.82%	3,413	1,746	51.2%	0.25%	1,077.6	1,549	71.5%	49.7%
C	TSLA	2019-06-21	\$355.00	57	\$34.10	\$60.50	\$50.06	\$3.10	0.88%	3,510	1,666	47.5%	0.24%	626.2	651	5.1%	4.9%
C	TSLA	2019-06-21	\$360.00	137	\$31.00	\$70.00	\$53.79	\$3.03	0.86%	3,510	1,570	44.7%	0.22%	322.6	357	23.6%	21.3%
C	TSLA	2019-06-21	\$365.00	63	\$39.40	\$64.48	\$58.22	\$3.35	0.94%	3,510	1,490	42.5%	0.21%	454.8	459	7.7%	7.6%
C	TSLA	2019-06-21	\$370.00	169	\$28.37	\$63.00	\$43.45	\$3.23	0.91%	3,510	1,442	41.1%	0.19%	112.9	146	83.2%	64.3%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
C	TSLA	2019-06-21	\$375.00	22	\$27.05	\$60.10	\$49.07	\$3.18	0.90%	3,510	1,315	37.5%	0.18%	181.9	183	6.7%	6.7%
C	TSLA	2019-06-21	\$380.00	214	\$24.55	\$57.75	\$30.58	\$3.12	0.88%	3,510	1,182	33.7%	0.17%	2,084.4	2,229	5.7%	5.3%
C	TSLA	2019-06-21	\$385.00	12	\$44.00	\$50.00	\$44.67	\$3.07	0.87%	3,510	991	28.2%	0.15%	94.9	97	7.0%	6.9%
C	TSLA	2019-06-21	\$390.00	73	\$20.50	\$42.00	\$32.32	\$3.02	0.85%	3,510	913	26.0%	0.14%	1,231.0	1,255	3.3%	3.2%
C	TSLA	2019-06-21	\$395.00	17	\$20.45	\$37.60	\$33.54	\$3.07	0.87%	3,510	801	22.8%	0.13%	154.5	163	6.1%	5.8%
C	TSLA	2019-06-21	\$400.00	1,242	\$18.50	\$49.60	\$34.71	\$2.93	0.83%	3,510	751	21.4%	0.12%	1,683.8	1,841	41.0%	37.5%
C	TSLA	2019-06-21	\$410.00	38	\$20.68	\$42.40	\$27.51	\$3.05	0.86%	3,509	471	13.4%	0.10%	294.3	300	7.2%	7.0%
C	TSLA	2019-06-21	\$420.00	559	\$13.85	\$43.90	\$22.93	\$2.88	0.81%	3,510	326	9.3%	0.10%	249.5	467	124.5%	66.5%
C	TSLA	2019-06-21	\$430.00	314	\$12.63	\$38.80	\$18.89	\$2.97	0.84%	3,509	140	4.0%	0.08%	150.7	249	115.8%	70.1%
C	TSLA	2019-06-21	\$440.00	111	\$9.90	\$35.21	\$19.04	\$2.81	0.80%	3,509	49	1.4%	0.07%	287.5	296	21.4%	20.8%
C	TSLA	2019-06-21	\$450.00	527	\$8.75	\$31.50	\$17.44	\$2.63	0.74%	3,510	13	0.4%	0.08%	965.3	1,009	30.3%	29.0%
C	TSLA	2019-06-21	\$460.00	128	\$7.30	\$16.73	\$12.66	\$2.86	0.81%	3,510	0	0.0%	---	375.0	414	19.0%	17.2%
C	TSLA	2019-06-21	\$470.00	4	\$7.10	\$9.55	\$7.85	\$2.84	0.80%	3,510	0	0.0%	---	313.5	316	0.7%	0.7%
C	TSLA	2019-06-21	\$480.00	206	\$7.55	\$24.90	\$10.91	\$2.85	0.81%	3,510	0	0.0%	---	592.1	641	19.3%	17.9%
C	TSLA	2019-06-21	\$490.00	4	\$5.18	\$11.10	\$8.32	\$2.87	0.81%	3,510	0	0.0%	---	1,005.4	1,006	0.2%	0.2%
C	TSLA	2019-06-21	\$500.00	1,312	\$3.75	\$20.55	\$7.27	\$2.23	0.63%	3,412	1	0.0%	0.04%	522.7	1,028	139.4%	70.9%
C	TSLA	2019-06-21	\$510.00	5	\$7.48	\$16.45	\$10.27	\$2.89	0.82%	3,510	0	0.0%	---	1,477.0	1,477	0.2%	0.2%
C	TSLA	2019-06-21	\$530.00	15	\$6.00	\$13.30	\$10.87	\$2.94	0.83%	3,510	0	0.0%	---	45.0	46	18.5%	18.1%
C	TSLA	2019-06-21	\$540.00	80	\$2.26	\$12.75	\$7.69	\$3.07	0.87%	3,510	0	0.0%	---	177.2	184	25.1%	24.2%
C	TSLA	2019-06-21	\$550.00	331	\$3.75	\$12.90	\$6.87	\$3.18	0.90%	3,510	0	0.0%	---	121.2	167	151.7%	110.1%
C	TSLA	2019-06-21	\$560.00	3	\$2.83	\$2.85	\$2.84	\$3.16	0.90%	3,510	0	0.0%	---	23.8	25	7.0%	6.7%
C	TSLA	2019-06-21	\$570.00	2	\$10.04	\$10.04	\$10.04	\$3.29	0.93%	3,510	0	0.0%	---	23.2	25	4.8%	4.4%
C	TSLA	2019-06-21	\$580.00	96	\$1.31	\$9.00	\$8.52	\$3.30	0.93%	3,510	0	0.0%	---	91.0	91	58.6%	58.6%
C	TSLA	2019-06-21	\$590.00	30	\$2.29	\$8.65	\$4.27	\$3.33	0.94%	3,510	0	0.0%	---	100.0	100	16.7%	16.7%
C	TSLA	2019-06-21	\$600.00	63	\$0.84	\$9.34	\$3.06	\$3.16	0.89%	3,510	0	0.0%	---	134.9	149	25.9%	23.5%
C	TSLA	2019-06-21	\$610.00	184	\$0.80	\$1.03	\$0.89	\$3.21	0.91%	3,510	0	0.0%	---	34.3	105	298.0%	97.4%
C	TSLA	2019-06-21	\$620.00	42	\$0.82	\$0.97	\$0.95	\$3.19	0.90%	3,510	0	0.0%	---	11.8	23	197.7%	101.4%
C	TSLA	2019-06-21	\$640.00	17	\$0.83	\$3.00	\$1.24	\$2.94	0.83%	3,509	0	0.0%	---	5.1	9	185.2%	104.9%
C	TSLA	2019-06-21	\$650.00	350	\$1.04	\$1.50	\$1.34	\$2.75	0.78%	3,510	0	0.0%	---	86.0	137	226.1%	141.9%
C	TSLA	2019-06-21	\$660.00	103	\$0.54	\$2.00	\$1.09	\$2.65	0.75%	3,510	0	0.0%	---	49.0	74	116.8%	77.3%
C	TSLA	2019-06-21	\$670.00	160	\$0.84	\$1.40	\$1.08	\$2.71	0.77%	3,510	0	0.0%	---	69.4	94	128.1%	94.6%
C	TSLA	2019-06-21	\$680.00	27	\$0.67	\$4.20	\$1.20	\$2.10	0.59%	3,509	0	0.0%	---	6.0	7	250.0%	214.3%
C	TSLA	2019-06-21	\$690.00	337	\$0.44	\$2.50	\$1.35	\$1.35	0.38%	3,510	0	0.0%	---	206.2	242	90.8%	77.4%
C	TSLA	2019-06-21	\$700.00	724	\$0.05	\$2.50	\$0.94	\$1.06	0.30%	3,510	0	0.0%	---	347.9	399	115.6%	100.8%
C	TSLA	2019-08-16	\$150.00	10	\$218.78	\$218.78	\$218.78	\$6.05	1.72%	3,412	2,976	87.2%	0.29%	11.0	20	50.5%	27.8%
C	TSLA	2019-08-16	\$200.00	10	\$179.85	\$179.85	\$179.85	\$5.47	1.56%	3,510	2,982	85.0%	0.46%	21.2	22	26.2%	25.3%
C	TSLA	2019-08-16	\$250.00	23	\$124.00	\$137.80	\$129.17	\$5.11	1.45%	3,510	2,745	78.2%	0.32%	585.8	597	2.2%	2.1%
C	TSLA	2019-08-16	\$255.00	4	\$104.45	\$107.10	\$105.56	\$5.18	1.47%	3,510	2,621	74.7%	0.30%	26.3	27	8.4%	8.2%
C	TSLA	2019-08-16	\$260.00	7	\$86.10	\$121.10	\$103.25	\$5.07	1.44%	3,510	2,572	73.3%	0.29%	126.3	127	3.1%	3.1%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
C	TSLA	2019-08-16	\$265.00	2	\$117.58	\$118.23	\$117.91	\$5.06	1.43%	3,510	2,515	71.7%	0.28%	42.6	43	2.6%	2.6%
C	TSLA	2019-08-16	\$275.00	20	\$115.65	\$115.65	\$115.65	\$4.94	1.40%	3,510	2,416	68.8%	0.26%	22.0	22	50.5%	50.5%
C	TSLA	2019-08-16	\$280.00	8	\$102.00	\$104.79	\$102.79	\$4.91	1.39%	3,510	2,294	65.4%	0.26%	40.0	40	11.1%	11.1%
C	TSLA	2019-08-16	\$290.00	4	\$68.00	\$108.30	\$88.35	\$3.94	1.12%	3,411	2,150	63.0%	0.25%	205.8	206	1.1%	1.1%
C	TSLA	2019-08-16	\$300.00	65	\$62.00	\$100.00	\$76.54	\$3.87	1.10%	3,413	1,948	57.1%	0.24%	152.2	159	23.7%	22.7%
C	TSLA	2019-08-16	\$305.00	7	\$84.00	\$98.30	\$86.86	\$4.70	1.33%	3,509	1,843	52.5%	0.24%	8.7	10	44.7%	38.9%
C	TSLA	2019-08-16	\$310.00	55	\$57.89	\$90.00	\$59.01	\$4.25	1.20%	3,510	1,764	50.3%	0.25%	17.2	63	177.6%	48.5%
C	TSLA	2019-08-16	\$315.00	49	\$54.97	\$57.06	\$55.94	\$4.23	1.20%	3,510	1,732	49.3%	0.24%	37.4	50	72.8%	54.4%
C	TSLA	2019-08-16	\$320.00	15	\$52.20	\$88.00	\$70.32	\$4.20	1.19%	3,510	1,573	44.8%	0.25%	16.0	21	52.1%	39.7%
C	TSLA	2019-08-16	\$325.00	5	\$51.00	\$52.75	\$51.56	\$4.17	1.18%	3,510	1,555	44.3%	0.23%	25.5	30	10.9%	9.3%
C	TSLA	2019-08-16	\$330.00	12	\$50.00	\$85.00	\$81.50	\$4.12	1.17%	3,413	1,444	42.3%	0.24%	71.9	73	9.3%	9.1%
C	TSLA	2019-08-16	\$335.00	13	\$47.50	\$79.83	\$77.06	\$4.10	1.16%	3,510	1,490	42.5%	0.21%	13.0	17	55.6%	42.5%
C	TSLA	2019-08-16	\$340.00	100	\$44.00	\$79.00	\$66.32	\$4.08	1.16%	3,509	1,405	40.0%	0.23%	53.4	93	104.0%	59.7%
C	TSLA	2019-08-16	\$345.00	6	\$62.00	\$71.15	\$69.63	\$4.10	1.16%	3,510	1,307	37.2%	0.19%	48.5	50	6.9%	6.7%
C	TSLA	2019-08-16	\$350.00	56	\$38.00	\$81.65	\$61.21	\$4.05	1.15%	3,510	1,252	35.7%	0.18%	112.5	120	27.7%	25.9%
C	TSLA	2019-08-16	\$355.00	3	\$57.00	\$59.00	\$57.67	\$4.05	1.15%	3,510	1,169	33.3%	0.17%	15.3	17	10.9%	9.8%
C	TSLA	2019-08-16	\$360.00	22	\$35.80	\$62.70	\$54.23	\$4.02	1.14%	3,510	1,098	31.3%	0.17%	71.8	77	17.0%	15.9%
C	TSLA	2019-08-16	\$365.00	5	\$43.05	\$65.00	\$56.84	\$4.01	1.14%	3,509	960	27.4%	0.14%	131.0	131	2.1%	2.1%
C	TSLA	2019-08-16	\$370.00	59	\$50.97	\$60.75	\$53.90	\$4.00	1.13%	3,510	856	24.4%	0.13%	55.1	64	59.5%	51.2%
C	TSLA	2019-08-16	\$375.00	43	\$39.50	\$67.00	\$50.90	\$4.02	1.14%	3,510	701	20.0%	0.12%	51.6	63	46.3%	37.9%
C	TSLA	2019-08-16	\$380.00	714	\$28.25	\$61.30	\$46.43	\$3.89	1.10%	3,510	575	16.4%	0.19%	238.5	387	166.3%	102.5%
C	TSLA	2019-08-16	\$385.00	25	\$25.45	\$59.75	\$43.62	\$3.71	1.05%	3,510	445	12.7%	0.11%	20.2	29	68.8%	47.9%
C	TSLA	2019-08-16	\$390.00	4	\$25.50	\$43.32	\$35.15	\$3.67	1.04%	3,510	275	7.8%	0.09%	99.5	101	2.2%	2.2%
C	TSLA	2019-08-16	\$395.00	1	\$30.25	\$30.25	\$30.25	\$3.67	1.04%	3,510	271	7.7%	0.09%	26.0	26	2.1%	2.1%
C	TSLA	2019-08-16	\$400.00	56	\$23.11	\$55.00	\$43.73	\$3.53	1.01%	3,510	197	5.6%	0.10%	168.1	177	18.5%	17.6%
C	TSLA	2019-08-16	\$410.00	29	\$33.60	\$38.97	\$35.37	\$3.69	1.05%	3,510	74	2.1%	0.08%	33.2	35	48.5%	46.0%
C	TSLA	2019-08-16	\$420.00	169	\$16.20	\$45.51	\$30.27	\$3.54	1.01%	3,510	268	7.6%	0.12%	73.4	104	127.9%	90.3%
C	TSLA	2019-08-16	\$430.00	84	\$15.00	\$31.26	\$23.96	\$3.54	1.01%	3,510	124	3.5%	0.13%	22.5	31	207.4%	150.5%
C	TSLA	2019-08-16	\$440.00	45	\$15.40	\$30.80	\$20.83	\$3.65	1.04%	3,510	10	0.3%	0.04%	25.2	34	99.2%	73.5%
C	TSLA	2019-08-16	\$450.00	39	\$10.50	\$30.00	\$17.11	\$3.44	0.98%	3,510	1	0.0%	0.06%	36.2	45	59.9%	48.1%
C	TSLA	2019-08-16	\$460.00	62	\$15.50	\$21.00	\$19.66	\$3.45	0.98%	3,508	0	0.0%	---	91.6	111	37.6%	31.0%
C	TSLA	2019-08-16	\$470.00	4	\$9.50	\$19.60	\$13.38	\$3.48	0.99%	3,510	0	0.0%	---	41.2	43	5.4%	5.2%
C	TSLA	2019-08-16	\$480.00	10	\$8.25	\$16.50	\$10.32	\$3.38	0.96%	3,510	1	0.0%	0.04%	51.0	56	10.9%	9.9%
C	TSLA	2019-08-16	\$490.00	41	\$7.80	\$16.08	\$8.54	\$3.94	1.12%	3,510	0	0.0%	---	50.6	56	45.0%	40.7%
C	TSLA	2019-08-16	\$500.00	273	\$5.85	\$24.06	\$9.65	\$2.43	0.69%	3,412	0	0.0%	---	110.4	188	137.4%	80.7%
C	TSLA	2019-08-16	\$520.00	1	\$6.75	\$6.75	\$6.75	\$3.55	1.01%	3,510	0	0.0%	---	19.0	19	2.9%	2.9%
C	TSLA	2019-08-16	\$530.00	2	\$5.90	\$7.56	\$6.73	\$3.65	1.04%	3,510	0	0.0%	---	3.7	4	30.0%	27.8%
C	TSLA	2019-08-16	\$540.00	199	\$5.70	\$6.40	\$5.94	\$3.56	1.01%	3,510	0	0.0%	---	80.8	199	136.8%	55.6%
C	TSLA	2019-08-16	\$550.00	1	\$17.50	\$17.50	\$17.50	\$3.74	1.06%	3,510	0	0.0%	---	20.0	20	2.8%	2.8%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
C	TSLA	2019-08-16	\$560.00	4	\$2.70	\$2.70	\$2.70	\$3.77	1.07%	3,510	0	0.0%	---	4.2	7	52.9%	31.7%
C	TSLA	2019-08-16	\$580.00	20	\$3.50	\$10.00	\$3.86	\$3.45	0.98%	3,510	0	0.0%	---	12.1	19	91.8%	58.5%
C	TSLA	2019-08-16	\$590.00	59	\$2.11	\$11.00	\$2.95	\$3.42	0.97%	3,510	0	0.0%	---	24.0	58	136.6%	56.5%
C	TSLA	2019-08-16	\$600.00	270	\$1.00	\$4.20	\$2.73	\$3.24	0.92%	3,510	0	0.0%	---	127.2	153	117.9%	98.0%
C	TSLA	2019-08-16	\$610.00	1	\$3.95	\$3.95	\$3.95	\$3.73	1.06%	3,510	0	0.0%	---	3.0	3	18.5%	18.5%
C	TSLA	2019-08-16	\$620.00	1	\$2.50	\$2.50	\$2.50	\$3.70	1.05%	3,510	0	0.0%	---	2.0	2	27.8%	27.8%
C	TSLA	2019-08-16	\$650.00	18	\$2.76	\$3.15	\$2.98	\$3.56	1.01%	3,509	0	0.0%	---	20.4	22	49.0%	45.5%
C	TSLA	2019-08-16	\$660.00	21	\$0.75	\$2.80	\$0.92	\$3.49	0.99%	3,510	0	0.0%	---	5.9	22	197.7%	53.0%
C	TSLA	2019-08-16	\$680.00	6	\$1.63	\$2.40	\$2.09	\$2.81	0.80%	3,510	0	0.0%	---	5.4	6	61.7%	55.6%
C	TSLA	2019-08-16	\$690.00	258	\$1.00	\$3.50	\$1.92	\$1.73	0.49%	3,510	0	0.0%	---	118.4	180	121.1%	79.6%
C	TSLA	2019-08-16	\$700.00	622	\$0.74	\$7.05	\$2.58	\$1.56	0.44%	3,509	0	0.0%	---	462.1	486	74.8%	71.1%
C	TSLA	2020-01-17	\$20.00	38	\$339.50	\$354.00	\$347.24	\$6.36	1.82%	3,510	0	0.0%	---	24.7	184	85.5%	11.5%
C	TSLA	2020-01-17	\$30.00	10	\$343.50	\$343.50	\$343.50	\$6.37	1.82%	3,510	1	0.0%	0.21%	19.8	24	28.1%	23.1%
C	TSLA	2020-01-17	\$50.00	2	\$261.50	\$261.50	\$261.50	\$6.36	1.81%	3,510	2,552	72.7%	0.12%	69.1	70	1.6%	1.6%
C	TSLA	2020-01-17	\$60.00	2	\$291.70	\$291.70	\$291.70	\$6.35	1.81%	3,508	1,395	39.8%	0.27%	193.4	194	0.6%	0.6%
C	TSLA	2020-01-17	\$70.00	2	\$242.80	\$243.50	\$243.15	\$6.33	1.81%	3,413	2,455	71.9%	0.42%	797.4	816	0.1%	0.1%
C	TSLA	2020-01-17	\$75.00	2	\$280.00	\$280.00	\$280.00	\$6.41	1.83%	3,510	2,359	67.2%	0.39%	718.5	719	0.2%	0.2%
C	TSLA	2020-01-17	\$90.00	5	\$222.10	\$270.35	\$241.82	\$6.32	1.80%	3,510	3,266	93.0%	0.74%	586.2	588	0.5%	0.5%
C	TSLA	2020-01-17	\$100.00	299	\$210.25	\$280.00	\$250.74	\$6.28	1.79%	3,508	3,338	95.2%	0.88%	861.6	960	19.3%	17.3%
C	TSLA	2020-01-17	\$130.00	6	\$247.50	\$248.00	\$247.75	\$6.30	1.80%	3,509	3,249	92.6%	0.61%	35.4	36	9.4%	9.3%
C	TSLA	2020-01-17	\$140.00	14	\$182.60	\$223.00	\$213.18	\$6.30	1.80%	3,508	3,249	92.6%	0.62%	13.4	17	58.0%	45.8%
C	TSLA	2020-01-17	\$145.00	2	\$228.00	\$228.00	\$228.00	\$6.29	1.79%	3,510	3,249	92.6%	0.60%	2.8	3	39.7%	37.0%
C	TSLA	2020-01-17	\$150.00	20	\$171.00	\$230.00	\$202.66	\$6.27	1.79%	3,510	3,325	94.7%	0.88%	191.0	196	5.8%	5.7%
C	TSLA	2020-01-17	\$160.00	1	\$224.63	\$224.63	\$224.63	\$14.05	3.92%	3,510	3,262	92.9%	0.68%	22.0	22	2.5%	2.5%
C	TSLA	2020-01-17	\$170.00	3	\$192.00	\$207.00	\$197.00	\$6.00	1.71%	3,510	3,258	92.8%	0.64%	39.9	41	4.2%	4.1%
C	TSLA	2020-01-17	\$175.00	1	\$199.50	\$199.50	\$199.50	\$5.14	1.48%	3,411	3,277	96.1%	0.75%	11.1	12	5.0%	4.6%
C	TSLA	2020-01-17	\$180.00	9	\$148.85	\$155.00	\$154.32	\$5.97	1.70%	3,510	3,284	93.6%	0.76%	42.5	43	11.8%	11.6%
C	TSLA	2020-01-17	\$185.00	1	\$143.00	\$143.00	\$143.00	\$6.97	1.97%	3,509	3,254	92.7%	0.60%	32.9	33	1.7%	1.7%
C	TSLA	2020-01-17	\$200.00	565	\$133.00	\$196.85	\$164.81	\$5.76	1.64%	3,510	3,336	95.0%	0.93%	1,639.4	1,801	19.1%	17.4%
C	TSLA	2020-01-17	\$210.00	6	\$143.00	\$170.00	\$157.17	\$5.95	1.70%	3,509	3,267	93.1%	0.60%	117.1	118	2.8%	2.8%
C	TSLA	2020-01-17	\$220.00	50	\$117.20	\$175.05	\$149.55	\$9.79	2.75%	3,510	3,253	92.7%	0.52%	353.5	368	7.9%	7.5%
C	TSLA	2020-01-17	\$230.00	11	\$146.00	\$162.00	\$155.32	\$11.02	3.09%	3,510	3,222	91.8%	0.59%	356.0	358	1.7%	1.7%
C	TSLA	2020-01-17	\$240.00	7	\$121.88	\$159.05	\$150.05	\$10.73	3.00%	3,510	3,258	92.8%	0.60%	300.9	301	1.3%	1.3%
C	TSLA	2020-01-17	\$250.00	170	\$96.50	\$156.20	\$136.74	\$5.76	1.64%	3,508	3,270	93.2%	0.61%	583.7	604	16.2%	15.6%
C	TSLA	2020-01-17	\$255.00	51	\$109.00	\$140.00	\$123.37	\$5.78	1.64%	3,510	3,154	89.9%	0.44%	130.0	137	21.8%	20.7%
C	TSLA	2020-01-17	\$260.00	11	\$92.55	\$143.80	\$124.71	\$5.78	1.65%	3,509	3,069	87.5%	0.40%	212.6	216	2.9%	2.8%
C	TSLA	2020-01-17	\$265.00	4	\$119.97	\$134.82	\$130.02	\$5.75	1.64%	3,510	3,071	87.5%	0.38%	59.6	60	3.7%	3.7%
C	TSLA	2020-01-17	\$270.00	26	\$90.40	\$132.89	\$112.12	\$5.73	1.63%	3,509	3,029	86.3%	0.40%	234.7	242	6.2%	6.0%
C	TSLA	2020-01-17	\$275.00	8	\$83.82	\$128.20	\$107.35	\$5.70	1.62%	3,510	3,034	86.4%	0.41%	167.4	168	2.7%	2.6%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
C	TSLA	2020-01-17	\$280.00	86	\$80.42	\$126.00	\$111.01	\$5.83	1.66%	3,510	2,924	83.3%	0.35%	329.4	334	14.5%	14.3%
C	TSLA	2020-01-17	\$285.00	8	\$82.61	\$123.00	\$106.89	\$5.57	1.58%	3,508	2,844	81.1%	0.33%	124.0	126	3.6%	3.5%
C	TSLA	2020-01-17	\$290.00	15	\$115.30	\$118.00	\$117.42	\$4.81	1.37%	3,413	2,737	80.2%	0.31%	454.3	457	1.8%	1.8%
C	TSLA	2020-01-17	\$295.00	9	\$72.10	\$117.00	\$99.28	\$5.60	1.59%	3,509	2,684	76.5%	0.31%	127.8	128	3.9%	3.9%
C	TSLA	2020-01-17	\$300.00	1,323	\$68.46	\$115.00	\$92.05	\$4.27	1.22%	3,413	2,934	86.0%	0.43%	2,520.8	2,740	29.2%	26.8%
C	TSLA	2020-01-17	\$305.00	111	\$67.70	\$110.34	\$87.41	\$5.36	1.52%	3,508	2,478	70.6%	0.28%	398.3	413	15.5%	14.9%
C	TSLA	2020-01-17	\$310.00	64	\$64.80	\$110.00	\$80.42	\$5.45	1.55%	3,510	2,336	66.6%	0.27%	594.5	608	6.0%	5.8%
C	TSLA	2020-01-17	\$315.00	191	\$60.50	\$110.00	\$75.07	\$7.51	2.11%	3,508	2,244	64.0%	0.25%	336.4	389	31.5%	27.3%
C	TSLA	2020-01-17	\$320.00	158	\$59.50	\$110.00	\$74.74	\$5.39	1.53%	3,510	2,114	60.2%	0.27%	702.1	732	12.5%	12.0%
C	TSLA	2020-01-17	\$325.00	415	\$58.00	\$101.50	\$79.40	\$4.98	1.42%	3,411	2,065	60.5%	0.25%	521.0	619	44.3%	37.2%
C	TSLA	2020-01-17	\$330.00	261	\$54.00	\$101.00	\$83.24	\$4.89	1.39%	3,510	1,842	52.5%	0.28%	1,038.7	1,049	14.0%	13.8%
C	TSLA	2020-01-17	\$335.00	46	\$54.20	\$97.02	\$76.92	\$4.93	1.40%	3,508	1,529	43.6%	0.23%	176.3	182	14.5%	14.0%
C	TSLA	2020-01-17	\$340.00	243	\$51.80	\$85.00	\$66.68	\$4.89	1.39%	3,510	1,476	42.1%	0.24%	386.0	485	35.0%	27.8%
C	TSLA	2020-01-17	\$350.00	1,781	\$46.00	\$90.00	\$61.56	\$4.52	1.29%	3,510	1,565	44.6%	0.26%	1,735.8	2,252	57.0%	43.9%
C	TSLA	2020-01-17	\$360.00	2,743	\$42.84	\$82.65	\$56.26	\$3.97	1.13%	3,508	1,288	36.7%	0.31%	3,700.2	4,227	41.2%	36.1%
C	TSLA	2020-01-17	\$370.00	400	\$38.37	\$70.52	\$51.60	\$4.55	1.29%	3,508	800	22.8%	0.21%	578.1	620	38.4%	35.8%
C	TSLA	2020-01-17	\$380.00	2,134	\$35.00	\$69.56	\$42.73	\$4.57	1.30%	3,510	599	17.1%	0.21%	888.1	2,157	133.5%	55.0%
C	TSLA	2020-01-17	\$390.00	322	\$34.00	\$67.73	\$47.25	\$4.69	1.33%	3,508	345	9.8%	0.17%	336.1	399	53.2%	44.8%
C	TSLA	2020-01-17	\$400.00	5,586	\$28.80	\$71.98	\$43.71	\$4.40	1.24%	3,510	981	27.9%	0.23%	4,260.0	4,650	72.8%	66.7%
C	TSLA	2020-01-17	\$410.00	552	\$24.40	\$65.41	\$36.86	\$4.53	1.29%	3,510	416	11.9%	0.14%	773.6	941	39.6%	32.6%
C	TSLA	2020-01-17	\$420.00	4,772	\$23.38	\$65.00	\$37.66	\$2.66	0.76%	3,510	1,424	40.6%	0.29%	2,736.3	3,565	96.9%	74.4%
C	TSLA	2020-01-17	\$430.00	1,216	\$21.72	\$55.50	\$30.22	\$4.28	1.22%	3,509	269	7.7%	0.25%	642.3	747	105.2%	90.4%
C	TSLA	2020-01-17	\$440.00	663	\$19.42	\$55.28	\$30.27	\$3.81	1.09%	3,413	202	5.9%	0.13%	335.6	394	109.8%	93.5%
C	TSLA	2020-01-17	\$450.00	2,994	\$18.00	\$55.00	\$28.51	\$4.22	1.19%	3,510	256	7.3%	0.14%	1,982.3	2,081	83.9%	79.9%
C	TSLA	2020-01-17	\$460.00	360	\$15.00	\$52.49	\$24.25	\$4.89	1.39%	3,509	2	0.1%	0.05%	330.0	374	60.6%	53.5%
C	TSLA	2020-01-17	\$470.00	551	\$14.15	\$45.50	\$19.74	\$3.91	1.11%	3,510	4	0.1%	0.07%	267.8	558	114.3%	54.9%
C	TSLA	2020-01-17	\$480.00	101	\$11.55	\$29.30	\$21.49	\$4.09	1.17%	3,508	0	0.0%	---	154.5	170	36.3%	33.0%
C	TSLA	2020-01-17	\$490.00	49	\$11.80	\$40.40	\$23.15	\$4.08	1.16%	3,510	0	0.0%	---	241.5	244	11.3%	11.2%
C	TSLA	2020-01-17	\$500.00	4,644	\$9.55	\$39.75	\$19.17	\$2.23	0.63%	3,509	18	0.5%	0.08%	4,113.8	4,276	62.7%	60.3%
C	TSLA	2020-01-17	\$510.00	48	\$12.00	\$30.96	\$20.84	\$3.79	1.08%	3,509	0	0.0%	---	144.6	146	18.4%	18.3%
C	TSLA	2020-01-17	\$520.00	160	\$8.40	\$33.00	\$19.36	\$3.64	1.04%	3,411	0	0.0%	---	334.6	349	26.6%	25.5%
C	TSLA	2020-01-17	\$530.00	19	\$7.90	\$20.00	\$11.54	\$3.99	1.14%	3,413	0	0.0%	---	69.5	70	15.2%	15.1%
C	TSLA	2020-01-17	\$540.00	32	\$5.50	\$22.45	\$13.88	\$4.20	1.20%	3,508	0	0.0%	---	287.5	292	6.2%	6.1%
C	TSLA	2020-01-17	\$550.00	838	\$3.50	\$28.59	\$10.08	\$3.34	0.96%	3,508	0	0.0%	---	1,144.8	1,228	40.7%	37.9%
C	TSLA	2020-01-17	\$560.00	455	\$6.40	\$17.80	\$11.99	\$4.05	1.15%	3,509	0	0.0%	---	400.0	437	63.2%	57.8%
C	TSLA	2020-01-17	\$570.00	46	\$6.17	\$27.00	\$13.73	\$4.36	1.25%	3,510	0	0.0%	---	34.6	44	73.9%	58.1%
C	TSLA	2020-01-17	\$580.00	75	\$5.70	\$17.65	\$8.54	\$4.48	1.28%	3,510	0	0.0%	---	113.4	129	36.7%	32.3%
C	TSLA	2020-01-17	\$590.00	118	\$5.00	\$11.00	\$6.06	\$2.51	0.71%	3,510	0	0.0%	---	82.2	96	79.8%	68.3%
C	TSLA	2020-01-17	\$600.00	3,532	\$4.50	\$22.71	\$7.53	\$1.42	0.40%	3,510	0	0.0%	---	2,897.1	3,245	67.7%	60.5%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open Interest
C	TSLA	2020-01-17	\$610.00	526	\$4.65	\$22.00	\$6.64	\$3.59	1.03%	3,413	0	0.0%	---	620.3	642	47.1%	45.5%
C	TSLA	2020-01-17	\$620.00	37	\$4.40	\$16.50	\$5.79	\$4.20	1.20%	3,509	0	0.0%	---	134.7	144	15.3%	14.3%
C	TSLA	2020-01-17	\$630.00	25	\$4.25	\$15.00	\$7.58	\$4.26	1.22%	3,510	0	0.0%	---	55.1	67	25.2%	20.7%
C	TSLA	2020-01-17	\$640.00	61	\$4.40	\$8.50	\$5.42	\$3.94	1.13%	3,509	0	0.0%	---	51.4	55	65.9%	61.6%
C	TSLA	2020-01-17	\$650.00	499	\$2.00	\$17.20	\$6.29	\$2.48	0.71%	3,412	0	0.0%	---	421.1	467	65.8%	59.4%
C	TSLA	2020-01-17	\$660.00	4	\$4.00	\$6.46	\$5.62	\$3.68	1.05%	3,510	0	0.0%	---	21.0	21	10.6%	10.6%
C	TSLA	2020-01-17	\$670.00	7	\$3.00	\$6.30	\$4.71	\$3.37	0.97%	3,412	0	0.0%	---	39.3	40	9.9%	9.7%
C	TSLA	2020-01-17	\$680.00	984	\$2.75	\$7.25	\$5.78	\$1.74	0.49%	3,510	0	0.0%	---	612.5	665	89.3%	82.2%
C	TSLA	2020-01-17	\$690.00	892	\$2.75	\$11.50	\$6.00	\$1.56	0.44%	3,510	0	0.0%	---	759.8	819	65.2%	60.5%
C	TSLA	2020-01-17	\$700.00	10,452	\$2.50	\$14.00	\$5.40	\$0.60	0.17%	3,413	0	0.0%	---	8,027.2	8,294	72.3%	70.0%
C	TSLA1	2019-01-18	\$17.00	1	\$25.00	\$25.00	\$25.00	\$1.49	3.86%	3,510	0	0.0%	---	55.1	56	1.0%	1.0%
C	TSLA1	2019-01-18	\$20.00	11	\$19.30	\$21.80	\$19.53	\$1.37	3.57%	3,510	0	0.0%	---	498.2	503	1.2%	1.2%
C	TSLA1	2019-01-18	\$27.00	8	\$12.75	\$14.60	\$13.40	\$1.55	4.03%	3,510	0	0.0%	---	1,228.0	1,228	0.4%	0.4%
C	TSLA1	2019-01-18	\$30.00	12	\$10.20	\$10.80	\$10.50	\$1.63	4.21%	3,510	0	0.0%	---	564.5	566	1.2%	1.2%
C	TSLA1	2019-01-18	\$40.00	6	\$2.45	\$5.70	\$4.07	\$1.40	3.64%	3,509	0	0.0%	---	62.9	64	5.3%	5.2%
P	TSLA	2018-08-10	\$100.00	100	\$0.01	\$0.02	\$0.02	\$0.80	0.22%	1,560	0	0.0%	---	37.5	100	333.3%	125.0%
P	TSLA	2018-08-10	\$130.00	26	\$0.02	\$1.00	\$0.06	\$0.79	0.22%	1,560	0	0.0%	---	7.0	26	464.3%	125.0%
P	TSLA	2018-08-10	\$155.00	6	\$0.03	\$0.85	\$0.71	\$0.77	0.21%	1,560	0	0.0%	---	3.0	6	250.0%	125.0%
P	TSLA	2018-08-10	\$185.00	6	\$0.01	\$0.02	\$0.02	\$0.32	0.09%	1,560	0	0.0%	---	228.0	228	3.3%	3.3%
P	TSLA	2018-08-10	\$190.00	17	\$0.01	\$0.01	\$0.01	\$0.32	0.09%	1,560	0	0.0%	---	615.0	615	3.5%	3.5%
P	TSLA	2018-08-10	\$200.00	20	\$0.01	\$0.01	\$0.01	\$0.32	0.09%	1,560	0	0.0%	---	409.0	409	6.1%	6.1%
P	TSLA	2018-08-10	\$205.00	10	\$0.02	\$0.02	\$0.02	\$0.03	0.01%	1,560	0	0.0%	---	259.0	259	4.8%	4.8%
P	TSLA	2018-08-10	\$210.00	69	\$0.01	\$0.02	\$0.01	\$0.33	0.09%	1,560	0	0.0%	---	843.5	862	10.2%	10.0%
P	TSLA	2018-08-10	\$215.00	40	\$0.01	\$0.02	\$0.02	\$0.02	0.00%	1,560	0	0.0%	---	239.3	253	20.9%	19.8%
P	TSLA	2018-08-10	\$220.00	42	\$0.01	\$0.01	\$0.01	\$0.37	0.10%	1,560	0	0.0%	---	251.8	267	20.9%	19.7%
P	TSLA	2018-08-10	\$225.00	86	\$0.01	\$0.28	\$0.02	\$0.35	0.10%	1,560	0	0.0%	---	290.3	315	37.0%	34.1%
P	TSLA	2018-08-10	\$230.00	100	\$0.01	\$0.08	\$0.03	\$0.33	0.09%	1,560	0	0.0%	---	567.3	629	22.0%	19.9%
P	TSLA	2018-08-10	\$235.00	187	\$0.01	\$0.04	\$0.02	\$0.33	0.09%	1,560	0	0.0%	---	263.3	298	88.8%	78.4%
P	TSLA	2018-08-10	\$240.00	266	\$0.01	\$0.25	\$0.01	\$0.36	0.10%	1,560	0	0.0%	---	512.5	549	64.9%	60.6%
P	TSLA	2018-08-10	\$245.00	68	\$0.01	\$0.04	\$0.02	\$0.35	0.10%	1,560	0	0.0%	---	327.0	342	26.0%	24.9%
P	TSLA	2018-08-10	\$250.00	269	\$0.01	\$0.08	\$0.02	\$0.34	0.09%	1,560	0	0.0%	---	846.0	882	39.7%	38.1%
P	TSLA	2018-08-10	\$255.00	117	\$0.01	\$0.70	\$0.02	\$0.12	0.03%	1,560	0	0.0%	---	396.8	440	36.9%	33.2%
P	TSLA	2018-08-10	\$260.00	305	\$0.01	\$0.10	\$0.03	\$0.35	0.10%	1,560	0	0.0%	---	990.8	1,100	38.5%	34.7%
P	TSLA	2018-08-10	\$262.50	25	\$0.01	\$0.10	\$0.04	\$0.45	0.12%	1,560	0	0.0%	---	114.5	120	27.3%	26.0%
P	TSLA	2018-08-10	\$265.00	442	\$0.01	\$0.10	\$0.04	\$0.08	0.02%	1,560	0	0.0%	---	486.0	632	113.7%	87.4%
P	TSLA	2018-08-10	\$267.50	480	\$0.01	\$0.10	\$0.03	\$0.40	0.11%	1,560	0	0.0%	---	227.3	477	264.0%	125.8%
P	TSLA	2018-08-10	\$270.00	243	\$0.01	\$0.12	\$0.04	\$0.37	0.10%	1,560	0	0.0%	---	389.0	436	78.1%	69.7%
P	TSLA	2018-08-10	\$272.50	172	\$0.01	\$0.06	\$0.04	\$0.08	0.02%	1,560	0	0.0%	---	177.8	220	121.0%	97.7%
P	TSLA	2018-08-10	\$275.00	270	\$0.01	\$0.14	\$0.04	\$0.36	0.10%	1,560	0	0.0%	---	723.3	758	46.7%	44.5%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open Interest
P	TSLA	2018-08-10	\$277.50	120	\$0.01	\$0.14	\$0.05	\$0.55	0.15%	1,560	0	0.0%	---	161.0	190	93.2%	78.9%
P	TSLA	2018-08-10	\$280.00	424	\$0.01	\$4.35	\$0.12	\$0.36	0.10%	1,560	0	0.0%	---	1,331.0	1,374	39.8%	38.6%
P	TSLA	2018-08-10	\$282.50	296	\$0.01	\$0.18	\$0.05	\$0.08	0.02%	1,463	0	0.0%	---	277.3	356	133.5%	103.9%
P	TSLA	2018-08-10	\$285.00	427	\$0.01	\$0.23	\$0.09	\$0.40	0.11%	1,463	0	0.0%	---	783.5	817	68.1%	65.3%
P	TSLA	2018-08-10	\$287.50	173	\$0.01	\$0.14	\$0.09	\$0.12	0.03%	1,560	0	0.0%	---	433.0	450	49.9%	48.1%
P	TSLA	2018-08-10	\$290.00	244	\$0.01	\$0.31	\$0.07	\$0.38	0.10%	1,560	0	0.0%	---	775.5	783	39.3%	39.0%
P	TSLA	2018-08-10	\$292.50	422	\$0.01	\$0.31	\$0.15	\$0.07	0.02%	1,463	0	0.0%	---	390.0	419	135.3%	125.9%
P	TSLA	2018-08-10	\$295.00	988	\$0.01	\$0.25	\$0.09	\$0.05	0.01%	1,560	0	0.0%	---	921.0	1,059	134.1%	116.6%
P	TSLA	2018-08-10	\$297.50	632	\$0.01	\$0.40	\$0.09	\$0.07	0.02%	1,560	0	0.0%	---	614.3	780	128.6%	101.3%
P	TSLA	2018-08-10	\$300.00	9,437	\$0.01	\$0.44	\$0.10	\$0.03	0.01%	1,560	0	0.0%	---	3,433.3	5,171	343.6%	228.1%
P	TSLA	2018-08-10	\$302.50	509	\$0.01	\$0.50	\$0.15	\$0.93	0.25%	1,560	0	0.0%	---	438.5	552	145.1%	115.3%
P	TSLA	2018-08-10	\$305.00	573	\$0.01	\$0.55	\$0.11	\$0.40	0.11%	1,560	0	0.0%	---	647.3	696	110.7%	102.9%
P	TSLA	2018-08-10	\$307.50	561	\$0.01	\$0.63	\$0.19	\$0.40	0.11%	1,560	0	0.0%	---	625.5	651	112.1%	107.7%
P	TSLA	2018-08-10	\$310.00	3,374	\$0.01	\$0.67	\$0.17	\$0.35	0.10%	1,560	0	0.0%	---	2,817.0	3,190	149.7%	132.2%
P	TSLA	2018-08-10	\$312.50	1,011	\$0.01	\$0.78	\$0.23	\$0.40	0.11%	1,560	0	0.0%	---	415.3	495	304.3%	255.3%
P	TSLA	2018-08-10	\$315.00	2,828	\$0.01	\$0.85	\$0.21	\$0.11	0.03%	1,560	0	0.0%	---	1,352.3	1,571	261.4%	225.0%
P	TSLA	2018-08-10	\$317.50	1,384	\$0.01	\$1.00	\$0.26	\$0.11	0.03%	1,560	0	0.0%	---	564.8	692	306.3%	250.0%
P	TSLA	2018-08-10	\$320.00	5,552	\$0.01	\$1.07	\$0.29	\$0.08	0.02%	1,560	0	0.0%	---	2,548.3	2,744	272.3%	252.9%
P	TSLA	2018-08-10	\$322.50	2,170	\$0.01	\$1.25	\$0.41	\$1.31	0.36%	1,560	0	0.0%	---	707.0	1,087	383.7%	249.5%
P	TSLA	2018-08-10	\$325.00	8,815	\$0.01	\$1.42	\$0.43	\$0.11	0.03%	1,560	0	0.0%	---	2,756.0	3,160	399.8%	348.7%
P	TSLA	2018-08-10	\$327.50	2,176	\$0.01	\$1.60	\$0.56	\$0.17	0.05%	1,560	0	0.0%	---	792.3	917	343.3%	296.6%
P	TSLA	2018-08-10	\$330.00	13,652	\$0.01	\$2.03	\$0.67	\$0.20	0.05%	1,560	0	0.0%	---	3,035.0	3,405	562.3%	501.2%
P	TSLA	2018-08-10	\$332.50	3,809	\$0.01	\$3.55	\$0.92	\$0.18	0.05%	1,560	0	0.0%	---	1,102.0	1,375	432.1%	346.3%
P	TSLA	2018-08-10	\$335.00	15,214	\$0.01	\$3.46	\$1.00	\$0.27	0.07%	1,560	0	0.0%	---	2,976.0	3,401	639.0%	559.2%
P	TSLA	2018-08-10	\$337.50	5,769	\$0.01	\$4.45	\$1.12	\$0.22	0.06%	1,560	0	0.0%	---	1,055.3	1,555	683.4%	463.7%
P	TSLA	2018-08-10	\$340.00	25,605	\$0.01	\$5.55	\$1.57	\$0.13	0.03%	1,463	0	0.0%	---	3,164.5	4,333	1011.4%	738.7%
P	TSLA	2018-08-10	\$342.50	9,066	\$0.02	\$6.85	\$2.03	\$0.43	0.12%	1,560	0	0.0%	---	1,511.3	2,343	749.9%	483.7%
P	TSLA	2018-08-10	\$345.00	24,812	\$0.01	\$8.05	\$2.07	\$0.24	0.07%	1,560	0	0.0%	---	2,423.0	3,692	1280.0%	840.1%
P	TSLA	2018-08-10	\$347.50	13,010	\$0.02	\$9.80	\$2.02	\$0.41	0.11%	1,560	0	0.0%	---	1,216.5	1,756	1336.8%	926.1%
P	TSLA	2018-08-10	\$350.00	49,091	\$0.01	\$13.19	\$2.53	\$0.38	0.10%	1,560	2	0.1%	0.09%	3,708.5	5,197	1654.7%	1180.8%
P	TSLA	2018-08-10	\$352.50	14,335	\$0.01	\$12.95	\$3.02	\$0.31	0.09%	1,463	1	0.1%	0.02%	928.3	1,756	1930.4%	1020.4%
P	TSLA	2018-08-10	\$355.00	23,441	\$0.22	\$16.90	\$3.97	\$0.79	0.22%	1,463	1	0.1%	0.07%	1,455.5	2,162	2013.1%	1355.3%
P	TSLA	2018-08-10	\$357.50	8,040	\$1.03	\$16.90	\$4.90	\$0.82	0.23%	1,463	0	0.0%	---	624.8	1,017	1608.6%	988.2%
P	TSLA	2018-08-10	\$360.00	24,158	\$1.50	\$20.40	\$5.49	\$1.09	0.31%	1,560	1	0.1%	0.09%	1,939.8	3,221	1556.8%	937.5%
P	TSLA	2018-08-10	\$362.50	4,085	\$0.80	\$23.00	\$6.63	\$1.19	0.34%	1,560	0	0.0%	---	639.8	1,166	798.2%	437.9%
P	TSLA	2018-08-10	\$365.00	8,860	\$2.24	\$20.75	\$7.03	\$1.18	0.33%	1,560	1	0.1%	0.05%	1,048.0	1,880	1056.8%	589.1%
P	TSLA	2018-08-10	\$367.50	2,629	\$2.88	\$23.84	\$7.64	\$1.55	0.43%	1,560	0	0.0%	---	353.3	646	930.3%	508.7%
P	TSLA	2018-08-10	\$370.00	12,408	\$3.37	\$27.50	\$7.67	\$1.28	0.36%	1,463	1	0.1%	0.18%	1,467.0	2,665	1057.3%	582.0%
P	TSLA	2018-08-10	\$372.50	2,409	\$4.10	\$28.88	\$7.94	\$1.72	0.48%	1,560	0	0.0%	---	271.8	522	1108.1%	576.9%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open Interest
P	TSLA	2018-08-10	\$375.00	5,272	\$4.67	\$32.40	\$9.42	\$1.77	0.50%	1,560	0	0.0%	---	723.8	1,248	910.5%	528.0%
P	TSLA	2018-08-10	\$377.50	972	\$6.10	\$31.13	\$10.94	\$1.96	0.55%	1,463	0	0.0%	---	143.5	257	846.7%	472.8%
P	TSLA	2018-08-10	\$380.00	3,693	\$7.00	\$34.15	\$12.80	\$1.89	0.53%	1,560	0	0.0%	---	723.8	1,273	637.8%	362.6%
P	TSLA	2018-08-10	\$382.50	308	\$8.25	\$33.85	\$14.60	\$2.51	0.70%	1,560	0	0.0%	---	44.0	67	875.0%	574.6%
P	TSLA	2018-08-10	\$385.00	352	\$9.85	\$38.00	\$15.88	\$2.33	0.65%	1,560	1	0.1%	0.11%	110.3	202	399.1%	217.8%
P	TSLA	2018-08-10	\$387.50	30	\$13.65	\$35.70	\$18.35	\$2.71	0.76%	1,560	0	0.0%	---	11.8	22	319.1%	170.5%
P	TSLA	2018-08-10	\$390.00	221	\$12.90	\$43.03	\$22.60	\$2.70	0.75%	1,560	0	0.0%	---	45.8	76	603.8%	363.5%
P	TSLA	2018-08-10	\$392.50	10	\$15.30	\$28.05	\$25.51	\$3.01	0.84%	1,560	0	0.0%	---	6.5	9	192.3%	138.9%
P	TSLA	2018-08-10	\$395.00	23	\$17.87	\$48.50	\$33.37	\$2.98	0.83%	1,560	0	0.0%	---	14.3	20	201.8%	143.8%
P	TSLA	2018-08-10	\$397.50	31	\$19.45	\$49.09	\$32.31	\$3.16	0.88%	1,560	0	0.0%	---	7.5	16	516.7%	242.2%
P	TSLA	2018-08-10	\$400.00	237	\$21.00	\$56.90	\$38.53	\$2.90	0.81%	1,560	0	0.0%	---	49.5	65	598.5%	455.8%
P	TSLA	2018-08-10	\$402.50	3	\$39.45	\$39.45	\$39.45	\$3.41	0.95%	1,560	0	0.0%	---	0.0	0	---	---
P	TSLA	2018-08-10	\$405.00	15	\$33.28	\$52.18	\$37.28	\$3.45	0.96%	1,560	0	0.0%	---	6.5	12	288.5%	156.3%
P	TSLA	2018-08-10	\$410.00	7	\$32.16	\$43.00	\$40.59	\$3.47	0.96%	1,463	0	0.0%	---	5.0	5	175.0%	175.0%
P	TSLA	2018-08-10	\$415.00	1	\$60.50	\$60.50	\$60.50	\$3.50	0.97%	1,560	0	0.0%	---	1.0	1	125.0%	125.0%
P	TSLA	2018-08-10	\$420.00	30	\$38.00	\$45.30	\$41.01	\$3.41	0.95%	1,560	0	0.0%	---	13.0	21	288.5%	178.6%
P	TSLA	2018-08-10	\$425.00	4	\$58.00	\$74.12	\$66.22	\$3.54	0.98%	1,560	0	0.0%	---	1.0	2	500.0%	250.0%
P	TSLA	2018-08-10	\$430.00	48	\$55.00	\$59.70	\$56.15	\$3.15	0.88%	1,560	0	0.0%	---	18.3	25	328.8%	240.0%
P	TSLA	2018-08-10	\$440.00	2	\$56.00	\$59.00	\$57.50	\$3.50	0.97%	1,560	0	0.0%	---	0.5	1	500.0%	250.0%
P	TSLA	2018-08-17	\$20.00	36	\$0.01	\$0.01	\$0.01	\$0.15	0.04%	3,510	0	0.0%	---	1,245.9	1,254	1.6%	1.6%
P	TSLA	2018-08-17	\$30.00	506	\$0.01	\$0.01	\$0.01	\$0.15	0.04%	3,510	0	0.0%	---	1,203.3	1,370	23.4%	20.5%
P	TSLA	2018-08-17	\$40.00	936	\$0.01	\$0.01	\$0.01	\$0.01	0.00%	3,510	0	0.0%	---	1,600.8	1,805	32.5%	28.8%
P	TSLA	2018-08-17	\$50.00	5,053	\$0.01	\$0.02	\$0.01	\$0.15	0.04%	3,510	0	0.0%	---	12,746.2	13,498	22.0%	20.8%
P	TSLA	2018-08-17	\$60.00	186	\$0.01	\$0.02	\$0.01	\$0.15	0.04%	3,510	0	0.0%	---	1,756.0	1,779	5.9%	5.8%
P	TSLA	2018-08-17	\$70.00	72	\$0.01	\$0.04	\$0.01	\$0.21	0.06%	3,510	0	0.0%	---	538.4	556	7.4%	7.2%
P	TSLA	2018-08-17	\$80.00	234	\$0.01	\$0.03	\$0.02	\$0.16	0.04%	3,510	0	0.0%	---	876.1	909	14.8%	14.3%
P	TSLA	2018-08-17	\$90.00	216	\$0.01	\$0.02	\$0.02	\$0.19	0.05%	3,510	0	0.0%	---	1,942.1	1,988	6.2%	6.0%
P	TSLA	2018-08-17	\$100.00	1,138	\$0.01	\$0.06	\$0.03	\$0.35	0.10%	3,510	0	0.0%	---	8,553.9	8,651	7.4%	7.3%
P	TSLA	2018-08-17	\$105.00	2	\$0.02	\$0.02	\$0.02	\$0.23	0.06%	3,510	0	0.0%	---	12.9	14	8.6%	7.9%
P	TSLA	2018-08-17	\$110.00	80	\$0.01	\$0.04	\$0.02	\$0.20	0.06%	3,510	0	0.0%	---	927.9	943	4.8%	4.7%
P	TSLA	2018-08-17	\$115.00	1	\$0.04	\$0.04	\$0.04	\$0.23	0.06%	3,510	0	0.0%	---	0.6	1	100.0%	55.6%
P	TSLA	2018-08-17	\$120.00	188	\$0.01	\$0.07	\$0.06	\$0.20	0.06%	3,510	0	0.0%	---	489.7	534	21.3%	19.6%
P	TSLA	2018-08-17	\$125.00	154	\$0.01	\$0.06	\$0.03	\$0.23	0.06%	3,510	0	0.0%	---	70.3	104	121.6%	82.3%
P	TSLA	2018-08-17	\$130.00	167	\$0.01	\$0.05	\$0.03	\$0.21	0.06%	3,510	0	0.0%	---	220.0	278	42.2%	33.4%
P	TSLA	2018-08-17	\$135.00	37	\$0.04	\$0.06	\$0.05	\$0.25	0.07%	3,510	0	0.0%	---	42.6	54	48.3%	38.1%
P	TSLA	2018-08-17	\$140.00	153	\$0.02	\$0.08	\$0.05	\$0.21	0.06%	3,510	0	0.0%	---	336.3	383	25.3%	22.2%
P	TSLA	2018-08-17	\$145.00	545	\$0.01	\$0.45	\$0.16	\$0.05	0.01%	3,510	0	0.0%	---	1,933.9	2,012	15.7%	15.0%
P	TSLA	2018-08-17	\$150.00	1,507	\$0.01	\$0.34	\$0.05	\$0.16	0.04%	3,510	0	0.0%	---	4,095.7	4,344	20.4%	19.3%
P	TSLA	2018-08-17	\$155.00	653	\$0.01	\$0.18	\$0.07	\$0.19	0.05%	3,510	0	0.0%	---	2,226.4	2,328	16.3%	15.6%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
P	TSLA	2018-08-17	\$160.00	504	\$0.01	\$0.15	\$0.07	\$0.20	0.06%	3,510	0	0.0%	---	489.3	556	57.2%	50.4%
P	TSLA	2018-08-17	\$165.00	260	\$0.01	\$0.15	\$0.07	\$0.23	0.06%	3,510	0	0.0%	---	292.8	349	49.3%	41.4%
P	TSLA	2018-08-17	\$170.00	1,017	\$0.01	\$0.14	\$0.08	\$0.19	0.05%	3,510	0	0.0%	---	1,350.1	1,443	41.8%	39.2%
P	TSLA	2018-08-17	\$175.00	109	\$0.01	\$0.19	\$0.04	\$0.22	0.06%	3,510	0	0.0%	---	437.7	447	13.8%	13.5%
P	TSLA	2018-08-17	\$180.00	381	\$0.01	\$0.27	\$0.11	\$0.20	0.06%	3,510	0	0.0%	---	1,015.7	1,093	20.8%	19.4%
P	TSLA	2018-08-17	\$185.00	316	\$0.01	\$0.23	\$0.08	\$0.24	0.07%	3,510	0	0.0%	---	504.1	518	34.8%	33.9%
P	TSLA	2018-08-17	\$190.00	270	\$0.01	\$0.23	\$0.12	\$0.20	0.06%	3,510	0	0.0%	---	1,281.6	1,299	11.7%	11.5%
P	TSLA	2018-08-17	\$195.00	147	\$0.01	\$0.30	\$0.06	\$0.21	0.06%	3,510	0	0.0%	---	247.3	257	33.0%	31.8%
P	TSLA	2018-08-17	\$200.00	1,766	\$0.01	\$0.40	\$0.15	\$0.18	0.05%	3,510	0	0.0%	---	5,622.7	5,826	17.4%	16.8%
P	TSLA	2018-08-17	\$205.00	596	\$0.01	\$1.09	\$0.15	\$0.25	0.07%	3,510	0	0.0%	---	591.3	654	56.0%	50.6%
P	TSLA	2018-08-17	\$210.00	1,554	\$0.01	\$0.41	\$0.15	\$0.21	0.06%	3,510	0	0.0%	---	1,473.4	1,709	58.6%	50.5%
P	TSLA	2018-08-17	\$215.00	980	\$0.01	\$0.74	\$0.14	\$0.23	0.06%	3,510	0	0.0%	---	852.7	1,022	63.9%	53.3%
P	TSLA	2018-08-17	\$220.00	544	\$0.01	\$0.57	\$0.21	\$0.20	0.06%	3,510	0	0.0%	---	2,266.0	2,309	13.3%	13.1%
P	TSLA	2018-08-17	\$225.00	901	\$0.01	\$0.49	\$0.12	\$0.31	0.08%	3,510	0	0.0%	---	1,044.6	1,149	47.9%	43.6%
P	TSLA	2018-08-17	\$230.00	850	\$0.01	\$0.58	\$0.19	\$0.08	0.02%	3,510	0	0.0%	---	986.4	1,056	47.9%	44.7%
P	TSLA	2018-08-17	\$235.00	854	\$0.01	\$0.98	\$0.12	\$0.22	0.06%	3,510	0	0.0%	---	1,620.7	1,801	29.3%	26.3%
P	TSLA	2018-08-17	\$240.00	1,264	\$0.01	\$0.75	\$0.35	\$0.08	0.02%	3,413	0	0.0%	---	1,682.6	1,825	41.7%	38.5%
P	TSLA	2018-08-17	\$245.00	3,746	\$0.01	\$0.81	\$0.34	\$0.24	0.06%	3,510	0	0.0%	---	1,476.2	1,762	141.0%	118.1%
P	TSLA	2018-08-17	\$250.00	4,064	\$0.01	\$0.94	\$0.31	\$0.09	0.03%	3,510	0	0.0%	---	6,749.6	7,192	33.5%	31.4%
P	TSLA	2018-08-17	\$255.00	603	\$0.01	\$0.99	\$0.34	\$0.26	0.07%	3,510	0	0.0%	---	725.8	798	46.2%	42.0%
P	TSLA	2018-08-17	\$260.00	3,460	\$0.01	\$1.07	\$0.39	\$0.13	0.03%	3,510	0	0.0%	---	3,107.0	3,257	61.9%	59.0%
P	TSLA	2018-08-17	\$265.00	1,474	\$0.01	\$4.35	\$0.30	\$0.25	0.07%	3,510	0	0.0%	---	807.7	917	101.4%	89.3%
P	TSLA	2018-08-17	\$270.00	2,884	\$0.01	\$5.00	\$0.31	\$0.91	0.25%	3,510	0	0.0%	---	2,611.2	2,788	61.4%	57.5%
P	TSLA	2018-08-17	\$275.00	4,430	\$0.01	\$1.51	\$0.29	\$0.08	0.02%	3,510	0	0.0%	---	2,007.4	2,245	122.6%	109.6%
P	TSLA	2018-08-17	\$280.00	8,688	\$0.01	\$1.66	\$0.51	\$0.07	0.02%	3,413	0	0.0%	---	3,552.1	4,408	135.9%	109.5%
P	TSLA	2018-08-17	\$282.50	901	\$0.02	\$1.75	\$0.30	\$0.28	0.08%	3,510	0	0.0%	---	125.3	206	399.4%	243.0%
P	TSLA	2018-08-17	\$285.00	3,367	\$0.01	\$1.81	\$0.47	\$0.22	0.06%	3,510	0	0.0%	---	1,276.9	1,522	146.5%	122.9%
P	TSLA	2018-08-17	\$287.50	1,545	\$0.01	\$1.95	\$0.46	\$0.17	0.05%	3,510	0	0.0%	---	323.8	562	265.1%	152.7%
P	TSLA	2018-08-17	\$290.00	7,494	\$0.01	\$2.05	\$0.51	\$0.37	0.10%	3,510	0	0.0%	---	3,573.8	3,786	116.5%	110.0%
P	TSLA	2018-08-17	\$292.50	2,286	\$0.01	\$2.17	\$0.50	\$0.52	0.14%	3,510	0	0.0%	---	328.4	520	386.7%	244.2%
P	TSLA	2018-08-17	\$295.00	6,876	\$0.01	\$2.42	\$0.64	\$0.22	0.06%	3,510	0	0.0%	---	1,255.6	1,616	304.2%	236.4%
P	TSLA	2018-08-17	\$297.50	6,383	\$0.02	\$2.60	\$0.57	\$0.24	0.07%	3,510	0	0.0%	---	618.4	844	573.4%	420.2%
P	TSLA	2018-08-17	\$300.00	40,960	\$0.02	\$2.80	\$0.89	\$0.07	0.02%	3,510	0	0.0%	---	6,062.1	6,908	375.4%	329.4%
P	TSLA	2018-08-17	\$302.50	9,594	\$0.01	\$2.90	\$0.91	\$0.25	0.07%	3,510	0	0.0%	---	247.8	281	2151.1%	1896.8%
P	TSLA	2018-08-17	\$305.00	25,439	\$0.08	\$3.70	\$1.35	\$0.24	0.07%	3,510	0	0.0%	---	3,105.4	4,006	455.1%	352.8%
P	TSLA	2018-08-17	\$307.50	7,537	\$0.14	\$4.80	\$2.23	\$0.26	0.07%	3,510	0	0.0%	---	510.4	605	820.3%	692.1%
P	TSLA	2018-08-17	\$310.00	24,775	\$0.16	\$6.50	\$2.53	\$0.16	0.05%	3,510	0	0.0%	---	3,085.9	3,710	446.0%	371.0%
P	TSLA	2018-08-17	\$312.50	6,713	\$0.20	\$8.95	\$3.35	\$0.33	0.10%	3,510	0	0.0%	---	533.1	706	699.6%	528.2%
P	TSLA	2018-08-17	\$315.00	15,723	\$0.24	\$11.50	\$3.81	\$0.34	0.10%	3,510	0	0.0%	---	2,524.3	2,959	346.0%	295.2%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
P	TSLA	2018-08-17	\$317.50	5,925	\$0.28	\$13.15	\$3.65	\$0.38	0.11%	3,510	0	0.0%	---	645.9	1,307	509.6%	251.8%
P	TSLA	2018-08-17	\$320.00	20,229	\$0.34	\$16.23	\$3.47	\$0.23	0.07%	3,413	0	0.0%	---	4,305.8	5,013	261.0%	224.2%
P	TSLA	2018-08-17	\$322.50	9,708	\$0.43	\$19.00	\$3.42	\$0.30	0.09%	3,413	0	0.0%	---	1,264.0	1,995	426.7%	270.3%
P	TSLA	2018-08-17	\$325.00	13,849	\$0.52	\$21.45	\$4.06	\$0.81	0.23%	3,510	0	0.0%	---	2,313.7	3,597	332.5%	213.9%
P	TSLA	2018-08-17	\$327.50	5,973	\$0.57	\$23.65	\$4.00	\$0.33	0.10%	3,413	0	0.0%	---	813.2	1,850	408.0%	179.4%
P	TSLA	2018-08-17	\$330.00	29,171	\$0.84	\$26.40	\$4.78	\$0.30	0.09%	3,413	0	0.0%	---	3,772.2	5,692	429.6%	284.7%
P	TSLA	2018-08-17	\$332.50	6,559	\$1.12	\$29.40	\$4.81	\$0.50	0.15%	3,510	0	0.0%	---	520.6	1,336	700.0%	272.7%
P	TSLA	2018-08-17	\$335.00	18,589	\$1.02	\$31.38	\$5.50	\$0.50	0.15%	3,510	0	0.0%	---	1,750.1	3,086	590.1%	334.6%
P	TSLA	2018-08-17	\$337.50	10,292	\$1.39	\$33.44	\$5.79	\$0.56	0.17%	3,510	0	0.0%	---	789.3	1,516	724.4%	377.2%
P	TSLA	2018-08-17	\$340.00	29,771	\$1.46	\$36.20	\$6.43	\$0.50	0.15%	3,510	0	0.0%	---	4,836.8	6,259	342.0%	264.3%
P	TSLA	2018-08-17	\$342.50	5,657	\$1.00	\$38.40	\$7.37	\$0.65	0.19%	3,413	0	0.0%	---	613.6	900	512.2%	349.2%
P	TSLA	2018-08-17	\$345.00	12,736	\$1.66	\$41.00	\$8.07	\$0.69	0.20%	3,413	0	0.0%	---	2,016.0	2,704	351.0%	261.7%
P	TSLA	2018-08-17	\$347.50	5,229	\$3.00	\$44.00	\$8.78	\$0.68	0.20%	3,413	0	0.0%	---	749.4	1,201	387.6%	241.9%
P	TSLA	2018-08-17	\$350.00	35,239	\$3.10	\$46.70	\$9.46	\$0.83	0.24%	3,510	1	0.0%	0.12%	5,466.3	7,038	358.1%	278.2%
P	TSLA	2018-08-17	\$352.50	5,168	\$3.61	\$47.87	\$9.45	\$0.80	0.24%	3,413	0	0.0%	---	635.6	1,298	451.7%	221.2%
P	TSLA	2018-08-17	\$355.00	9,422	\$3.00	\$51.09	\$10.89	\$0.84	0.25%	3,413	2	0.1%	0.12%	1,202.0	1,668	435.5%	313.8%
P	TSLA	2018-08-17	\$357.50	3,526	\$4.60	\$52.80	\$12.23	\$1.10	0.32%	3,510	0	0.0%	---	530.2	893	369.4%	219.4%
P	TSLA	2018-08-17	\$360.00	11,941	\$4.20	\$55.92	\$13.18	\$1.37	0.40%	3,510	2	0.1%	0.02%	2,037.3	2,640	325.6%	251.3%
P	TSLA	2018-08-17	\$362.50	1,391	\$5.00	\$57.91	\$14.30	\$1.25	0.37%	3,510	0	0.0%	---	307.3	393	251.4%	196.6%
P	TSLA	2018-08-17	\$365.00	3,092	\$4.45	\$60.89	\$14.54	\$1.63	0.47%	3,510	0	0.0%	---	566.3	687	303.3%	250.0%
P	TSLA	2018-08-17	\$367.50	812	\$7.22	\$62.57	\$16.31	\$1.48	0.43%	3,510	0	0.0%	---	244.8	298	184.3%	151.4%
P	TSLA	2018-08-17	\$370.00	4,958	\$7.86	\$65.75	\$16.54	\$1.37	0.40%	3,413	0	0.0%	---	1,201.2	1,675	229.3%	164.4%
P	TSLA	2018-08-17	\$372.50	832	\$9.60	\$57.48	\$15.25	\$1.55	0.45%	3,413	0	0.0%	---	219.9	301	210.2%	153.6%
P	TSLA	2018-08-17	\$375.00	2,627	\$9.70	\$71.00	\$19.24	\$2.63	0.75%	3,510	0	0.0%	---	1,785.9	2,084	81.7%	70.0%
P	TSLA	2018-08-17	\$377.50	779	\$10.65	\$68.14	\$16.41	\$1.87	0.54%	3,510	0	0.0%	---	233.1	330	185.7%	131.1%
P	TSLA	2018-08-17	\$380.00	3,268	\$12.00	\$75.05	\$17.87	\$1.90	0.55%	3,510	2	0.1%	0.17%	1,253.1	1,440	144.9%	126.1%
P	TSLA	2018-08-17	\$382.50	129	\$13.19	\$73.43	\$24.87	\$2.08	0.60%	3,510	0	0.0%	---	46.2	54	155.0%	132.7%
P	TSLA	2018-08-17	\$385.00	248	\$10.95	\$79.53	\$27.88	\$2.97	0.85%	3,510	0	0.0%	---	214.8	231	64.1%	59.6%
P	TSLA	2018-08-17	\$387.50	61	\$15.00	\$78.51	\$34.35	\$2.30	0.67%	3,510	0	0.0%	---	24.2	31	139.9%	109.3%
P	TSLA	2018-08-17	\$390.00	832	\$17.50	\$85.30	\$40.69	\$2.26	0.65%	3,510	0	0.0%	---	437.8	492	105.6%	93.9%
P	TSLA	2018-08-17	\$392.50	26	\$22.80	\$26.15	\$24.60	\$2.43	0.70%	3,510	0	0.0%	---	14.4	20	100.0%	72.2%
P	TSLA	2018-08-17	\$395.00	133	\$21.00	\$89.50	\$43.75	\$2.44	0.70%	3,510	0	0.0%	---	119.1	133	62.0%	55.6%
P	TSLA	2018-08-17	\$397.50	19	\$23.45	\$51.91	\$29.90	\$2.55	0.73%	3,510	0	0.0%	---	10.1	14	104.4%	75.4%
P	TSLA	2018-08-17	\$400.00	445	\$24.46	\$95.00	\$44.03	\$2.51	0.72%	3,510	0	0.0%	---	229.6	258	107.7%	95.8%
P	TSLA	2018-08-17	\$405.00	8	\$36.88	\$57.80	\$41.83	\$2.87	0.83%	3,510	0	0.0%	---	40.9	43	10.9%	10.3%
P	TSLA	2018-08-17	\$407.50	2	\$55.95	\$73.50	\$64.73	\$2.92	0.85%	2,340	0	0.0%	---	0.3	1	500.0%	166.7%
P	TSLA	2018-08-17	\$410.00	17	\$50.85	\$72.00	\$55.76	\$2.90	0.83%	3,510	0	0.0%	---	86.3	89	10.9%	10.6%
P	TSLA	2018-08-17	\$415.00	8	\$36.00	\$57.80	\$46.79	\$3.01	0.86%	3,510	0	0.0%	---	16.6	18	26.8%	24.7%
P	TSLA	2018-08-17	\$420.00	38	\$40.00	\$111.83	\$61.09	\$3.20	0.92%	3,510	0	0.0%	---	39.2	41	53.8%	51.5%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open
P	TSLA	2018-08-17	\$425.00	91	\$57.00	\$72.13	\$71.54	\$3.04	0.87%	3,510	0	0.0%	---	111.9	141	45.2%	35.9%
P	TSLA	2018-08-17	\$430.00	1	\$61.80	\$61.80	\$61.80	\$3.27	0.93%	3,510	0	0.0%	---	38.8	39	1.4%	1.4%
P	TSLA	2018-08-17	\$435.00	6	\$58.98	\$70.65	\$64.82	\$3.30	0.94%	3,510	0	0.0%	---	21.4	22	15.5%	15.2%
P	TSLA	2018-08-17	\$455.00	3	\$78.20	\$78.20	\$78.20	\$3.48	0.99%	3,510	0	0.0%	---	11.3	13	14.7%	12.8%
P	TSLA	2018-08-17	\$475.00	11	\$111.70	\$112.05	\$112.02	\$3.52	1.01%	3,510	0	0.0%	---	24.7	26	24.8%	23.5%
P	TSLA	2018-08-17	\$500.00	3	\$136.70	\$195.50	\$165.73	\$3.57	1.02%	3,510	0	0.0%	---	3.8	4	44.1%	41.7%
P	TSLA	2018-08-17	\$600.00	2	\$218.00	\$226.17	\$222.09	\$3.60	1.03%	3,510	0	0.0%	---	0.1	1	1000.0%	111.1%
P	TSLA	2018-08-24	\$100.00	1,490	\$0.02	\$0.10	\$0.05	\$0.26	0.07%	3,510	0	0.0%	---	321.9	1,408	257.2%	58.8%
P	TSLA	2018-08-24	\$105.00	71	\$0.02	\$0.08	\$0.03	\$0.35	0.10%	3,510	0	0.0%	---	23.1	71	170.8%	55.6%
P	TSLA	2018-08-24	\$110.00	1,248	\$0.02	\$0.10	\$0.05	\$0.36	0.10%	3,510	0	0.0%	---	121.8	1,168	569.2%	59.4%
P	TSLA	2018-08-24	\$115.00	134	\$0.02	\$0.15	\$0.03	\$0.34	0.09%	3,510	0	0.0%	---	16.5	130	451.2%	57.3%
P	TSLA	2018-08-24	\$120.00	125	\$0.03	\$0.20	\$0.10	\$0.33	0.09%	3,510	0	0.0%	---	32.0	131	217.0%	53.0%
P	TSLA	2018-08-24	\$125.00	194	\$0.04	\$0.15	\$0.06	\$0.37	0.10%	3,510	0	0.0%	---	23.5	171	458.6%	63.0%
P	TSLA	2018-08-24	\$130.00	430	\$0.04	\$0.15	\$0.07	\$0.36	0.10%	3,510	0	0.0%	---	67.5	364	353.9%	65.6%
P	TSLA	2018-08-24	\$135.00	96	\$0.04	\$0.25	\$0.07	\$0.36	0.10%	3,510	0	0.0%	---	17.6	91	303.0%	58.6%
P	TSLA	2018-08-24	\$140.00	148	\$0.05	\$0.22	\$0.10	\$0.39	0.11%	3,510	0	0.0%	---	23.1	111	355.9%	74.1%
P	TSLA	2018-08-24	\$145.00	658	\$0.01	\$0.25	\$0.10	\$0.30	0.08%	3,510	0	0.0%	---	419.1	481	87.2%	76.0%
P	TSLA	2018-08-24	\$150.00	862	\$0.01	\$0.30	\$0.13	\$0.28	0.08%	3,510	0	0.0%	---	277.2	746	172.8%	64.2%
P	TSLA	2018-08-24	\$155.00	213	\$0.05	\$0.34	\$0.12	\$0.30	0.08%	3,510	0	0.0%	---	400.3	464	29.6%	25.5%
P	TSLA	2018-08-24	\$160.00	70	\$0.08	\$0.41	\$0.21	\$0.36	0.10%	3,510	0	0.0%	---	11.4	45	341.1%	86.4%
P	TSLA	2018-08-24	\$165.00	239	\$0.13	\$0.38	\$0.19	\$0.42	0.12%	3,510	0	0.0%	---	55.9	210	237.5%	63.2%
P	TSLA	2018-08-24	\$170.00	94	\$0.04	\$0.47	\$0.28	\$0.41	0.11%	3,510	0	0.0%	---	46.5	92	112.3%	56.8%
P	TSLA	2018-08-24	\$175.00	1,284	\$0.10	\$0.60	\$0.34	\$0.38	0.11%	3,510	0	0.0%	---	274.5	1,110	259.9%	64.3%
P	TSLA	2018-08-24	\$180.00	516	\$0.12	\$0.64	\$0.36	\$0.28	0.08%	3,413	0	0.0%	---	117.2	432	244.6%	66.4%
P	TSLA	2018-08-24	\$185.00	128	\$0.14	\$0.75	\$0.33	\$0.36	0.10%	3,510	0	0.0%	---	184.7	282	38.5%	25.2%
P	TSLA	2018-08-24	\$190.00	467	\$0.11	\$0.70	\$0.27	\$0.37	0.10%	3,510	0	0.0%	---	276.7	371	93.8%	69.9%
P	TSLA	2018-08-24	\$195.00	192	\$0.14	\$0.90	\$0.42	\$0.38	0.11%	3,510	0	0.0%	---	105.3	138	101.3%	77.3%
P	TSLA	2018-08-24	\$200.00	1,224	\$0.09	\$1.01	\$0.54	\$0.33	0.09%	3,510	0	0.0%	---	296.0	896	229.7%	75.9%
P	TSLA	2018-08-24	\$205.00	586	\$0.09	\$1.02	\$0.56	\$0.38	0.11%	3,510	0	0.0%	---	158.4	278	205.5%	117.1%
P	TSLA	2018-08-24	\$210.00	366	\$0.19	\$1.06	\$0.64	\$0.38	0.11%	3,510	0	0.0%	---	89.0	337	228.5%	60.3%
P	TSLA	2018-08-24	\$215.00	317	\$0.23	\$1.20	\$0.60	\$0.39	0.11%	3,510	0	0.0%	---	90.5	247	194.6%	71.3%
P	TSLA	2018-08-24	\$220.00	768	\$0.10	\$1.91	\$0.72	\$0.33	0.09%	3,510	0	0.0%	---	171.6	380	248.6%	112.3%
P	TSLA	2018-08-24	\$225.00	486	\$0.16	\$1.51	\$0.72	\$0.34	0.10%	3,510	0	0.0%	---	107.8	267	250.5%	101.1%
P	TSLA	2018-08-24	\$230.00	620	\$0.10	\$2.21	\$1.02	\$0.31	0.09%	3,510	0	0.0%	---	188.9	438	182.3%	78.6%
P	TSLA	2018-08-24	\$235.00	466	\$0.18	\$1.80	\$0.94	\$0.37	0.10%	3,510	0	0.0%	---	144.0	233	179.8%	111.1%
P	TSLA	2018-08-24	\$240.00	969	\$0.15	\$2.18	\$1.01	\$0.30	0.08%	3,510	0	0.0%	---	341.7	726	157.5%	74.2%
P	TSLA	2018-08-24	\$245.00	347	\$0.16	\$2.35	\$1.33	\$0.36	0.10%	3,510	0	0.0%	---	954.7	1,035	20.2%	18.6%
P	TSLA	2018-08-24	\$250.00	3,183	\$0.14	\$2.61	\$1.31	\$0.29	0.08%	3,510	0	0.0%	---	504.1	1,543	350.8%	114.6%
P	TSLA	2018-08-24	\$255.00	917	\$0.48	\$2.93	\$1.63	\$0.37	0.10%	3,510	0	0.0%	---	116.0	599	439.2%	85.0%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
P	TSLA	2018-08-24	\$260.00	1,493	\$0.21	\$3.24	\$1.88	\$0.34	0.09%	3,510	0	0.0%	---	259.7	703	319.4%	118.0%
P	TSLA	2018-08-24	\$262.50	133	\$0.55	\$2.93	\$1.74	\$0.38	0.11%	3,510	0	0.0%	---	22.8	65	324.1%	113.7%
P	TSLA	2018-08-24	\$265.00	573	\$0.28	\$3.75	\$1.85	\$0.37	0.10%	3,510	0	0.0%	---	113.9	299	279.5%	106.5%
P	TSLA	2018-08-24	\$267.50	193	\$0.32	\$3.80	\$1.93	\$0.37	0.10%	3,510	0	0.0%	---	138.0	214	77.7%	50.1%
P	TSLA	2018-08-24	\$270.00	1,933	\$0.31	\$4.10	\$2.37	\$0.34	0.09%	3,510	0	0.0%	---	715.9	1,225	150.0%	87.7%
P	TSLA	2018-08-24	\$272.50	481	\$0.78	\$5.32	\$2.12	\$0.39	0.11%	3,510	0	0.0%	---	75.6	304	353.5%	87.9%
P	TSLA	2018-08-24	\$275.00	1,600	\$0.44	\$4.73	\$3.01	\$0.37	0.10%	3,510	0	0.0%	---	217.6	856	408.5%	103.8%
P	TSLA	2018-08-24	\$277.50	306	\$0.42	\$5.05	\$2.52	\$0.38	0.11%	3,510	0	0.0%	---	56.0	115	303.6%	147.8%
P	TSLA	2018-08-24	\$280.00	3,224	\$0.01	\$5.50	\$3.68	\$0.34	0.10%	3,510	0	0.0%	---	327.0	1,270	547.7%	141.0%
P	TSLA	2018-08-24	\$282.50	586	\$0.85	\$5.65	\$3.06	\$0.40	0.11%	3,510	0	0.0%	---	151.8	392	214.5%	83.0%
P	TSLA	2018-08-24	\$285.00	1,761	\$0.63	\$6.40	\$4.19	\$0.36	0.10%	3,510	0	0.0%	---	241.8	979	404.6%	99.9%
P	TSLA	2018-08-24	\$287.50	533	\$0.55	\$6.70	\$3.55	\$0.41	0.11%	3,510	0	0.0%	---	73.5	220	402.9%	134.6%
P	TSLA	2018-08-24	\$290.00	2,099	\$0.20	\$7.49	\$4.56	\$0.36	0.10%	3,510	0	0.0%	---	435.3	877	267.9%	133.0%
P	TSLA	2018-08-24	\$292.50	1,020	\$0.78	\$8.05	\$4.05	\$0.33	0.09%	3,510	0	0.0%	---	134.4	488	421.6%	116.1%
P	TSLA	2018-08-24	\$295.00	2,199	\$0.47	\$8.75	\$5.15	\$0.23	0.06%	3,510	0	0.0%	---	267.9	683	456.0%	178.9%
P	TSLA	2018-08-24	\$297.50	1,182	\$0.96	\$9.50	\$6.70	\$0.48	0.13%	3,510	0	0.0%	---	117.6	477	558.4%	137.7%
P	TSLA	2018-08-24	\$300.00	8,264	\$0.90	\$10.39	\$6.14	\$0.56	0.15%	3,413	0	0.0%	---	812.2	2,837	565.3%	161.8%
P	TSLA	2018-08-24	\$302.50	1,188	\$1.22	\$11.17	\$7.44	\$0.42	0.12%	3,510	0	0.0%	---	122.7	432	537.9%	152.8%
P	TSLA	2018-08-24	\$305.00	3,571	\$1.20	\$12.25	\$8.52	\$0.41	0.12%	3,510	0	0.0%	---	262.3	1,051	756.3%	188.8%
P	TSLA	2018-08-24	\$307.50	1,572	\$1.41	\$13.50	\$9.17	\$0.43	0.12%	3,510	1	0.0%	0.01%	94.1	346	928.1%	252.4%
P	TSLA	2018-08-24	\$310.00	4,720	\$1.15	\$14.55	\$8.37	\$0.39	0.11%	3,510	0	0.0%	---	489.7	989	535.5%	265.1%
P	TSLA	2018-08-24	\$312.50	2,001	\$2.05	\$15.80	\$8.09	\$0.46	0.13%	3,510	0	0.0%	---	299.4	677	371.3%	164.2%
P	TSLA	2018-08-24	\$315.00	3,719	\$1.85	\$17.50	\$8.14	\$0.44	0.12%	3,510	0	0.0%	---	903.9	1,134	228.6%	182.2%
P	TSLA	2018-08-24	\$317.50	1,602	\$2.00	\$18.80	\$8.58	\$0.48	0.14%	3,510	0	0.0%	---	229.8	546	387.3%	163.0%
P	TSLA	2018-08-24	\$320.00	5,428	\$2.20	\$21.00	\$6.72	\$0.46	0.13%	3,510	0	0.0%	---	609.1	1,083	495.1%	278.4%
P	TSLA	2018-08-24	\$322.50	1,223	\$2.22	\$22.84	\$8.82	\$0.53	0.15%	3,510	0	0.0%	---	144.7	333	469.6%	204.0%
P	TSLA	2018-08-24	\$325.00	1,885	\$2.00	\$24.83	\$9.63	\$0.50	0.14%	3,510	0	0.0%	---	306.4	706	341.8%	148.3%
P	TSLA	2018-08-24	\$327.50	1,621	\$2.75	\$26.70	\$12.36	\$0.45	0.13%	3,413	0	0.0%	---	165.4	539	544.5%	167.1%
P	TSLA	2018-08-24	\$330.00	2,811	\$2.00	\$28.50	\$9.93	\$0.63	0.18%	3,510	0	0.0%	---	473.9	889	329.5%	175.7%
P	TSLA	2018-08-24	\$332.50	1,292	\$2.96	\$30.60	\$9.52	\$0.61	0.18%	3,510	0	0.0%	---	159.0	403	451.4%	178.1%
P	TSLA	2018-08-24	\$335.00	2,196	\$3.52	\$32.69	\$10.93	\$0.63	0.18%	3,510	0	0.0%	---	289.3	601	421.7%	203.0%
P	TSLA	2018-08-24	\$337.50	1,271	\$4.45	\$35.35	\$12.88	\$0.67	0.19%	3,510	0	0.0%	---	159.6	290	442.4%	243.5%
P	TSLA	2018-08-24	\$340.00	2,910	\$3.50	\$37.45	\$13.74	\$1.30	0.37%	3,510	1	0.0%	0.01%	407.9	858	396.3%	188.4%
P	TSLA	2018-08-24	\$342.50	1,319	\$4.65	\$38.83	\$11.28	\$0.74	0.22%	3,413	0	0.0%	---	293.5	402	249.7%	182.3%
P	TSLA	2018-08-24	\$345.00	2,140	\$5.10	\$43.10	\$11.41	\$1.05	0.30%	3,510	0	0.0%	---	440.6	687	269.8%	173.1%
P	TSLA	2018-08-24	\$347.50	772	\$5.75	\$44.09	\$13.57	\$1.17	0.34%	3,510	0	0.0%	---	157.2	250	272.8%	171.6%
P	TSLA	2018-08-24	\$350.00	2,896	\$5.40	\$46.70	\$15.42	\$0.80	0.23%	3,510	0	0.0%	---	462.1	747	348.2%	215.4%
P	TSLA	2018-08-24	\$352.50	846	\$6.82	\$49.06	\$14.84	\$0.91	0.27%	3,510	0	0.0%	---	187.5	273	250.7%	172.2%
P	TSLA	2018-08-24	\$355.00	1,251	\$6.75	\$50.27	\$15.65	\$0.96	0.28%	3,510	0	0.0%	---	262.5	406	264.8%	171.2%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
P	TSLA	2018-08-24	\$357.50	382	\$7.40	\$53.17	\$16.69	\$1.05	0.31%	3,510	0	0.0%	---	76.5	128	277.4%	165.8%
P	TSLA	2018-08-24	\$360.00	1,486	\$5.00	\$56.64	\$18.46	\$1.35	0.39%	3,510	0	0.0%	---	261.8	348	315.3%	237.2%
P	TSLA	2018-08-24	\$362.50	151	\$9.45	\$58.78	\$21.03	\$1.05	0.31%	3,120	0	0.0%	---	25.9	38	364.5%	248.4%
P	TSLA	2018-08-24	\$365.00	530	\$9.70	\$61.29	\$18.16	\$1.27	0.37%	3,510	0	0.0%	---	111.6	146	263.8%	201.7%
P	TSLA	2018-08-24	\$367.50	270	\$11.50	\$62.88	\$19.27	\$1.19	0.35%	3,120	0	0.0%	---	149.9	179	112.6%	94.3%
P	TSLA	2018-08-24	\$370.00	778	\$11.55	\$65.45	\$24.38	\$1.38	0.40%	3,510	0	0.0%	---	109.9	158	393.3%	273.6%
P	TSLA	2018-08-24	\$372.50	89	\$13.80	\$66.30	\$22.11	\$1.42	0.42%	3,120	0	0.0%	---	26.6	37	209.5%	150.3%
P	TSLA	2018-08-24	\$375.00	378	\$13.85	\$71.09	\$23.72	\$2.24	0.64%	3,413	0	0.0%	---	89.0	122	236.0%	172.1%
P	TSLA	2018-08-24	\$377.50	48	\$14.60	\$71.10	\$20.99	\$1.63	0.48%	3,120	0	0.0%	---	23.7	31	126.8%	96.8%
P	TSLA	2018-08-24	\$380.00	310	\$15.16	\$72.00	\$30.69	\$1.83	0.53%	3,510	0	0.0%	---	85.3	118	201.9%	146.0%
P	TSLA	2018-08-24	\$382.50	33	\$17.23	\$78.00	\$34.06	\$1.82	0.53%	3,120	0	0.0%	---	15.3	20	134.5%	103.1%
P	TSLA	2018-08-24	\$385.00	43	\$19.35	\$67.92	\$33.45	\$2.09	0.61%	3,510	0	0.0%	---	27.2	38	87.8%	62.9%
P	TSLA	2018-08-24	\$387.50	15	\$21.55	\$78.70	\$45.69	\$2.02	0.59%	3,120	0	0.0%	---	8.2	13	114.0%	72.1%
P	TSLA	2018-08-24	\$390.00	26	\$21.00	\$76.90	\$34.94	\$2.27	0.66%	3,510	0	0.0%	---	24.7	27	58.5%	53.5%
P	TSLA	2018-08-24	\$392.50	5	\$33.95	\$33.95	\$33.95	\$2.22	0.65%	3,120	0	0.0%	---	2.8	5	112.5%	62.5%
P	TSLA	2018-08-24	\$395.00	116	\$23.50	\$69.53	\$35.43	\$2.46	0.71%	3,510	0	0.0%	---	58.7	72	109.8%	89.5%
P	TSLA	2018-08-24	\$400.00	164	\$25.00	\$91.00	\$56.70	\$4.34	1.23%	3,510	0	0.0%	---	35.1	93	259.6%	98.0%
P	TSLA	2018-08-24	\$410.00	7	\$41.95	\$94.80	\$56.89	\$3.02	0.87%	3,510	0	0.0%	---	4.1	6	94.9%	64.8%
P	TSLA	2018-08-24	\$420.00	28	\$45.80	\$111.85	\$67.95	\$3.18	0.91%	3,413	0	0.0%	---	12.7	28	122.5%	55.6%
P	TSLA	2018-08-24	\$425.00	20	\$46.23	\$113.00	\$78.98	\$3.31	0.95%	3,413	0	0.0%	---	7.5	10	148.1%	111.1%
P	TSLA	2018-08-24	\$430.00	20	\$50.63	\$116.50	\$83.85	\$3.35	0.96%	3,510	0	0.0%	---	8.0	10	138.9%	111.1%
P	TSLA	2018-08-31	\$100.00	475	\$0.04	\$0.20	\$0.08	\$0.31	0.09%	3,510	0	0.0%	---	186.7	455	141.3%	58.0%
P	TSLA	2018-08-31	\$105.00	31	\$0.03	\$0.14	\$0.03	\$0.44	0.12%	3,510	0	0.0%	---	24.6	31	70.0%	55.6%
P	TSLA	2018-08-31	\$110.00	120	\$0.08	\$0.17	\$0.16	\$0.47	0.13%	3,510	0	0.0%	---	84.0	120	79.4%	55.6%
P	TSLA	2018-08-31	\$115.00	208	\$0.04	\$4.87	\$0.14	\$0.40	0.11%	3,510	0	0.0%	---	91.2	145	126.7%	79.7%
P	TSLA	2018-08-31	\$120.00	166	\$0.04	\$0.17	\$0.13	\$0.47	0.13%	3,510	0	0.0%	---	34.0	114	271.2%	80.9%
P	TSLA	2018-08-31	\$125.00	47	\$0.10	\$2.13	\$0.86	\$0.45	0.13%	3,510	0	0.0%	---	11.2	47	233.1%	55.6%
P	TSLA	2018-08-31	\$130.00	5	\$0.17	\$0.35	\$0.25	\$0.47	0.13%	3,510	0	0.0%	---	1.5	4	185.2%	69.4%
P	TSLA	2018-08-31	\$135.00	226	\$0.10	\$0.45	\$0.16	\$0.48	0.14%	3,510	0	0.0%	---	76.3	229	164.6%	54.8%
P	TSLA	2018-08-31	\$140.00	37	\$0.19	\$0.46	\$0.32	\$0.46	0.13%	3,510	0	0.0%	---	7.1	37	289.5%	55.6%
P	TSLA	2018-08-31	\$145.00	31	\$0.12	\$0.50	\$0.28	\$0.47	0.13%	3,510	0	0.0%	---	7.1	29	242.6%	59.4%
P	TSLA	2018-08-31	\$150.00	381	\$0.04	\$0.60	\$0.26	\$0.39	0.11%	3,510	0	0.0%	---	144.2	351	146.8%	60.3%
P	TSLA	2018-08-31	\$155.00	12	\$0.17	\$0.45	\$0.38	\$0.45	0.13%	3,510	0	0.0%	---	1.9	12	350.9%	55.6%
P	TSLA	2018-08-31	\$160.00	75	\$0.21	\$1.35	\$0.89	\$0.47	0.13%	3,510	0	0.0%	---	8.1	52	514.4%	80.1%
P	TSLA	2018-08-31	\$165.00	41	\$0.22	\$0.76	\$0.46	\$0.46	0.13%	3,510	0	0.0%	---	14.1	42	161.5%	54.2%
P	TSLA	2018-08-31	\$170.00	520	\$0.07	\$0.83	\$0.52	\$0.39	0.11%	3,510	0	0.0%	---	464.2	619	62.2%	46.7%
P	TSLA	2018-08-31	\$175.00	114	\$0.15	\$1.12	\$0.62	\$0.44	0.12%	3,510	0	0.0%	---	258.6	276	24.5%	22.9%
P	TSLA	2018-08-31	\$180.00	211	\$0.17	\$1.00	\$0.61	\$0.40	0.11%	3,510	0	0.0%	---	112.6	169	104.1%	69.4%
P	TSLA	2018-08-31	\$185.00	237	\$0.29	\$1.13	\$0.98	\$0.40	0.11%	3,510	0	0.0%	---	94.3	289	139.6%	45.6%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open Interest
P	TSLA	2018-08-31	\$190.00	283	\$0.31	\$1.28	\$0.98	\$0.43	0.12%	3,510	0	0.0%	---	270.8	385	58.1%	40.8%
P	TSLA	2018-08-31	\$195.00	120	\$0.09	\$1.25	\$0.85	\$0.38	0.11%	3,510	0	0.0%	---	73.3	131	91.0%	50.9%
P	TSLA	2018-08-31	\$200.00	1,325	\$0.10	\$1.55	\$1.01	\$0.20	0.06%	3,413	0	0.0%	---	1,231.0	1,805	59.8%	40.8%
P	TSLA	2018-08-31	\$205.00	87	\$0.15	\$1.64	\$0.82	\$0.39	0.11%	3,510	0	0.0%	---	31.2	71	154.9%	68.1%
P	TSLA	2018-08-31	\$210.00	38	\$0.30	\$3.55	\$1.68	\$0.36	0.10%	3,510	0	0.0%	---	75.8	94	27.9%	22.5%
P	TSLA	2018-08-31	\$215.00	28	\$0.41	\$1.72	\$1.38	\$0.43	0.12%	3,510	0	0.0%	---	50.4	69	30.9%	22.5%
P	TSLA	2018-08-31	\$220.00	323	\$0.48	\$1.93	\$1.20	\$0.36	0.10%	3,510	0	0.0%	---	324.4	393	55.3%	45.7%
P	TSLA	2018-08-31	\$225.00	115	\$0.40	\$2.64	\$1.37	\$0.41	0.12%	3,510	0	0.0%	---	68.1	102	93.8%	62.6%
P	TSLA	2018-08-31	\$230.00	1,443	\$0.08	\$3.03	\$1.18	\$0.43	0.12%	3,510	0	0.0%	---	1,203.2	1,328	66.6%	60.4%
P	TSLA	2018-08-31	\$235.00	122	\$0.39	\$2.52	\$1.44	\$0.45	0.13%	3,510	0	0.0%	---	60.7	117	111.7%	57.9%
P	TSLA	2018-08-31	\$240.00	380	\$0.30	\$3.53	\$2.15	\$0.43	0.12%	3,510	0	0.0%	---	309.8	384	68.1%	55.0%
P	TSLA	2018-08-31	\$245.00	200	\$0.82	\$3.90	\$2.03	\$0.40	0.11%	3,510	0	0.0%	---	496.0	543	22.4%	20.5%
P	TSLA	2018-08-31	\$250.00	1,163	\$0.38	\$4.30	\$2.26	\$0.30	0.08%	3,413	0	0.0%	---	1,283.8	1,451	50.3%	44.5%
P	TSLA	2018-08-31	\$255.00	407	\$0.33	\$4.85	\$2.77	\$0.44	0.12%	3,510	0	0.0%	---	148.9	326	151.9%	69.4%
P	TSLA	2018-08-31	\$260.00	814	\$0.46	\$5.35	\$2.70	\$0.43	0.12%	3,510	0	0.0%	---	287.6	427	157.2%	105.9%
P	TSLA	2018-08-31	\$262.50	141	\$0.94	\$5.65	\$3.73	\$0.50	0.14%	3,510	0	0.0%	---	15.6	70	502.1%	111.9%
P	TSLA	2018-08-31	\$265.00	520	\$0.42	\$5.85	\$2.45	\$0.45	0.13%	3,510	0	0.0%	---	257.4	415	112.2%	69.6%
P	TSLA	2018-08-31	\$267.50	198	\$0.78	\$6.45	\$3.72	\$0.50	0.14%	3,510	0	0.0%	---	36.5	125	301.4%	88.0%
P	TSLA	2018-08-31	\$270.00	576	\$0.70	\$6.62	\$4.34	\$0.46	0.13%	3,510	0	0.0%	---	195.1	374	164.0%	85.6%
P	TSLA	2018-08-31	\$272.50	171	\$0.50	\$7.20	\$4.37	\$0.47	0.13%	3,510	0	0.0%	---	108.4	152	87.6%	62.5%
P	TSLA	2018-08-31	\$275.00	552	\$0.75	\$7.07	\$5.02	\$0.44	0.13%	3,510	0	0.0%	---	187.7	338	163.4%	90.7%
P	TSLA	2018-08-31	\$277.50	35	\$1.83	\$7.30	\$4.18	\$0.53	0.15%	3,510	0	0.0%	---	23.0	43	84.5%	45.2%
P	TSLA	2018-08-31	\$280.00	578	\$1.06	\$8.55	\$3.97	\$0.47	0.13%	3,510	1	0.0%	0.09%	226.0	314	142.1%	102.3%
P	TSLA	2018-08-31	\$282.50	84	\$1.40	\$8.45	\$5.19	\$0.54	0.15%	3,510	0	0.0%	---	30.8	67	151.5%	69.7%
P	TSLA	2018-08-31	\$285.00	725	\$1.14	\$9.75	\$6.82	\$0.45	0.13%	3,510	0	0.0%	---	149.8	442	268.9%	91.1%
P	TSLA	2018-08-31	\$287.50	163	\$1.36	\$10.54	\$5.52	\$0.50	0.14%	3,510	0	0.0%	---	82.3	116	110.0%	78.1%
P	TSLA	2018-08-31	\$290.00	1,406	\$0.90	\$11.27	\$6.51	\$0.43	0.12%	3,510	0	0.0%	---	408.3	874	191.3%	89.4%
P	TSLA	2018-08-31	\$292.50	139	\$1.78	\$12.00	\$6.36	\$0.50	0.14%	3,510	0	0.0%	---	170.0	197	45.4%	39.2%
P	TSLA	2018-08-31	\$295.00	545	\$1.50	\$12.87	\$5.72	\$0.49	0.14%	3,510	0	0.0%	---	139.3	258	217.4%	117.4%
P	TSLA	2018-08-31	\$297.50	231	\$1.12	\$13.66	\$7.63	\$0.36	0.10%	3,413	0	0.0%	---	63.5	133	202.1%	96.5%
P	TSLA	2018-08-31	\$300.00	2,440	\$1.10	\$14.66	\$7.57	\$0.42	0.12%	3,510	0	0.0%	---	725.9	1,143	186.7%	118.6%
P	TSLA	2018-08-31	\$302.50	426	\$1.72	\$15.60	\$6.71	\$0.51	0.14%	3,510	0	0.0%	---	127.1	225	186.2%	105.2%
P	TSLA	2018-08-31	\$305.00	591	\$2.08	\$16.52	\$10.84	\$0.50	0.14%	3,510	0	0.0%	---	246.2	350	133.4%	93.8%
P	TSLA	2018-08-31	\$307.50	374	\$2.47	\$18.00	\$8.08	\$0.53	0.15%	3,510	0	0.0%	---	100.2	192	207.4%	108.2%
P	TSLA	2018-08-31	\$310.00	1,044	\$2.00	\$19.10	\$9.78	\$0.49	0.14%	3,510	0	0.0%	---	262.6	484	220.9%	119.8%
P	TSLA	2018-08-31	\$312.50	266	\$2.55	\$19.81	\$11.30	\$0.54	0.15%	3,510	0	0.0%	---	90.1	138	164.0%	107.1%
P	TSLA	2018-08-31	\$315.00	576	\$2.76	\$21.61	\$12.37	\$0.56	0.16%	3,510	0	0.0%	---	193.1	279	165.7%	114.7%
P	TSLA	2018-08-31	\$317.50	434	\$3.00	\$21.90	\$9.29	\$0.56	0.16%	3,510	0	0.0%	---	88.0	300	274.0%	80.4%
P	TSLA	2018-08-31	\$320.00	1,531	\$3.00	\$24.00	\$10.81	\$0.54	0.15%	3,510	1	0.0%	0.04%	1,319.3	1,465	64.5%	58.1%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
P	TSLA	2018-08-31	\$322.50	264	\$3.45	\$25.66	\$11.96	\$0.60	0.17%	3,510	0	0.0%	---	109.0	139	134.6%	105.5%
P	TSLA	2018-08-31	\$325.00	700	\$3.25	\$27.00	\$10.43	\$0.59	0.17%	3,510	0	0.0%	---	321.3	420	121.0%	92.6%
P	TSLA	2018-08-31	\$327.50	409	\$4.10	\$29.42	\$10.34	\$0.64	0.18%	3,510	0	0.0%	---	129.2	187	175.9%	121.5%
P	TSLA	2018-08-31	\$330.00	1,016	\$4.00	\$31.24	\$13.81	\$0.50	0.14%	3,413	2	0.1%	0.05%	235.1	427	240.1%	132.2%
P	TSLA	2018-08-31	\$332.50	689	\$4.94	\$32.80	\$15.10	\$0.68	0.20%	3,510	1	0.0%	0.01%	146.2	303	261.8%	126.3%
P	TSLA	2018-08-31	\$335.00	719	\$4.83	\$34.56	\$19.03	\$0.82	0.24%	3,510	0	0.0%	---	138.5	347	288.4%	115.1%
P	TSLA	2018-08-31	\$337.50	424	\$5.00	\$36.35	\$12.91	\$0.73	0.21%	3,510	3	0.1%	0.01%	154.4	281	152.6%	83.8%
P	TSLA	2018-08-31	\$340.00	1,017	\$5.50	\$38.38	\$15.59	\$0.72	0.21%	3,509	2	0.1%	0.01%	680.1	748	83.1%	75.5%
P	TSLA	2018-08-31	\$342.50	337	\$7.02	\$40.50	\$16.16	\$0.80	0.23%	3,510	4	0.1%	0.02%	103.3	195	181.2%	96.0%
P	TSLA	2018-08-31	\$345.00	548	\$5.85	\$42.33	\$14.07	\$0.83	0.24%	3,510	5	0.1%	0.01%	173.9	203	175.1%	150.0%
P	TSLA	2018-08-31	\$347.50	274	\$7.52	\$40.55	\$14.94	\$0.86	0.25%	3,510	3	0.1%	0.01%	117.5	134	129.6%	113.6%
P	TSLA	2018-08-31	\$350.00	1,194	\$5.00	\$48.00	\$17.77	\$0.86	0.25%	3,510	9	0.3%	0.01%	331.3	428	200.2%	155.0%
P	TSLA	2018-08-31	\$352.50	459	\$9.00	\$46.00	\$18.96	\$0.95	0.28%	3,510	3	0.1%	0.02%	107.8	155	236.5%	164.5%
P	TSLA	2018-08-31	\$355.00	686	\$8.53	\$51.03	\$18.01	\$1.00	0.29%	3,510	7	0.2%	0.02%	170.6	270	223.4%	141.2%
P	TSLA	2018-08-31	\$357.50	275	\$9.91	\$51.50	\$17.33	\$1.08	0.31%	3,510	4	0.1%	0.03%	95.2	130	160.5%	117.5%
P	TSLA	2018-08-31	\$360.00	496	\$6.15	\$57.18	\$22.29	\$1.12	0.33%	3,510	8	0.2%	0.02%	149.6	199	184.2%	138.5%
P	TSLA	2018-08-31	\$362.50	181	\$11.51	\$30.60	\$19.36	\$1.04	0.31%	3,120	3	0.1%	0.02%	47.3	59	239.0%	191.7%
P	TSLA	2018-08-31	\$365.00	267	\$11.80	\$58.00	\$21.84	\$1.27	0.37%	3,510	3	0.1%	0.01%	59.0	73	251.4%	203.2%
P	TSLA	2018-08-31	\$367.50	167	\$12.80	\$62.13	\$22.12	\$1.18	0.35%	3,120	1	0.0%	0.01%	53.8	99	194.1%	105.4%
P	TSLA	2018-08-31	\$370.00	613	\$12.50	\$64.85	\$19.02	\$1.37	0.40%	3,510	2	0.1%	0.01%	170.8	230	199.4%	148.1%
P	TSLA	2018-08-31	\$372.50	93	\$15.00	\$63.01	\$22.50	\$1.33	0.39%	3,120	0	0.0%	---	36.1	46	161.0%	126.4%
P	TSLA	2018-08-31	\$375.00	201	\$15.00	\$70.00	\$23.58	\$1.62	0.47%	3,510	0	0.0%	---	85.4	116	130.8%	96.3%
P	TSLA	2018-08-31	\$377.50	88	\$17.50	\$45.10	\$24.30	\$1.55	0.46%	3,120	0	0.0%	---	21.0	27	261.9%	203.7%
P	TSLA	2018-08-31	\$380.00	184	\$17.51	\$73.45	\$26.60	\$1.81	0.53%	3,510	0	0.0%	---	48.9	63	209.0%	162.3%
P	TSLA	2018-08-31	\$382.50	180	\$21.00	\$78.75	\$42.83	\$1.74	0.51%	3,120	0	0.0%	---	38.1	74	295.2%	152.0%
P	TSLA	2018-08-31	\$385.00	20	\$18.40	\$33.07	\$27.60	\$1.97	0.57%	3,510	0	0.0%	---	12.2	18	91.1%	61.7%
P	TSLA	2018-08-31	\$387.50	8	\$25.70	\$74.66	\$39.59	\$1.93	0.57%	3,120	0	0.0%	---	2.8	4	180.0%	125.0%
P	TSLA	2018-08-31	\$390.00	9	\$23.65	\$79.08	\$32.04	\$2.16	0.63%	3,510	0	0.0%	---	12.9	14	38.8%	35.7%
P	TSLA	2018-08-31	\$392.50	5	\$27.60	\$27.60	\$27.60	\$2.07	0.61%	3,120	0	0.0%	---	4.4	5	70.3%	62.5%
P	TSLA	2018-08-31	\$395.00	14	\$47.50	\$70.13	\$63.84	\$2.30	0.67%	3,510	0	0.0%	---	3.7	13	210.2%	59.8%
P	TSLA	2018-08-31	\$400.00	75	\$28.00	\$62.37	\$42.24	\$2.47	0.72%	3,510	0	0.0%	---	1,186.1	1,194	3.5%	3.5%
P	TSLA	2018-08-31	\$405.00	2	\$38.20	\$48.50	\$43.35	\$2.79	0.80%	3,510	0	0.0%	---	0.3	1	370.4%	111.1%
P	TSLA	2018-08-31	\$410.00	16	\$43.50	\$43.50	\$43.50	\$2.95	0.85%	3,510	0	0.0%	---	13.4	16	66.3%	55.6%
P	TSLA	2018-08-31	\$420.00	4	\$46.95	\$97.35	\$63.52	\$3.19	0.92%	3,413	0	0.0%	---	1.7	2	130.7%	111.1%
P	TSLA	2018-08-31	\$430.00	2	\$55.34	\$71.12	\$63.23	\$3.33	0.96%	3,510	0	0.0%	---	0.8	1	138.9%	111.1%
P	TSLA	2018-09-07	\$100.00	402	\$0.05	\$0.35	\$0.18	\$0.38	0.11%	3,510	0	0.0%	---	114.3	345	195.4%	64.7%
P	TSLA	2018-09-07	\$105.00	35	\$0.10	\$0.22	\$0.14	\$0.50	0.14%	3,510	0	0.0%	---	36.0	48	54.0%	40.5%
P	TSLA	2018-09-07	\$110.00	2	\$0.25	\$0.25	\$0.25	\$0.53	0.15%	3,510	0	0.0%	---	0.2	2	555.6%	55.6%
P	TSLA	2018-09-07	\$120.00	60	\$0.17	\$2.28	\$0.79	\$0.52	0.15%	3,510	0	0.0%	---	9.3	60	358.4%	55.6%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
P	TSLA	2018-09-07	\$125.00	3	\$0.16	\$0.50	\$0.29	\$0.54	0.15%	3,510	0	0.0%	---	0.4	1	416.7%	166.7%
P	TSLA	2018-09-07	\$130.00	10	\$0.33	\$0.58	\$0.55	\$0.53	0.15%	3,510	0	0.0%	---	2.4	10	231.5%	55.6%
P	TSLA	2018-09-07	\$135.00	16	\$0.42	\$0.43	\$0.43	\$0.53	0.15%	3,510	0	0.0%	---	2.6	16	341.9%	55.6%
P	TSLA	2018-09-07	\$140.00	24	\$0.29	\$0.50	\$0.41	\$0.52	0.15%	3,510	0	0.0%	---	16.8	24	79.4%	55.6%
P	TSLA	2018-09-07	\$145.00	37	\$0.15	\$0.54	\$0.32	\$0.48	0.14%	3,510	0	0.0%	---	21.7	37	94.7%	55.6%
P	TSLA	2018-09-07	\$150.00	345	\$0.24	\$0.97	\$0.64	\$0.46	0.13%	3,510	0	0.0%	---	88.5	188	216.6%	102.0%
P	TSLA	2018-09-07	\$155.00	49	\$0.55	\$1.06	\$0.92	\$0.50	0.14%	3,510	0	0.0%	---	4.9	49	555.6%	55.6%
P	TSLA	2018-09-07	\$160.00	238	\$0.39	\$1.18	\$0.80	\$0.49	0.14%	3,510	0	0.0%	---	69.2	227	191.1%	58.2%
P	TSLA	2018-09-07	\$165.00	42	\$0.79	\$1.26	\$1.04	\$0.49	0.14%	3,510	0	0.0%	---	4.2	42	555.6%	55.6%
P	TSLA	2018-09-07	\$170.00	69	\$0.38	\$1.27	\$0.98	\$0.45	0.13%	3,510	0	0.0%	---	54.0	101	71.0%	38.0%
P	TSLA	2018-09-07	\$175.00	91	\$0.34	\$1.48	\$0.97	\$0.47	0.13%	3,510	0	0.0%	---	46.4	103	109.0%	49.1%
P	TSLA	2018-09-07	\$180.00	121	\$0.70	\$1.71	\$1.17	\$0.48	0.14%	3,510	0	0.0%	---	16.4	85	409.9%	79.1%
P	TSLA	2018-09-07	\$185.00	4	\$0.47	\$1.60	\$1.03	\$0.48	0.13%	3,510	0	0.0%	---	6.2	8	35.8%	27.8%
P	TSLA	2018-09-07	\$190.00	93	\$0.67	\$1.75	\$1.18	\$0.50	0.14%	3,510	0	0.0%	---	116.3	154	44.4%	33.5%
P	TSLA	2018-09-07	\$195.00	142	\$0.75	\$2.92	\$1.49	\$0.51	0.14%	3,510	0	0.0%	---	69.9	143	112.9%	55.2%
P	TSLA	2018-09-07	\$200.00	590	\$0.45	\$2.31	\$1.30	\$0.46	0.13%	3,510	0	0.0%	---	414.2	564	79.1%	58.1%
P	TSLA	2018-09-07	\$205.00	177	\$0.23	\$2.73	\$1.11	\$0.49	0.14%	3,510	0	0.0%	---	70.8	190	138.9%	51.8%
P	TSLA	2018-09-07	\$210.00	170	\$0.55	\$2.84	\$1.64	\$0.47	0.13%	3,510	0	0.0%	---	84.0	200	112.4%	47.2%
P	TSLA	2018-09-07	\$215.00	163	\$0.30	\$3.10	\$1.20	\$0.51	0.14%	3,510	0	0.0%	---	38.1	167	237.7%	54.2%
P	TSLA	2018-09-07	\$220.00	96	\$0.46	\$3.55	\$2.17	\$0.50	0.14%	3,510	0	0.0%	---	77.6	112	68.7%	47.6%
P	TSLA	2018-09-07	\$225.00	302	\$0.78	\$3.75	\$1.95	\$0.48	0.14%	3,510	0	0.0%	---	54.6	123	307.3%	136.4%
P	TSLA	2018-09-07	\$230.00	132	\$0.40	\$4.20	\$1.87	\$0.48	0.14%	3,510	0	0.0%	---	211.6	277	34.7%	26.5%
P	TSLA	2018-09-07	\$235.00	110	\$0.25	\$4.65	\$1.71	\$0.51	0.14%	3,510	0	0.0%	---	158.5	171	38.6%	35.7%
P	TSLA	2018-09-07	\$240.00	83	\$0.50	\$5.00	\$2.36	\$0.47	0.13%	3,510	0	0.0%	---	144.5	156	31.9%	29.6%
P	TSLA	2018-09-07	\$245.00	191	\$0.01	\$5.50	\$1.69	\$0.50	0.14%	3,510	0	0.0%	---	83.6	103	126.9%	103.0%
P	TSLA	2018-09-07	\$250.00	1,454	\$0.54	\$6.05	\$3.24	\$0.47	0.13%	3,510	0	0.0%	---	395.7	1,029	204.1%	78.5%
P	TSLA	2018-09-07	\$255.00	125	\$0.91	\$6.70	\$4.09	\$0.54	0.15%	3,510	0	0.0%	---	29.8	65	233.0%	106.8%
P	TSLA	2018-09-07	\$260.00	722	\$0.80	\$6.65	\$2.25	\$0.39	0.11%	3,413	0	0.0%	---	850.7	1,101	47.2%	36.4%
P	TSLA	2018-09-07	\$262.50	121	\$0.88	\$7.00	\$3.36	\$0.57	0.16%	3,510	0	0.0%	---	43.4	68	154.9%	98.9%
P	TSLA	2018-09-07	\$265.00	96	\$0.96	\$8.15	\$3.29	\$0.56	0.16%	3,510	0	0.0%	---	70.9	105	75.2%	50.8%
P	TSLA	2018-09-07	\$267.50	14	\$1.01	\$6.90	\$3.88	\$0.56	0.16%	3,510	0	0.0%	---	18.4	23	42.3%	33.8%
P	TSLA	2018-09-07	\$270.00	110	\$1.10	\$7.80	\$4.24	\$0.55	0.16%	3,510	0	0.0%	---	84.9	116	72.0%	52.7%
P	TSLA	2018-09-07	\$272.50	50	\$1.55	\$8.52	\$5.08	\$0.56	0.16%	3,510	0	0.0%	---	23.0	48	120.8%	57.9%
P	TSLA	2018-09-07	\$275.00	321	\$1.00	\$8.40	\$4.54	\$0.54	0.15%	3,510	0	0.0%	---	134.4	205	132.7%	87.0%
P	TSLA	2018-09-07	\$277.50	108	\$1.35	\$9.22	\$4.51	\$0.55	0.15%	3,510	0	0.0%	---	51.0	87	117.6%	69.0%
P	TSLA	2018-09-07	\$280.00	403	\$1.29	\$10.91	\$8.03	\$0.45	0.13%	3,510	0	0.0%	---	84.3	277	265.6%	80.8%
P	TSLA	2018-09-07	\$282.50	105	\$2.15	\$11.70	\$5.45	\$0.56	0.16%	3,510	0	0.0%	---	36.1	61	161.6%	95.6%
P	TSLA	2018-09-07	\$285.00	72	\$1.55	\$10.93	\$6.28	\$0.55	0.15%	3,510	0	0.0%	---	37.0	60	108.1%	66.7%
P	TSLA	2018-09-07	\$287.50	203	\$2.06	\$12.17	\$7.02	\$0.58	0.16%	3,510	0	0.0%	---	63.9	104	176.5%	108.4%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
P	TSLA	2018-09-07	\$290.00	323	\$2.02	\$13.65	\$6.61	\$0.53	0.15%	3,510	0	0.0%	---	120.0	170	149.5%	105.6%
P	TSLA	2018-09-07	\$292.50	44	\$2.29	\$14.30	\$8.49	\$0.56	0.16%	3,510	0	0.0%	---	55.1	76	44.4%	32.2%
P	TSLA	2018-09-07	\$295.00	232	\$2.20	\$15.14	\$8.10	\$0.47	0.13%	3,510	0	0.0%	---	89.6	134	143.8%	96.2%
P	TSLA	2018-09-07	\$297.50	162	\$2.41	\$15.60	\$9.02	\$0.54	0.15%	3,510	0	0.0%	---	48.0	78	187.5%	115.4%
P	TSLA	2018-09-07	\$300.00	1,662	\$2.00	\$17.00	\$9.32	\$0.44	0.13%	3,510	1	0.0%	0.01%	311.6	738	296.3%	125.1%
P	TSLA	2018-09-07	\$302.50	122	\$3.00	\$17.85	\$10.21	\$0.57	0.16%	3,510	0	0.0%	---	49.3	74	137.5%	91.6%
P	TSLA	2018-09-07	\$305.00	203	\$2.40	\$18.80	\$10.11	\$0.58	0.16%	3,510	0	0.0%	---	64.3	106	175.4%	106.4%
P	TSLA	2018-09-07	\$307.50	132	\$3.63	\$20.10	\$13.11	\$0.59	0.17%	3,510	0	0.0%	---	27.5	108	266.7%	67.9%
P	TSLA	2018-09-07	\$310.00	244	\$2.95	\$21.19	\$10.22	\$0.59	0.17%	3,510	2	0.1%	0.06%	103.6	133	130.8%	101.9%
P	TSLA	2018-09-07	\$312.50	252	\$3.85	\$21.10	\$7.90	\$0.62	0.17%	3,510	0	0.0%	---	111.0	157	126.1%	89.2%
P	TSLA	2018-09-07	\$315.00	218	\$2.75	\$23.20	\$11.33	\$0.61	0.17%	3,510	4	0.1%	0.02%	72.5	98	167.0%	123.6%
P	TSLA	2018-09-07	\$317.50	87	\$7.23	\$21.59	\$13.45	\$0.63	0.18%	3,510	2	0.1%	0.01%	24.2	32	199.7%	151.0%
P	TSLA	2018-09-07	\$320.00	532	\$4.20	\$26.47	\$11.70	\$0.61	0.17%	3,510	2	0.1%	0.01%	167.8	246	176.1%	120.1%
P	TSLA	2018-09-07	\$322.50	70	\$4.75	\$22.85	\$8.14	\$0.66	0.19%	3,510	4	0.1%	0.01%	44.6	61	87.2%	63.8%
P	TSLA	2018-09-07	\$325.00	335	\$5.00	\$29.15	\$15.03	\$0.64	0.18%	3,510	4	0.1%	0.02%	81.9	140	227.2%	132.9%
P	TSLA	2018-09-07	\$327.50	387	\$3.58	\$31.70	\$9.61	\$0.65	0.19%	3,510	5	0.1%	0.01%	269.0	279	79.9%	77.1%
P	TSLA	2018-09-07	\$330.00	1,103	\$2.50	\$33.39	\$14.55	\$0.55	0.16%	3,413	12	0.4%	0.02%	433.6	738	141.3%	83.0%
P	TSLA	2018-09-07	\$332.50	163	\$6.20	\$31.00	\$15.04	\$0.72	0.21%	3,510	13	0.4%	0.01%	42.0	75	215.6%	120.7%
P	TSLA	2018-09-07	\$335.00	129	\$5.80	\$35.98	\$13.11	\$0.98	0.28%	3,510	14	0.4%	0.02%	48.1	63	149.0%	113.8%
P	TSLA	2018-09-07	\$337.50	112	\$7.05	\$35.15	\$14.64	\$0.79	0.23%	3,510	16	0.5%	0.01%	33.0	48	188.6%	129.6%
P	TSLA	2018-09-07	\$340.00	673	\$6.55	\$40.03	\$14.59	\$0.75	0.22%	3,510	23	0.7%	0.01%	198.7	242	188.2%	154.5%
P	TSLA	2018-09-07	\$342.50	41	\$12.90	\$41.70	\$16.18	\$0.64	0.19%	2,730	24	0.9%	0.01%	14.5	23	202.0%	127.3%
P	TSLA	2018-09-07	\$345.00	335	\$4.70	\$43.81	\$17.28	\$0.84	0.24%	3,510	25	0.7%	0.01%	59.9	71	310.7%	262.1%
P	TSLA	2018-09-07	\$347.50	76	\$13.91	\$45.75	\$20.11	\$0.70	0.21%	2,730	26	1.0%	0.02%	27.3	38	199.2%	142.9%
P	TSLA	2018-09-07	\$350.00	690	\$7.70	\$48.40	\$19.27	\$0.88	0.25%	3,510	28	0.8%	0.02%	159.2	203	240.8%	188.8%
P	TSLA	2018-09-07	\$352.50	198	\$12.09	\$43.19	\$19.02	\$0.75	0.22%	3,120	20	0.6%	0.01%	70.2	92	176.2%	134.5%
P	TSLA	2018-09-07	\$355.00	590	\$9.00	\$35.95	\$20.17	\$0.97	0.28%	3,510	23	0.7%	0.02%	169.4	287	193.5%	114.2%
P	TSLA	2018-09-07	\$357.50	187	\$13.06	\$43.42	\$21.49	\$0.85	0.25%	3,120	17	0.5%	0.02%	35.6	51	328.7%	229.2%
P	TSLA	2018-09-07	\$360.00	1,280	\$11.60	\$55.80	\$21.63	\$1.07	0.31%	3,510	19	0.5%	0.02%	260.0	374	273.5%	190.1%
P	TSLA	2018-09-07	\$362.50	164	\$12.00	\$28.00	\$22.16	\$0.96	0.28%	3,120	10	0.3%	0.01%	64.1	102	159.9%	100.5%
P	TSLA	2018-09-07	\$365.00	328	\$13.00	\$61.00	\$25.99	\$1.17	0.34%	3,413	9	0.3%	0.01%	101.4	128	179.7%	142.4%
P	TSLA	2018-09-07	\$367.50	46	\$16.10	\$31.26	\$19.13	\$1.10	0.33%	3,120	10	0.3%	0.01%	26.2	33	109.6%	87.1%
P	TSLA	2018-09-07	\$370.00	365	\$14.43	\$63.25	\$22.70	\$1.30	0.38%	3,510	6	0.2%	0.03%	90.6	141	223.8%	143.8%
P	TSLA	2018-09-07	\$372.50	57	\$18.90	\$36.95	\$24.39	\$1.24	0.37%	3,120	4	0.1%	0.02%	15.0	22	237.5%	161.9%
P	TSLA	2018-09-07	\$375.00	196	\$16.28	\$66.00	\$24.70	\$1.47	0.43%	3,510	4	0.1%	0.02%	101.7	129	107.1%	84.4%
P	TSLA	2018-09-07	\$377.50	28	\$18.10	\$65.00	\$25.92	\$1.37	0.40%	3,120	2	0.1%	0.02%	14.2	17	123.0%	102.9%
P	TSLA	2018-09-07	\$380.00	78	\$18.50	\$71.00	\$35.51	\$1.62	0.47%	3,510	2	0.1%	0.01%	40.7	51	106.5%	85.0%
P	TSLA	2018-09-07	\$382.50	18	\$22.25	\$39.80	\$25.72	\$1.55	0.46%	3,120	0	0.0%	---	12.4	14	90.4%	80.4%
P	TSLA	2018-09-07	\$385.00	30	\$22.01	\$45.20	\$29.96	\$1.79	0.52%	3,510	1	0.0%	0.02%	14.1	18	118.2%	92.6%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
P	TSLA	2018-09-07	\$390.00	45	\$23.55	\$45.40	\$31.19	\$1.96	0.57%	3,510	1	0.0%	0.01%	23.5	28	106.4%	89.3%
P	TSLA	2018-09-07	\$395.00	25	\$29.11	\$49.32	\$38.99	\$2.09	0.61%	3,413	0	0.0%	---	21.5	24	64.6%	57.9%
P	TSLA	2018-09-07	\$397.50	32	\$43.70	\$44.30	\$44.03	\$2.01	0.59%	3,120	0	0.0%	---	8.9	16	225.0%	125.0%
P	TSLA	2018-09-07	\$400.00	147	\$32.14	\$68.75	\$45.13	\$2.21	0.64%	3,510	0	0.0%	---	53.1	66	153.8%	123.7%
P	TSLA	2018-09-07	\$402.50	10	\$50.45	\$50.45	\$50.45	\$2.22	0.65%	2,730	0	0.0%	---	5.0	10	142.9%	71.4%
P	TSLA	2018-09-07	\$405.00	51	\$35.67	\$52.15	\$39.65	\$2.53	0.73%	3,510	0	0.0%	---	38.7	46	73.2%	61.6%
P	TSLA	2018-09-07	\$420.00	27	\$46.75	\$61.65	\$49.99	\$3.03	0.87%	3,510	0	0.0%	---	13.4	16	111.9%	93.8%
P	TSLA	2018-09-07	\$425.00	5	\$49.00	\$49.85	\$49.68	\$3.11	0.89%	3,413	0	0.0%	---	4.2	5	66.1%	55.6%
P	TSLA	2018-09-07	\$470.00	2	\$93.05	\$96.00	\$94.53	\$3.56	1.02%	3,510	0	0.0%	---	0.8	1	138.9%	111.1%
P	TSLA	2018-09-14	\$140.00	51	\$0.44	\$1.23	\$0.94	\$0.31	0.09%	1,950	0	0.0%	---	8.8	43	577.4%	118.6%
P	TSLA	2018-09-14	\$145.00	3	\$0.71	\$0.88	\$0.77	\$0.29	0.09%	1,950	0	0.0%	---	0.5	3	600.0%	100.0%
P	TSLA	2018-09-14	\$150.00	33	\$0.90	\$1.34	\$1.21	\$0.26	0.08%	1,950	0	0.0%	---	5.5	33	600.0%	100.0%
P	TSLA	2018-09-14	\$155.00	2	\$1.05	\$1.30	\$1.18	\$0.27	0.08%	1,950	0	0.0%	---	0.3	2	600.0%	100.0%
P	TSLA	2018-09-14	\$160.00	30	\$0.90	\$1.20	\$1.10	\$0.25	0.07%	1,950	0	0.0%	---	5.0	30	600.0%	100.0%
P	TSLA	2018-09-14	\$170.00	26	\$0.99	\$1.90	\$1.41	\$0.28	0.08%	2,340	0	0.0%	---	4.4	26	489.2%	83.3%
P	TSLA	2018-09-14	\$175.00	2	\$1.50	\$1.51	\$1.51	\$0.28	0.08%	2,340	0	0.0%	---	0.3	2	583.3%	83.3%
P	TSLA	2018-09-14	\$180.00	183	\$0.82	\$1.65	\$1.15	\$0.27	0.08%	2,340	0	0.0%	---	97.7	181	156.1%	84.3%
P	TSLA	2018-09-14	\$185.00	28	\$0.90	\$1.78	\$1.07	\$0.28	0.08%	2,340	0	0.0%	---	10.7	27	217.8%	86.4%
P	TSLA	2018-09-14	\$190.00	67	\$1.07	\$2.44	\$1.20	\$0.30	0.09%	2,340	0	0.0%	---	29.3	66	190.7%	84.6%
P	TSLA	2018-09-14	\$195.00	266	\$0.68	\$2.05	\$0.82	\$0.47	0.13%	3,510	0	0.0%	---	184.2	251	80.2%	58.9%
P	TSLA	2018-09-14	\$200.00	325	\$0.71	\$3.16	\$1.58	\$0.50	0.14%	3,510	0	0.0%	---	110.9	276	162.8%	65.4%
P	TSLA	2018-09-14	\$205.00	18	\$0.76	\$1.57	\$0.81	\$0.53	0.15%	3,510	0	0.0%	---	14.1	18	70.9%	55.6%
P	TSLA	2018-09-14	\$210.00	41	\$0.37	\$1.73	\$1.00	\$0.52	0.15%	3,510	0	0.0%	---	28.4	40	80.2%	56.9%
P	TSLA	2018-09-14	\$215.00	107	\$0.94	\$4.15	\$1.33	\$0.54	0.15%	3,510	0	0.0%	---	66.4	101	89.5%	58.9%
P	TSLA	2018-09-14	\$220.00	13	\$0.99	\$2.84	\$1.52	\$0.54	0.15%	3,510	0	0.0%	---	6.2	8	116.5%	90.3%
P	TSLA	2018-09-14	\$225.00	156	\$0.59	\$3.50	\$1.40	\$0.55	0.15%	3,510	0	0.0%	---	89.2	117	97.2%	74.1%
P	TSLA	2018-09-14	\$230.00	97	\$0.61	\$4.30	\$2.31	\$0.52	0.15%	3,510	0	0.0%	---	31.3	86	172.2%	62.7%
P	TSLA	2018-09-14	\$235.00	129	\$1.21	\$4.81	\$1.84	\$0.53	0.15%	3,510	0	0.0%	---	171.3	193	41.8%	37.1%
P	TSLA	2018-09-14	\$240.00	131	\$2.12	\$6.25	\$3.89	\$0.53	0.15%	3,510	0	0.0%	---	50.8	131	143.3%	55.6%
P	TSLA	2018-09-14	\$245.00	101	\$0.85	\$5.75	\$3.00	\$0.57	0.16%	3,510	0	0.0%	---	25.0	85	224.4%	66.0%
P	TSLA	2018-09-14	\$250.00	525	\$0.99	\$6.65	\$5.49	\$0.55	0.16%	3,510	0	0.0%	---	46.6	276	625.9%	105.7%
P	TSLA	2018-09-14	\$255.00	34	\$1.03	\$8.00	\$4.74	\$0.60	0.17%	3,510	0	0.0%	---	7.2	25	262.3%	75.6%
P	TSLA	2018-09-14	\$260.00	82	\$1.11	\$8.06	\$4.25	\$0.58	0.16%	3,510	0	0.0%	---	42.0	66	108.5%	69.0%
P	TSLA	2018-09-14	\$262.50	6	\$7.38	\$8.26	\$8.11	\$0.62	0.17%	3,510	0	0.0%	---	1.6	7	208.3%	47.6%
P	TSLA	2018-09-14	\$265.00	27	\$1.80	\$8.00	\$3.74	\$0.57	0.16%	3,510	0	0.0%	---	11.4	17	131.6%	88.2%
P	TSLA	2018-09-14	\$267.50	17	\$1.50	\$10.25	\$7.19	\$0.59	0.17%	3,510	0	0.0%	---	11.5	12	82.1%	78.7%
P	TSLA	2018-09-14	\$270.00	691	\$0.84	\$9.93	\$4.98	\$0.57	0.16%	3,510	0	0.0%	---	208.5	660	184.1%	58.2%
P	TSLA	2018-09-14	\$272.50	15	\$3.20	\$9.58	\$6.38	\$0.59	0.17%	3,510	0	0.0%	---	12.4	16	67.2%	52.1%
P	TSLA	2018-09-14	\$275.00	173	\$0.96	\$11.00	\$5.47	\$0.57	0.16%	3,510	0	0.0%	---	35.0	71	274.6%	135.4%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
P	TSLA	2018-09-14	\$277.50	90	\$2.83	\$11.60	\$6.65	\$0.61	0.17%	3,510	0	0.0%	---	37.0	57	135.1%	87.7%
P	TSLA	2018-09-14	\$280.00	153	\$2.00	\$13.05	\$6.87	\$0.46	0.13%	3,413	0	0.0%	---	59.5	113	142.9%	75.2%
P	TSLA	2018-09-14	\$282.50	10	\$2.30	\$5.35	\$3.98	\$0.59	0.17%	3,510	0	0.0%	---	8.2	9	67.8%	61.7%
P	TSLA	2018-09-14	\$285.00	55	\$2.52	\$13.37	\$6.28	\$0.62	0.18%	3,510	1	0.0%	0.01%	27.9	38	109.5%	80.4%
P	TSLA	2018-09-14	\$287.50	39	\$3.17	\$14.85	\$6.80	\$0.64	0.18%	3,510	1	0.0%	0.03%	12.6	25	172.0%	86.7%
P	TSLA	2018-09-14	\$290.00	151	\$2.35	\$15.98	\$7.49	\$0.63	0.18%	3,510	1	0.0%	0.03%	51.2	70	163.8%	119.8%
P	TSLA	2018-09-14	\$292.50	166	\$3.25	\$15.50	\$9.93	\$0.62	0.18%	3,510	1	0.0%	0.03%	59.3	141	155.5%	65.4%
P	TSLA	2018-09-14	\$295.00	131	\$2.76	\$17.95	\$8.61	\$0.62	0.18%	3,510	1	0.0%	0.01%	57.9	80	125.7%	91.0%
P	TSLA	2018-09-14	\$297.50	45	\$3.90	\$17.08	\$12.94	\$0.63	0.18%	3,510	3	0.1%	0.01%	21.0	43	119.0%	58.1%
P	TSLA	2018-09-14	\$300.00	611	\$2.50	\$19.53	\$9.84	\$0.61	0.17%	3,510	5	0.1%	0.03%	138.5	227	245.1%	149.5%
P	TSLA	2018-09-14	\$302.50	77	\$3.90	\$19.54	\$10.23	\$0.63	0.18%	3,510	2	0.1%	0.02%	36.0	59	118.8%	72.5%
P	TSLA	2018-09-14	\$305.00	181	\$3.57	\$21.85	\$13.89	\$0.64	0.18%	3,510	4	0.1%	0.02%	28.5	98	352.8%	102.6%
P	TSLA	2018-09-14	\$307.50	83	\$4.40	\$21.75	\$16.28	\$0.67	0.19%	3,510	2	0.1%	0.02%	18.8	45	245.3%	102.5%
P	TSLA	2018-09-14	\$310.00	304	\$3.95	\$23.64	\$12.02	\$0.63	0.18%	3,510	3	0.1%	0.02%	101.7	137	166.1%	123.3%
P	TSLA	2018-09-14	\$312.50	158	\$4.93	\$24.03	\$14.20	\$0.68	0.19%	3,510	3	0.1%	0.02%	48.7	117	180.2%	75.0%
P	TSLA	2018-09-14	\$315.00	162	\$3.80	\$26.10	\$14.45	\$0.68	0.19%	3,510	8	0.2%	0.02%	45.8	82	196.5%	109.8%
P	TSLA	2018-09-14	\$317.50	63	\$5.40	\$26.85	\$11.76	\$0.68	0.19%	3,510	6	0.2%	0.02%	25.3	48	138.3%	72.9%
P	TSLA	2018-09-14	\$320.00	947	\$4.26	\$28.06	\$13.00	\$0.66	0.19%	3,510	8	0.2%	0.01%	335.6	611	156.8%	86.1%
P	TSLA	2018-09-14	\$322.50	140	\$6.23	\$30.20	\$18.61	\$0.73	0.21%	3,510	10	0.3%	0.02%	42.6	56	182.6%	138.9%
P	TSLA	2018-09-14	\$325.00	142	\$4.00	\$31.68	\$13.04	\$0.72	0.21%	3,510	16	0.5%	0.02%	60.7	85	130.0%	92.8%
P	TSLA	2018-09-14	\$327.50	57	\$6.90	\$31.23	\$20.76	\$0.75	0.21%	3,510	14	0.4%	0.03%	25.1	49	126.2%	64.6%
P	TSLA	2018-09-14	\$330.00	204	\$6.80	\$35.00	\$19.32	\$0.76	0.22%	3,510	17	0.5%	0.02%	55.7	114	203.5%	99.4%
P	TSLA	2018-09-14	\$332.50	222	\$7.65	\$36.72	\$24.12	\$0.78	0.22%	3,510	27	0.8%	0.02%	31.8	139	387.8%	88.7%
P	TSLA	2018-09-14	\$335.00	117	\$1.15	\$38.00	\$17.63	\$0.79	0.23%	3,510	30	0.9%	0.02%	36.0	49	180.6%	132.7%
P	TSLA	2018-09-14	\$337.50	134	\$14.24	\$40.01	\$29.55	\$0.64	0.19%	2,730	35	1.3%	0.02%	22.1	55	432.6%	174.0%
P	TSLA	2018-09-14	\$340.00	207	\$8.75	\$41.23	\$19.16	\$0.84	0.24%	3,510	32	0.9%	0.02%	53.7	65	214.2%	176.9%
P	TSLA	2018-09-14	\$342.50	15	\$15.30	\$20.33	\$18.38	\$0.70	0.21%	2,730	38	1.4%	0.02%	3.4	7	317.5%	153.1%
P	TSLA	2018-09-14	\$345.00	270	\$9.94	\$46.00	\$20.09	\$0.90	0.26%	3,510	38	1.1%	0.02%	55.0	105	272.7%	142.9%
P	TSLA	2018-09-14	\$347.50	18	\$18.15	\$44.78	\$27.88	\$0.76	0.23%	2,730	54	2.0%	0.02%	5.3	10	244.9%	128.6%
P	TSLA	2018-09-14	\$350.00	414	\$10.50	\$50.04	\$23.58	\$0.94	0.27%	3,510	71	2.0%	0.02%	88.9	118	258.7%	194.9%
P	TSLA	2018-09-14	\$352.50	143	\$13.35	\$45.51	\$20.77	\$0.81	0.24%	3,120	54	1.7%	0.02%	72.2	95	123.8%	94.1%
P	TSLA	2018-09-14	\$355.00	343	\$11.45	\$53.00	\$24.70	\$1.02	0.30%	3,510	69	2.0%	0.02%	102.9	229	185.2%	83.2%
P	TSLA	2018-09-14	\$357.50	36	\$20.15	\$30.47	\$24.76	\$0.88	0.26%	3,120	59	1.9%	0.02%	8.2	17	273.6%	132.4%
P	TSLA	2018-09-14	\$360.00	283	\$13.55	\$57.95	\$24.16	\$1.07	0.31%	3,510	59	1.7%	0.02%	54.6	76	288.0%	206.9%
P	TSLA	2018-09-14	\$362.50	230	\$20.95	\$59.00	\$22.39	\$0.96	0.28%	3,120	49	1.6%	0.02%	43.9	61	327.5%	235.7%
P	TSLA	2018-09-14	\$365.00	154	\$15.00	\$58.74	\$25.27	\$1.19	0.35%	3,510	37	1.1%	0.02%	34.7	45	246.6%	190.1%
P	TSLA	2018-09-14	\$367.50	7	\$18.30	\$40.00	\$24.28	\$1.08	0.32%	3,120	27	0.9%	0.02%	4.2	5	103.6%	87.5%
P	TSLA	2018-09-14	\$370.00	117	\$16.45	\$67.75	\$24.81	\$1.33	0.39%	3,510	27	0.8%	0.02%	37.6	51	172.9%	127.5%
P	TSLA	2018-09-14	\$372.50	32	\$17.15	\$40.75	\$20.58	\$1.21	0.36%	3,120	23	0.7%	0.02%	22.4	26	89.1%	76.9%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly Volume to Average Open Interest	Weekly Volume to Maximum Open Interest
P	TSLA	2018-09-14	\$375.00	203	\$19.50	\$67.10	\$23.59	\$1.46	0.42%	3,510	27	0.8%	0.02%	120.2	151	93.8%	74.7%
P	TSLA	2018-09-14	\$377.50	7	\$20.39	\$34.00	\$26.86	\$1.34	0.39%	3,120	17	0.5%	0.01%	3.6	4	123.0%	109.4%
P	TSLA	2018-09-14	\$380.00	94	\$20.75	\$71.65	\$26.54	\$1.61	0.47%	3,510	10	0.3%	0.02%	17.9	21	291.7%	248.7%
P	TSLA	2018-09-14	\$382.50	7	\$25.15	\$25.15	\$25.15	\$1.51	0.44%	3,120	9	0.3%	0.01%	6.2	7	70.3%	62.5%
P	TSLA	2018-09-14	\$385.00	13	\$22.35	\$55.00	\$31.63	\$1.77	0.51%	3,510	8	0.2%	0.03%	3.8	5	190.1%	144.4%
P	TSLA	2018-09-14	\$390.00	17	\$26.38	\$85.49	\$45.84	\$1.91	0.55%	3,510	2	0.1%	0.02%	2.6	7	363.2%	134.9%
P	TSLA	2018-09-14	\$400.00	20	\$33.60	\$48.75	\$39.43	\$2.26	0.65%	3,510	0	0.0%	---	9.7	12	114.5%	92.6%
P	TSLA	2018-09-14	\$405.00	2	\$39.45	\$51.00	\$45.23	\$2.59	0.75%	3,510	1	0.0%	0.01%	0.1	1	1111.1%	111.1%
P	TSLA	2018-09-14	\$407.50	4	\$59.80	\$97.70	\$78.75	\$2.44	0.72%	2,730	0	0.0%	---	1.5	2	190.5%	142.9%
P	TSLA	2018-09-14	\$410.00	1	\$56.55	\$56.55	\$56.55	\$2.73	0.79%	3,510	0	0.0%	---	0.9	1	61.7%	55.6%
P	TSLA	2018-09-14	\$415.00	10	\$46.90	\$60.85	\$56.88	\$2.87	0.83%	3,510	0	0.0%	---	3.6	5	154.3%	111.1%
P	TSLA	2018-09-14	\$425.00	5	\$69.75	\$69.75	\$69.75	\$3.11	0.89%	3,510	0	0.0%	---	4.5	5	61.7%	55.6%
P	TSLA	2018-09-14	\$440.00	12	\$67.95	\$136.00	\$94.08	\$3.32	0.95%	3,510	0	0.0%	---	2.4	3	277.8%	222.2%
P	TSLA	2018-09-14	\$500.00	3	\$139.89	\$139.89	\$139.89	\$3.63	1.04%	3,510	0	0.0%	---	2.1	3	79.4%	55.6%
P	TSLA	2018-09-21	\$50.00	36,853	\$0.02	\$1.11	\$0.07	\$0.15	0.04%	3,510	0	0.0%	---	55,914.0	65,903	36.6%	31.1%
P	TSLA	2018-09-21	\$75.00	7,423	\$0.03	\$0.26	\$0.14	\$0.02	0.01%	3,413	0	0.0%	---	11,188.6	13,998	36.9%	29.5%
P	TSLA	2018-09-21	\$100.00	10,598	\$0.06	\$0.60	\$0.26	\$0.05	0.02%	3,510	0	0.0%	---	20,273.5	21,555	29.0%	27.3%
P	TSLA	2018-09-21	\$125.00	4,781	\$0.01	\$1.06	\$0.57	\$0.28	0.08%	3,510	0	0.0%	---	5,510.5	8,173	48.2%	32.5%
P	TSLA	2018-09-21	\$140.00	837	\$0.15	\$1.40	\$0.56	\$0.30	0.08%	3,510	0	0.0%	---	694.5	863	67.0%	53.9%
P	TSLA	2018-09-21	\$145.00	334	\$0.15	\$2.67	\$0.83	\$0.19	0.05%	3,413	0	0.0%	---	623.0	651	29.8%	28.5%
P	TSLA	2018-09-21	\$150.00	7,049	\$0.19	\$1.72	\$0.81	\$0.09	0.03%	3,413	0	0.0%	---	10,652.8	11,708	36.8%	33.4%
P	TSLA	2018-09-21	\$155.00	356	\$0.24	\$1.78	\$1.07	\$0.34	0.09%	3,510	0	0.0%	---	1,269.0	1,342	15.6%	14.7%
P	TSLA	2018-09-21	\$160.00	693	\$0.20	\$2.08	\$1.01	\$0.29	0.08%	3,510	0	0.0%	---	4,597.9	4,716	8.4%	8.2%
P	TSLA	2018-09-21	\$165.00	380	\$0.58	\$2.22	\$1.34	\$0.19	0.05%	3,413	0	0.0%	---	540.8	670	39.0%	31.5%
P	TSLA	2018-09-21	\$170.00	457	\$0.28	\$2.35	\$1.26	\$0.17	0.05%	3,413	0	0.0%	---	1,019.1	1,065	24.9%	23.8%
P	TSLA	2018-09-21	\$175.00	1,423	\$0.45	\$2.43	\$1.15	\$0.18	0.05%	3,413	0	0.0%	---	991.8	1,613	79.7%	49.0%
P	TSLA	2018-09-21	\$180.00	3,926	\$0.30	\$2.89	\$1.74	\$0.28	0.08%	3,510	0	0.0%	---	3,227.7	3,450	67.6%	63.2%
P	TSLA	2018-09-21	\$185.00	427	\$0.40	\$3.10	\$2.04	\$0.32	0.09%	3,510	0	0.0%	---	426.9	502	55.6%	47.3%
P	TSLA	2018-09-21	\$190.00	746	\$0.42	\$3.26	\$1.90	\$0.31	0.08%	3,510	0	0.0%	---	966.7	1,125	42.9%	36.8%
P	TSLA	2018-09-21	\$195.00	346	\$0.43	\$3.36	\$1.85	\$0.29	0.08%	3,510	0	0.0%	---	584.6	621	32.9%	31.0%
P	TSLA	2018-09-21	\$200.00	15,212	\$0.35	\$4.10	\$2.07	\$0.23	0.06%	3,413	3	0.1%	0.04%	14,326.3	16,323	59.0%	51.8%
P	TSLA	2018-09-21	\$205.00	4,418	\$0.38	\$4.30	\$2.62	\$0.31	0.09%	3,510	0	0.0%	---	2,372.1	3,388	103.5%	72.4%
P	TSLA	2018-09-21	\$210.00	845	\$0.53	\$4.68	\$2.36	\$0.17	0.05%	3,510	0	0.0%	---	2,755.3	2,932	17.0%	16.0%
P	TSLA	2018-09-21	\$215.00	389	\$0.62	\$4.95	\$2.76	\$0.30	0.09%	3,510	0	0.0%	---	275.2	428	78.5%	50.5%
P	TSLA	2018-09-21	\$220.00	2,091	\$0.56	\$5.59	\$2.60	\$0.33	0.09%	3,510	1	0.0%	0.03%	3,387.4	3,554	34.3%	32.7%
P	TSLA	2018-09-21	\$225.00	1,372	\$0.70	\$5.95	\$3.45	\$0.29	0.08%	3,510	2	0.1%	0.04%	912.7	955	83.5%	79.8%
P	TSLA	2018-09-21	\$230.00	1,824	\$0.81	\$6.53	\$2.74	\$0.29	0.08%	3,510	5	0.1%	0.02%	3,173.2	3,313	31.9%	30.6%
P	TSLA	2018-09-21	\$235.00	872	\$0.90	\$7.00	\$4.00	\$0.33	0.09%	3,510	0	0.0%	---	413.6	584	117.1%	83.0%
P	TSLA	2018-09-21	\$240.00	3,372	\$0.65	\$7.70	\$4.65	\$0.32	0.09%	3,510	3	0.1%	0.03%	5,542.2	6,647	33.8%	28.2%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Volume to Average Open Interest	Volume to Maximum Open Interest
P	TSLA	2018-09-21	\$245.00	4,259	\$1.02	\$8.34	\$3.96	\$0.33	0.09%	3,510	2	0.1%	0.06%	2,375.4	3,559	99.6%	66.5%
P	TSLA	2018-09-21	\$250.00	10,798	\$0.95	\$9.11	\$3.77	\$0.28	0.08%	3,510	10	0.3%	0.04%	9,214.1	9,784	65.1%	61.3%
P	TSLA	2018-09-21	\$255.00	1,491	\$1.07	\$9.92	\$4.36	\$0.33	0.09%	3,510	23	0.7%	0.02%	3,606.7	3,766	23.0%	22.0%
P	TSLA	2018-09-21	\$260.00	3,536	\$1.37	\$10.78	\$5.63	\$0.33	0.09%	3,510	35	1.0%	0.02%	2,800.2	3,524	70.2%	55.7%
P	TSLA	2018-09-21	\$265.00	1,647	\$1.45	\$11.73	\$5.82	\$0.34	0.10%	3,510	47	1.3%	0.02%	1,944.7	2,129	47.1%	43.0%
P	TSLA	2018-09-21	\$270.00	2,656	\$1.47	\$12.78	\$5.69	\$0.30	0.09%	3,510	55	1.6%	0.02%	3,463.8	3,806	42.6%	38.8%
P	TSLA	2018-09-21	\$275.00	4,318	\$1.41	\$14.05	\$6.00	\$0.35	0.10%	3,510	56	1.6%	0.03%	3,316.9	3,466	72.3%	69.2%
P	TSLA	2018-09-21	\$280.00	3,449	\$1.81	\$15.41	\$6.89	\$0.34	0.10%	3,510	90	2.6%	0.02%	5,409.7	5,536	35.4%	34.6%
P	TSLA	2018-09-21	\$285.00	4,879	\$2.07	\$16.86	\$6.75	\$0.38	0.11%	3,510	91	2.6%	0.02%	2,840.8	3,475	95.4%	78.0%
P	TSLA	2018-09-21	\$290.00	6,658	\$1.88	\$18.13	\$7.19	\$0.66	0.18%	3,510	235	6.7%	0.02%	4,944.5	5,384	74.8%	68.7%
P	TSLA	2018-09-21	\$295.00	2,952	\$2.50	\$20.00	\$8.75	\$0.39	0.11%	3,510	346	9.9%	0.02%	1,997.2	2,196	82.1%	74.7%
P	TSLA	2018-09-21	\$300.00	25,295	\$2.02	\$22.09	\$11.37	\$0.70	0.20%	3,413	461	13.5%	0.03%	11,487.1	12,686	122.3%	110.8%
P	TSLA	2018-09-21	\$305.00	2,505	\$0.05	\$24.01	\$12.08	\$0.52	0.15%	3,413	447	13.1%	0.02%	1,189.1	1,407	117.0%	98.9%
P	TSLA	2018-09-21	\$310.00	4,801	\$4.00	\$26.15	\$12.02	\$0.55	0.16%	3,413	613	18.0%	0.02%	3,263.3	3,598	81.7%	74.1%
P	TSLA	2018-09-21	\$315.00	5,021	\$3.00	\$28.69	\$11.34	\$0.55	0.16%	3,510	809	23.0%	0.03%	2,411.5	2,981	115.7%	93.6%
P	TSLA	2018-09-21	\$320.00	13,059	\$5.05	\$30.83	\$13.85	\$5.17	1.42%	3,413	938	27.5%	0.03%	6,386.5	7,492	113.6%	96.8%
P	TSLA	2018-09-21	\$325.00	3,567	\$5.50	\$33.65	\$13.73	\$0.68	0.19%	3,510	1,230	35.0%	0.03%	2,981.5	3,068	66.5%	64.6%
P	TSLA	2018-09-21	\$330.00	7,770	\$6.68	\$36.84	\$14.21	\$0.91	0.26%	3,510	1,417	40.4%	0.03%	2,571.5	3,034	167.9%	142.3%
P	TSLA	2018-09-21	\$335.00	2,950	\$7.50	\$40.15	\$17.03	\$0.93	0.26%	3,510	1,505	42.9%	0.03%	961.8	1,281	170.4%	127.9%
P	TSLA	2018-09-21	\$340.00	10,302	\$5.35	\$43.82	\$19.00	\$1.06	0.30%	3,510	1,517	43.2%	0.04%	3,431.5	5,147	166.8%	111.2%
P	TSLA	2018-09-21	\$345.00	2,668	\$5.00	\$47.85	\$19.40	\$0.64	0.19%	3,510	1,517	43.2%	0.04%	1,317.1	1,540	112.5%	96.2%
P	TSLA	2018-09-21	\$350.00	9,307	\$10.00	\$51.25	\$21.32	\$0.66	0.19%	3,510	1,476	42.1%	0.04%	6,947.4	7,751	74.4%	66.7%
P	TSLA	2018-09-21	\$355.00	2,912	\$11.45	\$54.52	\$23.92	\$0.75	0.22%	3,412	1,310	38.4%	0.04%	965.7	1,555	167.5%	104.0%
P	TSLA	2018-09-21	\$360.00	5,577	\$12.00	\$59.41	\$25.26	\$1.46	0.41%	3,413	1,172	34.3%	0.04%	2,709.2	3,261	114.4%	95.0%
P	TSLA	2018-09-21	\$365.00	1,895	\$13.65	\$100.00	\$25.75	\$0.97	0.28%	3,510	845	24.1%	0.03%	896.0	1,004	117.5%	104.9%
P	TSLA	2018-09-21	\$370.00	2,744	\$15.65	\$68.00	\$26.77	\$1.05	0.31%	3,510	685	19.5%	0.03%	1,142.1	1,361	133.5%	112.0%
P	TSLA	2018-09-21	\$375.00	1,977	\$17.50	\$71.90	\$28.82	\$1.07	0.31%	3,413	499	14.6%	0.03%	835.1	1,089	131.5%	100.9%
P	TSLA	2018-09-21	\$380.00	2,450	\$20.00	\$77.50	\$37.89	\$1.34	0.39%	3,413	249	7.3%	0.03%	1,052.6	1,369	129.3%	99.4%
P	TSLA	2018-09-21	\$385.00	802	\$23.20	\$125.30	\$27.28	\$1.39	0.40%	3,413	159	4.7%	0.03%	595.5	710	74.8%	62.8%
P	TSLA	2018-09-21	\$390.00	435	\$26.00	\$85.23	\$37.45	\$1.66	0.48%	3,510	73	2.1%	0.02%	210.8	287	114.6%	84.2%
P	TSLA	2018-09-21	\$395.00	63	\$26.10	\$81.86	\$43.03	\$1.81	0.52%	3,413	46	1.3%	0.02%	114.6	122	30.5%	28.7%
P	TSLA	2018-09-21	\$400.00	812	\$30.88	\$95.15	\$43.59	\$1.94	0.56%	3,510	36	1.0%	0.02%	491.4	546	91.8%	82.6%
P	TSLA	2018-09-21	\$405.00	39	\$38.91	\$102.31	\$57.42	\$2.18	0.63%	3,508	13	0.4%	0.02%	61.2	73	35.4%	29.7%
P	TSLA	2018-09-21	\$410.00	136	\$41.80	\$103.00	\$46.02	\$2.31	0.67%	3,510	7	0.2%	0.02%	536.6	562	14.1%	13.4%
P	TSLA	2018-09-21	\$415.00	13	\$40.63	\$107.68	\$67.48	\$2.41	0.70%	3,510	4	0.1%	0.02%	208.4	209	3.5%	3.5%
P	TSLA	2018-09-21	\$420.00	101	\$44.21	\$115.17	\$65.34	\$2.57	0.74%	3,510	3	0.1%	0.02%	58.6	64	95.8%	87.7%
P	TSLA	2018-09-21	\$425.00	74	\$57.40	\$117.32	\$87.10	\$2.67	0.77%	3,510	1	0.0%	0.01%	35.9	47	114.5%	87.5%
P	TSLA	2018-09-21	\$430.00	74	\$58.00	\$122.22	\$92.11	\$2.76	0.79%	3,510	1	0.0%	0.01%	62.5	73	65.8%	56.3%
P	TSLA	2018-09-21	\$440.00	4	\$62.90	\$98.50	\$82.38	\$3.25	0.93%	3,510	0	0.0%	---	19.7	20	11.3%	11.1%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly Volume to Average Open Interest	Weekly Volume to Maximum Open Interest
P	TSLA	2018-09-21	\$445.00	2	\$87.73	\$87.73	\$87.73	\$3.30	0.95%	3,510	0	0.0%	---	14.2	16	7.8%	6.9%
P	TSLA	2018-09-21	\$450.00	1	\$69.90	\$69.90	\$69.90	\$3.29	0.94%	3,413	0	0.0%	---	72.8	73	0.8%	0.8%
P	TSLA	2018-09-21	\$470.00	1	\$107.45	\$107.45	\$107.45	\$3.51	1.00%	3,510	0	0.0%	---	0.9	1	61.7%	55.6%
P	TSLA	2018-09-21	\$480.00	1	\$106.00	\$106.00	\$106.00	\$3.55	1.01%	3,510	0	0.0%	---	11.9	12	4.7%	4.6%
P	TSLA	2018-09-21	\$500.00	2	\$123.52	\$123.52	\$123.52	\$3.53	1.01%	3,510	0	0.0%	---	3.4	4	32.7%	27.8%
P	TSLA	2018-09-28	\$250.00	272	\$3.86	\$10.10	\$7.71	\$0.42	0.12%	1,950	5	0.3%	0.02%	57.3	208	474.4%	130.8%
P	TSLA	2018-09-28	\$255.00	56	\$4.90	\$10.65	\$7.67	\$0.49	0.14%	2,340	6	0.3%	0.02%	19.4	44	240.2%	106.1%
P	TSLA	2018-09-28	\$260.00	85	\$4.77	\$11.93	\$8.65	\$0.49	0.14%	2,340	17	0.7%	0.02%	18.0	57	393.5%	124.3%
P	TSLA	2018-09-28	\$265.00	57	\$4.80	\$13.50	\$8.62	\$0.49	0.14%	2,340	40	1.7%	0.03%	17.7	53	268.1%	89.6%
P	TSLA	2018-09-28	\$270.00	61	\$5.78	\$13.54	\$11.34	\$0.50	0.15%	2,340	48	2.1%	0.02%	10.6	40	480.9%	127.1%
P	TSLA	2018-09-28	\$275.00	58	\$4.92	\$15.10	\$10.08	\$1.01	0.29%	2,730	36	1.3%	0.02%	13.0	38	318.7%	109.0%
P	TSLA	2018-09-28	\$280.00	75	\$6.67	\$15.94	\$9.57	\$1.08	0.31%	2,730	36	1.3%	0.02%	18.3	45	293.5%	119.0%
P	TSLA	2018-09-28	\$285.00	706	\$7.07	\$17.80	\$15.09	\$1.05	0.30%	2,730	53	1.9%	0.02%	95.6	635	527.4%	79.4%
P	TSLA	2018-09-28	\$290.00	87	\$6.90	\$19.14	\$12.54	\$1.07	0.31%	2,730	80	2.9%	0.02%	16.3	40	382.4%	155.4%
P	TSLA	2018-09-28	\$295.00	70	\$7.90	\$21.00	\$12.35	\$1.07	0.31%	2,730	93	3.4%	0.03%	17.9	32	279.7%	156.3%
P	TSLA	2018-09-28	\$300.00	166	\$8.00	\$24.00	\$14.69	\$1.06	0.30%	2,730	135	4.9%	0.02%	31.1	69	381.0%	171.8%
P	TSLA	2018-09-28	\$305.00	164	\$10.00	\$25.71	\$19.57	\$0.97	0.28%	2,730	176	6.4%	0.02%	25.0	99	468.6%	118.3%
P	TSLA	2018-09-28	\$310.00	98	\$11.00	\$26.75	\$17.26	\$1.14	0.33%	2,730	252	9.2%	0.02%	24.0	64	291.7%	109.4%
P	TSLA	2018-09-28	\$315.00	102	\$9.90	\$29.25	\$23.46	\$1.10	0.32%	2,730	351	12.9%	0.02%	21.4	91	340.9%	80.1%
P	TSLA	2018-09-28	\$320.00	101	\$12.37	\$31.96	\$18.71	\$1.16	0.33%	2,730	426	15.6%	0.02%	26.9	58	268.4%	124.4%
P	TSLA	2018-09-28	\$325.00	135	\$13.40	\$35.00	\$18.59	\$1.19	0.34%	2,730	525	19.2%	0.03%	35.1	65	274.5%	148.4%
P	TSLA	2018-09-28	\$330.00	59	\$14.68	\$38.55	\$24.03	\$1.25	0.36%	2,730	607	22.2%	0.03%	12.0	30	351.2%	140.5%
P	TSLA	2018-09-28	\$335.00	50	\$16.43	\$40.93	\$24.59	\$1.30	0.38%	2,730	617	22.6%	0.03%	14.1	36	252.8%	99.2%
P	TSLA	2018-09-28	\$337.50	17	\$18.20	\$41.50	\$27.21	\$1.27	0.37%	2,730	618	22.6%	0.03%	2.8	7	441.6%	173.5%
P	TSLA	2018-09-28	\$340.00	144	\$17.86	\$44.83	\$28.98	\$1.29	0.37%	2,730	623	22.8%	0.03%	24.0	68	428.6%	151.3%
P	TSLA	2018-09-28	\$342.50	5	\$21.00	\$46.00	\$28.29	\$1.32	0.38%	2,730	585	21.4%	0.03%	1.4	3	259.7%	119.0%
P	TSLA	2018-09-28	\$345.00	68	\$23.45	\$48.00	\$43.50	\$1.34	0.39%	2,730	578	21.2%	0.03%	5.6	23	863.5%	211.2%
P	TSLA	2018-09-28	\$347.50	13	\$20.05	\$47.87	\$30.31	\$1.39	0.40%	2,730	552	20.2%	0.03%	2.3	6	412.7%	154.8%
P	TSLA	2018-09-28	\$350.00	93	\$20.96	\$51.50	\$29.08	\$1.42	0.41%	2,730	547	20.0%	0.03%	27.3	44	243.8%	151.0%
P	TSLA	2018-09-28	\$352.50	84	\$22.90	\$41.41	\$28.56	\$1.47	0.43%	2,730	513	18.8%	0.03%	20.9	36	287.4%	166.7%
P	TSLA	2018-09-28	\$355.00	302	\$22.55	\$56.64	\$29.01	\$1.48	0.43%	2,730	550	20.1%	0.03%	128.1	237	168.4%	91.0%
P	TSLA	2018-09-28	\$357.50	29	\$24.27	\$35.45	\$30.95	\$1.54	0.45%	2,730	464	17.0%	0.03%	12.8	21	162.5%	98.6%
P	TSLA	2018-09-28	\$360.00	139	\$24.70	\$57.47	\$28.53	\$1.55	0.45%	2,730	434	15.9%	0.03%	42.6	68	232.9%	146.0%
P	TSLA	2018-09-28	\$362.50	17	\$27.33	\$37.20	\$35.65	\$1.62	0.47%	2,730	385	14.1%	0.03%	6.5	16	186.8%	75.9%
P	TSLA	2018-09-28	\$365.00	30	\$29.75	\$63.93	\$38.02	\$1.67	0.49%	2,730	334	12.2%	0.03%	10.4	27	206.5%	79.4%
P	TSLA	2018-09-28	\$397.50	7	\$65.45	\$65.45	\$65.45	\$2.49	0.73%	2,730	14	0.5%	0.02%	1.8	7	285.7%	71.4%
P	TSLA	2018-09-28	\$405.00	2	\$101.00	\$101.00	\$101.00	\$2.71	0.79%	2,730	4	0.1%	0.02%	0.0	0	---	---
P	TSLA	2018-10-19	\$25.00	2,408	\$0.03	\$0.13	\$0.07	\$0.04	0.01%	2,730	0	0.0%	---	818.8	2,393	210.1%	71.9%
P	TSLA	2018-10-19	\$30.00	326	\$0.04	\$0.13	\$0.08	\$0.11	0.03%	2,730	0	0.0%	---	98.9	211	235.5%	110.4%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
P	TSLA	2018-10-19	\$35.00	125	\$0.14	\$0.20	\$0.17	\$0.16	0.05%	2,730	0	0.0%	---	15.6	125	571.4%	71.4%
P	TSLA	2018-10-19	\$40.00	65	\$0.10	\$0.25	\$0.17	\$0.18	0.05%	2,730	0	0.0%	---	9.9	63	470.2%	73.7%
P	TSLA	2018-10-19	\$45.00	605	\$0.13	\$0.35	\$0.24	\$0.17	0.05%	2,730	0	0.0%	---	101.0	444	427.9%	97.3%
P	TSLA	2018-10-19	\$50.00	18,425	\$0.16	\$0.46	\$0.22	\$0.04	0.01%	2,730	0	0.0%	---	6,182.0	10,962	212.9%	120.1%
P	TSLA	2018-10-19	\$55.00	41	\$0.23	\$0.53	\$0.39	\$0.39	0.11%	2,730	0	0.0%	---	5.5	41	532.5%	71.4%
P	TSLA	2018-10-19	\$60.00	69	\$0.16	\$0.47	\$0.41	\$0.38	0.11%	2,730	0	0.0%	---	17.8	69	277.7%	71.4%
P	TSLA	2018-10-19	\$65.00	32	\$0.25	\$0.70	\$0.46	\$0.34	0.10%	2,730	0	0.0%	---	5.5	31	415.6%	73.7%
P	TSLA	2018-10-19	\$70.00	200	\$0.35	\$0.85	\$0.48	\$0.31	0.09%	2,730	0	0.0%	---	35.5	104	402.4%	137.4%
P	TSLA	2018-10-19	\$75.00	9,220	\$0.06	\$0.95	\$0.33	\$0.27	0.08%	3,510	0	0.0%	---	3,157.4	4,032	162.2%	127.0%
P	TSLA	2018-10-19	\$80.00	539	\$0.10	\$1.05	\$0.63	\$0.49	0.14%	3,510	0	0.0%	---	102.0	372	293.6%	80.5%
P	TSLA	2018-10-19	\$85.00	13	\$0.54	\$1.16	\$0.99	\$0.58	0.16%	3,510	0	0.0%	---	11.1	13	65.1%	55.6%
P	TSLA	2018-10-19	\$90.00	100	\$0.15	\$1.31	\$1.04	\$0.59	0.17%	3,510	0	0.0%	---	19.8	84	280.6%	66.1%
P	TSLA	2018-10-19	\$95.00	87	\$0.13	\$1.51	\$1.12	\$0.60	0.17%	3,510	0	0.0%	---	45.3	94	106.7%	51.4%
P	TSLA	2018-10-19	\$100.00	5,028	\$0.22	\$1.63	\$0.70	\$0.41	0.11%	3,510	0	0.0%	---	3,410.0	4,308	81.9%	64.8%
P	TSLA	2018-10-19	\$105.00	57	\$0.27	\$1.98	\$1.24	\$0.57	0.16%	3,510	0	0.0%	---	23.0	42	137.7%	75.4%
P	TSLA	2018-10-19	\$110.00	229	\$0.27	\$1.87	\$1.24	\$0.54	0.15%	3,510	0	0.0%	---	78.5	132	162.1%	96.4%
P	TSLA	2018-10-19	\$115.00	129	\$0.37	\$2.08	\$1.19	\$0.53	0.15%	3,510	0	0.0%	---	68.4	135	104.8%	53.1%
P	TSLA	2018-10-19	\$120.00	271	\$0.20	\$2.25	\$0.99	\$0.40	0.11%	3,510	0	0.0%	---	1,328.2	1,365	11.3%	11.0%
P	TSLA	2018-10-19	\$125.00	1,202	\$0.40	\$2.60	\$1.02	\$0.48	0.14%	3,510	0	0.0%	---	941.9	1,044	70.9%	64.0%
P	TSLA	2018-10-19	\$130.00	63	\$0.73	\$2.16	\$1.75	\$0.46	0.13%	3,510	0	0.0%	---	136.4	164	25.7%	21.3%
P	TSLA	2018-10-19	\$135.00	11	\$0.48	\$2.50	\$1.53	\$0.50	0.14%	3,510	0	0.0%	---	316.9	320	1.9%	1.9%
P	TSLA	2018-10-19	\$140.00	29	\$0.52	\$2.80	\$1.99	\$0.52	0.15%	3,510	0	0.0%	---	118.9	125	13.6%	12.9%
P	TSLA	2018-10-19	\$145.00	131	\$0.65	\$3.05	\$1.14	\$0.54	0.15%	3,510	0	0.0%	---	107.7	117	67.6%	62.2%
P	TSLA	2018-10-19	\$150.00	1,167	\$0.48	\$3.80	\$1.79	\$0.84	0.23%	3,510	0	0.0%	---	1,883.6	2,003	34.4%	32.4%
P	TSLA	2018-10-19	\$155.00	251	\$0.60	\$3.37	\$2.68	\$0.52	0.14%	3,510	0	0.0%	---	377.2	441	37.0%	31.6%
P	TSLA	2018-10-19	\$160.00	257	\$0.40	\$4.20	\$2.03	\$0.51	0.14%	3,510	0	0.0%	---	190.7	226	74.9%	63.2%
P	TSLA	2018-10-19	\$165.00	574	\$0.72	\$4.25	\$1.41	\$0.52	0.15%	3,510	0	0.0%	---	493.4	599	64.6%	53.2%
P	TSLA	2018-10-19	\$170.00	248	\$1.46	\$4.88	\$3.34	\$0.54	0.15%	3,510	0	0.0%	---	480.2	549	28.7%	25.1%
P	TSLA	2018-10-19	\$175.00	373	\$0.90	\$5.30	\$2.35	\$0.52	0.15%	3,510	0	0.0%	---	372.9	425	55.6%	48.8%
P	TSLA	2018-10-19	\$180.00	566	\$0.92	\$5.90	\$1.64	\$0.33	0.09%	3,413	0	0.0%	---	506.4	552	62.1%	57.0%
P	TSLA	2018-10-19	\$185.00	57	\$1.17	\$5.80	\$3.59	\$0.56	0.16%	3,510	0	0.0%	---	68.9	98	46.0%	32.3%
P	TSLA	2018-10-19	\$190.00	372	\$1.25	\$6.40	\$4.57	\$0.76	0.21%	3,510	0	0.0%	---	188.8	328	109.5%	63.0%
P	TSLA	2018-10-19	\$195.00	96	\$1.33	\$6.53	\$3.73	\$0.50	0.14%	3,510	2	0.1%	0.01%	160.8	189	33.2%	28.2%
P	TSLA	2018-10-19	\$200.00	2,318	\$1.34	\$7.50	\$4.47	\$0.46	0.13%	3,510	4	0.1%	0.02%	1,534.1	2,175	83.9%	59.2%
P	TSLA	2018-10-19	\$205.00	2,366	\$1.51	\$7.65	\$5.64	\$0.57	0.16%	3,510	5	0.1%	0.04%	645.1	1,103	203.8%	119.2%
P	TSLA	2018-10-19	\$210.00	1,188	\$1.78	\$7.61	\$5.91	\$0.56	0.16%	3,510	8	0.2%	0.03%	405.7	624	162.7%	105.8%
P	TSLA	2018-10-19	\$215.00	329	\$2.00	\$8.70	\$3.86	\$0.58	0.16%	3,510	14	0.4%	0.02%	240.3	342	76.1%	53.4%
P	TSLA	2018-10-19	\$220.00	371	\$2.00	\$9.70	\$4.77	\$0.42	0.12%	3,413	36	1.1%	0.03%	856.0	891	24.1%	23.1%
P	TSLA	2018-10-19	\$225.00	275	\$2.20	\$10.35	\$4.95	\$0.52	0.15%	3,510	47	1.3%	0.02%	664.2	708	23.0%	21.6%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly Volume to Average Open Interest	Weekly Volume to Maximum Open Interest
P	TSLA	2018-10-19	\$230.00	460	\$2.30	\$11.10	\$6.14	\$0.49	0.14%	3,510	99	2.8%	0.02%	776.3	917	32.9%	27.9%
P	TSLA	2018-10-19	\$235.00	305	\$3.05	\$11.80	\$7.26	\$1.27	0.35%	3,510	322	9.2%	0.03%	397.3	565	42.6%	30.0%
P	TSLA	2018-10-19	\$240.00	3,593	\$2.57	\$12.34	\$10.22	\$0.85	0.24%	3,510	444	12.6%	0.03%	740.1	3,581	269.7%	55.7%
P	TSLA	2018-10-19	\$245.00	199	\$2.75	\$13.57	\$7.30	\$0.60	0.17%	3,510	639	18.2%	0.04%	178.4	205	62.0%	53.9%
P	TSLA	2018-10-19	\$250.00	11,802	\$2.50	\$14.55	\$7.55	\$0.47	0.13%	3,510	957	27.3%	0.05%	4,943.9	6,266	132.6%	104.6%
P	TSLA	2018-10-19	\$255.00	197	\$3.70	\$15.27	\$9.32	\$0.63	0.18%	3,510	1,075	30.6%	0.05%	84.9	173	128.9%	63.3%
P	TSLA	2018-10-19	\$260.00	779	\$2.83	\$16.50	\$8.29	\$0.57	0.16%	3,510	1,249	35.6%	0.05%	1,489.1	1,577	29.1%	27.4%
P	TSLA	2018-10-19	\$265.00	235	\$4.50	\$16.78	\$9.83	\$0.60	0.17%	3,510	1,424	40.6%	0.05%	199.1	249	65.6%	52.4%
P	TSLA	2018-10-19	\$270.00	612	\$3.99	\$18.50	\$11.68	\$0.99	0.28%	3,510	1,572	44.8%	0.06%	1,474.6	1,602	23.1%	21.2%
P	TSLA	2018-10-19	\$275.00	610	\$4.00	\$20.18	\$11.24	\$0.58	0.16%	3,510	1,673	47.7%	0.06%	1,300.0	1,432	26.1%	23.7%
P	TSLA	2018-10-19	\$280.00	1,046	\$4.84	\$21.48	\$11.73	\$0.57	0.16%	3,510	1,775	50.6%	0.07%	2,087.8	2,232	27.8%	26.0%
P	TSLA	2018-10-19	\$285.00	705	\$5.90	\$22.93	\$11.18	\$0.63	0.18%	3,510	1,841	52.5%	0.07%	267.6	370	146.4%	105.9%
P	TSLA	2018-10-19	\$290.00	1,156	\$6.00	\$24.90	\$12.05	\$0.60	0.17%	3,510	1,907	54.3%	0.08%	1,004.0	1,061	64.0%	60.5%
P	TSLA	2018-10-19	\$295.00	578	\$7.00	\$26.60	\$14.82	\$0.66	0.19%	3,510	1,966	56.0%	0.08%	252.8	337	127.0%	95.3%
P	TSLA	2018-10-19	\$300.00	6,864	\$6.35	\$28.70	\$14.26	\$0.72	0.20%	3,510	2,048	58.3%	0.09%	3,002.5	3,976	127.0%	95.9%
P	TSLA	2018-10-19	\$305.00	462	\$8.05	\$30.90	\$16.74	\$0.69	0.19%	3,510	2,032	57.9%	0.09%	244.5	307	105.0%	83.6%
P	TSLA	2018-10-19	\$310.00	1,068	\$7.28	\$32.40	\$18.54	\$0.69	0.20%	3,510	2,009	57.2%	0.10%	2,168.4	2,279	27.4%	26.0%
P	TSLA	2018-10-19	\$315.00	261	\$9.50	\$187.70	\$19.51	\$0.74	0.21%	3,510	2,019	57.5%	0.10%	237.8	246	61.0%	58.9%
P	TSLA	2018-10-19	\$320.00	794	\$9.03	\$37.23	\$18.66	\$0.74	0.21%	3,510	2,008	57.2%	0.10%	399.7	459	110.4%	96.1%
P	TSLA	2018-10-19	\$325.00	3,302	\$8.79	\$39.91	\$22.14	\$0.78	0.22%	3,510	2,044	58.2%	0.10%	833.1	1,065	220.2%	172.2%
P	TSLA	2018-10-19	\$330.00	4,051	\$8.80	\$43.31	\$23.04	\$0.79	0.22%	3,510	2,085	59.4%	0.10%	1,484.0	2,052	151.7%	109.7%
P	TSLA	2018-10-19	\$335.00	467	\$9.15	\$45.05	\$24.46	\$0.86	0.25%	3,510	1,977	56.3%	0.10%	169.5	236	153.1%	109.9%
P	TSLA	2018-10-19	\$340.00	3,043	\$12.70	\$49.44	\$26.94	\$1.32	0.37%	3,510	1,997	56.9%	0.10%	1,024.3	1,825	165.0%	92.6%
P	TSLA	2018-10-19	\$345.00	593	\$15.70	\$51.73	\$29.50	\$0.92	0.26%	3,413	1,940	56.8%	0.10%	170.1	209	193.7%	157.6%
P	TSLA	2018-10-19	\$350.00	2,758	\$7.94	\$56.50	\$33.32	\$1.72	0.48%	3,510	1,953	55.6%	0.10%	942.6	1,438	162.6%	106.6%
P	TSLA	2018-10-19	\$355.00	848	\$17.38	\$59.70	\$29.84	\$0.97	0.28%	3,413	1,865	54.6%	0.09%	262.2	437	179.7%	107.8%
P	TSLA	2018-10-19	\$360.00	987	\$15.50	\$63.21	\$30.34	\$1.05	0.30%	3,413	1,883	55.2%	0.09%	371.0	429	147.8%	127.8%
P	TSLA	2018-10-19	\$365.00	834	\$20.75	\$67.00	\$27.47	\$1.08	0.31%	3,413	1,858	54.4%	0.08%	451.4	604	102.6%	76.7%
P	TSLA	2018-10-19	\$370.00	1,227	\$22.63	\$72.00	\$29.69	\$1.18	0.34%	3,510	1,748	49.8%	0.08%	629.7	819	108.3%	83.2%
P	TSLA	2018-10-19	\$375.00	301	\$25.38	\$73.50	\$35.06	\$1.32	0.38%	3,509	1,418	40.4%	0.07%	101.7	126	164.4%	132.7%
P	TSLA	2018-10-19	\$380.00	400	\$26.00	\$78.08	\$34.79	\$1.34	0.39%	3,510	1,318	37.5%	0.07%	305.4	365	72.8%	60.9%
P	TSLA	2018-10-19	\$385.00	95	\$28.00	\$51.00	\$36.84	\$1.59	0.46%	3,510	1,035	29.5%	0.06%	49.1	53	107.5%	99.6%
P	TSLA	2018-10-19	\$390.00	23	\$30.00	\$60.20	\$45.03	\$1.69	0.49%	3,510	853	24.3%	0.06%	162.4	165	7.9%	7.7%
P	TSLA	2018-10-19	\$395.00	18	\$37.43	\$51.64	\$44.09	\$1.91	0.55%	3,510	677	19.3%	0.05%	23.7	27	42.2%	37.0%
P	TSLA	2018-10-19	\$400.00	204	\$38.34	\$191.65	\$48.13	\$2.02	0.58%	3,510	490	14.0%	0.04%	232.0	264	48.9%	42.9%
P	TSLA	2018-10-19	\$405.00	427	\$39.20	\$92.95	\$80.05	\$2.17	0.62%	3,509	304	8.7%	0.04%	118.6	342	200.0%	69.4%
P	TSLA	2018-10-19	\$410.00	400	\$76.02	\$97.85	\$86.65	\$2.31	0.66%	3,510	249	7.1%	0.04%	88.0	320	252.5%	69.4%
P	TSLA	2018-10-19	\$415.00	32	\$45.95	\$103.02	\$54.93	\$2.66	0.76%	3,509	135	3.8%	0.03%	21.3	28	83.5%	63.5%
P	TSLA	2018-10-19	\$420.00	20	\$50.00	\$116.50	\$71.41	\$2.78	0.80%	3,510	92	2.6%	0.03%	110.9	113	10.0%	9.8%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
P	TSLA	2018-10-19	\$425.00	12	\$52.90	\$76.50	\$72.00	\$2.92	0.84%	3,510	61	1.7%	0.03%	2.2	5	303.0%	133.3%
P	TSLA	2018-10-19	\$430.00	8	\$54.15	\$122.00	\$79.13	\$2.98	0.85%	3,510	40	1.1%	0.03%	15.2	16	29.2%	27.8%
P	TSLA	2018-10-19	\$435.00	4	\$77.30	\$77.30	\$77.30	\$3.07	0.88%	3,510	21	0.6%	0.03%	5.0	7	44.4%	31.7%
P	TSLA	2018-10-19	\$440.00	2	\$68.00	\$91.10	\$79.55	\$3.13	0.90%	3,510	7	0.2%	0.03%	4.8	5	23.1%	22.2%
P	TSLA	2018-10-19	\$490.00	2	\$136.00	\$185.00	\$160.50	\$3.88	1.11%	3,510	0	0.0%	---	36.9	37	3.0%	3.0%
P	TSLA	2018-10-19	\$540.00	1	\$168.85	\$168.85	\$168.85	\$3.93	1.12%	3,510	0	0.0%	---	0.9	1	61.7%	55.6%
P	TSLA	2018-11-16	\$25.00	479	\$0.13	\$0.20	\$0.17	\$0.39	0.11%	2,730	0	0.0%	---	148.9	479	229.8%	71.4%
P	TSLA	2018-11-16	\$30.00	33	\$0.10	\$0.29	\$0.21	\$0.58	0.17%	2,730	0	0.0%	---	5.4	21	438.5%	112.2%
P	TSLA	2018-11-16	\$35.00	10	\$0.34	\$0.34	\$0.34	\$0.61	0.18%	2,730	0	0.0%	---	1.3	10	571.4%	71.4%
P	TSLA	2018-11-16	\$40.00	51	\$0.37	\$0.47	\$0.42	\$0.64	0.18%	2,730	0	0.0%	---	6.4	51	571.4%	71.4%
P	TSLA	2018-11-16	\$45.00	28	\$0.45	\$0.50	\$0.47	\$0.67	0.19%	2,730	0	0.0%	---	5.5	28	363.6%	71.4%
P	TSLA	2018-11-16	\$50.00	824	\$0.35	\$0.76	\$0.52	\$0.53	0.15%	2,730	0	0.0%	---	228.8	694	257.3%	84.8%
P	TSLA	2018-11-16	\$60.00	17	\$0.70	\$0.99	\$0.89	\$0.73	0.21%	2,730	0	0.0%	---	2.5	12	485.7%	101.2%
P	TSLA	2018-11-16	\$70.00	161	\$0.68	\$1.32	\$0.96	\$0.72	0.21%	2,730	0	0.0%	---	71.9	145	160.0%	79.3%
P	TSLA	2018-11-16	\$80.00	112	\$0.95	\$1.68	\$1.37	\$0.70	0.20%	2,730	0	0.0%	---	22.3	112	359.6%	71.4%
P	TSLA	2018-11-16	\$90.00	144	\$1.14	\$1.91	\$1.57	\$0.59	0.17%	2,730	1	0.0%	0.04%	22.1	132	464.9%	77.9%
P	TSLA	2018-11-16	\$100.00	3,360	\$1.33	\$2.48	\$1.78	\$0.46	0.13%	2,730	2	0.1%	0.02%	761.4	2,758	315.2%	87.0%
P	TSLA	2018-11-16	\$110.00	141	\$1.67	\$2.91	\$2.24	\$0.60	0.17%	2,730	6	0.2%	0.03%	21.5	129	468.4%	78.1%
P	TSLA	2018-11-16	\$120.00	45	\$1.79	\$3.55	\$2.93	\$0.59	0.17%	2,730	20	0.7%	0.03%	1,684.6	2,274	1.9%	1.4%
P	TSLA	2018-11-16	\$130.00	11	\$2.20	\$3.75	\$3.31	\$0.63	0.18%	2,730	88	3.2%	0.03%	2.6	9	299.3%	87.3%
P	TSLA	2018-11-16	\$140.00	11	\$2.74	\$3.00	\$2.94	\$0.66	0.19%	2,730	197	7.2%	0.03%	4.0	11	196.4%	71.4%
P	TSLA	2018-11-16	\$150.00	156	\$3.02	\$5.30	\$4.36	\$0.64	0.18%	2,730	485	17.8%	0.03%	29.6	127	376.1%	87.7%
P	TSLA	2018-11-16	\$160.00	39	\$2.89	\$5.90	\$3.87	\$0.67	0.19%	2,730	917	33.6%	0.04%	17.0	39	163.9%	71.4%
P	TSLA	2018-11-16	\$170.00	12	\$3.12	\$6.00	\$5.13	\$0.68	0.20%	2,730	1,322	48.4%	0.05%	3.8	12	228.6%	71.4%
P	TSLA	2018-11-16	\$175.00	87	\$4.30	\$6.00	\$4.69	\$0.45	0.13%	1,950	1,441	73.9%	0.06%	44.7	86	194.8%	101.2%
P	TSLA	2018-11-16	\$180.00	365	\$1.80	\$7.70	\$3.92	\$0.87	0.25%	3,510	1,542	43.9%	0.06%	164.6	229	123.2%	88.5%
P	TSLA	2018-11-16	\$185.00	350	\$2.23	\$8.25	\$6.52	\$1.08	0.30%	3,510	1,616	46.0%	0.07%	95.1	154	204.5%	126.3%
P	TSLA	2018-11-16	\$190.00	156	\$2.50	\$8.50	\$6.63	\$1.09	0.31%	3,510	1,650	47.0%	0.08%	30.6	129	283.2%	67.2%
P	TSLA	2018-11-16	\$195.00	24	\$5.35	\$9.00	\$8.75	\$1.07	0.30%	3,510	1,697	48.3%	0.09%	2.9	24	459.8%	55.6%
P	TSLA	2018-11-16	\$200.00	3,197	\$1.80	\$10.20	\$6.88	\$0.96	0.27%	3,510	1,777	50.6%	0.10%	1,017.6	2,221	174.5%	80.0%
P	TSLA	2018-11-16	\$210.00	74	\$3.00	\$10.71	\$8.50	\$1.01	0.28%	3,510	1,817	51.8%	0.12%	11.5	57	357.5%	72.1%
P	TSLA	2018-11-16	\$220.00	91	\$3.50	\$13.35	\$8.13	\$0.97	0.27%	3,510	1,842	52.5%	0.14%	30.9	82	163.6%	61.7%
P	TSLA	2018-11-16	\$230.00	1,082	\$3.35	\$14.80	\$9.91	\$0.90	0.25%	3,510	2,052	58.5%	0.15%	330.0	762	182.2%	78.9%
P	TSLA	2018-11-16	\$240.00	137	\$5.10	\$16.65	\$8.02	\$0.96	0.27%	3,510	2,008	57.2%	0.17%	79.9	100	95.3%	76.1%
P	TSLA	2018-11-16	\$250.00	5,594	\$4.90	\$19.01	\$14.01	\$1.03	0.29%	3,510	2,074	59.1%	0.18%	746.0	4,242	416.6%	73.3%
P	TSLA	2018-11-16	\$255.00	36	\$6.70	\$18.52	\$13.60	\$1.16	0.33%	3,510	2,075	59.1%	0.18%	10.3	28	194.2%	71.4%
P	TSLA	2018-11-16	\$260.00	2,182	\$9.87	\$21.15	\$17.29	\$1.01	0.29%	3,510	2,093	59.6%	0.19%	311.7	1,097	388.9%	110.5%
P	TSLA	2018-11-16	\$265.00	105	\$9.00	\$22.35	\$14.29	\$1.04	0.29%	3,510	2,179	62.1%	0.19%	39.7	76	146.9%	76.8%
P	TSLA	2018-11-16	\$270.00	826	\$6.90	\$23.80	\$20.36	\$1.03	0.29%	3,510	2,221	63.3%	0.19%	120.7	647	380.2%	70.9%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly Volume to Average Open Interest	Weekly Volume to Maximum Open Interest
P	TSLA	2018-11-16	\$275.00	115	\$7.00	\$25.85	\$17.56	\$1.03	0.29%	3,510	2,202	62.7%	0.20%	30.3	75	210.9%	85.2%
P	TSLA	2018-11-16	\$280.00	422	\$8.45	\$27.45	\$16.43	\$1.18	0.33%	3,510	2,304	65.6%	0.20%	200.5	308	116.9%	76.1%
P	TSLA	2018-11-16	\$285.00	477	\$10.00	\$28.70	\$25.83	\$1.30	0.37%	3,510	2,269	64.6%	0.20%	63.7	332	416.0%	79.8%
P	TSLA	2018-11-16	\$290.00	2,171	\$9.58	\$30.75	\$24.63	\$1.06	0.30%	3,510	2,273	64.8%	0.21%	326.7	1,077	369.2%	112.0%
P	TSLA	2018-11-16	\$295.00	57	\$10.95	\$32.05	\$19.10	\$1.07	0.30%	3,510	2,272	64.7%	0.21%	51.0	55	62.1%	57.6%
P	TSLA	2018-11-16	\$300.00	1,603	\$10.00	\$34.75	\$17.18	\$0.92	0.26%	3,510	2,359	67.2%	0.21%	773.3	1,082	115.2%	82.3%
P	TSLA	2018-11-16	\$305.00	175	\$12.00	\$36.80	\$22.26	\$1.07	0.30%	3,510	2,322	66.2%	0.21%	52.9	80	183.8%	121.5%
P	TSLA	2018-11-16	\$310.00	1,127	\$10.15	\$39.37	\$25.09	\$1.08	0.30%	3,510	2,355	67.1%	0.21%	237.4	997	263.7%	62.8%
P	TSLA	2018-11-16	\$315.00	358	\$15.00	\$40.51	\$23.29	\$1.15	0.32%	3,510	2,329	66.4%	0.21%	121.0	297	164.4%	67.0%
P	TSLA	2018-11-16	\$320.00	302	\$14.07	\$43.50	\$25.38	\$1.14	0.32%	3,510	2,364	67.4%	0.21%	85.6	138	196.0%	121.6%
P	TSLA	2018-11-16	\$325.00	204	\$15.00	\$46.95	\$29.08	\$1.15	0.33%	3,510	2,380	67.8%	0.21%	69.0	111	164.3%	102.1%
P	TSLA	2018-11-16	\$330.00	185	\$11.20	\$48.86	\$28.20	\$1.16	0.33%	3,510	2,356	67.1%	0.20%	75.0	129	137.0%	79.7%
P	TSLA	2018-11-16	\$335.00	222	\$18.60	\$50.80	\$34.64	\$1.21	0.34%	3,510	2,348	66.9%	0.20%	90.4	131	136.4%	94.1%
P	TSLA	2018-11-16	\$340.00	340	\$19.00	\$54.50	\$31.35	\$1.19	0.34%	3,510	2,359	67.2%	0.19%	172.9	243	109.2%	77.7%
P	TSLA	2018-11-16	\$345.00	238	\$21.15	\$55.40	\$39.17	\$1.24	0.35%	3,510	2,336	66.6%	0.19%	96.8	161	136.6%	82.1%
P	TSLA	2018-11-16	\$350.00	2,192	\$22.00	\$60.90	\$34.84	\$1.19	0.34%	3,510	2,362	67.3%	0.18%	731.5	1,045	166.5%	116.5%
P	TSLA	2018-11-16	\$355.00	239	\$25.00	\$62.15	\$37.00	\$1.36	0.39%	3,510	2,242	63.9%	0.18%	103.5	172	128.3%	77.2%
P	TSLA	2018-11-16	\$360.00	178	\$24.00	\$66.00	\$41.29	\$1.40	0.40%	3,510	2,210	63.0%	0.17%	49.2	81	201.0%	122.1%
P	TSLA	2018-11-16	\$365.00	186	\$27.50	\$71.27	\$39.22	\$1.45	0.41%	3,510	2,056	58.6%	0.17%	47.2	71	218.9%	145.5%
P	TSLA	2018-11-16	\$370.00	266	\$29.00	\$75.00	\$46.69	\$1.50	0.43%	3,510	1,936	55.2%	0.16%	86.0	148	171.8%	99.8%
P	TSLA	2018-11-16	\$375.00	331	\$29.00	\$53.40	\$41.39	\$1.53	0.44%	3,510	1,801	51.3%	0.16%	75.2	92	244.5%	199.9%
P	TSLA	2018-11-16	\$380.00	207	\$31.99	\$81.79	\$36.86	\$1.62	0.46%	3,510	1,705	48.6%	0.15%	125.2	162	91.9%	71.0%
P	TSLA	2018-11-16	\$385.00	25	\$34.62	\$85.74	\$56.55	\$1.94	0.55%	3,510	1,526	43.5%	0.15%	6.6	16	210.4%	86.8%
P	TSLA	2018-11-16	\$390.00	52	\$39.25	\$90.02	\$57.77	\$1.81	0.52%	3,510	1,480	42.2%	0.14%	21.2	36	136.3%	80.2%
P	TSLA	2018-11-16	\$395.00	35	\$39.28	\$67.00	\$55.19	\$1.91	0.55%	3,510	1,387	39.5%	0.12%	19.3	34	100.7%	57.2%
P	TSLA	2018-11-16	\$400.00	293	\$41.80	\$90.80	\$48.95	\$2.02	0.58%	3,510	1,402	39.9%	0.11%	180.1	237	90.4%	68.7%
P	TSLA	2018-11-16	\$405.00	3	\$51.22	\$67.15	\$57.48	\$2.20	0.63%	3,510	1,205	34.3%	0.10%	0.6	1	277.8%	166.7%
P	TSLA	2018-11-16	\$410.00	4	\$48.65	\$69.30	\$61.24	\$2.37	0.68%	3,510	1,038	29.6%	0.09%	1.8	2	123.5%	111.1%
P	TSLA	2018-11-16	\$415.00	34	\$52.05	\$76.27	\$57.76	\$2.45	0.70%	3,510	888	25.3%	0.08%	26.9	34	70.2%	55.6%
P	TSLA	2018-11-16	\$420.00	26	\$56.60	\$109.00	\$82.13	\$2.59	0.74%	3,510	754	21.5%	0.07%	8.5	15	169.9%	96.3%
P	TSLA	2018-11-16	\$425.00	2	\$57.30	\$59.85	\$58.58	\$2.83	0.81%	3,510	644	18.3%	0.06%	1.8	2	61.7%	55.6%
P	TSLA	2018-11-16	\$450.00	718	\$80.50	\$116.30	\$92.93	\$3.41	0.98%	3,510	34	1.0%	0.03%	547.4	710	72.9%	56.2%
P	TSLA	2018-11-16	\$460.00	11	\$94.55	\$102.50	\$95.27	\$3.58	1.02%	3,510	2	0.1%	0.03%	9.5	11	64.3%	55.6%
P	TSLA	2018-11-16	\$640.00	1	\$284.50	\$284.50	\$284.50	\$3.51	1.02%	2,730	0	0.0%	---	0.4	1	190.5%	71.4%
P	TSLA	2018-12-21	\$25.00	143	\$0.23	\$0.50	\$0.34	\$0.53	0.15%	2,730	0	0.0%	---	22.3	143	459.1%	71.4%
P	TSLA	2018-12-21	\$30.00	1	\$0.26	\$0.26	\$0.26	\$0.61	0.18%	2,730	0	0.0%	---	0.6	1	114.3%	71.4%
P	TSLA	2018-12-21	\$35.00	4	\$0.35	\$0.35	\$0.35	\$0.61	0.18%	2,730	0	0.0%	---	1.8	4	163.3%	71.4%
P	TSLA	2018-12-21	\$40.00	51	\$0.56	\$0.60	\$0.60	\$0.65	0.19%	2,730	0	0.0%	---	6.4	51	571.4%	71.4%
P	TSLA	2018-12-21	\$45.00	29	\$0.79	\$0.82	\$0.81	\$0.69	0.20%	2,730	0	0.0%	---	3.6	29	571.4%	71.4%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly Volume to Average Open Interest	Weekly Volume to Maximum Open Interest
P	TSLA	2018-12-21	\$50.00	325	\$0.43	\$1.05	\$0.72	\$0.58	0.17%	2,730	0	0.0%	---	166.5	283	139.4%	82.0%
P	TSLA	2018-12-21	\$60.00	34	\$1.21	\$1.26	\$1.25	\$0.76	0.22%	2,730	0	0.0%	---	4.3	34	571.4%	71.4%
P	TSLA	2018-12-21	\$70.00	18	\$1.51	\$1.58	\$1.58	\$0.74	0.21%	2,730	0	0.0%	---	2.3	18	571.4%	71.4%
P	TSLA	2018-12-21	\$80.00	93	\$1.36	\$2.00	\$1.88	\$0.64	0.18%	2,730	5	0.2%	0.03%	15.8	84	421.8%	79.1%
P	TSLA	2018-12-21	\$90.00	7	\$1.77	\$2.43	\$2.20	\$0.64	0.18%	2,730	21	0.8%	0.03%	1.6	7	307.7%	71.4%
P	TSLA	2018-12-21	\$100.00	907	\$1.70	\$3.20	\$2.57	\$0.63	0.18%	2,730	283	10.4%	0.04%	247.0	676	262.3%	95.8%
P	TSLA	2018-12-21	\$110.00	33	\$2.45	\$3.40	\$2.64	\$0.65	0.19%	2,730	717	26.3%	0.04%	20.6	32	114.3%	73.7%
P	TSLA	2018-12-21	\$130.00	32	\$2.40	\$4.95	\$3.46	\$0.66	0.19%	2,730	1,553	56.9%	0.08%	22.6	28	101.0%	81.6%
P	TSLA	2018-12-21	\$140.00	362	\$1.75	\$5.90	\$2.73	\$0.70	0.20%	3,510	1,776	50.6%	0.11%	1,032.7	1,068	19.5%	18.8%
P	TSLA	2018-12-21	\$145.00	71	\$1.93	\$6.30	\$4.02	\$0.70	0.20%	3,510	1,809	51.5%	0.12%	318.7	326	12.4%	12.1%
P	TSLA	2018-12-21	\$150.00	1,438	\$2.00	\$6.85	\$3.68	\$0.73	0.21%	3,510	1,991	56.7%	0.13%	2,257.0	2,484	35.4%	32.2%
P	TSLA	2018-12-21	\$155.00	2	\$4.40	\$7.45	\$5.93	\$0.90	0.25%	3,510	1,997	56.9%	0.14%	96.1	97	1.2%	1.1%
P	TSLA	2018-12-21	\$160.00	53	\$2.75	\$7.70	\$5.46	\$0.83	0.23%	3,510	2,134	60.8%	0.15%	577.3	583	5.1%	5.1%
P	TSLA	2018-12-21	\$165.00	34	\$3.00	\$5.35	\$3.38	\$0.89	0.25%	3,510	2,187	62.3%	0.16%	167.9	170	11.3%	11.1%
P	TSLA	2018-12-21	\$170.00	32	\$2.15	\$8.25	\$4.38	\$0.89	0.25%	3,510	2,190	62.4%	0.17%	301.1	307	5.9%	5.8%
P	TSLA	2018-12-21	\$175.00	82	\$2.98	\$9.37	\$7.32	\$0.83	0.24%	3,510	2,222	63.3%	0.18%	515.0	554	8.8%	8.2%
P	TSLA	2018-12-21	\$180.00	155	\$3.00	\$10.00	\$6.32	\$0.76	0.21%	3,413	2,308	67.6%	0.19%	263.9	302	32.6%	28.5%
P	TSLA	2018-12-21	\$185.00	127	\$3.30	\$10.41	\$6.10	\$0.78	0.22%	3,413	2,328	68.2%	0.20%	349.7	355	20.2%	19.9%
P	TSLA	2018-12-21	\$190.00	134	\$4.05	\$11.50	\$6.56	\$0.92	0.26%	3,510	2,346	66.8%	0.21%	161.1	178	46.2%	41.8%
P	TSLA	2018-12-21	\$195.00	48	\$3.50	\$11.73	\$8.02	\$0.87	0.25%	3,510	2,375	67.7%	0.22%	169.7	177	15.7%	15.1%
P	TSLA	2018-12-21	\$200.00	2,031	\$3.70	\$13.10	\$6.67	\$0.76	0.21%	3,510	2,453	69.9%	0.23%	7,767.4	8,032	14.5%	14.0%
P	TSLA	2018-12-21	\$205.00	74	\$5.19	\$14.17	\$10.40	\$0.87	0.24%	3,510	2,429	69.2%	0.23%	244.6	251	16.8%	16.4%
P	TSLA	2018-12-21	\$210.00	1,939	\$4.90	\$14.05	\$13.38	\$1.00	0.28%	3,510	2,457	70.0%	0.24%	549.1	2,022	196.2%	53.3%
P	TSLA	2018-12-21	\$215.00	51	\$8.60	\$14.75	\$12.08	\$0.90	0.25%	3,510	2,466	70.3%	0.25%	112.2	127	25.3%	22.3%
P	TSLA	2018-12-21	\$220.00	229	\$3.00	\$16.10	\$8.66	\$0.80	0.23%	3,510	2,527	72.0%	0.26%	339.1	352	37.5%	36.1%
P	TSLA	2018-12-21	\$225.00	152	\$5.00	\$16.60	\$8.97	\$0.85	0.24%	3,510	2,577	73.4%	0.27%	657.8	663	12.8%	12.7%
P	TSLA	2018-12-21	\$230.00	291	\$6.85	\$16.92	\$9.26	\$0.87	0.24%	3,510	2,565	73.1%	0.28%	686.8	717	23.5%	22.5%
P	TSLA	2018-12-21	\$235.00	62	\$7.14	\$13.00	\$10.04	\$0.87	0.25%	3,510	2,560	72.9%	0.28%	230.4	253	14.9%	13.6%
P	TSLA	2018-12-21	\$240.00	421	\$2.00	\$20.19	\$11.93	\$0.85	0.24%	3,510	2,588	73.7%	0.29%	731.2	885	32.0%	26.4%
P	TSLA	2018-12-21	\$245.00	1,347	\$4.85	\$21.75	\$17.04	\$0.86	0.24%	3,510	2,606	74.2%	0.29%	376.1	1,197	199.0%	62.5%
P	TSLA	2018-12-21	\$250.00	2,027	\$6.60	\$22.65	\$11.48	\$0.77	0.22%	3,510	2,666	76.0%	0.30%	3,351.8	3,563	33.6%	31.6%
P	TSLA	2018-12-21	\$255.00	117	\$7.66	\$24.16	\$19.59	\$0.87	0.25%	3,510	2,654	75.6%	0.30%	254.9	324	25.5%	20.1%
P	TSLA	2018-12-21	\$260.00	94	\$8.13	\$25.00	\$14.31	\$0.87	0.24%	3,510	2,662	75.8%	0.31%	503.0	525	10.4%	9.9%
P	TSLA	2018-12-21	\$265.00	166	\$8.82	\$27.00	\$19.86	\$0.88	0.25%	3,510	2,671	76.1%	0.31%	782.5	800	11.8%	11.5%
P	TSLA	2018-12-21	\$270.00	406	\$9.50	\$28.31	\$18.81	\$0.87	0.24%	3,510	2,683	76.4%	0.31%	1,208.5	1,309	18.7%	17.2%
P	TSLA	2018-12-21	\$275.00	576	\$9.40	\$29.99	\$13.10	\$0.90	0.25%	3,510	2,697	76.8%	0.31%	489.5	573	65.4%	55.8%
P	TSLA	2018-12-21	\$280.00	502	\$10.00	\$31.40	\$19.05	\$0.79	0.22%	3,413	2,696	79.0%	0.32%	1,417.6	1,469	19.7%	19.0%
P	TSLA	2018-12-21	\$285.00	228	\$12.01	\$33.35	\$21.75	\$0.94	0.27%	3,510	2,680	76.4%	0.32%	217.4	271	58.3%	46.7%
P	TSLA	2018-12-21	\$290.00	851	\$11.00	\$35.35	\$19.24	\$0.92	0.26%	3,510	2,714	77.3%	0.32%	995.1	1,083	47.5%	43.7%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly Volume to Average Open Interest	Weekly Volume to Maximum Open Interest
P	TSLA	2018-12-21	\$295.00	296	\$12.50	\$37.24	\$24.60	\$0.94	0.27%	3,510	2,710	77.2%	0.32%	656.8	673	25.0%	24.4%
P	TSLA	2018-12-21	\$300.00	2,156	\$11.50	\$39.50	\$22.64	\$1.45	0.41%	3,510	2,741	78.1%	0.32%	2,678.9	2,798	44.7%	42.8%
P	TSLA	2018-12-21	\$305.00	162	\$14.59	\$41.44	\$28.85	\$0.99	0.28%	3,510	2,719	77.5%	0.32%	291.0	303	30.9%	29.7%
P	TSLA	2018-12-21	\$310.00	1,960	\$15.20	\$43.33	\$41.15	\$0.97	0.27%	3,510	2,730	77.8%	0.31%	620.7	2,059	175.4%	52.9%
P	TSLA	2018-12-21	\$315.00	591	\$16.96	\$46.03	\$30.72	\$1.03	0.29%	3,510	2,728	77.7%	0.31%	323.7	343	101.4%	95.7%
P	TSLA	2018-12-21	\$320.00	656	\$14.00	\$47.65	\$29.51	\$1.02	0.29%	3,510	2,733	77.9%	0.31%	585.6	713	62.2%	51.1%
P	TSLA	2018-12-21	\$325.00	319	\$17.71	\$50.75	\$30.22	\$1.04	0.30%	3,510	2,722	77.5%	0.30%	365.0	379	48.6%	46.8%
P	TSLA	2018-12-21	\$330.00	423	\$19.05	\$53.43	\$29.69	\$1.08	0.31%	3,413	2,708	79.3%	0.30%	595.6	610	39.5%	38.5%
P	TSLA	2018-12-21	\$335.00	213	\$21.20	\$56.13	\$35.15	\$1.18	0.33%	3,510	2,655	75.6%	0.29%	149.5	165	79.2%	71.7%
P	TSLA	2018-12-21	\$340.00	1,646	\$21.60	\$58.75	\$33.37	\$1.75	0.49%	3,510	2,698	76.9%	0.29%	962.5	1,446	95.0%	63.2%
P	TSLA	2018-12-21	\$345.00	120	\$23.85	\$62.04	\$39.08	\$2.23	0.62%	3,509	2,689	76.6%	0.28%	258.1	262	25.8%	25.4%
P	TSLA	2018-12-21	\$350.00	1,485	\$23.10	\$65.26	\$39.66	\$1.17	0.33%	3,510	2,748	78.3%	0.27%	771.9	1,026	106.9%	80.4%
P	TSLA	2018-12-21	\$355.00	486	\$24.95	\$68.85	\$39.98	\$1.22	0.35%	3,510	2,666	76.0%	0.26%	274.6	403	98.3%	67.0%
P	TSLA	2018-12-21	\$360.00	263	\$27.10	\$70.00	\$38.42	\$1.22	0.35%	3,510	2,671	76.1%	0.25%	244.2	260	59.8%	56.2%
P	TSLA	2018-12-21	\$365.00	150	\$30.00	\$73.50	\$42.29	\$1.33	0.38%	3,510	2,587	73.7%	0.23%	77.2	88	107.9%	94.7%
P	TSLA	2018-12-21	\$370.00	408	\$31.50	\$78.62	\$48.62	\$1.37	0.39%	3,510	2,608	74.3%	0.22%	168.2	201	134.8%	112.8%
P	TSLA	2018-12-21	\$375.00	159	\$32.90	\$79.77	\$48.20	\$1.48	0.42%	3,510	2,525	71.9%	0.21%	179.3	216	49.3%	40.9%
P	TSLA	2018-12-21	\$380.00	165	\$35.86	\$78.48	\$47.24	\$1.54	0.44%	3,413	2,479	72.6%	0.20%	80.9	114	113.3%	80.4%
P	TSLA	2018-12-21	\$385.00	19	\$41.00	\$75.00	\$48.53	\$1.63	0.47%	3,510	2,300	65.5%	0.19%	27.6	33	38.2%	32.0%
P	TSLA	2018-12-21	\$390.00	7	\$58.55	\$85.88	\$68.95	\$1.69	0.48%	3,510	2,127	60.6%	0.18%	38.0	40	10.2%	9.7%
P	TSLA	2018-12-21	\$395.00	8	\$46.71	\$74.79	\$55.58	\$1.82	0.52%	3,510	1,925	54.8%	0.18%	16.2	17	27.4%	26.1%
P	TSLA	2018-12-21	\$400.00	159	\$44.40	\$102.00	\$76.56	\$1.81	0.52%	3,413	1,783	52.2%	0.17%	107.2	120	82.4%	73.6%
P	TSLA	2018-12-21	\$410.00	27	\$52.32	\$109.65	\$62.67	\$2.15	0.61%	3,510	1,527	43.5%	0.15%	19.2	21	78.1%	71.4%
P	TSLA	2018-12-21	\$420.00	29	\$58.79	\$118.54	\$92.45	\$2.39	0.69%	3,510	1,352	38.5%	0.11%	38.3	52	42.1%	31.0%
P	TSLA	2018-12-21	\$430.00	14	\$64.80	\$126.67	\$74.83	\$2.53	0.73%	3,510	1,034	29.5%	0.09%	9.6	10	81.0%	77.8%
P	TSLA	2018-12-21	\$440.00	4	\$80.02	\$135.90	\$104.11	\$3.06	0.87%	3,510	636	18.1%	0.07%	8.5	9	26.1%	24.7%
P	TSLA	2018-12-21	\$450.00	6	\$110.00	\$114.93	\$113.29	\$3.21	0.92%	3,510	422	12.0%	0.05%	4.9	5	68.0%	66.7%
P	TSLA	2018-12-21	\$460.00	2	\$87.10	\$92.00	\$89.55	\$3.33	0.95%	3,510	175	5.0%	0.03%	1.7	2	65.4%	55.6%
P	TSLA	2018-12-21	\$470.00	3	\$99.95	\$100.50	\$100.32	\$3.44	0.98%	3,510	24	0.7%	0.02%	1.8	2	92.6%	83.3%
P	TSLA	2019-01-18	\$10.00	15,050	\$0.05	\$0.16	\$0.09	\$0.02	0.01%	3,510	0	0.0%	---	11,294.6	15,992	74.0%	52.3%
P	TSLA	2019-01-18	\$15.00	366	\$0.10	\$0.21	\$0.16	\$0.08	0.02%	3,510	0	0.0%	---	1,118.5	1,247	18.2%	16.3%
P	TSLA	2019-01-18	\$20.00	3,781	\$0.10	\$0.35	\$0.21	\$0.20	0.06%	3,510	0	0.0%	---	17,311.5	18,260	12.1%	11.5%
P	TSLA	2019-01-18	\$25.00	2,205	\$0.13	\$0.50	\$0.33	\$0.09	0.03%	3,510	0	0.0%	---	10,802.9	11,405	11.3%	10.7%
P	TSLA	2019-01-18	\$30.00	154	\$0.24	\$0.60	\$0.44	\$0.34	0.10%	3,510	0	0.0%	---	1,642.0	1,663	5.2%	5.1%
P	TSLA	2019-01-18	\$35.00	630	\$0.36	\$0.70	\$0.58	\$0.43	0.12%	3,510	0	0.0%	---	1,334.8	1,457	26.2%	24.0%
P	TSLA	2019-01-18	\$40.00	138	\$0.38	\$0.84	\$0.60	\$0.43	0.12%	3,510	0	0.0%	---	1,448.5	1,471	5.3%	5.2%
P	TSLA	2019-01-18	\$45.00	280	\$0.40	\$1.00	\$0.86	\$0.52	0.15%	3,510	0	0.0%	---	1,701.2	1,791	9.1%	8.7%
P	TSLA	2019-01-18	\$50.00	8,392	\$0.38	\$1.40	\$0.81	\$0.13	0.04%	3,510	0	0.0%	---	62,623.8	63,006	7.4%	7.4%
P	TSLA	2019-01-18	\$55.00	124	\$0.52	\$1.41	\$1.08	\$0.54	0.15%	3,510	0	0.0%	---	3,355.8	3,361	2.1%	2.0%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Maximum Open Interest
P	TSLA	2019-01-18	\$60.00	405	\$0.60	\$1.70	\$1.57	\$0.81	0.23%	3,510	0	0.0%	---	1,947.5	1,962	11.6%	11.5%
P	TSLA	2019-01-18	\$65.00	8	\$0.80	\$1.57	\$1.12	\$0.92	0.26%	3,510	0	0.0%	---	808.8	810	0.5%	0.5%
P	TSLA	2019-01-18	\$70.00	342	\$0.66	\$2.25	\$1.34	\$0.51	0.14%	3,510	1	0.0%	0.01%	6,809.5	6,854	2.8%	2.8%
P	TSLA	2019-01-18	\$75.00	1,467	\$0.66	\$2.53	\$1.43	\$0.50	0.14%	3,510	273	7.8%	0.34%	7,927.2	7,986	10.3%	10.2%
P	TSLA	2019-01-18	\$80.00	329	\$0.84	\$2.60	\$1.70	\$0.54	0.15%	3,510	61	1.7%	0.14%	4,561.6	4,571	4.0%	4.0%
P	TSLA	2019-01-18	\$85.00	59	\$2.00	\$2.95	\$2.62	\$0.60	0.17%	3,510	122	3.5%	0.04%	677.0	690	4.8%	4.8%
P	TSLA	2019-01-18	\$90.00	76	\$1.00	\$3.03	\$1.66	\$0.46	0.13%	3,413	228	6.7%	0.05%	3,021.1	3,032	1.4%	1.4%
P	TSLA	2019-01-18	\$95.00	609	\$1.35	\$3.00	\$1.55	\$0.65	0.18%	3,510	386	11.0%	0.05%	2,192.2	2,471	15.4%	13.7%
P	TSLA	2019-01-18	\$100.00	10,302	\$1.00	\$4.00	\$2.57	\$0.28	0.08%	3,510	2,647	75.4%	0.33%	34,906.3	35,765	16.4%	16.0%
P	TSLA	2019-01-18	\$105.00	35	\$1.60	\$4.05	\$3.18	\$0.64	0.18%	3,510	811	23.1%	0.06%	1,210.9	1,220	1.6%	1.6%
P	TSLA	2019-01-18	\$110.00	110	\$1.74	\$3.24	\$2.09	\$0.60	0.17%	3,510	1,005	28.6%	0.07%	3,085.1	3,087	2.0%	2.0%
P	TSLA	2019-01-18	\$115.00	9	\$1.95	\$4.33	\$2.80	\$0.69	0.19%	3,510	1,160	33.0%	0.08%	473.2	475	1.1%	1.1%
P	TSLA	2019-01-18	\$120.00	515	\$2.10	\$5.30	\$2.83	\$0.62	0.17%	3,510	1,371	39.1%	0.09%	11,240.6	11,281	2.5%	2.5%
P	TSLA	2019-01-18	\$125.00	463	\$0.70	\$5.65	\$3.61	\$0.57	0.16%	3,510	1,554	44.3%	0.10%	1,134.6	1,312	22.7%	19.6%
P	TSLA	2019-01-18	\$130.00	114	\$2.45	\$6.10	\$3.39	\$0.63	0.18%	3,510	1,752	49.9%	0.11%	2,621.7	2,632	2.4%	2.4%
P	TSLA	2019-01-18	\$135.00	48	\$2.25	\$4.65	\$3.29	\$0.70	0.20%	3,510	1,921	54.7%	0.12%	346.6	353	7.7%	7.6%
P	TSLA	2019-01-18	\$140.00	96	\$2.00	\$5.40	\$4.32	\$0.69	0.19%	3,510	2,074	59.1%	0.13%	1,781.5	1,799	3.0%	3.0%
P	TSLA	2019-01-18	\$145.00	94	\$3.00	\$7.26	\$3.62	\$0.69	0.19%	3,510	2,192	62.5%	0.14%	918.8	922	5.7%	5.7%
P	TSLA	2019-01-18	\$150.00	5,825	\$2.40	\$8.36	\$5.27	\$0.60	0.17%	3,510	2,369	67.5%	0.15%	16,151.2	16,594	20.0%	19.5%
P	TSLA	2019-01-18	\$155.00	146	\$3.43	\$8.50	\$7.56	\$0.77	0.22%	3,510	2,351	67.0%	0.16%	1,181.8	1,193	6.9%	6.8%
P	TSLA	2019-01-18	\$160.00	266	\$3.65	\$9.49	\$6.91	\$0.72	0.20%	3,510	2,405	68.5%	0.17%	2,020.8	2,065	7.3%	7.2%
P	TSLA	2019-01-18	\$165.00	228	\$3.95	\$9.80	\$4.51	\$0.78	0.22%	3,510	2,439	69.5%	0.18%	2,086.5	2,142	6.1%	5.9%
P	TSLA	2019-01-18	\$170.00	152	\$3.65	\$10.25	\$5.13	\$0.72	0.20%	3,510	2,452	69.9%	0.19%	3,385.8	3,420	2.5%	2.5%
P	TSLA	2019-01-18	\$175.00	389	\$3.70	\$11.05	\$7.99	\$0.78	0.22%	3,510	2,492	71.0%	0.20%	4,178.5	4,206	5.2%	5.1%
P	TSLA	2019-01-18	\$180.00	1,016	\$3.50	\$11.65	\$6.22	\$0.73	0.21%	3,510	2,531	72.1%	0.21%	2,191.7	2,255	25.8%	25.0%
P	TSLA	2019-01-18	\$185.00	198	\$3.45	\$12.15	\$7.25	\$0.79	0.22%	3,510	2,541	72.4%	0.22%	685.7	723	16.0%	15.2%
P	TSLA	2019-01-18	\$190.00	600	\$3.75	\$13.35	\$9.62	\$1.12	0.31%	3,510	2,571	73.2%	0.23%	1,773.1	2,032	18.8%	16.4%
P	TSLA	2019-01-18	\$195.00	194	\$4.50	\$14.10	\$9.76	\$0.78	0.22%	3,510	2,580	73.5%	0.24%	1,852.7	1,898	5.8%	5.7%
P	TSLA	2019-01-18	\$200.00	10,445	\$2.00	\$15.00	\$8.07	\$0.54	0.15%	3,510	2,743	78.1%	0.26%	30,425.2	31,137	19.1%	18.6%
P	TSLA	2019-01-18	\$210.00	1,727	\$5.20	\$16.79	\$12.04	\$0.83	0.23%	3,510	2,666	76.0%	0.27%	5,190.6	6,096	18.5%	15.7%
P	TSLA	2019-01-18	\$220.00	1,617	\$4.50	\$18.88	\$11.93	\$0.74	0.21%	3,510	2,707	77.1%	0.30%	6,827.4	7,155	13.2%	12.6%
P	TSLA	2019-01-18	\$230.00	3,700	\$7.00	\$21.24	\$11.49	\$0.74	0.21%	3,510	2,758	78.6%	0.31%	11,893.1	12,112	17.3%	17.0%
P	TSLA	2019-01-18	\$240.00	903	\$5.00	\$23.26	\$13.41	\$0.98	0.27%	3,510	2,775	79.1%	0.32%	5,658.3	5,762	8.9%	8.7%
P	TSLA	2019-01-18	\$250.00	3,919	\$6.10	\$26.00	\$15.94	\$0.69	0.20%	3,510	2,846	81.1%	0.34%	10,542.6	10,895	20.7%	20.0%
P	TSLA	2019-01-18	\$260.00	4,299	\$7.40	\$28.70	\$17.68	\$1.74	0.48%	3,510	2,823	80.4%	0.35%	6,647.8	7,022	35.9%	34.0%
P	TSLA	2019-01-18	\$270.00	6,297	\$10.35	\$31.70	\$20.86	\$0.82	0.23%	3,413	2,846	83.4%	0.36%	8,851.0	10,017	39.5%	34.9%
P	TSLA	2019-01-18	\$280.00	1,950	\$11.20	\$35.50	\$21.19	\$0.82	0.23%	3,510	2,851	81.2%	0.37%	9,014.2	9,112	12.0%	11.9%
P	TSLA	2019-01-18	\$290.00	705	\$13.46	\$38.65	\$23.17	\$1.48	0.41%	3,510	2,866	81.7%	0.37%	3,353.7	3,388	11.7%	11.6%
P	TSLA	2019-01-18	\$300.00	5,404	\$12.00	\$43.05	\$25.28	\$3.58	0.99%	3,413	2,934	86.0%	0.38%	10,941.8	11,121	27.4%	27.0%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Volume to Open	Volume to Open
P	TSLA	2019-01-18	\$310.00	1,558	\$14.00	\$47.50	\$30.01	\$1.95	0.54%	3,510	2,885	82.2%	0.37%	4,485.1	4,570	19.3%	18.9%
P	TSLA	2019-01-18	\$320.00	2,308	\$18.76	\$51.80	\$29.88	\$0.98	0.28%	3,413	2,897	84.9%	0.37%	4,268.9	4,473	30.0%	28.7%
P	TSLA	2019-01-18	\$330.00	3,388	\$20.00	\$57.00	\$33.55	\$0.88	0.25%	3,413	2,853	83.6%	0.36%	5,654.0	5,851	33.3%	32.2%
P	TSLA	2019-01-18	\$340.00	1,882	\$23.75	\$61.47	\$37.97	\$7.15	1.97%	3,413	2,818	82.6%	0.34%	4,951.3	5,063	21.1%	20.7%
P	TSLA	2019-01-18	\$350.00	2,884	\$24.95	\$68.00	\$40.71	\$1.12	0.32%	3,510	2,870	81.8%	0.32%	9,690.9	9,852	16.5%	16.3%
P	TSLA	2019-01-18	\$360.00	1,595	\$28.70	\$74.35	\$43.56	\$1.22	0.35%	3,510	2,808	80.0%	0.30%	3,327.9	3,515	26.6%	25.2%
P	TSLA	2019-01-18	\$365.00	128	\$32.10	\$78.20	\$42.44	\$1.31	0.37%	3,510	2,780	79.2%	0.27%	920.1	928	7.7%	7.7%
P	TSLA	2019-01-18	\$370.00	450	\$33.00	\$80.76	\$44.50	\$1.33	0.38%	3,510	2,775	79.1%	0.26%	1,776.6	1,804	14.1%	13.9%
P	TSLA	2019-01-18	\$375.00	340	\$36.60	\$83.64	\$49.15	\$1.42	0.41%	3,510	2,721	77.5%	0.25%	1,180.9	1,210	16.0%	15.6%
P	TSLA	2019-01-18	\$380.00	816	\$36.85	\$87.27	\$45.52	\$1.47	0.42%	3,510	2,708	77.2%	0.23%	683.8	749	66.3%	60.5%
P	TSLA	2019-01-18	\$385.00	63	\$40.95	\$62.30	\$51.15	\$1.56	0.45%	3,510	2,656	75.7%	0.21%	572.3	586	6.1%	6.0%
P	TSLA	2019-01-18	\$390.00	149	\$42.10	\$95.00	\$56.45	\$1.67	0.48%	3,509	2,555	72.8%	0.20%	389.3	408	21.3%	20.3%
P	TSLA	2019-01-18	\$395.00	24	\$47.25	\$91.35	\$63.57	\$1.86	0.53%	3,510	2,392	68.1%	0.18%	202.4	206	6.6%	6.5%
P	TSLA	2019-01-18	\$400.00	2,606	\$46.69	\$101.23	\$57.02	\$1.98	0.57%	3,510	2,301	65.6%	0.17%	2,749.1	2,991	52.7%	48.4%
P	TSLA	2019-01-18	\$405.00	96	\$51.90	\$105.27	\$85.31	\$2.14	0.61%	3,510	2,099	59.8%	0.15%	120.6	166	44.2%	32.1%
P	TSLA	2019-01-18	\$410.00	10	\$59.44	\$104.00	\$76.34	\$2.22	0.64%	3,510	1,950	55.6%	0.13%	754.0	756	0.7%	0.7%
P	TSLA	2019-01-18	\$420.00	1,097	\$60.00	\$116.57	\$83.20	\$2.45	0.70%	3,510	1,562	44.5%	0.15%	812.6	1,103	75.0%	55.3%
P	TSLA	2019-01-18	\$430.00	359	\$69.00	\$102.57	\$89.74	\$2.82	0.81%	3,510	942	26.8%	0.09%	652.5	657	30.6%	30.4%
P	TSLA	2019-01-18	\$440.00	11	\$74.31	\$99.90	\$76.77	\$3.36	0.96%	3,510	580	16.5%	0.07%	910.3	911	0.7%	0.7%
P	TSLA	2019-01-18	\$450.00	93	\$79.00	\$145.75	\$97.00	\$3.50	1.00%	3,510	374	10.7%	0.07%	1,132.2	1,143	4.6%	4.5%
P	TSLA	2019-01-18	\$460.00	30	\$87.07	\$114.22	\$109.38	\$3.64	1.04%	3,510	215	6.1%	0.05%	361.1	374	4.6%	4.5%
P	TSLA	2019-01-18	\$470.00	2	\$95.17	\$95.17	\$95.17	\$3.77	1.08%	3,510	86	2.5%	0.04%	475.4	477	0.2%	0.2%
P	TSLA	2019-01-18	\$480.00	26	\$103.52	\$141.87	\$118.30	\$3.86	1.10%	3,510	21	0.6%	0.02%	634.9	645	2.3%	2.2%
P	TSLA	2019-01-18	\$500.00	19	\$129.09	\$194.15	\$157.92	\$4.08	1.17%	3,510	1	0.0%	0.15%	3,377.0	3,380	0.3%	0.3%
P	TSLA	2019-01-18	\$510.00	1	\$173.95	\$173.95	\$173.95	\$4.14	1.18%	3,510	0	0.0%	---	51.0	51	1.1%	1.1%
P	TSLA	2019-01-18	\$580.00	1	\$210.00	\$210.00	\$210.00	\$4.48	1.28%	3,510	0	0.0%	---	1,488.1	1,489	0.0%	0.0%
P	TSLA	2019-01-18	\$600.00	121	\$231.80	\$289.80	\$262.72	\$4.47	1.28%	3,510	0	0.0%	---	1,870.4	1,932	3.6%	3.5%
P	TSLA	2019-01-18	\$650.00	30	\$312.45	\$345.70	\$324.54	\$4.65	1.33%	3,413	0	0.0%	---	501.0	506	3.3%	3.3%
P	TSLA	2019-01-18	\$680.00	48	\$307.34	\$374.95	\$320.05	\$3.92	1.12%	3,510	0	0.0%	---	806.8	1,130	3.3%	2.4%
P	TSLA	2019-02-15	\$175.00	29	\$7.70	\$12.50	\$9.60	\$0.95	0.28%	1,950	1,867	95.7%	0.26%	10.2	24	285.2%	120.8%
P	TSLA	2019-02-15	\$180.00	41	\$4.45	\$13.30	\$7.77	\$1.44	0.41%	3,510	2,600	74.1%	0.21%	15.4	21	147.9%	108.5%
P	TSLA	2019-02-15	\$185.00	54	\$4.80	\$10.05	\$6.31	\$1.48	0.42%	3,510	2,617	74.6%	0.22%	38.2	45	78.5%	66.7%
P	TSLA	2019-02-15	\$190.00	12	\$5.20	\$15.30	\$9.30	\$1.46	0.41%	3,510	2,643	75.3%	0.23%	6.6	10	101.0%	66.7%
P	TSLA	2019-02-15	\$195.00	8	\$5.35	\$14.10	\$9.01	\$1.45	0.41%	3,510	2,673	76.2%	0.24%	4.4	7	101.0%	63.5%
P	TSLA	2019-02-15	\$200.00	97	\$6.00	\$15.45	\$11.02	\$1.47	0.42%	3,510	2,737	78.0%	0.26%	39.6	75	136.1%	71.9%
P	TSLA	2019-02-15	\$210.00	5	\$6.85	\$18.01	\$12.76	\$1.40	0.39%	3,510	2,747	78.3%	0.29%	1.7	3	163.4%	92.6%
P	TSLA	2019-02-15	\$220.00	34	\$10.20	\$14.75	\$13.47	\$1.41	0.40%	3,510	2,744	78.2%	0.30%	13.3	21	142.0%	89.9%
P	TSLA	2019-02-15	\$230.00	39	\$13.54	\$22.18	\$17.30	\$1.45	0.41%	3,510	2,746	78.2%	0.31%	8.2	31	264.2%	69.9%
P	TSLA	2019-02-15	\$240.00	95	\$14.61	\$22.00	\$16.51	\$1.45	0.41%	3,510	2,766	78.8%	0.32%	33.3	79	158.5%	66.8%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
P	TSLA	2019-02-15	\$250.00	77	\$10.00	\$28.50	\$18.10	\$1.39	0.39%	3,510	2,802	79.8%	0.32%	24.4	39	175.3%	109.7%
P	TSLA	2019-02-15	\$260.00	19	\$13.05	\$31.50	\$21.58	\$1.42	0.40%	3,510	2,800	79.8%	0.33%	8.9	18	118.6%	58.6%
P	TSLA	2019-02-15	\$270.00	558	\$13.65	\$34.60	\$23.62	\$1.42	0.40%	3,510	2,807	80.0%	0.34%	236.9	306	130.9%	101.3%
P	TSLA	2019-02-15	\$280.00	69	\$15.00	\$38.27	\$28.35	\$1.47	0.42%	3,510	2,802	79.8%	0.33%	17.8	46	215.4%	83.3%
P	TSLA	2019-02-15	\$290.00	340	\$16.00	\$41.60	\$18.23	\$1.48	0.42%	3,510	2,782	79.3%	0.33%	181.2	222	104.2%	85.1%
P	TSLA	2019-02-15	\$300.00	74	\$18.00	\$44.96	\$30.22	\$1.47	0.42%	3,510	2,779	79.2%	0.33%	37.5	48	109.6%	85.6%
P	TSLA	2019-02-15	\$310.00	39	\$28.82	\$36.50	\$32.34	\$1.56	0.44%	3,510	2,785	79.3%	0.32%	41.1	57	52.7%	38.0%
P	TSLA	2019-02-15	\$320.00	69	\$22.30	\$54.60	\$38.02	\$1.58	0.45%	3,510	2,774	79.0%	0.31%	19.6	41	195.6%	93.5%
P	TSLA	2019-02-15	\$330.00	115	\$24.00	\$59.09	\$40.44	\$1.59	0.45%	3,510	2,750	78.3%	0.29%	20.7	43	308.6%	148.6%
P	TSLA	2019-02-15	\$340.00	39	\$39.80	\$63.00	\$45.09	\$1.63	0.46%	3,510	2,739	78.0%	0.27%	30.1	36	72.0%	60.2%
P	TSLA	2019-02-15	\$350.00	702	\$30.12	\$70.00	\$41.58	\$1.65	0.47%	3,510	2,659	75.8%	0.26%	257.2	334	151.6%	116.8%
P	TSLA	2019-02-15	\$360.00	288	\$32.60	\$72.50	\$50.68	\$1.73	0.49%	3,510	2,560	72.9%	0.23%	82.9	134	193.0%	119.4%
P	TSLA	2019-02-15	\$370.00	82	\$36.05	\$63.62	\$44.08	\$1.95	0.55%	3,510	2,413	68.7%	0.21%	25.5	36	178.6%	126.5%
P	TSLA	2019-02-15	\$380.00	60	\$42.25	\$66.35	\$47.70	\$2.07	0.59%	3,510	2,212	63.0%	0.18%	47.4	59	70.3%	56.5%
P	TSLA	2019-02-15	\$390.00	26	\$46.50	\$82.00	\$48.71	\$2.20	0.63%	3,510	1,767	50.3%	0.17%	22.1	26	65.4%	55.6%
P	TSLA	2019-02-15	\$400.00	17	\$56.40	\$83.20	\$74.53	\$2.33	0.66%	3,510	1,354	38.6%	0.15%	13.0	15	72.6%	63.0%
P	TSLA	2019-02-15	\$410.00	7	\$57.45	\$92.00	\$82.79	\$2.49	0.71%	3,510	1,069	30.5%	0.12%	6.1	7	63.8%	55.6%
P	TSLA	2019-02-15	\$420.00	25	\$63.00	\$96.00	\$91.66	\$2.66	0.76%	3,413	777	22.8%	0.10%	20.6	23	67.4%	60.4%
P	TSLA	2019-02-15	\$430.00	8	\$69.50	\$92.80	\$84.71	\$2.91	0.83%	3,510	482	13.7%	0.08%	6.9	8	64.4%	55.6%
P	TSLA	2019-02-15	\$440.00	7	\$78.85	\$136.00	\$102.16	\$3.13	0.89%	3,510	295	8.4%	0.06%	5.2	6	74.8%	64.8%
P	TSLA	2019-02-15	\$450.00	3	\$88.70	\$98.85	\$92.98	\$3.42	0.98%	3,510	147	4.2%	0.05%	1.7	2	98.0%	83.3%
P	TSLA	2019-02-15	\$470.00	2	\$99.70	\$105.80	\$102.75	\$3.67	1.05%	3,510	8	0.2%	0.03%	1.6	2	69.4%	55.6%
P	TSLA	2019-02-15	\$480.00	3	\$110.70	\$173.00	\$132.65	\$3.77	1.08%	3,510	0	0.0%	---	1.6	2	104.2%	83.3%
P	TSLA	2019-02-15	\$490.00	20	\$114.70	\$114.70	\$114.70	\$3.86	1.10%	3,510	2	0.1%	0.03%	18.0	20	61.7%	55.6%
P	TSLA	2019-02-15	\$500.00	10	\$124.40	\$124.40	\$124.40	\$3.95	1.13%	3,413	0	0.0%	---	9.0	10	61.7%	55.6%
P	TSLA	2019-03-15	\$20.00	371	\$0.20	\$0.99	\$0.44	\$0.61	0.17%	3,510	0	0.0%	---	124.7	220	165.3%	93.7%
P	TSLA	2019-03-15	\$30.00	7	\$0.64	\$1.20	\$0.96	\$1.80	0.51%	3,510	0	0.0%	---	4.9	7	79.4%	55.6%
P	TSLA	2019-03-15	\$35.00	4	\$0.90	\$0.90	\$0.90	\$1.82	0.52%	3,510	0	0.0%	---	145.4	149	1.5%	1.5%
P	TSLA	2019-03-15	\$50.00	1,094	\$0.95	\$2.37	\$1.51	\$0.63	0.18%	3,510	0	0.0%	---	4,757.3	5,108	12.8%	11.9%
P	TSLA	2019-03-15	\$55.00	2	\$2.09	\$2.09	\$2.09	\$2.28	0.64%	3,510	0	0.0%	---	5.2	7	21.4%	15.9%
P	TSLA	2019-03-15	\$60.00	4	\$1.50	\$2.62	\$1.87	\$2.10	0.59%	3,510	0	0.0%	---	49.6	50	4.5%	4.4%
P	TSLA	2019-03-15	\$70.00	2	\$3.10	\$3.10	\$3.10	\$2.31	0.65%	3,510	4	0.1%	0.27%	33.1	34	3.4%	3.3%
P	TSLA	2019-03-15	\$75.00	1	\$2.02	\$2.02	\$2.02	\$2.26	0.64%	3,510	0	0.0%	---	202.7	203	0.3%	0.3%
P	TSLA	2019-03-15	\$80.00	2	\$3.80	\$3.90	\$3.85	\$2.25	0.64%	3,510	17	0.5%	0.03%	15.0	15	7.4%	7.4%
P	TSLA	2019-03-15	\$90.00	10	\$4.08	\$4.08	\$4.08	\$2.27	0.64%	3,510	105	3.0%	0.04%	367.0	367	1.5%	1.5%
P	TSLA	2019-03-15	\$95.00	26	\$3.30	\$4.85	\$4.79	\$2.33	0.66%	3,510	283	8.1%	0.06%	184.0	184	7.9%	7.9%
P	TSLA	2019-03-15	\$100.00	750	\$2.49	\$5.35	\$4.08	\$1.14	0.32%	3,509	2,230	63.6%	0.10%	6,027.5	6,326	6.9%	6.6%
P	TSLA	2019-03-15	\$105.00	192	\$2.80	\$5.55	\$4.05	\$1.98	0.56%	3,510	725	20.7%	0.06%	502.5	553	21.2%	19.3%
P	TSLA	2019-03-15	\$110.00	7	\$2.80	\$3.80	\$3.24	\$1.65	0.47%	3,510	1,326	37.8%	0.06%	89.2	90	4.4%	4.3%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
P	TSLA	2019-03-15	\$120.00	57	\$3.00	\$7.00	\$3.34	\$2.28	0.64%	3,510	1,349	38.4%	0.08%	177.7	180	17.8%	17.6%
P	TSLA	2019-03-15	\$130.00	3	\$4.35	\$5.85	\$4.85	\$2.33	0.66%	3,510	1,507	42.9%	0.10%	128.3	129	1.3%	1.3%
P	TSLA	2019-03-15	\$140.00	42	\$6.20	\$9.75	\$8.87	\$2.16	0.61%	3,510	1,534	43.7%	0.13%	79.7	106	29.3%	22.0%
P	TSLA	2019-03-15	\$145.00	11	\$6.80	\$7.35	\$7.30	\$2.40	0.68%	3,510	1,564	44.6%	0.14%	47.2	48	12.9%	12.7%
P	TSLA	2019-03-15	\$150.00	200	\$2.50	\$10.50	\$6.84	\$2.20	0.62%	3,510	1,611	45.9%	0.17%	660.1	712	16.8%	15.6%
P	TSLA	2019-03-15	\$155.00	3	\$10.00	\$10.00	\$10.00	\$2.36	0.66%	3,510	1,615	46.0%	0.16%	23.3	26	7.2%	6.4%
P	TSLA	2019-03-15	\$160.00	78	\$4.69	\$11.85	\$8.06	\$2.20	0.62%	3,510	1,721	49.0%	0.17%	91.8	110	47.2%	39.4%
P	TSLA	2019-03-15	\$165.00	158	\$7.70	\$11.75	\$11.63	\$2.22	0.63%	3,510	1,737	49.5%	0.18%	247.6	258	35.5%	34.0%
P	TSLA	2019-03-15	\$170.00	111	\$4.50	\$13.50	\$5.73	\$2.16	0.61%	3,510	1,751	49.9%	0.20%	1,592.5	1,621	3.9%	3.8%
P	TSLA	2019-03-15	\$175.00	80	\$7.50	\$10.50	\$9.42	\$2.09	0.59%	3,510	2,058	58.6%	0.20%	127.4	135	34.9%	32.9%
P	TSLA	2019-03-15	\$180.00	76	\$6.05	\$13.42	\$8.80	\$2.23	0.63%	3,510	1,722	49.1%	0.21%	288.1	313	14.7%	13.5%
P	TSLA	2019-03-15	\$185.00	7	\$6.00	\$9.35	\$6.73	\$2.06	0.58%	3,413	1,815	53.2%	0.22%	147.3	148	2.6%	2.6%
P	TSLA	2019-03-15	\$190.00	13	\$6.00	\$10.70	\$7.26	\$2.23	0.63%	3,510	1,749	49.8%	0.25%	715.5	718	1.0%	1.0%
P	TSLA	2019-03-15	\$195.00	3	\$7.64	\$17.70	\$12.51	\$2.19	0.62%	3,510	1,828	52.1%	0.25%	16.5	17	10.1%	9.8%
P	TSLA	2019-03-15	\$200.00	701	\$4.50	\$18.50	\$11.82	\$1.69	0.48%	3,510	2,191	62.4%	0.25%	1,778.7	1,852	21.9%	21.0%
P	TSLA	2019-03-15	\$205.00	4	\$8.90	\$15.55	\$10.56	\$2.11	0.59%	3,510	2,045	58.3%	0.25%	52.6	53	4.2%	4.2%
P	TSLA	2019-03-15	\$210.00	39	\$7.50	\$20.50	\$14.99	\$2.03	0.57%	3,510	2,016	57.4%	0.26%	99.4	119	21.8%	18.2%
P	TSLA	2019-03-15	\$215.00	1	\$21.35	\$21.35	\$21.35	\$2.03	0.57%	3,510	1,961	55.9%	0.27%	30.0	30	1.9%	1.9%
P	TSLA	2019-03-15	\$220.00	250	\$9.30	\$22.95	\$14.67	\$1.90	0.54%	3,510	2,065	58.8%	0.26%	805.2	872	17.2%	15.9%
P	TSLA	2019-03-15	\$225.00	55	\$10.00	\$23.90	\$21.11	\$2.07	0.58%	3,510	1,968	56.1%	0.27%	85.9	111	35.6%	27.5%
P	TSLA	2019-03-15	\$230.00	11	\$17.02	\$18.10	\$17.92	\$2.10	0.59%	3,510	2,006	57.2%	0.28%	517.3	518	1.2%	1.2%
P	TSLA	2019-03-15	\$235.00	17	\$16.00	\$18.98	\$16.35	\$2.06	0.58%	3,510	2,007	57.2%	0.28%	84.5	95	11.2%	9.9%
P	TSLA	2019-03-15	\$240.00	170	\$7.50	\$25.10	\$16.10	\$1.94	0.55%	3,510	2,065	58.8%	0.29%	2,573.7	2,599	3.7%	3.6%
P	TSLA	2019-03-15	\$245.00	10	\$8.00	\$20.85	\$15.40	\$1.97	0.56%	3,510	2,019	57.5%	0.29%	83.9	89	6.6%	6.2%
P	TSLA	2019-03-15	\$250.00	588	\$11.45	\$31.20	\$19.44	\$1.82	0.51%	3,510	2,102	59.9%	0.29%	1,070.8	1,163	30.5%	28.1%
P	TSLA	2019-03-15	\$255.00	53	\$10.35	\$31.75	\$18.67	\$1.94	0.55%	3,510	2,059	58.7%	0.30%	170.0	178	17.3%	16.5%
P	TSLA	2019-03-15	\$260.00	155	\$10.00	\$30.70	\$18.51	\$1.95	0.55%	3,510	2,024	57.7%	0.30%	856.1	865	10.1%	10.0%
P	TSLA	2019-03-15	\$265.00	22	\$16.95	\$34.90	\$26.75	\$1.98	0.56%	3,510	2,011	57.3%	0.30%	254.1	258	4.8%	4.7%
P	TSLA	2019-03-15	\$270.00	417	\$14.20	\$35.50	\$19.19	\$1.95	0.55%	3,510	2,117	60.3%	0.30%	742.1	795	31.2%	29.1%
P	TSLA	2019-03-15	\$275.00	66	\$14.50	\$37.78	\$26.28	\$2.01	0.57%	3,510	1,990	56.7%	0.30%	110.6	114	33.2%	32.2%
P	TSLA	2019-03-15	\$280.00	88	\$12.50	\$38.90	\$20.04	\$1.97	0.56%	3,510	2,025	57.7%	0.30%	284.6	296	17.2%	16.5%
P	TSLA	2019-03-15	\$285.00	23	\$18.00	\$28.33	\$25.13	\$2.04	0.58%	3,510	1,987	56.6%	0.30%	238.2	245	5.4%	5.2%
P	TSLA	2019-03-15	\$290.00	44	\$19.65	\$43.93	\$28.99	\$2.08	0.59%	3,510	1,929	55.0%	0.30%	332.4	343	7.4%	7.1%
P	TSLA	2019-03-15	\$295.00	346	\$19.00	\$44.76	\$36.19	\$2.09	0.59%	3,510	1,881	53.6%	0.32%	467.5	586	41.1%	32.8%
P	TSLA	2019-03-15	\$300.00	750	\$19.00	\$48.95	\$30.02	\$1.98	0.56%	3,413	1,948	57.1%	0.31%	761.9	834	54.7%	50.0%
P	TSLA	2019-03-15	\$305.00	57	\$33.40	\$50.23	\$40.92	\$2.15	0.61%	3,510	1,833	52.2%	0.31%	97.4	116	32.5%	27.3%
P	TSLA	2019-03-15	\$310.00	232	\$21.10	\$52.25	\$29.44	\$2.21	0.62%	3,510	1,832	52.2%	0.31%	459.0	493	28.1%	26.1%
P	TSLA	2019-03-15	\$315.00	53	\$30.50	\$55.00	\$42.04	\$2.20	0.62%	3,510	1,857	52.9%	0.30%	87.9	107	33.5%	27.5%
P	TSLA	2019-03-15	\$320.00	189	\$22.80	\$57.55	\$34.30	\$2.20	0.62%	3,510	1,845	52.6%	0.29%	300.7	314	34.9%	33.4%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
P	TSLA	2019-03-15	\$325.00	294	\$26.31	\$59.40	\$51.28	\$2.23	0.63%	3,510	1,758	50.1%	0.30%	1,100.1	1,223	14.8%	13.4%
P	TSLA	2019-03-15	\$330.00	695	\$27.20	\$62.09	\$40.97	\$2.20	0.62%	3,510	1,760	50.1%	0.30%	385.3	646	100.2%	59.8%
P	TSLA	2019-03-15	\$335.00	32	\$28.60	\$57.00	\$45.59	\$2.28	0.64%	3,510	1,696	48.3%	0.29%	67.7	80	26.3%	22.2%
P	TSLA	2019-03-15	\$340.00	46	\$28.25	\$60.00	\$42.88	\$2.27	0.64%	3,510	1,687	48.1%	0.28%	284.1	287	9.0%	8.9%
P	TSLA	2019-03-15	\$345.00	178	\$45.00	\$69.05	\$51.65	\$2.30	0.65%	3,510	1,673	47.7%	0.27%	154.9	186	63.8%	53.2%
P	TSLA	2019-03-15	\$350.00	747	\$32.00	\$71.75	\$45.88	\$2.18	0.62%	3,510	1,675	47.7%	0.25%	276.2	406	150.3%	102.2%
P	TSLA	2019-03-15	\$355.00	148	\$47.26	\$75.45	\$51.87	\$2.22	0.63%	3,510	1,592	45.4%	0.24%	487.3	552	16.9%	14.9%
P	TSLA	2019-03-15	\$360.00	361	\$36.50	\$80.60	\$53.55	\$2.38	0.67%	3,510	1,603	45.7%	0.23%	229.9	298	87.2%	67.3%
P	TSLA	2019-03-15	\$365.00	122	\$44.00	\$81.90	\$70.11	\$2.55	0.72%	3,510	1,538	43.8%	0.21%	34.8	60	194.8%	113.0%
P	TSLA	2019-03-15	\$370.00	99	\$40.52	\$85.30	\$66.48	\$2.58	0.73%	3,510	1,466	41.8%	0.20%	112.6	139	48.8%	39.6%
P	TSLA	2019-03-15	\$375.00	63	\$40.70	\$71.10	\$56.33	\$2.63	0.75%	3,510	1,376	39.2%	0.19%	53.6	64	65.3%	54.7%
P	TSLA	2019-03-15	\$380.00	60	\$41.35	\$79.10	\$54.13	\$2.70	0.77%	3,510	1,282	36.5%	0.18%	293.9	300	11.3%	11.1%
P	TSLA	2019-03-15	\$385.00	5	\$49.00	\$71.80	\$66.48	\$2.75	0.78%	3,510	1,170	33.3%	0.17%	8.0	8	34.7%	34.7%
P	TSLA	2019-03-15	\$390.00	11	\$75.50	\$75.50	\$75.50	\$2.81	0.80%	3,510	1,057	30.1%	0.16%	10.3	18	59.3%	34.0%
P	TSLA	2019-03-15	\$400.00	47	\$56.10	\$106.00	\$81.35	\$2.92	0.83%	3,510	917	26.1%	0.12%	123.0	133	21.2%	19.6%
P	TSLA	2019-03-15	\$405.00	6	\$77.05	\$77.10	\$77.09	\$2.99	0.85%	3,510	768	21.9%	0.11%	5.8	7	57.5%	47.6%
P	TSLA	2019-03-15	\$410.00	2	\$62.91	\$81.12	\$72.02	\$3.12	0.89%	3,510	515	14.7%	0.09%	17.9	18	6.2%	6.2%
P	TSLA	2019-03-15	\$415.00	2	\$85.50	\$93.49	\$89.50	\$3.21	0.92%	3,510	393	11.2%	0.10%	0.7	2	158.7%	55.6%
P	TSLA	2019-03-15	\$420.00	18	\$64.65	\$96.12	\$73.84	\$3.26	0.93%	3,413	404	11.8%	0.10%	78.1	82	12.8%	12.2%
P	TSLA	2019-03-15	\$430.00	65	\$93.25	\$102.70	\$94.12	\$3.39	0.97%	3,510	207	5.9%	0.08%	54.9	65	65.8%	55.6%
P	TSLA	2019-03-15	\$440.00	2	\$79.45	\$79.45	\$79.45	\$3.74	1.07%	3,510	30	0.9%	0.06%	21.0	21	5.3%	5.3%
P	TSLA	2019-03-15	\$450.00	2	\$86.71	\$86.71	\$86.71	\$3.85	1.10%	3,510	29	0.8%	0.08%	23.4	25	4.7%	4.4%
P	TSLA	2019-03-15	\$460.00	7	\$117.73	\$127.60	\$126.19	\$3.93	1.13%	3,510	17	0.5%	0.05%	54.0	54	7.2%	7.2%
P	TSLA	2019-03-15	\$490.00	10	\$116.45	\$116.45	\$116.45	\$4.14	1.19%	3,510	2	0.1%	0.05%	9.0	10	61.7%	55.6%
P	TSLA	2019-03-15	\$510.00	4	\$137.20	\$137.20	\$137.20	\$4.27	1.22%	3,510	0	0.0%	---	3.6	4	61.7%	55.6%
P	TSLA	2019-03-15	\$530.00	10	\$151.70	\$151.70	\$151.70	\$4.43	1.27%	3,510	0	0.0%	---	9.0	10	61.7%	55.6%
P	TSLA	2019-03-15	\$570.00	1	\$197.50	\$197.50	\$197.50	\$4.57	1.31%	3,510	0	0.0%	---	0.9	1	61.7%	55.6%
P	TSLA	2019-03-15	\$650.00	100	\$293.80	\$314.40	\$309.43	\$5.10	1.46%	3,510	0	0.0%	---	84.0	100	66.1%	55.6%
P	TSLA	2019-03-15	\$670.00	1	\$334.85	\$334.85	\$334.85	\$5.20	1.49%	3,510	0	0.0%	---	0.2	1	277.8%	55.6%
P	TSLA	2019-03-15	\$680.00	1	\$344.85	\$344.85	\$344.85	\$5.21	1.49%	3,510	0	0.0%	---	0.2	1	277.8%	55.6%
P	TSLA	2019-06-21	\$20.00	333	\$0.50	\$1.00	\$0.74	\$1.08	0.30%	3,509	0	0.0%	---	101.7	142	181.9%	130.3%
P	TSLA	2019-06-21	\$25.00	38	\$0.73	\$1.25	\$0.98	\$1.52	0.43%	3,510	0	0.0%	---	139.0	143	15.2%	14.8%
P	TSLA	2019-06-21	\$30.00	3	\$1.05	\$1.20	\$1.14	\$2.16	0.62%	3,510	0	0.0%	---	19.6	22	8.5%	7.6%
P	TSLA	2019-06-21	\$50.00	2,752	\$1.00	\$3.00	\$1.96	\$0.47	0.13%	3,413	191	5.6%	0.07%	10,738.3	10,816	14.2%	14.1%
P	TSLA	2019-06-21	\$55.00	66	\$1.80	\$2.70	\$2.25	\$3.21	0.91%	3,510	9	0.3%	0.05%	69.4	82	52.8%	44.7%
P	TSLA	2019-06-21	\$60.00	23	\$1.49	\$3.76	\$2.61	\$3.16	0.89%	3,510	75	2.1%	0.04%	76.3	85	16.7%	15.0%
P	TSLA	2019-06-21	\$65.00	3	\$1.67	\$3.84	\$2.58	\$3.28	0.93%	3,510	208	5.9%	0.06%	4.7	5	35.5%	33.3%
P	TSLA	2019-06-21	\$70.00	1	\$3.91	\$3.91	\$3.91	\$3.06	0.86%	3,510	802	22.8%	0.08%	206.0	206	0.3%	0.3%
P	TSLA	2019-06-21	\$75.00	10	\$3.95	\$4.40	\$4.18	\$3.08	0.87%	3,510	1,176	33.5%	0.09%	116.0	125	4.8%	4.4%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open Interest
P	TSLA	2019-06-21	\$80.00	147	\$3.00	\$5.50	\$3.90	\$2.78	0.78%	3,412	1,615	47.3%	0.12%	165.2	238	49.4%	34.3%
P	TSLA	2019-06-21	\$85.00	2	\$3.85	\$3.85	\$3.85	\$2.98	0.84%	3,510	1,678	47.8%	0.15%	113.2	115	1.0%	1.0%
P	TSLA	2019-06-21	\$90.00	46	\$2.00	\$5.94	\$4.45	\$2.85	0.80%	3,509	1,971	56.2%	0.18%	79.9	84	32.0%	30.4%
P	TSLA	2019-06-21	\$95.00	550	\$4.80	\$6.30	\$5.63	\$2.87	0.81%	3,510	1,987	56.6%	0.21%	233.4	520	130.9%	58.8%
P	TSLA	2019-06-21	\$100.00	1,678	\$2.33	\$7.70	\$5.40	\$1.02	0.29%	3,413	3,195	93.6%	0.32%	5,557.8	6,080	16.8%	15.3%
P	TSLA	2019-06-21	\$110.00	1	\$5.85	\$5.85	\$5.85	\$2.79	0.79%	3,509	2,030	57.9%	0.25%	126.9	127	0.4%	0.4%
P	TSLA	2019-06-21	\$120.00	46	\$4.20	\$9.40	\$6.34	\$2.26	0.64%	3,510	2,186	62.3%	0.27%	193.7	206	13.2%	12.4%
P	TSLA	2019-06-21	\$130.00	48	\$5.50	\$11.00	\$8.44	\$1.95	0.55%	3,412	2,465	72.2%	0.25%	105.9	124	25.2%	21.5%
P	TSLA	2019-06-21	\$140.00	1,036	\$7.30	\$12.40	\$8.85	\$1.89	0.53%	3,510	2,241	63.8%	0.32%	3,199.6	3,439	18.0%	16.7%
P	TSLA	2019-06-21	\$145.00	326	\$7.30	\$12.95	\$11.31	\$2.50	0.70%	3,510	2,176	62.0%	0.31%	80.5	220	225.0%	82.3%
P	TSLA	2019-06-21	\$150.00	522	\$6.00	\$13.75	\$9.32	\$2.26	0.64%	3,510	2,813	80.1%	0.34%	744.2	782	39.0%	37.1%
P	TSLA	2019-06-21	\$155.00	77	\$5.40	\$13.80	\$12.99	\$2.81	0.79%	3,510	2,344	66.8%	0.32%	43.9	73	97.4%	58.6%
P	TSLA	2019-06-21	\$160.00	33	\$7.40	\$14.85	\$12.04	\$2.82	0.79%	3,510	2,354	67.1%	0.35%	29.2	41	62.8%	44.7%
P	TSLA	2019-06-21	\$165.00	3	\$7.00	\$12.10	\$8.72	\$2.77	0.78%	3,510	2,441	69.5%	0.35%	15.6	16	10.7%	10.4%
P	TSLA	2019-06-21	\$170.00	24	\$10.71	\$16.25	\$12.85	\$2.63	0.74%	3,510	2,492	71.0%	0.38%	78.2	80	17.1%	16.7%
P	TSLA	2019-06-21	\$175.00	285	\$8.00	\$17.05	\$10.27	\$2.49	0.70%	3,510	2,574	73.3%	0.40%	485.1	498	32.6%	31.8%
P	TSLA	2019-06-21	\$180.00	22	\$8.00	\$18.50	\$12.65	\$2.70	0.76%	3,510	2,486	70.8%	0.39%	130.9	135	9.3%	9.1%
P	TSLA	2019-06-21	\$185.00	32	\$10.40	\$19.11	\$15.06	\$2.75	0.77%	3,510	2,439	69.5%	0.39%	15.4	34	115.4%	52.3%
P	TSLA	2019-06-21	\$190.00	76	\$9.61	\$21.29	\$14.38	\$2.74	0.77%	3,510	2,469	70.3%	0.38%	68.5	81	61.6%	52.1%
P	TSLA	2019-06-21	\$195.00	10	\$9.47	\$21.63	\$16.03	\$2.80	0.79%	3,510	2,532	72.1%	0.39%	19.2	21	28.9%	26.5%
P	TSLA	2019-06-21	\$200.00	927	\$8.00	\$23.75	\$13.22	\$1.70	0.48%	3,510	3,089	88.0%	0.41%	2,404.1	2,520	21.4%	20.4%
P	TSLA	2019-06-21	\$205.00	6	\$16.70	\$23.45	\$21.08	\$2.65	0.75%	3,510	2,637	75.1%	0.39%	44.4	46	7.5%	7.2%
P	TSLA	2019-06-21	\$210.00	73	\$11.48	\$24.45	\$23.61	\$2.60	0.73%	3,510	2,708	77.2%	0.39%	40.5	99	100.1%	41.0%
P	TSLA	2019-06-21	\$215.00	125	\$14.06	\$26.60	\$20.87	\$2.61	0.73%	3,510	2,629	74.9%	0.39%	113.8	145	61.0%	47.9%
P	TSLA	2019-06-21	\$220.00	14	\$10.05	\$27.01	\$17.69	\$2.64	0.74%	3,510	2,557	72.8%	0.40%	141.7	142	5.5%	5.5%
P	TSLA	2019-06-21	\$225.00	78	\$19.53	\$27.75	\$27.40	\$2.68	0.75%	3,510	2,590	73.8%	0.39%	884.6	899	4.9%	4.8%
P	TSLA	2019-06-21	\$230.00	110	\$16.10	\$29.65	\$24.64	\$2.58	0.73%	3,510	2,610	74.4%	0.39%	486.7	551	12.6%	11.1%
P	TSLA	2019-06-21	\$235.00	3	\$22.43	\$32.75	\$29.31	\$2.66	0.75%	3,510	2,548	72.6%	0.40%	209.7	210	0.8%	0.8%
P	TSLA	2019-06-21	\$240.00	28	\$5.50	\$33.55	\$19.52	\$2.49	0.70%	3,413	2,483	72.8%	0.40%	1,356.7	1,360	1.1%	1.1%
P	TSLA	2019-06-21	\$245.00	43	\$23.00	\$34.70	\$26.26	\$2.69	0.76%	3,510	2,453	69.9%	0.40%	103.7	119	23.0%	20.1%
P	TSLA	2019-06-21	\$250.00	2,063	\$14.00	\$38.00	\$27.15	\$1.69	0.48%	3,413	3,043	89.2%	0.49%	3,796.6	4,189	30.2%	27.4%
P	TSLA	2019-06-21	\$255.00	93	\$16.00	\$38.36	\$28.36	\$2.70	0.76%	3,510	2,441	69.5%	0.40%	156.2	169	33.1%	30.6%
P	TSLA	2019-06-21	\$260.00	77	\$18.74	\$39.50	\$33.99	\$2.70	0.76%	3,510	2,333	66.5%	0.40%	499.3	540	8.6%	7.9%
P	TSLA	2019-06-21	\$265.00	50	\$19.20	\$31.50	\$20.35	\$2.63	0.74%	3,510	2,426	69.1%	0.39%	391.8	393	7.1%	7.1%
P	TSLA	2019-06-21	\$270.00	362	\$18.00	\$43.71	\$33.72	\$2.56	0.73%	3,509	2,399	68.4%	0.39%	1,105.3	1,208	18.2%	16.6%
P	TSLA	2019-06-21	\$275.00	45	\$20.00	\$44.90	\$31.41	\$2.73	0.77%	3,510	2,290	65.2%	0.39%	759.6	771	3.3%	3.2%
P	TSLA	2019-06-21	\$280.00	469	\$21.90	\$48.45	\$40.49	\$2.68	0.75%	3,510	2,326	66.3%	0.38%	654.2	741	39.8%	35.2%
P	TSLA	2019-06-21	\$285.00	13	\$16.05	\$47.71	\$26.73	\$2.80	0.79%	3,510	2,161	61.6%	0.39%	192.4	194	3.8%	3.7%
P	TSLA	2019-06-21	\$290.00	129	\$22.00	\$51.64	\$26.50	\$2.75	0.78%	3,510	2,204	62.8%	0.38%	1,114.2	1,121	6.4%	6.4%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
P	TSLA	2019-06-21	\$295.00	52	\$22.00	\$50.00	\$35.17	\$2.84	0.80%	3,510	2,106	60.0%	0.37%	426.7	429	6.8%	6.7%
P	TSLA	2019-06-21	\$300.00	1,103	\$25.70	\$57.00	\$37.31	\$2.63	0.75%	3,510	2,327	66.3%	0.35%	1,139.8	1,349	53.8%	45.4%
P	TSLA	2019-06-21	\$305.00	3	\$28.41	\$39.50	\$35.80	\$2.89	0.82%	3,510	2,088	59.5%	0.35%	31.8	33	5.2%	5.1%
P	TSLA	2019-06-21	\$310.00	14	\$29.71	\$57.65	\$44.64	\$2.87	0.81%	3,510	2,072	59.0%	0.34%	52.7	56	14.8%	13.9%
P	TSLA	2019-06-21	\$315.00	10	\$30.83	\$57.00	\$37.89	\$2.93	0.83%	3,510	2,020	57.5%	0.34%	86.4	87	6.4%	6.4%
P	TSLA	2019-06-21	\$320.00	123	\$30.00	\$64.50	\$44.59	\$2.83	0.80%	3,510	2,069	58.9%	0.32%	253.8	277	26.9%	24.7%
P	TSLA	2019-06-21	\$325.00	17	\$25.70	\$68.00	\$42.35	\$2.95	0.83%	3,510	2,029	57.8%	0.31%	104.2	105	9.1%	9.0%
P	TSLA	2019-06-21	\$330.00	87	\$31.30	\$70.00	\$53.01	\$2.94	0.83%	3,510	1,950	55.6%	0.30%	205.8	235	23.5%	20.6%
P	TSLA	2019-06-21	\$335.00	6	\$50.00	\$55.48	\$54.57	\$2.98	0.84%	3,510	1,931	55.0%	0.29%	224.1	228	1.5%	1.5%
P	TSLA	2019-06-21	\$340.00	89	\$34.75	\$74.30	\$42.48	\$3.02	0.86%	3,509	1,790	51.0%	0.28%	58.3	67	84.8%	73.8%
P	TSLA	2019-06-21	\$345.00	7	\$44.00	\$70.43	\$59.54	\$3.02	0.85%	3,509	1,782	50.8%	0.26%	40.6	41	9.6%	9.5%
P	TSLA	2019-06-21	\$350.00	1,346	\$34.00	\$83.11	\$58.39	\$3.07	0.87%	3,413	1,746	51.2%	0.25%	936.9	1,457	79.8%	51.3%
P	TSLA	2019-06-21	\$355.00	44	\$55.73	\$75.97	\$63.01	\$3.44	0.97%	3,510	1,666	47.5%	0.24%	36.6	53	66.8%	46.1%
P	TSLA	2019-06-21	\$360.00	93	\$43.00	\$79.00	\$59.61	\$3.48	0.98%	3,510	1,570	44.7%	0.22%	135.6	149	38.1%	34.7%
P	TSLA	2019-06-21	\$365.00	34	\$47.00	\$67.00	\$56.94	\$3.52	0.99%	3,510	1,490	42.5%	0.21%	19.8	26	95.4%	72.6%
P	TSLA	2019-06-21	\$370.00	22	\$47.75	\$71.00	\$55.04	\$3.52	0.99%	3,510	1,442	41.1%	0.19%	114.3	119	10.7%	10.3%
P	TSLA	2019-06-21	\$375.00	15	\$51.40	\$97.72	\$59.65	\$3.21	0.91%	3,510	1,315	37.5%	0.18%	9.8	10	85.0%	83.3%
P	TSLA	2019-06-21	\$380.00	87	\$51.60	\$73.86	\$69.47	\$3.62	1.02%	3,510	1,182	33.7%	0.17%	77.9	90	62.0%	53.7%
P	TSLA	2019-06-21	\$390.00	1	\$83.63	\$83.63	\$83.63	\$3.77	1.07%	3,510	913	26.0%	0.14%	14.8	15	3.8%	3.7%
P	TSLA	2019-06-21	\$395.00	32	\$59.00	\$85.87	\$82.90	\$3.82	1.08%	3,510	801	22.8%	0.13%	27.2	32	65.4%	55.6%
P	TSLA	2019-06-21	\$400.00	293	\$64.20	\$115.30	\$77.54	\$3.89	1.10%	3,510	751	21.4%	0.12%	161.6	243	100.7%	67.0%
P	TSLA	2019-06-21	\$410.00	147	\$70.00	\$118.30	\$94.02	\$4.01	1.14%	3,509	471	13.4%	0.10%	53.2	128	153.5%	63.8%
P	TSLA	2019-06-21	\$420.00	201	\$72.40	\$128.00	\$98.82	\$4.07	1.16%	3,510	326	9.3%	0.10%	94.4	153	118.3%	73.0%
P	TSLA	2019-06-21	\$430.00	207	\$84.85	\$110.22	\$109.43	\$3.74	1.07%	3,509	140	4.0%	0.08%	111.5	235	103.1%	48.9%
P	TSLA	2019-06-21	\$440.00	602	\$108.00	\$144.15	\$117.67	\$4.27	1.22%	3,509	49	1.4%	0.07%	348.0	768	96.1%	43.5%
P	TSLA	2019-06-21	\$450.00	629	\$92.52	\$125.59	\$124.20	\$4.76	1.35%	3,510	13	0.4%	0.08%	205.2	629	170.3%	55.6%
P	TSLA	2019-06-21	\$460.00	204	\$104.45	\$133.77	\$133.36	\$4.91	1.39%	3,510	0	0.0%	---	114.6	247	98.9%	45.9%
P	TSLA	2019-06-21	\$480.00	5	\$120.90	\$120.90	\$120.90	\$5.09	1.45%	3,510	0	0.0%	---	10.0	11	27.8%	25.3%
P	TSLA	2019-06-21	\$500.00	6	\$132.00	\$195.90	\$155.02	\$5.25	1.49%	3,412	1	0.0%	0.04%	7.9	10	42.2%	33.3%
P	TSLA	2019-08-16	\$20.00	361	\$0.55	\$1.15	\$0.90	\$0.84	0.23%	3,510	0	0.0%	---	110.9	226	180.8%	88.7%
P	TSLA	2019-08-16	\$25.00	12	\$1.19	\$1.31	\$1.26	\$2.23	0.63%	3,508	0	0.0%	---	4.2	6	158.7%	111.1%
P	TSLA	2019-08-16	\$30.00	7	\$0.90	\$1.75	\$1.14	\$2.37	0.68%	3,510	0	0.0%	---	11.3	13	34.4%	29.9%
P	TSLA	2019-08-16	\$50.00	687	\$1.25	\$3.50	\$2.55	\$1.03	0.29%	3,510	527	15.0%	0.08%	1,184.8	1,334	32.2%	28.6%
P	TSLA	2019-08-16	\$55.00	12	\$2.35	\$2.90	\$2.68	\$2.14	0.61%	3,510	752	21.4%	0.08%	43.0	45	15.5%	14.8%
P	TSLA	2019-08-16	\$60.00	12	\$2.30	\$2.90	\$2.80	\$3.57	1.02%	3,510	88	2.5%	0.05%	98.0	102	6.8%	6.5%
P	TSLA	2019-08-16	\$70.00	1	\$2.50	\$2.50	\$2.50	\$3.54	1.01%	3,510	843	24.0%	0.10%	929.0	929	0.1%	0.1%
P	TSLA	2019-08-16	\$80.00	1	\$3.57	\$3.57	\$3.57	\$3.58	1.02%	3,510	1,535	43.7%	0.12%	50.0	50	1.1%	1.1%
P	TSLA	2019-08-16	\$85.00	1	\$3.74	\$3.74	\$3.74	\$3.75	1.07%	3,510	1,568	44.7%	0.15%	4.8	5	11.6%	11.1%
P	TSLA	2019-08-16	\$90.00	5	\$5.00	\$7.00	\$6.20	\$3.75	1.07%	3,510	1,746	49.7%	0.18%	59.1	61	4.7%	4.6%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average Spread as	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		% of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open Interest
P	TSLA	2019-08-16	\$95.00	30	\$5.95	\$7.05	\$6.68	\$3.74	1.06%	3,510	1,898	54.1%	0.18%	87.4	111	19.1%	15.0%
P	TSLA	2019-08-16	\$100.00	111	\$5.00	\$8.75	\$5.99	\$2.45	0.70%	3,510	2,752	78.4%	0.30%	859.1	879	7.2%	7.0%
P	TSLA	2019-08-16	\$115.00	8	\$4.80	\$8.08	\$7.54	\$3.70	1.05%	3,510	2,526	72.0%	0.21%	14.6	16	30.4%	27.8%
P	TSLA	2019-08-16	\$120.00	62	\$8.00	\$10.50	\$8.18	\$3.72	1.06%	3,510	2,590	73.8%	0.23%	232.0	264	14.8%	13.0%
P	TSLA	2019-08-16	\$125.00	2	\$11.80	\$11.80	\$11.80	\$3.76	1.07%	3,510	2,647	75.4%	0.23%	39.2	41	2.8%	2.7%
P	TSLA	2019-08-16	\$130.00	80	\$8.25	\$8.25	\$8.25	\$3.55	1.01%	3,510	2,675	76.2%	0.25%	92.0	116	48.3%	38.3%
P	TSLA	2019-08-16	\$135.00	10	\$10.00	\$10.27	\$10.24	\$3.66	1.04%	3,510	2,682	76.4%	0.25%	42.5	43	13.1%	12.9%
P	TSLA	2019-08-16	\$140.00	9	\$10.25	\$10.89	\$10.49	\$3.64	1.03%	3,510	2,718	77.4%	0.26%	54.4	58	9.2%	8.6%
P	TSLA	2019-08-16	\$145.00	3	\$10.25	\$11.00	\$10.58	\$3.66	1.04%	3,510	2,733	77.9%	0.27%	56.4	57	3.0%	2.9%
P	TSLA	2019-08-16	\$150.00	195	\$7.00	\$16.00	\$11.18	\$3.05	0.87%	3,412	2,976	87.2%	0.29%	347.2	372	31.2%	29.1%
P	TSLA	2019-08-16	\$155.00	2	\$12.00	\$12.50	\$12.25	\$3.59	1.02%	3,510	2,729	77.7%	0.29%	4.4	5	25.3%	22.2%
P	TSLA	2019-08-16	\$160.00	2	\$10.00	\$13.00	\$11.50	\$3.51	1.00%	3,510	2,797	79.7%	0.31%	30.5	31	3.6%	3.6%
P	TSLA	2019-08-16	\$165.00	2	\$7.81	\$10.00	\$8.91	\$3.68	1.05%	3,510	2,765	78.8%	0.31%	8.0	8	13.9%	13.9%
P	TSLA	2019-08-16	\$170.00	10	\$8.50	\$19.20	\$13.81	\$3.47	0.99%	3,509	2,936	83.7%	0.33%	17.7	18	31.4%	30.9%
P	TSLA	2019-08-16	\$175.00	14	\$9.50	\$14.56	\$10.37	\$3.69	1.05%	3,510	2,810	80.1%	0.33%	144.4	146	5.4%	5.3%
P	TSLA	2019-08-16	\$180.00	2	\$8.95	\$13.00	\$10.98	\$3.66	1.04%	3,510	2,789	79.5%	0.34%	175.9	176	0.6%	0.6%
P	TSLA	2019-08-16	\$185.00	1	\$11.74	\$11.74	\$11.74	\$3.69	1.05%	3,510	2,779	79.2%	0.34%	53.1	54	1.0%	1.0%
P	TSLA	2019-08-16	\$190.00	10	\$18.00	\$23.10	\$20.55	\$3.57	1.01%	3,510	2,770	78.9%	0.35%	58.3	61	9.5%	9.1%
P	TSLA	2019-08-16	\$195.00	1	\$14.00	\$14.00	\$14.00	\$3.56	1.01%	3,510	2,821	80.4%	0.35%	5.0	5	11.1%	11.1%
P	TSLA	2019-08-16	\$200.00	353	\$12.30	\$26.06	\$14.97	\$2.99	0.85%	3,510	2,982	85.0%	0.46%	4,668.8	4,677	4.2%	4.2%
P	TSLA	2019-08-16	\$205.00	2	\$7.00	\$21.40	\$14.20	\$3.64	1.03%	3,510	2,776	79.1%	0.35%	57.9	58	1.9%	1.9%
P	TSLA	2019-08-16	\$210.00	1	\$21.11	\$21.11	\$21.11	\$3.59	1.02%	3,510	2,787	79.4%	0.36%	11.0	11	5.1%	5.1%
P	TSLA	2019-08-16	\$220.00	4	\$21.00	\$24.71	\$22.49	\$3.60	1.02%	3,510	2,753	78.4%	0.35%	14.0	15	15.9%	14.8%
P	TSLA	2019-08-16	\$225.00	36	\$18.00	\$30.00	\$22.56	\$3.55	1.01%	3,510	2,755	78.5%	0.33%	55.6	61	36.0%	32.8%
P	TSLA	2019-08-16	\$230.00	12	\$18.75	\$25.29	\$24.47	\$3.61	1.03%	3,510	2,731	77.8%	0.33%	21.6	22	30.9%	30.3%
P	TSLA	2019-08-16	\$235.00	2	\$16.97	\$18.50	\$17.74	\$3.61	1.03%	3,510	2,717	77.4%	0.32%	11.2	12	9.9%	9.3%
P	TSLA	2019-08-16	\$240.00	5	\$10.65	\$22.00	\$15.77	\$3.62	1.03%	3,510	2,678	76.3%	0.32%	100.8	101	2.8%	2.8%
P	TSLA	2019-08-16	\$245.00	30	\$22.00	\$37.63	\$34.34	\$3.59	1.02%	3,510	2,659	75.8%	0.31%	114.7	137	14.5%	12.2%
P	TSLA	2019-08-16	\$250.00	187	\$19.05	\$40.52	\$30.98	\$3.46	0.98%	3,510	2,745	78.2%	0.32%	141.0	173	73.7%	60.1%
P	TSLA	2019-08-16	\$255.00	62	\$19.65	\$40.88	\$27.12	\$3.58	1.02%	3,510	2,621	74.7%	0.30%	90.2	100	38.2%	34.4%
P	TSLA	2019-08-16	\$260.00	6	\$19.70	\$39.00	\$24.26	\$3.57	1.02%	3,510	2,572	73.3%	0.29%	11.4	12	29.2%	27.8%
P	TSLA	2019-08-16	\$265.00	32	\$22.20	\$35.00	\$33.46	\$3.53	1.00%	3,510	2,515	71.7%	0.28%	110.6	112	16.1%	15.9%
P	TSLA	2019-08-16	\$270.00	2	\$20.40	\$23.06	\$21.73	\$3.60	1.02%	3,510	2,507	71.4%	0.27%	41.8	42	2.7%	2.6%
P	TSLA	2019-08-16	\$275.00	41	\$23.90	\$32.51	\$24.64	\$3.64	1.04%	3,510	2,416	68.8%	0.26%	87.3	95	26.1%	24.0%
P	TSLA	2019-08-16	\$280.00	4	\$23.00	\$35.91	\$29.94	\$3.66	1.04%	3,510	2,294	65.4%	0.26%	53.4	54	4.2%	4.1%
P	TSLA	2019-08-16	\$285.00	1	\$26.54	\$26.54	\$26.54	\$3.68	1.05%	3,510	2,235	63.7%	0.26%	83.0	83	0.7%	0.7%
P	TSLA	2019-08-16	\$290.00	5	\$27.69	\$53.67	\$40.74	\$3.69	1.05%	3,411	2,150	63.0%	0.25%	217.6	218	1.3%	1.3%
P	TSLA	2019-08-16	\$295.00	4	\$27.00	\$42.32	\$32.10	\$3.67	1.05%	3,510	2,036	58.0%	0.24%	18.8	19	11.8%	11.7%
P	TSLA	2019-08-16	\$300.00	166	\$28.00	\$61.00	\$45.96	\$3.64	1.04%	3,413	1,948	57.1%	0.24%	208.3	244	44.3%	37.8%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
P	TSLA	2019-08-16	\$305.00	5	\$31.38	\$62.90	\$55.12	\$3.71	1.06%	3,509	1,843	52.5%	0.24%	5.0	7	55.6%	39.7%
P	TSLA	2019-08-16	\$310.00	167	\$29.99	\$63.80	\$39.08	\$3.66	1.04%	3,510	1,764	50.3%	0.25%	378.2	414	24.5%	22.4%
P	TSLA	2019-08-16	\$315.00	1	\$34.20	\$34.20	\$34.20	\$3.69	1.05%	3,510	1,732	49.3%	0.24%	37.8	38	1.5%	1.5%
P	TSLA	2019-08-16	\$320.00	11	\$32.00	\$52.00	\$34.34	\$3.71	1.05%	3,510	1,573	44.8%	0.25%	39.8	41	15.4%	14.9%
P	TSLA	2019-08-16	\$325.00	14	\$35.00	\$70.00	\$46.04	\$3.69	1.05%	3,510	1,555	44.3%	0.23%	14.6	17	53.3%	45.8%
P	TSLA	2019-08-16	\$330.00	8	\$35.00	\$61.50	\$50.84	\$3.45	0.98%	3,413	1,444	42.3%	0.24%	43.6	44	10.2%	10.1%
P	TSLA	2019-08-16	\$335.00	2	\$51.20	\$60.00	\$55.60	\$3.69	1.05%	3,510	1,490	42.5%	0.21%	2.3	3	48.3%	37.0%
P	TSLA	2019-08-16	\$340.00	79	\$41.00	\$78.00	\$59.93	\$3.64	1.04%	3,509	1,405	40.0%	0.23%	50.3	71	87.3%	61.8%
P	TSLA	2019-08-16	\$345.00	25	\$42.00	\$63.00	\$61.60	\$3.73	1.06%	3,510	1,307	37.2%	0.19%	38.1	39	36.5%	35.6%
P	TSLA	2019-08-16	\$350.00	45	\$42.25	\$65.00	\$48.33	\$3.99	1.13%	3,510	1,252	35.7%	0.18%	76.5	86	32.7%	29.1%
P	TSLA	2019-08-16	\$355.00	2	\$45.00	\$68.50	\$56.75	\$4.00	1.14%	3,510	1,169	33.3%	0.17%	167.7	168	0.7%	0.7%
P	TSLA	2019-08-16	\$360.00	24	\$51.65	\$88.25	\$69.22	\$4.07	1.16%	3,510	1,098	31.3%	0.17%	25.7	29	51.9%	46.0%
P	TSLA	2019-08-16	\$365.00	40	\$52.35	\$72.58	\$70.14	\$4.11	1.17%	3,509	960	27.4%	0.14%	26.6	40	83.5%	55.6%
P	TSLA	2019-08-16	\$370.00	68	\$51.65	\$74.70	\$62.58	\$4.06	1.15%	3,510	856	24.4%	0.13%	135.2	153	27.9%	24.7%
P	TSLA	2019-08-16	\$375.00	8	\$59.43	\$92.00	\$73.21	\$4.14	1.18%	3,510	701	20.0%	0.12%	16.2	20	27.4%	22.2%
P	TSLA	2019-08-16	\$380.00	409	\$55.00	\$82.46	\$74.78	\$4.15	1.18%	3,510	575	16.4%	0.19%	134.6	204	168.8%	111.4%
P	TSLA	2019-08-16	\$385.00	2	\$61.65	\$61.65	\$61.65	\$4.19	1.19%	3,510	445	12.7%	0.11%	13.6	14	8.2%	7.9%
P	TSLA	2019-08-16	\$395.00	2	\$67.36	\$83.44	\$75.40	\$4.28	1.22%	3,510	271	7.7%	0.09%	11.1	12	10.0%	9.3%
P	TSLA	2019-08-16	\$400.00	15	\$67.00	\$85.50	\$68.92	\$4.31	1.23%	3,510	197	5.6%	0.10%	53.6	54	15.5%	15.4%
P	TSLA	2019-08-16	\$410.00	1	\$100.98	\$100.98	\$100.98	\$4.41	1.25%	3,510	74	2.1%	0.08%	55.3	56	1.0%	1.0%
P	TSLA	2019-08-16	\$420.00	131	\$93.50	\$107.68	\$103.47	\$4.75	1.35%	3,510	268	7.6%	0.12%	48.4	105	150.4%	69.3%
P	TSLA	2019-08-16	\$450.00	12	\$100.00	\$155.00	\$109.17	\$5.00	1.42%	3,510	1	0.0%	0.06%	43.2	46	15.4%	14.5%
P	TSLA	2019-08-16	\$500.00	8	\$153.33	\$158.65	\$157.53	\$5.40	1.54%	3,412	0	0.0%	---	53.5	57	8.3%	7.8%
P	TSLA	2020-01-17	\$10.00	2,238	\$0.24	\$0.60	\$0.42	\$0.34	0.09%	3,509	0	0.0%	---	2,957.3	3,797	42.0%	32.7%
P	TSLA	2020-01-17	\$15.00	665	\$0.32	\$0.90	\$0.64	\$0.48	0.13%	3,510	0	0.0%	---	174.3	230	212.0%	160.6%
P	TSLA	2020-01-17	\$20.00	4,095	\$0.31	\$1.27	\$0.98	\$0.11	0.03%	3,510	0	0.0%	---	14,016.6	14,635	16.2%	15.5%
P	TSLA	2020-01-17	\$25.00	610	\$0.90	\$1.84	\$1.30	\$0.45	0.13%	3,413	0	0.0%	---	746.5	883	45.4%	38.4%
P	TSLA	2020-01-17	\$30.00	848	\$0.30	\$2.00	\$1.42	\$0.40	0.12%	3,510	1	0.0%	0.21%	3,985.2	4,123	11.8%	11.4%
P	TSLA	2020-01-17	\$35.00	252	\$1.13	\$2.51	\$1.86	\$1.64	0.47%	3,510	5	0.1%	0.04%	292.2	415	47.9%	33.7%
P	TSLA	2020-01-17	\$40.00	69	\$1.50	\$2.29	\$2.18	\$1.90	0.55%	3,413	70	2.1%	0.05%	461.0	488	8.3%	7.9%
P	TSLA	2020-01-17	\$45.00	496	\$2.00	\$3.07	\$2.41	\$0.95	0.27%	3,510	886	25.2%	0.09%	1,209.6	1,291	22.8%	21.3%
P	TSLA	2020-01-17	\$50.00	10,053	\$2.00	\$3.87	\$2.80	\$0.27	0.08%	3,510	2,552	72.7%	0.12%	24,634.2	25,590	22.7%	21.8%
P	TSLA	2020-01-17	\$55.00	143	\$2.15	\$3.92	\$3.09	\$2.11	0.60%	3,412	1,652	48.4%	0.18%	339.1	384	23.4%	20.7%
P	TSLA	2020-01-17	\$60.00	54	\$2.65	\$4.00	\$3.02	\$2.96	0.84%	3,508	1,395	39.8%	0.27%	242.0	242	12.4%	12.4%
P	TSLA	2020-01-17	\$65.00	2	\$4.50	\$4.60	\$4.55	\$3.95	1.12%	3,510	926	26.4%	0.38%	37.3	38	3.0%	2.9%
P	TSLA	2020-01-17	\$70.00	36	\$3.63	\$5.74	\$4.46	\$1.92	0.55%	3,413	2,455	71.9%	0.42%	3,795.6	3,798	0.5%	0.5%
P	TSLA	2020-01-17	\$75.00	186	\$4.20	\$6.50	\$4.84	\$2.46	0.70%	3,510	2,359	67.2%	0.39%	1,186.5	1,223	8.7%	8.4%
P	TSLA	2020-01-17	\$80.00	69	\$5.00	\$7.45	\$5.58	\$3.68	1.04%	3,509	2,644	75.3%	0.36%	252.2	289	15.2%	13.3%
P	TSLA	2020-01-17	\$85.00	89	\$5.05	\$8.00	\$5.79	\$3.44	0.98%	3,509	3,090	88.1%	0.52%	2,485.4	2,491	2.0%	2.0%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Volume to Maximum Open Interest
P	TSLA	2020-01-17	\$90.00	449	\$4.65	\$8.55	\$6.80	\$2.04	0.58%	3,510	3,266	93.0%	0.74%	1,372.8	1,592	18.2%	15.7%
P	TSLA	2020-01-17	\$95.00	75	\$5.00	\$9.40	\$6.82	\$3.29	0.94%	3,510	3,219	91.7%	0.52%	2,357.0	2,359	1.8%	1.8%
P	TSLA	2020-01-17	\$100.00	14,928	\$2.95	\$10.65	\$7.15	\$0.46	0.13%	3,508	3,338	95.2%	0.88%	23,917.1	24,907	34.7%	33.3%
P	TSLA	2020-01-17	\$105.00	41	\$5.55	\$11.10	\$7.01	\$3.57	1.02%	3,509	3,229	92.0%	0.55%	1,334.8	1,343	1.7%	1.7%
P	TSLA	2020-01-17	\$110.00	40	\$7.48	\$12.75	\$9.72	\$3.81	1.09%	3,508	3,266	93.1%	0.61%	475.9	495	4.7%	4.5%
P	TSLA	2020-01-17	\$115.00	9	\$7.10	\$9.25	\$7.58	\$4.14	1.18%	3,510	3,226	91.9%	0.58%	599.6	602	0.8%	0.8%
P	TSLA	2020-01-17	\$120.00	72	\$7.00	\$13.90	\$9.60	\$3.44	0.98%	3,509	3,229	92.0%	0.60%	1,292.8	1,298	3.1%	3.1%
P	TSLA	2020-01-17	\$125.00	490	\$9.86	\$14.50	\$10.45	\$3.85	1.09%	3,509	3,245	92.5%	0.62%	345.4	479	78.8%	56.8%
P	TSLA	2020-01-17	\$130.00	74	\$8.00	\$15.75	\$11.68	\$3.62	1.03%	3,509	3,249	92.6%	0.61%	2,164.3	2,168	1.9%	1.9%
P	TSLA	2020-01-17	\$135.00	16	\$7.15	\$12.00	\$11.31	\$4.24	1.21%	3,509	3,226	91.9%	0.60%	56.3	63	15.8%	14.1%
P	TSLA	2020-01-17	\$140.00	43	\$5.20	\$17.16	\$15.02	\$3.91	1.12%	3,508	3,249	92.6%	0.62%	239.3	260	10.0%	9.2%
P	TSLA	2020-01-17	\$145.00	93	\$10.65	\$15.60	\$10.75	\$4.24	1.21%	3,510	3,249	92.6%	0.60%	404.0	422	12.8%	12.2%
P	TSLA	2020-01-17	\$150.00	1,359	\$8.70	\$20.20	\$13.73	\$2.14	0.62%	3,510	3,325	94.7%	0.88%	4,281.7	4,364	17.6%	17.3%
P	TSLA	2020-01-17	\$160.00	82	\$10.70	\$21.78	\$17.63	\$4.13	1.17%	3,510	3,262	92.9%	0.68%	594.5	614	7.7%	7.4%
P	TSLA	2020-01-17	\$165.00	5	\$9.00	\$23.70	\$17.31	\$3.96	1.13%	3,509	3,255	92.8%	0.61%	894.1	895	0.3%	0.3%
P	TSLA	2020-01-17	\$170.00	266	\$9.00	\$24.00	\$16.86	\$3.38	0.96%	3,510	3,258	92.8%	0.64%	836.5	862	17.7%	17.1%
P	TSLA	2020-01-17	\$175.00	527	\$12.00	\$25.70	\$18.92	\$2.71	0.77%	3,411	3,277	96.1%	0.75%	2,590.0	2,658	11.3%	11.0%
P	TSLA	2020-01-17	\$180.00	259	\$13.00	\$26.75	\$19.08	\$2.72	0.78%	3,510	3,284	93.6%	0.76%	996.4	1,014	14.4%	14.2%
P	TSLA	2020-01-17	\$185.00	14	\$13.40	\$20.10	\$18.70	\$3.26	0.93%	3,509	3,254	92.7%	0.60%	265.2	266	2.9%	2.9%
P	TSLA	2020-01-17	\$190.00	100	\$14.90	\$29.75	\$21.13	\$3.10	0.88%	3,509	3,253	92.7%	0.69%	1,118.6	1,141	5.0%	4.9%
P	TSLA	2020-01-17	\$195.00	53	\$17.31	\$28.89	\$25.39	\$3.72	1.05%	3,509	3,257	92.8%	0.62%	851.5	890	3.5%	3.3%
P	TSLA	2020-01-17	\$200.00	4,054	\$10.65	\$32.00	\$23.37	\$1.46	0.42%	3,510	3,336	95.0%	0.93%	12,590.8	13,161	17.9%	17.1%
P	TSLA	2020-01-17	\$210.00	532	\$16.35	\$34.75	\$24.14	\$2.75	0.79%	3,509	3,267	93.1%	0.60%	2,140.8	2,209	13.8%	13.4%
P	TSLA	2020-01-17	\$220.00	167	\$11.80	\$36.40	\$22.24	\$4.00	1.14%	3,510	3,253	92.7%	0.52%	1,908.2	1,917	4.9%	4.8%
P	TSLA	2020-01-17	\$230.00	153	\$15.00	\$41.00	\$23.42	\$3.57	1.02%	3,510	3,222	91.8%	0.59%	2,363.8	2,371	3.6%	3.6%
P	TSLA	2020-01-17	\$240.00	419	\$21.90	\$44.30	\$29.52	\$3.07	0.88%	3,510	3,258	92.8%	0.60%	1,259.5	1,348	18.5%	17.3%
P	TSLA	2020-01-17	\$250.00	2,470	\$17.00	\$47.29	\$31.75	\$2.72	0.78%	3,508	3,270	93.2%	0.61%	6,080.4	6,226	22.6%	22.0%
P	TSLA	2020-01-17	\$255.00	186	\$26.50	\$48.50	\$34.42	\$3.72	1.06%	3,510	3,154	89.9%	0.44%	1,375.5	1,407	7.5%	7.3%
P	TSLA	2020-01-17	\$260.00	1,269	\$26.65	\$51.48	\$35.07	\$3.80	1.09%	3,509	3,069	87.5%	0.40%	1,983.4	2,145	35.5%	32.9%
P	TSLA	2020-01-17	\$265.00	321	\$26.62	\$53.07	\$36.29	\$3.92	1.12%	3,510	3,071	87.5%	0.38%	708.7	791	25.2%	22.5%
P	TSLA	2020-01-17	\$270.00	541	\$28.60	\$54.50	\$33.67	\$3.78	1.08%	3,509	3,029	86.3%	0.40%	3,409.5	3,530	8.8%	8.5%
P	TSLA	2020-01-17	\$275.00	636	\$31.00	\$57.05	\$45.33	\$3.89	1.11%	3,510	3,034	86.4%	0.41%	631.6	948	55.9%	37.3%
P	TSLA	2020-01-17	\$280.00	201	\$28.92	\$59.75	\$39.90	\$3.91	1.12%	3,510	2,924	83.3%	0.35%	1,478.2	1,495	7.6%	7.5%
P	TSLA	2020-01-17	\$285.00	102	\$28.00	\$58.70	\$42.43	\$3.88	1.11%	3,508	2,844	81.1%	0.33%	439.1	460	12.9%	12.3%
P	TSLA	2020-01-17	\$290.00	909	\$26.65	\$62.45	\$43.94	\$3.97	1.13%	3,413	2,737	80.2%	0.31%	1,061.5	1,160	47.6%	43.5%
P	TSLA	2020-01-17	\$295.00	238	\$31.10	\$65.00	\$48.61	\$4.03	1.15%	3,509	2,684	76.5%	0.31%	620.5	650	21.3%	20.3%
P	TSLA	2020-01-17	\$300.00	2,901	\$30.00	\$70.00	\$46.99	\$3.13	0.89%	3,413	2,934	86.0%	0.43%	5,513.1	5,665	29.2%	28.4%
P	TSLA	2020-01-17	\$305.00	85	\$35.00	\$70.88	\$61.12	\$4.42	1.26%	3,508	2,478	70.6%	0.28%	545.7	559	8.7%	8.4%
P	TSLA	2020-01-17	\$310.00	77	\$33.70	\$74.25	\$57.24	\$4.60	1.31%	3,510	2,336	66.6%	0.27%	351.3	357	12.2%	12.0%

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted	Average \$ Spread	Average	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average	Average Open Interest	Maximum Open Interest	Weekly	Weekly
							Average Price		Spread as % of Stock Mid				Violation as % of Stock Mid			Average Open Interest	Volume to Open Interest
P	TSLA	2020-01-17	\$315.00	61	\$40.00	\$74.00	\$52.43	\$4.61	1.31%	3,508	2,244	64.0%	0.25%	251.1	255	13.5%	13.3%
P	TSLA	2020-01-17	\$320.00	241	\$37.14	\$78.00	\$58.07	\$4.64	1.32%	3,510	2,114	60.2%	0.27%	653.0	710	20.5%	18.9%
P	TSLA	2020-01-17	\$325.00	332	\$44.00	\$81.09	\$55.11	\$4.04	1.15%	3,411	2,065	60.5%	0.25%	562.7	571	32.8%	32.3%
P	TSLA	2020-01-17	\$330.00	599	\$40.00	\$82.61	\$55.03	\$4.41	1.25%	3,510	1,842	52.5%	0.28%	3,975.9	4,020	8.4%	8.3%
P	TSLA	2020-01-17	\$335.00	102	\$50.00	\$86.00	\$64.93	\$4.78	1.36%	3,508	1,529	43.6%	0.23%	167.7	220	33.8%	25.8%
P	TSLA	2020-01-17	\$340.00	331	\$42.50	\$89.45	\$57.73	\$4.66	1.33%	3,510	1,476	42.1%	0.24%	414.8	456	44.3%	40.3%
P	TSLA	2020-01-17	\$350.00	1,041	\$41.75	\$95.00	\$63.29	\$4.42	1.26%	3,510	1,565	44.6%	0.26%	1,129.0	1,239	51.2%	46.7%
P	TSLA	2020-01-17	\$360.00	1,206	\$52.60	\$101.11	\$63.34	\$4.57	1.30%	3,508	1,288	36.7%	0.31%	1,042.4	1,237	64.3%	54.2%
P	TSLA	2020-01-17	\$370.00	834	\$57.00	\$97.96	\$66.38	\$4.66	1.33%	3,508	800	22.8%	0.21%	689.3	820	67.2%	56.5%
P	TSLA	2020-01-17	\$380.00	2,738	\$61.00	\$111.03	\$79.95	\$4.81	1.37%	3,510	599	17.1%	0.21%	878.1	1,199	173.2%	126.9%
P	TSLA	2020-01-17	\$390.00	602	\$69.70	\$97.00	\$75.50	\$4.89	1.39%	3,508	345	9.8%	0.17%	485.8	587	68.8%	57.0%
P	TSLA	2020-01-17	\$400.00	1,082	\$68.00	\$126.50	\$91.92	\$4.90	1.40%	3,510	981	27.9%	0.23%	846.9	1,334	71.0%	45.1%
P	TSLA	2020-01-17	\$410.00	42	\$80.00	\$130.23	\$98.82	\$5.04	1.44%	3,510	416	11.9%	0.14%	77.1	89	30.3%	26.2%
P	TSLA	2020-01-17	\$420.00	406	\$82.00	\$140.00	\$106.53	\$5.33	1.52%	3,510	1,424	40.6%	0.29%	368.3	416	61.2%	54.2%
P	TSLA	2020-01-17	\$430.00	250	\$90.00	\$143.85	\$107.24	\$5.42	1.54%	3,509	269	7.7%	0.25%	400.3	428	34.7%	32.5%
P	TSLA	2020-01-17	\$440.00	74	\$100.60	\$128.20	\$117.22	\$5.50	1.57%	3,413	202	5.9%	0.13%	217.1	227	18.9%	18.1%
P	TSLA	2020-01-17	\$450.00	161	\$103.87	\$164.00	\$120.31	\$5.46	1.56%	3,510	256	7.3%	0.14%	310.0	315	28.9%	28.4%
P	TSLA	2020-01-17	\$460.00	158	\$112.50	\$125.00	\$114.50	\$5.64	1.61%	3,509	2	0.1%	0.05%	132.4	147	66.3%	59.7%
P	TSLA	2020-01-17	\$470.00	55	\$120.75	\$152.00	\$127.39	\$5.70	1.63%	3,510	4	0.1%	0.07%	243.1	244	12.6%	12.5%
P	TSLA	2020-01-17	\$480.00	30	\$126.25	\$179.01	\$132.64	\$5.70	1.63%	3,508	0	0.0%	---	32.6	43	51.1%	38.8%
P	TSLA	2020-01-17	\$490.00	3	\$187.57	\$187.57	\$187.57	\$5.76	1.64%	3,510	0	0.0%	---	43.7	44	3.8%	3.8%
P	TSLA	2020-01-17	\$500.00	134	\$137.00	\$197.20	\$155.33	\$5.74	1.64%	3,509	18	0.5%	0.08%	124.8	151	59.7%	49.3%
P	TSLA	2020-01-17	\$530.00	10	\$168.50	\$168.50	\$168.50	\$5.91	1.69%	3,413	0	0.0%	---	14.0	16	39.7%	34.7%
P	TSLA	2020-01-17	\$550.00	12	\$184.00	\$223.00	\$188.56	\$5.94	1.70%	3,508	0	0.0%	---	50.0	52	13.3%	12.8%
P	TSLA	2020-01-17	\$600.00	190	\$228.92	\$295.00	\$244.13	\$6.25	1.78%	3,510	0	0.0%	---	251.8	278	41.9%	38.0%
P	TSLA	2020-01-17	\$660.00	11	\$323.00	\$323.00	\$323.00	\$6.24	1.78%	3,510	0	0.0%	---	16.0	16	38.2%	38.2%
P	TSLA	2020-01-17	\$670.00	3	\$299.60	\$299.60	\$299.60	\$6.25	1.78%	3,412	0	0.0%	---	4.0	4	41.7%	41.7%
P	TSLA	2020-01-17	\$680.00	2	\$321.35	\$367.50	\$344.43	\$6.34	1.81%	3,510	0	0.0%	---	21.6	23	5.1%	4.8%
P	TSLA	2020-01-17	\$690.00	27	\$377.00	\$377.50	\$377.48	\$6.35	1.81%	3,510	0	0.0%	---	13.7	38	109.5%	39.5%
P	TSLA	2020-01-17	\$700.00	88	\$324.20	\$395.30	\$380.79	\$5.36	1.54%	3,413	0	0.0%	---	795.0	828	6.1%	5.9%
P	TSLA1	2019-01-18	\$40.00	11	\$4.00	\$4.55	\$4.50	\$1.14	2.97%	3,509	0	0.0%	---	35.2	36	17.4%	17.0%

Notes:

All option and Tesla (underlying) common stock data based on one-minute interval data obtained from Cboe DataShop, Option Interval data.

[1] C for Call; P for Put.

[2] Option root. For root = TSLA1, underlying Tesla bid and ask prices multiplied by 0.11 where applicable.

[3] Option expiration date.

[4] Option strike price.

[5] Total option contracts traded over Class Period.

Appendix G: Class Period Statistics for Tesla Options Traded during the Class Period

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]
Call/ Put	Root	Expiration	Strike	Volume	Minimum Traded Price	Maximum Traded Price	Volume- Weighted Average Price	Average \$ Spread	Average Spread as % of Stock Mid	Put Call Pairs	# of Put Call Violations	% of Put Call Violations	Average Violation as % of Stock Mid	Average Open Interest	Maximum Open Interest	Weekly	Weekly
																Average Open Interest	Maximum Open Interest

- [6] Minimum traded price over Class Period.
- [7] Maximum traded price over Class Period.
- [8] Volume-weighted average traded price over Class Period.
- [9] Average \$ spread over Class Period. For each one-minute interval, \$ spread equal to ask minus bid. If ask <= bid, then excluded. See Report for methodology calculating over the Class Period.
- [10] For each one-minute interval, [9] divided by midpoint of underlying bid and underlying ask per CBOE DataShop data. See Report for methodology calculating over the Class Period.
- [11] Number of put-call pairs for the option (one-minute intervals). See text of Report for procedure.
- [12] Number of put-call pairs for which there is a violation of the put-call formula. See text of Report for procedure.
- [13] = [12] / [11].
- [14] Average violation as % of Tesla stock quote midpoint for pairs with violations. See text of Report for procedure.
- [15] Average open interest over Class Period based on beginning of day open interest each day from August 7, 2018 through August 20, 2018.
- [16] Maximum open interest over Class Period based on beginning of day open interest each day from August 7, 2018 through August 20, 2018.
- [17] = { [5] / [15] } * { 5 / # of days that option had bid-ask quotes available }.
- [18] = { [5] / [16] } * { 5 / # of days that option had bid-ask quotes available }.

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness			
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT	
TSLA	2018-08-10	\$210.00	C	135.78	10:31:00																				2	---	---	---	
TSLA	2018-08-10	\$260.00	C	84.12	11:08:00																				7	---	---	---	
TSLA	2018-08-10	\$265.00	C	79.10	11:08:00																				1	---	---	---	
TSLA	2018-08-10	\$270.00	C	74.84	10:35:00	84.81	12:30:00	1.0000	0.0000	2.3421	-0.0145	0.0000									9.97			0	20	ITM	---	---	
TSLA	2018-08-10	\$280.00	C	63.09	11:14:00	79.43	12:39:00	1.0000	0.0000	2.4240	0.0000	0.0000									16.34			0	167	ITM	---	---	
TSLA	2018-08-10	\$285.00	C	61.37	10:26:00	66.00	12:24:00	1.0000	0.0000	2.4754	-0.0153	0.0000	82.40	13:49:00							4.63	16.40		0	80	ITM	ITM	---	
TSLA	2018-08-10	\$290.00	C			67.66	12:33:00	1.0000	0.0000	2.5139	0.0000	0.0000												7	---	---	---		
TSLA	2018-08-10	\$292.50	C	51.15	10:06:00																				15	---	---	---	
TSLA	2018-08-10	\$295.00	C	46.17	11:31:00	59.46	12:30:00	1.0000	0.0000	2.5589	-0.0158	0.0000	74.29	14:07:00							13.29	14.83		0	51	ITM	ITM	---	
TSLA	2018-08-10	\$297.50	C	44.04	11:42:00								62.05	12:56:00											17	---	---	---	
TSLA	2018-08-10	\$300.00	C	42.22	11:31:00	56.00	12:47:00	1.0000	0.0000	2.5926	0.0000	0.0000	75.00	15:58:00							13.78	19.00		0	462	ITM	ITM	---	
TSLA	2018-08-10	\$302.50	C	41.01	11:22:00	51.00	12:27:00	1.0000	0.0000	2.6257	0.0000	0.0000	59.00	13:34:00							9.99	8.00		0	110	ITM	ITM	---	
TSLA	2018-08-10	\$305.00	C	40.88	10:29:00	53.00	12:33:00	0.9573	0.0027	2.5076	-0.4609	0.0300	73.00	15:59:00							12.12	20.00		0	146	ITM	ITM	---	
TSLA	2018-08-10	\$307.50	C	36.01	11:22:00								75.00	15:53:00											61	---	---	---	
TSLA	2018-08-10	\$310.00	C	31.60	11:46:00	47.90	12:42:00	1.0000	0.0000	2.6820	0.0000	0.0000	50.06	13:41:00							16.30	2.16		0	235	ITM	ITM	---	
TSLA	2018-08-10	\$315.00	C	26.69	11:42:00	43.50	12:42:00	1.0000	0.0000	2.7252	0.0000	0.0000	59.90	15:57:00							16.81	16.40		0	96	ITM	ITM	---	
TSLA	2018-08-10	\$317.50	C			40.00	12:31:00	0.9313	0.0046	2.5335	-0.6115	0.0439	56.23	15:57:00											55	---	---	---	
TSLA	2018-08-10	\$320.00	C	22.70	11:52:00	38.00	12:42:00	1.0000	0.0000	2.7685	0.0000	0.0000	61.70	16:00:00							15.30	23.70		0	405	ITM	ITM	---	
TSLA	2018-08-10	\$322.50	C			34.90	12:31:00	0.9230	0.0056	2.5510	-0.6010	0.0479	59.10	15:51:00											23	---	---	---	
TSLA	2018-08-10	\$325.00	C	17.07	11:47:00	32.15	12:43:00	0.9052	0.0065	2.5097	-0.6625	0.0558	56.60	15:51:00							15.08	24.45		0	563	ITM	ITM	---	
TSLA	2018-08-10	\$327.50	C	15.93	12:14:00	31.34	12:39:00	0.9394	0.0056	2.6462	-0.2759	0.0394	33.70	13:02:00							15.41	2.36		0	134	ITM	ITM	---	
TSLA	2018-08-10	\$330.00	C	13.90	11:55:00	26.36	12:46:00	0.9568	0.0059	2.7175	-0.2403	0.0303	48.55	16:00:00							12.46	22.19		0	1,114	ITM	ITM	---	
TSLA	2018-08-10	\$332.50	C	11.80	12:08:00	24.01	12:46:00	0.9355	0.0079	2.6721	-0.3304	0.0416	30.50	13:42:00							12.21	6.49		0	404	ITM	ITM	---	
TSLA	2018-08-10	\$335.00	C	10.50	12:03:00	21.75	12:47:00	0.9020	0.0097	2.5877	-0.4258	0.0571	46.00	15:54:00							11.25	24.25		0	1,585	ITM	ITM	---	
TSLA	2018-08-10	\$337.50	C	8.45	11:59:00	22.08	12:40:00	0.8781	0.0108	2.5336	-0.5970	0.0674	37.25	15:54:00							13.63	15.17		0	1,171	ITM	ITM	---	
TSLA	2018-08-10	\$340.00	C	6.60	12:14:00	17.33	12:45:00	0.7909	0.0146	2.2802	-0.7930	0.0946	37.05	15:59:00							10.73	19.72		0	4,112	ITM	ITM	---	
TSLA	2018-08-10	\$342.50	C	5.11	12:13:00	17.63	12:43:00	0.7769	0.0151	2.2526	-0.9062	0.0989	30.00	15:57:00							12.52	12.37		0	1,749	OTM	ITM	---	
TSLA	2018-08-10	\$345.00	C	4.18	12:15:00	13.74	12:47:00	0.7624	0.0178	2.2293	-0.7988	0.1024	33.91	16:00:00							9.56	20.17		0	8,688	OTM	ITM	---	
TSLA	2018-08-10	\$347.50	C	3.05	12:13:00	11.50	12:47:00	0.7199	0.0201	2.1154	-0.8472	0.1116	25.25	15:56:00							8.45	13.75		0	4,337	OTM	ITM	---	
TSLA	2018-08-10	\$350.00	C	2.31	12:17:00	11.05	12:47:00	0.6609	0.0210	1.9459	-0.9680	0.1213	30.00	16:00:00							8.74	18.95		0	26,072	OTM	ITM	---	
TSLA	2018-08-10	\$352.50	C	1.72	12:16:00	9.12	12:47:00	0.6059	0.0220	1.7893	-1.0259	0.1276	27.85	16:00:00							7.40	18.73		0	11,290	OTM	ITM	---	
TSLA	2018-08-10	\$355.00	C	1.24	12:14:00	8.10	12:47:00	0.5491	0.0224	1.6255	-1.0720	0.1313	25.25	16:00:00							6.86	17.15		0	35,677	OTM	ITM	---	
TSLA	2018-08-10	\$357.50	C	0.89	12:09:00	6.35	12:47:00	0.4928	0.0224	1.4622	-1.0925	0.1323	23.00	16:00:00							5.46	16.65		0	20,418	OTM	OTM	---	
TSLA	2018-08-10	\$360.00	C	0.65	12:13:00	5.75	12:47:00	0.4380	0.0220	1.3021	-1.0928	0.1307	22.14	16:00:00							5.10	16.39		0	46,209	OTM	OTM	---	
TSLA	2018-08-10	\$362.50	C	0.49	12:02:00	4.45	12:47:00	0.3845	0.0213	1.1458	-1.0629	0.1267	19.80	16:00:00							3.96	15.35		0	18,533	OTM	OTM	---	
TSLA	2018-08-10	\$365.00	C	0.33	12:13:00	3.87	12:47:00	0.3342	0.0202	0.9977	-1.0186	0.1207	18.39	16:00:00							3.54	14.52		0	31,592	OTM	OTM	---	
TSLA	2018-08-10	\$367.50	C	0.25	11:55:00	3.03	12:47:00	0.2902	0.0187	0.8671	-0.9768	0.1136	15.39	16:00:00							2.78	12.36		0	9,289	OTM	OTM	---	
TSLA	2018-08-10	\$370.00	C	0.17	12:09:00	2.65	12:47:00	0.2475	0.0172	0.7407	-0.9061	0.1049	14.58	16:00:00							2.48	11.93		0	36,559	OTM	OTM	---	
TSLA	2018-08-10	\$372.50	C	0.12	12:02:00	1.96	12:47:00	0.2065	0.0156	0.6191	-0.8137	0.0947	13.00	16:00:00							1.84	11.04		0	9,365	OTM	OTM	---	
TSLA	2018-08-10	\$375.00	C	0.10	12:06:00	1.72	12:47:00	0.1767	0.0139	0.5302	-0.7568	0.0861	12.00	16:00:00							1.62	10.28		0	25,015	OTM	OTM	---	
TSLA	2018-08-10	\$377.50	C	0.08	12:02:00	1.39	12:47:00	0.1461	0.0122	0.4390	-0.6701	0.0760	10.50	16:00:00							1.31	9.11		0	6,986	OTM	OTM	---	
TSLA	2018-08-10	\$380.00	C	0.06	12:15:00	1.12	12:47:00	0.1227	0.0107	0.3687	-0.6032	0.0674	8.80	16:00:00							1.06	7.68		0	35,434	OTM	OTM	---	
TSLA	2018-08-10	\$382.50	C			0.78	12:46:00	0.0920	0.0086	0.2757	-0.5038	0.0545	7.45	16:00:00											0	5,994	---	OTM	---
TSLA	2018-08-10	\$385.00	C	0.05	12:00:00	0.70	12:47:00	0.0860	0.0080	0.2588	-0.4805	0.0521	6.80	16:00:00							0.65	6.10		0	13,684	OTM	OTM	---	
TSLA	2018-08-10	\$387.50	C			0.64	12:47:00	0.0700	0.0068	0.2108	-0.4134	0.0445	5.53	16:00:00											0	3,725	---	OTM	---
TSLA</																													

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness		
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT
TSLA	2018-08-10	\$440.00	C			0.06	12:40:00	0.0074	0.0007	0.0222	-0.0958	0.0068	0.10	16:00:00							0.04		0		1,815	---	OTM	---
TSLA	2018-08-10	\$450.00	C	0.02	11:15:00	0.03	12:47:00	0.0033	0.0003	0.0101	-0.0480	0.0034	0.07	15:59:00							0.01	0.04	0	0	1,597	OTM	OTM	---
TSLA	2018-08-17	\$180.00	C			177.00	12:42:00	0.9475	0.0006	4.3557	-0.9250	0.0635												3	---	---	---	
TSLA	2018-08-17	\$200.00	C			154.00	12:27:00	1.0000	0.0000	5.5689	0.0000	0.0000			139.74	11:23:00	107.50	14:54:00						56	---	---	ITM	
TSLA	2018-08-17	\$230.00	C												104.70	9:48:00								1	---	---	---	
TSLA	2018-08-17	\$250.00	C	94.52	10:36:00								132.35	15:48:00	87.00	9:52:00	73.72	9:31:00						78	---	---	ITM	
TSLA	2018-08-17	\$255.00	C												83.52	12:16:00								4	---	---	---	
TSLA	2018-08-17	\$260.00	C	83.10	11:17:00								128.35	15:49:00	77.80	11:09:00	64.08	9:31:00						210	---	---	ITM	
TSLA	2018-08-17	\$265.00	C			80.72	12:21:00	1.0000	0.0000	7.3818	0.0000	0.0000												27	---	---	---	
TSLA	2018-08-17	\$270.00	C			86.86	12:31:00	0.9945	0.0004	7.4591	-0.0453	0.0094				65.50	15:21:00	50.00	9:41:00					82	---	---	ITM	
TSLA	2018-08-17	\$275.00	C	66.96	11:31:00	80.40	12:30:00	1.0000	0.0000	7.6556	0.0000	0.0000	94.00	14:04:00										473	ITM	ITM	---	
TSLA	2018-08-17	\$280.00	C	63.20	12:05:00	71.58	12:24:00	1.0000	0.0000	7.7980	0.0000	0.0000	99.40	16:00:00	55.50	14:52:00	35.85	9:49:00						375	ITM	ITM	ITM	
TSLA	2018-08-17	\$285.00	C	59.97	10:47:00	72.50	12:33:00	0.9728	0.0014	7.6540	-0.1292	0.0368	98.00	15:47:00	55.07	11:27:00	35.63	9:41:00						691	ITM	ITM	ITM	
TSLA	2018-08-17	\$290.00	C	55.96	10:20:00	70.00	12:39:00	0.9595	0.0019	7.6580	-0.1524	0.0505	93.50	15:51:00	45.35	15:55:00	35.00	9:34:00						567	ITM	ITM	ITM	
TSLA	2018-08-17	\$295.00	C	45.70	11:48:00	65.00	12:39:00	0.9530	0.0022	7.7285	-0.1691	0.0573	77.00	15:58:00	41.55	15:12:00	29.92	9:32:00						381	ITM	ITM	ITM	
TSLA	2018-08-17	\$297.50	C			59.78	12:31:00	0.9856	0.0012	8.1339	-0.0699	0.0218	88.85	15:50:00	37.70	14:25:00	18.00	9:46:00						145	---	---	ITM	
TSLA	2018-08-17	\$300.00	C	41.90	11:43:00	58.84	12:43:00	0.9524	0.0026	7.8494	-0.2028	0.0590	74.00	15:56:00	35.00	15:46:00	23.88	9:31:00						3,406	ITM	ITM	ITM	
TSLA	2018-08-17	\$302.50	C			49.23	12:25:00	0.9569	0.0028	7.9889	-0.1437	0.0534	71.73	15:55:00	35.33	10:46:00	20.45	9:31:00						883	---	---	ITM	
TSLA	2018-08-17	\$305.00	C	38.87	10:00:00	50.74	12:30:00	0.9453	0.0031	7.9329	-0.1809	0.0651	76.68	15:53:00	30.76	13:45:00	18.00	9:39:00						3,536	ITM	ITM	ITM	
TSLA	2018-08-17	\$310.00	C	32.70	11:43:00	48.64	12:43:00	0.9253	0.0039	7.8460	-0.2665	0.0840	70.00	16:00:00	25.56	16:00:00	15.35	9:31:00						19,969	ITM	ITM	ITM	
TSLA	2018-08-17	\$312.50	C	33.00	9:39:00	47.69	12:38:00	0.9416	0.0035	8.0979	-0.1652	0.0689	52.69	13:11:00	26.68	9:33:00	6.05	9:43:00						6,778	ITM	ITM	ITM	
TSLA	2018-08-17	\$315.00	C	29.46	12:05:00	43.49	12:43:00	0.9125	0.0047	7.8527	-0.2823	0.0947	61.80	15:59:00	20.62	16:00:00	10.87	9:31:00						9,460	ITM	ITM	ITM	
TSLA	2018-08-17	\$320.00	C	24.82	11:52:00	37.20	12:45:00	0.8908	0.0060	7.7825	-0.2698	0.1101	59.00	16:00:00	15.70	15:49:00	5.85	9:31:00						12,104	ITM	ITM	ITM	
TSLA	2018-08-17	\$322.50	C			33.06	12:29:00	0.8814	0.0068	7.7647	-0.2836	0.1169	43.00	13:02:00	13.87	15:33:00	6.25	9:31:00						2,332	---	---	ITM	
TSLA	2018-08-17	\$325.00	C	21.63	11:16:00	33.38	12:44:00	0.8452	0.0071	7.4361	-0.3758	0.1408	49.27	15:57:00	10.90	16:00:00	3.35	9:31:00						7,432	ITM	ITM	ITM	
TSLA	2018-08-17	\$327.50	C	18.76	12:14:00								39.15	13:57:00	8.80	15:39:00	1.97	9:31:00						4,200	---	---	ITM	
TSLA	2018-08-17	\$330.00	C	17.02	12:07:00	29.00	12:47:00	0.8351	0.0083	7.4757	-0.3414	0.1470	49.55	16:00:00	6.66	16:00:00	1.30	9:31:00						6,201	ITM	ITM	ITM	
TSLA	2018-08-17	\$332.50	C	15.35	12:05:00	26.60	12:44:00	0.7906	0.0090	7.0726	-0.4358	0.1704	43.00	15:58:00	4.85	16:00:00	0.98	9:31:00						3,074	ITM	ITM	ITM	
TSLA	2018-08-17	\$335.00	C	13.44	12:13:00	24.63	12:47:00	0.7866	0.0098	7.1042	-0.4051	0.1726	43.00	16:00:00	3.34	16:00:00	0.73	9:31:00						9,933	ITM	ITM	ITM	
TSLA	2018-08-17	\$337.50	C	12.00	11:23:00	22.15	12:45:00	0.7484	0.0110	6.7823	-0.4396	0.1885	38.50	15:57:00	2.04	16:00:00	0.27	9:31:00						7,569	ITM	ITM	OTM	
TSLA	2018-08-17	\$340.00	C	10.53	12:14:00	21.55	12:47:00	0.7401	0.0114	6.7566	-0.4331	0.1925	41.44	16:00:00	1.29	16:00:00	0.31	9:31:00						23,022	ITM	ITM	OTM	
TSLA	2018-08-17	\$342.50	C	9.15	12:12:00	19.00	12:47:00	0.7128	0.0123	6.5396	-0.4468	0.2024	39.00	16:00:00	0.84	16:00:00	0.40	9:31:00						9,786	OTM	ITM	OTM	
TSLA	2018-08-17	\$345.00	C	8.00	12:14:00	17.15	12:45:00	0.6554	0.0128	6.0033	-0.5111	0.2180	35.00	15:59:00	0.54	16:00:00	0.15	9:31:00						18,375	OTM	ITM	OTM	
TSLA	2018-08-17	\$347.50	C	6.92	12:11:00	15.68	12:47:00	0.6454	0.0133	5.9598	-0.4945	0.2211	29.25	15:58:00	0.36	16:00:00	0.17	9:31:00						7,425	OTM	ITM	OTM	
TSLA	2018-08-17	\$350.00	C	5.95	12:14:00	13.96	12:46:00	0.5955	0.0139	5.4968	-0.5441	0.2297	32.50	16:00:00	0.23	15:59:00	0.10	9:31:00						35,501	OTM	ITM	OTM	
TSLA	2018-08-17	\$352.50	C	5.05	12:11:00	12.70	12:46:00	0.5603	0.0142	5.1894	-0.5489	0.2338	26.78	15:56:00	0.20	16:00:00	0.05	9:31:00						13,425	OTM	ITM	OTM	
TSLA	2018-08-17	\$355.00	C	4.25	12:12:00	11.48	12:47:00	0.5398	0.0145	5.0333	-0.5226	0.2360	29.03	16:00:00	0.14	15:58:00	0.06	9:31:00						20,625	OTM	ITM	OTM	
TSLA	2018-08-17	\$357.50	C	3.45	11:25:00	10.37	12:47:00	0.5033	0.0146	4.7065	-0.5227	0.2372	23.00	15:58:00	0.11	15:54:00	0.05	9:31:00						8,002	OTM	OTM	OTM	
TSLA	2018-08-17	\$360.00	C	3.01	12:12:00	9.32	12:47:00	0.4665	0.0147	4.3750	-0.5187	0.2364	25.02	16:00:00	0.11	16:00:00	0.01	9:31:00						40,554	OTM	OTM	OTM	
TSLA	2018-08-17	\$362.50	C	2.28	11:29:00	8.28	12:47:00	0.4305	0.0145	4.0459	-0.5133	0.2337	22.00	16:00:00	0.08	15:46:00	0.01	9:31:00						7,179	OTM	OTM	OTM	
TSLA	2018-08-17	\$365.00	C	2.22	12:04:00	7.36	12:47:00	0.3959	0.0141	3.7282	-0.5070	0.2292	21.07	16:00:00	0.08	16:00:00	0.03	9:31:00						18,654	OTM	OTM	OTM	
TSLA	2018-08-17	\$367.50	C	2.15	11:04:00	6.00	12:45:00	0.3418	0.0135	3.2148	-0.4838	0.2175	15.50	15:58:00	0.06	15:22:00	0.01	9:31:00						6,144	OTM	OTM	OTM	
TSLA	2018-08-17	\$370.00	C	1.55	12:04:00	5.85	12:47:00	0.3296	0.0133	3.1151	-0.4784	0.2154	18.00	16:00:00	0.05	15:59:00	0.05	9:31:00						34,931	OTM	OTM	OTM	
TSLA	2018-08-17	\$372.50	C																									

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness		
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT
TSLA	2018-08-17	\$410.00	C	0.13	11:25:00	0.80	12:42:00	0.0615	0.0040	0.5913	-0.1820	0.0726	3.00	16:00:00	0.01	14:35:00	0.01	9:51:00	0.67	2.20	0.00	0	0	1	9,278	OTM	OTM	OTM
TSLA	2018-08-17	\$415.00	C	0.10	12:03:00	0.50	12:40:00	0.0428	0.0030	0.4121	-0.1333	0.0543	2.25	16:00:00	0.01	12:07:00			0.40	1.75		0	0		6,532	OTM	OTM	---
TSLA	2018-08-17	\$420.00	C	0.10	12:05:00	0.37	12:44:00	0.0331	0.0024	0.3174	-0.1133	0.0439	1.35	16:00:00	0.01	15:07:00	0.01	9:46:00	0.27	0.98	0.00	0	0	1	16,252	OTM	OTM	OTM
TSLA	2018-08-17	\$425.00	C	0.07	11:46:00	0.30	12:47:00	0.0272	0.0020	0.2610	-0.0974	0.0373	1.20	16:00:00	0.01	15:22:00	0.02	9:31:00	0.23	0.90	0.01	0	0	1	7,022	OTM	OTM	OTM
TSLA	2018-08-17	\$430.00	C	0.05	12:08:00	0.25	12:37:00	0.0201	0.0015	0.1938	-0.0748	0.0290	0.75	16:00:00	0.01	13:22:00	0.01	10:56:00	0.20	0.50	0.00	0	0	1	2,605	OTM	OTM	OTM
TSLA	2018-08-17	\$435.00	C	0.05	11:03:00	0.19	12:38:00	0.0174	0.0013	0.1690	-0.0672	0.0258	1.10	16:00:00	0.01	10:52:00			0.14	0.91		0	0		424	OTM	OTM	---
TSLA	2018-08-17	\$440.00	C	0.05	10:32:00	0.17	12:43:00	0.0148	0.0011	0.1418	-0.0619	0.0222	0.45	15:59:00	0.01	13:57:00	0.04	13:33:00	0.12	0.28	0.03	0	0	1	2,851	OTM	OTM	OTM
TSLA	2018-08-17	\$450.00	C			0.12	12:44:00	0.0107	0.0008	0.1021	-0.0490	0.0167	0.35	16:00:00	0.01	13:56:00			0.23			0	0		4,968	---	OTM	---
TSLA	2018-08-17	\$455.00	C	0.05	10:00:00	0.10	12:47:00	0.0086	0.0007	0.0831	-0.0411	0.0140	0.46	13:18:00	0.01	11:30:00			0.05	0.36		0	0		1,410	OTM	OTM	---
TSLA	2018-08-17	\$460.00	C			0.08	12:31:00	0.0066	0.0005	0.0637	-0.0329	0.0110	0.15	15:59:00					0.07			0	0		3,099	---	OTM	---
TSLA	2018-08-17	\$465.00	C			0.06	12:31:00	0.0061	0.0005	0.0583	-0.0313	0.0102	0.23	13:51:00					0.17			0	0		519	---	OTM	---
TSLA	2018-08-17	\$470.00	C	0.02	9:56:00	0.09	12:40:00	0.0109	0.0007	0.1048	-0.0585	0.0172			0.01	10:42:00			0.07			0	0		367	OTM	---	---
TSLA	2018-08-17	\$475.00	C			0.08	12:39:00	0.0061	0.0004	0.0587	-0.0333	0.0103	0.12	15:59:00					0.04			0	0		545	---	OTM	---
TSLA	2018-08-17	\$480.00	C			0.05	12:38:00	0.0075	0.0005	0.0725	-0.0426	0.0125	0.23	15:50:00	0.02	14:52:00			0.18			0	0		193	---	OTM	---
TSLA	2018-08-17	\$485.00	C	0.02	11:40:00	0.06	12:42:00	0.0034	0.0003	0.0331	-0.0200	0.0062	0.29	15:50:00					0.04	0.23		0	0		460	OTM	OTM	---
TSLA	2018-08-17	\$490.00	C												0.01	14:52:00								20	---	---	---	
TSLA	2018-08-17	\$505.00	C	0.01	11:11:00																			201	---	---	---	
TSLA	2018-08-17	\$515.00	C			0.03	12:39:00	0.0074	0.0004	0.0702	-0.0517	0.0122												3	---	---	---	
TSLA	2018-08-17	\$560.00	C			0.03	12:39:00	0.0017	0.0001	0.0162	-0.0142	0.0033	0.05	15:52:00					0.02			0	0		105	---	OTM	---
TSLA	2018-08-24	\$255.00	C	90.88	10:29:00																			1	---	---	---	
TSLA	2018-08-24	\$260.00	C	85.93	10:29:00																			19	---	---	---	
TSLA	2018-08-24	\$265.00	C	80.98	10:29:00								116.55	15:51:00										2	---	---	---	
TSLA	2018-08-24	\$270.00	C												67.28	14:14:00	47.21	10:19:00						0	23	---	---	ITM
TSLA	2018-08-24	\$280.00	C												56.84	15:23:00	38.00	9:43:00						0	273	---	---	ITM
TSLA	2018-08-24	\$287.50	C			70.01	12:34:00	0.9628	0.0018	12.8574	-0.1102	0.0623												6	---	---	---	
TSLA	2018-08-24	\$295.00	C	51.00	9:52:00										45.25	12:16:00	22.00	10:29:00						0	104	---	---	ITM
TSLA	2018-08-24	\$300.00	C	45.18	9:51:00	48.40	12:22:00	0.9239	0.0037	12.8054	-0.1542	0.1072			37.70	15:31:00	26.08	9:31:00	3.22	-11.62		0	0		993	ITM	---	ITM
TSLA	2018-08-24	\$302.50	C	42.50	9:31:00								61.00	12:52:00											237	---	---	---
TSLA	2018-08-24	\$307.50	C	38.84	10:52:00										33.85	11:55:00	16.40	9:48:00						0	811	---	---	ITM
TSLA	2018-08-24	\$310.00	C			49.40	12:38:00	0.9033	0.0040	12.8589	-0.1953	0.1319	60.20	14:06:00	28.60	14:56:00	18.45	9:31:00	10.80	-10.15		0	0		3,183	---	ITM	ITM
TSLA	2018-08-24	\$312.50	C												29.40	11:55:00	16.70	9:32:00						0	573	---	---	ITM
TSLA	2018-08-24	\$315.00	C			34.88	12:23:00	0.8615	0.0062	12.4188	-0.2247	0.1669			24.30	15:19:00	15.80	9:37:00						0	3,074	---	---	ITM
TSLA	2018-08-24	\$320.00	C	26.33	11:30:00	39.94	12:43:00	0.8494	0.0059	12.3642	-0.2695	0.1801	63.05	15:51:00	20.10	13:50:00	11.44	9:31:00	13.61	23.11	-8.66	0	0	0	3,763	ITM	ITM	ITM
TSLA	2018-08-24	\$322.50	C			37.05	12:45:00	0.8245	0.0066	12.0640	-0.2729	0.1976			22.80	11:34:00	10.00	9:31:00						0	871	---	---	ITM
TSLA	2018-08-24	\$325.00	C	23.84	10:00:00	35.69	12:43:00	0.8242	0.0068	12.1506	-0.2852	0.1994	54.30	15:56:00	15.79	15:59:00	9.16	9:31:00	11.85	18.61	-6.63	0	0	0	1,643	ITM	ITM	ITM
TSLA	2018-08-24	\$327.50	C	22.95	9:37:00	30.00	12:27:00	0.7960	0.0079	11.8088	-0.2889	0.2169	51.90	15:58:00	15.05	13:29:00	7.80	9:33:00	7.05	21.90	-7.25	0	0	0	480	ITM	ITM	ITM
TSLA	2018-08-24	\$330.00	C	18.53	11:42:00	31.00	12:45:00	0.7738	0.0081	11.5110	-0.3076	0.2306	48.60	16:00:00	12.53	16:00:00	6.95	9:31:00	12.47	17.60	-5.58	0	0	0	4,750	ITM	ITM	ITM
TSLA	2018-08-24	\$332.50	C												11.29	15:20:00	5.25	9:31:00						0	809	---	---	ITM
TSLA	2018-08-24	\$335.00	C	16.00	11:25:00	29.10	12:41:00	0.7482	0.0084	11.2416	-0.3426	0.2466	31.80	13:25:00	9.55	16:00:00	5.31	9:31:00	13.10	2.70	-4.24	0	0	0	2,416	ITM	ITM	ITM
TSLA	2018-08-24	\$337.50	C	15.21	9:31:00								40.43	15:55:00	8.39	15:56:00	3.15	9:31:00						0	894	---	---	OTM
TSLA	2018-08-24	\$340.00	C	13.00	11:46:00	23.00	12:46:00	0.6869	0.0098	10.3916	-0.3697	0.2725	37.31	15:58:00	7.05	15:58:00	3.66	9:31:00	10.00	14.31	-3.39	0	0	0	6,716	ITM	ITM	OTM
TSLA	2018-08-24	\$342.50	C	14.15	10:22:00	21.78	12:44:00	0.6675	0.0101	10.1465	-0.3754	0.2799	25.00	13:28:00	6.30	15:47:00	3.55	9:31:00	7.63	3.22	-2.75	0	0	0	1,017	OTM	ITM	OTM
TSLA	2018-08-24	\$345.00	C	10.75	11:25:00	20.13	12:44:00	0.6414	0.0104	9.7857	-0.3848	0.2879	37.41	16:00:00	5.30	16:00:00	2.61	9:31:00	9.38	17.28	-2.69	0	0	0	1,806	OTM	ITM	OTM
TSLA	2018-08-24	\$347.50	C	9.80	12:12:00	14.95	12:25:00	0.5766	0.0121	8.8317	-0.3694	0.2988	27.00	13:18:00	4.55	15:57:00	2.29	9:31:00	5.15	12.05	-2.26	0	0	0	1,003	OTM	ITM	OTM
TSLA	2018-08-24	\$350.00	C	8.34	11:46:00	17.22	12:47:00	0.5969	0.0111	9.1969	-0.																	

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness												
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT										
TSLA	2018-08-24	\$385.00	C	1.31	11:49:00	4.30	12:47:00	0.2274	0.0088	3.6133	-0.2984	0.2334	11.00	15:59:00	0.60	15:58:00	0.40	9:31:00	2.99	6.70	-0.20	0	0	0	2,876	OTM	OTM	OTM										
TSLA	2018-08-24	\$387.50	C												0.53	15:58:00	0.28	9:31:00			-0.25	0	0	0	1,405	---	---	OTM										
TSLA	2018-08-24	\$390.00	C	1.12	11:59:00	3.40	12:47:00	0.1905	0.0079	3.0336	-0.2707	0.2102	10.70	15:59:00	0.50	15:47:00	0.29	9:31:00	2.28	7.30	-0.21	0	0	0	3,196	OTM	OTM	OTM										
TSLA	2018-08-24	\$392.50	C												0.50	12:41:00	0.23	9:34:00			-0.27	0	0	0	390	---	---	OTM										
TSLA	2018-08-24	\$395.00	C	0.79	11:49:00	2.60	12:46:00	0.1506	0.0067	2.3942	-0.2361	0.1801	6.80	15:57:00	0.42	15:16:00	0.21	9:33:00	1.81	4.20	-0.21	0	0	0	2,012	OTM	OTM	OTM										
TSLA	2018-08-24	\$397.50	C												0.48	11:14:00	0.18	9:34:00			-0.30	0	0	0	975	---	---	OTM										
TSLA	2018-08-24	\$400.00	C	0.60	11:47:00	2.10	12:47:00	0.1293	0.0061	2.0684	-0.2117	0.1630	7.00	15:59:00	0.34	15:59:00	0.21	9:31:00	1.50	4.90	-0.13	0	0	0	9,468	OTM	OTM	OTM										
TSLA	2018-08-24	\$402.50	C												0.28	15:58:00	0.14	9:33:00			-0.14	0	0	0	184	---	---	OTM										
TSLA	2018-08-24	\$405.00	C	0.52	12:11:00	1.69	12:45:00	0.1016	0.0050	1.6206	-0.1811	0.1368	5.60	16:00:00	0.28	15:59:00	0.18	9:46:00	1.17	3.91	-0.10	0	0	0	2,455	OTM	OTM	OTM										
TSLA	2018-08-24	\$407.50	C												0.23	15:59:00	0.10	9:34:00			-0.13	0	0	0	894	---	---	OTM										
TSLA	2018-08-24	\$410.00	C	0.47	10:08:00	1.65	12:38:00	0.0972	0.0049	1.5696	-0.1752	0.1339	4.50	16:00:00	0.20	16:00:00	0.24	9:31:00	1.18	2.85	0.04	0	0	1	1,279	OTM	OTM	OTM										
TSLA	2018-08-24	\$415.00	C												0.20	14:54:00	0.12	9:31:00			-0.08	0	0	0	999	---	---	OTM										
TSLA	2018-08-24	\$420.00	C	0.34	10:49:00	0.88	12:46:00	0.0555	0.0031	0.8888	-0.1178	0.0863	2.63	15:59:00	0.16	16:00:00	0.09	9:32:00	0.54	1.75	-0.07	0	0	0	2,335	OTM	OTM	OTM										
TSLA	2018-08-24	\$425.00	C												0.70	12:47:00	0.0493	0.0028	0.7924	-0.1085	0.0789	1.20	15:58:00	0.14	14:50:00	0.09	9:34:00	0.50	-0.05	0	0	1,419	---	---	OTM			
TSLA	2018-08-24	\$430.00	C	0.19	11:54:00	0.59	12:36:00	0.0377	0.0023	0.6083	-0.0869	0.0636	1.11	13:44:00	0.10	14:43:00	0.07	9:31:00	0.40	0.52	-0.03	0	0	0	1,430	OTM	OTM	OTM										
TSLA	2018-08-24	\$435.00	C												0.44	12:34:00	0.0325	0.0020	0.5242	-0.0788	0.0563				0	415	---	---	OTM									
TSLA	2018-08-24	\$440.00	C												0.40	12:32:00	0.0256	0.0016	0.4123	-0.0651	0.0460	1.30	13:53:00	0.05	15:58:00	0.06	9:31:00	0.90	0.00	0	1	588	---	---	OTM			
TSLA	2018-08-24	\$450.00	C												0.09	11:35:00	0.05	10:06:00			-0.04			0	448	---	---	OTM										
TSLA	2018-08-24	\$455.00	C												0.25	12:44:00	0.0172	0.0011	0.2763	-0.0497	0.0328				0	73	---	---	---									
TSLA	2018-08-24	\$460.00	C												0.18	12:35:00	0.0133	0.0009	0.2141	-0.0399	0.0263	0.73	13:14:00	0.05	13:14:00		0.55		0	439	---	---	OTM					
TSLA	2018-08-24	\$465.00	C												0.14	12:30:00	0.0090	0.0006	0.1454	-0.0278	0.0188				0	352	---	---	---									
TSLA	2018-08-24	\$470.00	C	0.09	11:45:00										0.10	15:56:00									253	---	---	---										
TSLA	2018-08-24	\$480.00	C												0.12	12:46:00	0.0088	0.0005	0.1418	-0.0306	0.0184				0.41		0	47	---	---	OTM							
TSLA	2018-08-24	\$500.00	C	0.09	11:27:00	0.06	12:33:00	0.0047	0.0003	0.0766	-0.0181	0.0107	0.56	14:06:00								-0.03	0.50	1	0	970	OTM	OTM	---									
TSLA	2018-08-31	\$297.50	C																						41.60	14:35:00	31.88	9:31:00			-9.72	0	0	0	46	---	---	ITM
TSLA	2018-08-31	\$300.00	C	44.40	11:27:00	58.59	12:45:00	0.8995	0.0035	17.3528	-0.1630	0.1585	75.00	15:56:00	40.50	12:44:00	31.30	9:31:00	14.19	16.41	-9.20	0	0	0	333	ITM	ITM	ITM										
TSLA	2018-08-31	\$302.50	C	45.75	10:42:00	56.20	12:36:00	0.8960	0.0036	17.4102	-0.1749	0.1640	75.60	15:49:00								10.45	19.40	0	0	143	ITM	ITM	---									
TSLA	2018-08-31	\$305.00	C	42.50	9:58:00	51.55	12:27:00	0.8836	0.0042	17.2996	-0.1761	0.1764	77.81	15:50:00	36.08	10:07:00	20.80	10:20:00	9.05	26.26	-15.28	0	0	0	141	ITM	ITM	ITM										
TSLA	2018-08-31	\$307.50	C												47.70	12:26:00	0.8710	0.0047	17.1605	-0.1881	0.1892					272	---	---	---									
TSLA	2018-08-31	\$310.00	C	39.70	10:39:00										66.35	15:57:00	31.10	15:30:00	22.85	9:31:00						-8.25	0	0	0	866	---	---	ITM					
TSLA	2018-08-31	\$315.00	C	33.53	11:15:00	46.50	12:43:00	0.8437	0.0051	16.8953	-0.2276	0.2186	50.00	12:49:00								12.97	3.50	0	0	320	ITM	ITM	---									
TSLA	2018-08-31	\$317.50	C	31.57	11:15:00	39.40	12:26:00	0.8205	0.0061	16.5520	-0.2259	0.2363										7.83		0	0	112	ITM	---	---									
TSLA	2018-08-31	\$320.00	C	29.04	12:07:00	40.99	12:32:00	0.8192	0.0058	16.6177	-0.2398	0.2400	47.16	13:45:00	27.60	11:35:00	15.50	9:32:00	11.95	6.17	-12.10	0	0	0	1,125	ITM	ITM	ITM										
TSLA	2018-08-31	\$322.50	C																			23.01	12:54:00	14.00	9:33:00		0	47	---	---	ITM							
TSLA	2018-08-31	\$325.00	C	25.41	12:07:00	26.59	12:19:00	0.7103	0.0087	14.4269	-0.2749	0.3021	50.45	15:58:00								1.18	23.86	0	0	270	ITM	ITM	---									
TSLA	2018-08-31	\$327.50	C	25.31	9:55:00										17.65	15:56:00	10.01	10:01:00				-7.64		0	0	121	---	---	ITM									
TSLA	2018-08-31	\$330.00	C	21.50	11:39:00	33.33	12:45:00	0.7440	0.0074	15.3708	-0.2782	0.2927	38.16	13:45:00	16.25	15:59:00	10.68	9:31:00	11.83	4.83	-5.57	0	0	0	428	ITM	ITM	ITM										
TSLA	2018-08-31	\$332.50	C												15.91	12:44:00	9.19	9:31:00				-6.72		0	0	124	---	---	ITM									
TSLA	2018-08-31	\$335.00	C			30.61	12:42:00	0.7281	0.0076	15.2226	-0.2941	0.3047	46.25	15:54:00	13.58	15:40:00	8.40	9:31:00				15.64	-5.18	0	0	418	---	---	ITM									
TSLA	2018-08-31	\$337.50	C	17.20	11:36:00										36.61	13:16:00	12.59	15:36:00	7.77	9:37:00		-4.82		0	0	178	---	---	OTM									
TSLA	2018-08-31	\$340.00	C	15.18	11:42:00	24.50	12:30:00	0.6731	0.0088	14.2104	-0.2967	0.3293	40.00	15:57:00	11.50	14:12:00	6.25	9:31:00	9.32	15.50	-5.25	0	0	0	1,080	ITM	ITM	OTM										
TSLA	2018-08-31	\$342.50	C	13.90	11:42:00										28.43	12:57:00	9.92	16:00:00	4.50	9:44:00		-5.42		0	0	342	---	---	OTM									
TSLA	2018-08-31	\$345.00	C	13.12	11:50:00	24.00	12:42:00	0.6462	0.0088	13.7437	-0.3197	0.3419	37.00	15:58:00	9.02	15:50:00	5.25	9:32:00	10.88	13.00	-3.77	0	0	0	682	OTM	ITM	OTM										
TSLA	2018-08-31	\$347.50	C	11.93	11:50:00	19.00</																																

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness		
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT
TSLA	2018-08-31	\$385.00	C	2.45	11:58:00	6.07	12:44:00	0.2606	0.0082	5.7503	-0.2672	0.2974	13.50	15:59:00	1.30	15:57:00	0.80	9:38:00	3.62	7.43	-0.50	0	0	0	857	OTM	OTM	OTM
TSLA	2018-08-31	\$387.50	C												1.18	15:36:00	0.61	9:31:00			-0.57	0	0	0	355	---	---	OTM
TSLA	2018-08-31	\$390.00	C	2.13	11:21:00	4.99	12:44:00	0.2243	0.0075	4.9655	-0.2462	0.2742	10.40	15:57:00	1.09	15:35:00	0.64	9:31:00	2.86	5.41	-0.45	0	0	0	1,094	OTM	OTM	OTM
TSLA	2018-08-31	\$395.00	C	1.46	11:43:00	4.61	12:39:00	0.2081	0.0071	4.6435	-0.2365	0.2643	7.00	15:58:00	0.95	12:52:00	0.68	9:36:00	3.15	2.39	-0.27	0	0	0	1,222	OTM	OTM	OTM
TSLA	2018-08-31	\$397.50	C												0.82	14:04:00	0.52	10:11:00			-0.30	0	0	0	640	---	---	OTM
TSLA	2018-08-31	\$400.00	C	1.37	10:59:00	3.53	12:42:00	0.1774	0.0064	3.9636	-0.2160	0.2395	6.81	16:00:00	0.72	16:00:00	0.50	9:31:00	2.16	3.28	-0.22	0	0	0	2,832	OTM	OTM	OTM
TSLA	2018-08-31	\$402.50	C												0.70	9:37:00	0.30	9:48:00			-0.40	0	0	0	247	---	---	OTM
TSLA	2018-08-31	\$405.00	C	1.30	10:40:00	2.95	12:42:00	0.1508	0.0058	3.3770	-0.1949	0.2156	6.00	15:58:00	0.59	15:06:00	0.50	9:48:00	1.65	3.05	-0.09	0	0	0	696	OTM	OTM	OTM
TSLA	2018-08-31	\$410.00	C			3.52	12:27:00	0.0982	0.0045	2.1895	-0.1372	0.1578	5.50	16:00:00	0.58	13:04:00	0.50	9:31:00			1.98	-0.08	0	0	1,970	---	OTM	OTM
TSLA	2018-08-31	\$415.00	C			3.50	12:27:00	0.0814	0.0039	1.8180	-0.1200	0.1372	6.00	15:50:00	0.45	12:42:00	0.20	12:08:00			2.50	-0.25	0	0	357	---	OTM	OTM
TSLA	2018-08-31	\$420.00	C	0.67	9:41:00								3.00	15:58:00	0.34	15:50:00	0.29	9:31:00			-0.05	0	0	0	2,728	---	---	OTM
TSLA	2018-08-31	\$425.00	C			0.44	12:19:00	0.0313	0.0019	0.6836	-0.0552	0.0624	1.90	15:58:00	0.30	14:18:00	0.22	9:31:00			1.46	-0.08	0	0	454	---	OTM	OTM
TSLA	2018-08-31	\$430.00	C	0.37	12:16:00	1.13	12:39:00	0.0645	0.0030	1.4568	-0.1076	0.1162	0.33	16:00:00	0.30	14:19:00	0.19	9:31:00	0.76	-0.80	-0.11	0	1	0	1,341	OTM	OTM	OTM
TSLA	2018-08-31	\$435.00	C			0.92	12:41:00	0.0537	0.0026	1.2108	-0.0946	0.1004	1.30	12:56:00	0.24	12:51:00					0.38	0	0	0	322	---	---	OTM
TSLA	2018-08-31	\$440.00	C			0.74	12:44:00	0.0420	0.0021	0.9450	-0.0782	0.0822	1.36	13:49:00							0.62	0	0	0	327	---	OTM	---
TSLA	2018-08-31	\$445.00	C			0.65	12:39:00	0.0388	0.0020	0.8779	-0.0736	0.0775	0.85	15:59:00	0.12	15:46:00					0.20	0	0	0	168	---	OTM	---
TSLA	2018-08-31	\$450.00	C			0.25	12:23:00	0.0179	0.0011	0.3977	-0.0372	0.0396	0.90	14:06:00							0.65	0	0	0	797	---	OTM	---
TSLA	2018-08-31	\$460.00	C			0.41	12:35:00	0.0205	0.0011	0.4623	-0.0443	0.0453	0.90	13:12:00							0.49	0	0	0	62	---	OTM	---
TSLA	2018-09-07	\$295.00	C	49.70	11:47:00	64.00	12:31:00	0.9074	0.0031	22.1693	-0.1386	0.1705	77.80	15:57:00					14.30	13.80		0	0	0	24	ITM	ITM	---
TSLA	2018-09-07	\$297.50	C												44.03	9:53:00	26.49	9:46:00			-17.54	0	0	0	31	---	---	ITM
TSLA	2018-09-07	\$300.00	C	45.55	11:27:00	59.40	12:45:00	0.8809	0.0036	21.7447	-0.1583	0.2035	63.50	13:44:00					13.85	4.10		0	0	0	233	ITM	ITM	---
TSLA	2018-09-07	\$307.50	C	42.50	9:39:00	53.50	12:37:00	0.8631	0.0041	21.7731	-0.1729	0.2263							11.00			0	0	0	69	ITM	---	---
TSLA	2018-09-07	\$310.00	C			52.18	12:37:00	0.8535	0.0044	21.6674	-0.1794	0.2372									0.38	0	0	0	153	---	---	---
TSLA	2018-09-07	\$315.00	C			42.00	12:26:00	0.8121	0.0056	20.8081	-0.2024	0.2757									0.62	0	0	0	124	---	---	---
TSLA	2018-09-07	\$317.50	C	35.92	10:26:00																0.20	0	0	0	32	---	---	---
TSLA	2018-09-07	\$320.00	C												26.80	10:55:00	15.40	9:42:00			-11.40	0	0	0	178	---	---	ITM
TSLA	2018-09-07	\$322.50	C	32.19	10:26:00								46.65	13:52:00								0	0	0	91	---	---	---
TSLA	2018-09-07	\$325.00	C												22.00	13:49:00	14.85	9:32:00			-7.15	0	0	0	157	---	---	ITM
TSLA	2018-09-07	\$327.50	C												21.02	14:07:00	13.90	9:38:00			-7.12	0	0	0	46	---	---	ITM
TSLA	2018-09-07	\$330.00	C	26.00	9:44:00								55.15	15:50:00	18.74	15:57:00	13.50	9:35:00			-5.24	0	0	0	384	---	---	ITM
TSLA	2018-09-07	\$332.50	C			32.71	12:36:00	0.7233	0.0070	19.2360	-0.2490	0.3474										0	0	0	143	---	---	---
TSLA	2018-09-07	\$335.00	C												15.88	15:57:00	10.95	9:31:00			-4.93	0	0	0	268	---	---	ITM
TSLA	2018-09-07	\$337.50	C			29.21	12:36:00	0.6868	0.0076	18.4249	-0.2602	0.3681			14.75	15:53:00	10.00	9:35:00			-4.75	0	0	0	297	---	---	OTM
TSLA	2018-09-07	\$340.00	C	18.45	11:17:00	28.45	12:37:00	0.6734	0.0077	18.1607	-0.2625	0.3755	35.85	14:03:00	13.72	15:30:00	8.65	9:31:00	10.00	7.40	-5.07	0	0	0	421	ITM	ITM	OTM
TSLA	2018-09-07	\$342.50	C												13.90	11:59:00	8.85	9:31:00			-5.05	0	0	0	276	---	---	OTM
TSLA	2018-09-07	\$345.00	C	17.40	10:29:00	25.15	12:37:00	0.6331	0.0081	17.2020	-0.2722	0.3923	41.27	16:00:00	13.30	11:46:00	7.00	9:32:00	7.75	16.12	-6.30	0	0	0	445	OTM	ITM	OTM
TSLA	2018-09-07	\$347.50	C												10.90	12:37:00	6.65	9:34:00			-4.25	0	0	0	136	---	---	OTM
TSLA	2018-09-07	\$350.00	C	13.00	11:55:00	21.65	12:47:00	0.5834	0.0085	15.9341	-0.2808	0.4058	33.00	15:58:00	9.25	15:56:00	5.95	9:31:00	8.65	11.35	-3.30	0	0	0	1,126	OTM	ITM	OTM
TSLA	2018-09-07	\$352.50	C												10.06	12:09:00	4.46	10:53:00			-5.60	0	0	0	144	---	---	OTM
TSLA	2018-09-07	\$355.00	C	10.50	11:26:00	19.95	12:40:00	0.5509	0.0086	15.1579	-0.2874	0.4131	28.55	15:57:00	8.20	12:49:00	3.81	9:43:00	9.45	8.60	-4.39	0	0	0	509	OTM	ITM	OTM
TSLA	2018-09-07	\$357.50	C												6.81	13:46:00	4.11	9:31:00			-2.70	0	0	0	305	---	---	OTM
TSLA	2018-09-07	\$360.00	C	9.00	12:13:00	16.00	12:47:00	0.4953	0.0089	13.6976	-0.2824	0.4151	28.75	15:59:00	7.00	12:08:00	3.35	9:31:00	7.00	12.75	-3.65	0	0	0	1,682	OTM	OTM	OTM
TSLA	2018-09-07	\$362.50	C												5.76	12:46:00	2.97	9:49:00			-2.79	0	0	0	125	---	---	OTM
TSLA	2018-09-07	\$365.00	C			14.03	12:45:00	0.4366	0.0088	12.1003	-0.2758	0.4082	25.50	15:59:00	5.14	13:31:00	2.68	9:43:00			11.47	-2.46	0	0	434	---	OTM	OTM
TSLA	2018-09-07	\$367.50	C												4.43	13:46:00	2.42	9:49:00			-2.01	0	0	0	36	---	---	OTM
TSLA	2018-09-07	\$370.00	C	6.25	12:																							

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness		
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT
TSLA	2018-09-07	\$410.00	C	1.57	9:38:00	3.33	12:40:00	0.1511	0.0053	4.3383	-0.1660	0.2450	5.06	15:58:00	0.72	15:59:00	0.50	9:34:00	1.76	1.73	-0.22	0	0	0	294	OTM	OTM	OTM
TSLA	2018-09-07	\$415.00	C	0.95	11:54:00	2.77	12:40:00	0.1304	0.0047	3.7507	-0.1508	0.2217			0.67	13:04:00	0.50	9:40:00	1.82		-0.17	0	0	0	128	OTM	---	OTM
TSLA	2018-09-07	\$420.00	C												0.61	12:20:00	0.45	9:31:00			-0.16			0	838	---	---	OTM
TSLA	2018-09-07	\$425.00	C												0.48	14:10:00	0.25	9:31:00			-0.23			0	306	---	---	OTM
TSLA	2018-09-07	\$430.00	C												0.40	9:52:00	0.19	12:25:00			-0.21			0	220	---	---	OTM
TSLA	2018-09-07	\$440.00	C			1.08	12:40:00	0.0609	0.0026	1.7652	-0.0883	0.1261	2.15	13:15:00					1.07			0		0	149	---	OTM	---
TSLA	2018-09-07	\$445.00	C												0.19	14:14:00	0.12	12:54:00			-0.07			0	47	---	---	OTM
TSLA	2018-09-07	\$450.00	C												0.24	13:20:00	0.19	10:54:00			-0.05			0	411	---	---	OTM
TSLA	2018-09-07	\$460.00	C												0.19	11:12:00								0	98	---	---	---
TSLA	2018-09-07	\$470.00	C												0.16	11:12:00								0	47	---	---	---
TSLA	2018-09-07	\$480.00	C												0.11	11:18:00	0.09	12:02:00			-0.02		0	57	---	---	OTM	
TSLA	2018-09-07	\$500.00	C												0.16	11:16:00	0.05	10:30:00			-0.11		0	92	---	---	OTM	
TSLA	2018-09-07	\$510.00	C												0.11	11:12:00								4	---	---	---	
TSLA	2018-09-07	\$520.00	C												0.10	11:12:00								16	---	---	---	
TSLA	2018-09-07	\$550.00	C												0.05	11:11:00								203	---	---	---	
TSLA	2018-09-14	\$300.00	C												43.50	14:19:00	28.70	10:16:00			-14.80		0	36	---	---	ITM	
TSLA	2018-09-14	\$305.00	C												39.30	9:59:00	25.25	9:50:00			-14.05		0	50	---	---	ITM	
TSLA	2018-09-14	\$310.00	C												35.46	13:45:00	23.50	9:42:00			-11.96		0	176	---	---	ITM	
TSLA	2018-09-14	\$320.00	C												29.95	10:16:00	20.00	9:31:00			-9.95		0	76	---	---	ITM	
TSLA	2018-09-14	\$325.00	C												26.20	9:38:00	18.53	9:36:00			-7.67		0	100	---	---	ITM	
TSLA	2018-09-14	\$327.50	C												23.50	14:18:00	17.00	9:36:00			-6.50		0	71	---	---	ITM	
TSLA	2018-09-14	\$330.00	C												24.35	11:53:00	12.31	9:43:00			-12.04		0	161	---	---	ITM	
TSLA	2018-09-14	\$332.50	C			32.82	12:30:00	0.7007	0.0066	22.5655	-0.2277	0.3973	38.34	13:41:00	20.29	14:36:00	11.62	10:05:00			5.52	-8.67	0	0	99	---	ITM	ITM
TSLA	2018-09-14	\$335.00	C	23.80	10:05:00										18.88	14:36:00	11.80	9:37:00			-7.08		0	94	---	---	ITM	
TSLA	2018-09-14	\$337.50	C												17.65	14:38:00	9.95	9:49:00			-7.70		0	64	---	---	OTM	
TSLA	2018-09-14	\$340.00	C	22.11	10:22:00										16.00	14:25:00	10.71	9:31:00			-5.29		0	232	---	---	OTM	
TSLA	2018-09-14	\$342.50	C												15.05	13:35:00	8.02	9:45:00			-7.03		0	51	---	---	OTM	
TSLA	2018-09-14	\$345.00	C	16.75	11:45:00	27.45	12:40:00	0.6269	0.0072	20.6011	-0.2536	0.4368	33.25	13:18:00	16.05	11:39:00	8.50	9:31:00	10.70	5.80	-7.55	0	0	0	119	OTM	ITM	OTM
TSLA	2018-09-14	\$350.00	C	15.15	12:02:00	22.80	12:46:00	0.5695	0.0077	18.7778	-0.2579	0.4502	35.60	15:55:00	11.40	15:45:00	8.00	9:35:00	7.65	12.80	-3.40	0	0	0	778	OTM	ITM	OTM
TSLA	2018-09-14	\$352.50	C												11.20	12:35:00	6.15	9:55:00			-5.05		0	77	---	---	OTM	
TSLA	2018-09-14	\$355.00	C	13.07	12:03:00	20.50	12:47:00	0.5410	0.0079	18.0070	-0.2575	0.4567	33.00	15:56:00	9.50	15:52:00	4.75	9:43:00	7.43	12.50	-4.75	0	0	0	348	OTM	ITM	OTM
TSLA	2018-09-14	\$360.00	C	11.20	12:03:00	18.10	12:47:00	0.5011	0.0080	16.7792	-0.2570	0.4593	28.00	15:55:00	8.03	15:02:00	3.81	9:43:00	6.90	9.90	-4.22	0	0	0	613	OTM	OTM	OTM
TSLA	2018-09-14	\$365.00	C	9.35	11:24:00	16.12	12:34:00	0.4630	0.0081	15.6126	-0.2540	0.4579	25.10	15:54:00	7.00	12:31:00	3.70	10:04:00	6.77	8.98	-3.30	0	0	0	334	OTM	OTM	OTM
TSLA	2018-09-14	\$367.50	C												6.49	10:02:00	3.30	10:05:00			-3.19		0	28	---	---	OTM	
TSLA	2018-09-14	\$370.00	C	7.90	11:24:00	11.55	12:26:00	0.3815	0.0081	12.8507	-0.2319	0.4339	23.00	15:54:00	5.44	15:05:00	3.45	9:37:00	3.65	11.45	-1.99	0	0	0	564	OTM	OTM	OTM
TSLA	2018-09-14	\$372.50	C												5.82	11:51:00	2.60	11:43:00			-3.22		0	260	---	---	OTM	
TSLA	2018-09-14	\$375.00	C	6.53	11:34:00	11.95	12:33:00	0.3841	0.0079	13.0881	-0.2393	0.4406	17.75	13:15:00	4.61	12:35:00	2.57	9:31:00	5.42	5.80	-2.04	0	0	0	743	OTM	OTM	OTM
TSLA	2018-09-14	\$377.50	C												4.45	12:14:00	1.72	9:32:00			-2.73		0	200	---	---	OTM	
TSLA	2018-09-14	\$380.00	C	5.61	12:04:00	10.37	12:45:00	0.3319	0.0075	11.3034	-0.2258	0.4164	20.06	16:00:00	3.39	15:40:00	1.85	9:31:00	4.76	9.69	-1.54	0	0	0	701	OTM	OTM	OTM
TSLA	2018-09-14	\$382.50	C												3.48	9:45:00	1.81	9:31:00			-1.67		0	117	---	---	OTM	
TSLA	2018-09-14	\$385.00	C	4.69	12:04:00	8.90	12:45:00	0.2978	0.0072	10.1748	-0.2157	0.3975	13.93	14:06:00	2.80	15:37:00	2.45	9:42:00	4.21	5.03	-0.35	0	0	0	136	OTM	OTM	OTM
TSLA	2018-09-14	\$390.00	C	4.60	9:38:00	7.33	12:33:00	0.2777	0.0070	9.5700	-0.2089	0.3869	11.26	15:57:00	2.80	11:22:00	1.44	10:21:00	2.73	3.93	-1.36	0	0	0	231	OTM	OTM	OTM
TSLA	2018-09-14	\$392.50	C												2.31	12:12:00	1.01	9:31:00			-1.30		0	64	---	---	OTM	
TSLA	2018-09-14	\$395.00	C	3.17	12:17:00	5.05	12:31:00	0.2375	0.0065	8.2036	-0.1899	0.3558	9.00	15:58:00					1.88	3.95		0	0	199	OTM	OTM	---	
TSLA	2018-09-14	\$397.50	C												1.76	12:35:00							13	---	---	---		
TSLA	2018-09-14	\$400.00	C	2.77	9:31:00	5.60	12:46:00	0.2099	0.0060	7.2386	-0.1812	0.3308	11.60	16:00:00	1.53	15:47:00	0.88	9:32:00	2.83	6.00	-0.65	0	0	0	636	OTM	OTM	OTM
TSLA	2018-09-14	\$402.50	C												1.52	12:12:00	1.02	10:54:00			-0.50		0	106	---	---	OTM	
TSLA	2018-09-14	\$405.00	C	2.65	10:04:00	4.98	12:38:00	0.2063	0.0059	7.1984	-0.1801	0.3311	6.96	15:57:00					2.33	1.98		0	0	73	OTM	OTM	---	
TSLA	2018-09-14	\$407.50	C												1.40	11:17:00							69	---	---	---		
TSLA	2018-09-14	\$410.00	C	2.08	11:05:00	4.25	12:40:00	0.1766	0.0053	6.1556	-0.1646	0.3000	6.00	15:54:00	1.00	15:58:00	0.44	9:48:00	2.17	1.75	-0.56	0	0	0	347	OTM	OTM	OTM
TSLA	2018-09-14	\$415.00	C			3.80	12:38:00	0.1601	0.0050	5.6112	-0.1546	0.2827	8.15	15:56:00	0.89	12:28:00	0.60	11:49:00			4.35	-0.29	0	0	178	---	OTM	OTM
TSLA	2018-09-14	\$420.00	C	1.60	9:36:00	2.77	12:46:00	0.1239	0.0042	4.3076	-0.1298	0.2349	4.48	14:04:00	0.70	15:51:00	0.53	10:09:00	1.17	1.71	-0.17	0	0	0	235	OTM	OTM	OTM
TSLA	2018-09-14	\$425.00	C			2.75	12:38:00	0.1216	0.0041	4.2824	-0.1287	0.2346	4.75	13:14:00					2.00			0	241	---	OTM	---		
TSLA	2018-09-14	\$430.00	C	0.90	11:37:00								4.10	13:16:00	0.46	9:49:00	0.28	9:34:00			-0.18		0	90	---	---	OTM	
TSLA	2018-09-14	\$440.00	C	0.79	11:08:00										0.40	10:23:00							79	---	---	---		
TSLA	2018-09-14	\$445.00	C	0.65	11:10:00				</																			

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet						8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness				
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet		NYT	FT	Tweet	NYT	
TSLA	2018-09-14	\$460.00	C	0.40	11:15:00	0.84	12:47:00	0.0428	0.0018	1.5075	-0.0602	0.1049	1.39	13:17:00					0.44	0.55	0	0			94	OTM	OTM	---	
TSLA	2018-09-14	\$465.00	C			0.70	12:32:00	0.0358	0.0016	1.2628	-0.0521	0.0907	1.19	13:17:00						0.49		0				7	---	OTM	---
TSLA	2018-09-14	\$470.00	C	0.28	11:37:00																				23	---	---	---	
TSLA	2018-09-14	\$475.00	C	0.23	11:18:00								0.75	13:38:00											43	---	---	---	
TSLA	2018-09-14	\$500.00	C			0.29	12:40:00	0.0156	0.0007	0.5553	-0.0275	0.0454													18	---	---	---	
TSLA	2018-09-21	\$230.00	C	111.86	11:27:00	125.00	12:30:00	0.9477	0.0010	25.9095	-0.1084	0.1282	145.00	15:54:00	107.35	9:48:00					13.14	20.00	0	0	40	ITM	ITM	---	
TSLA	2018-09-21	\$235.00	C	109.55	9:31:00	123.75	12:34:00	0.9547	0.0010	26.8838	-0.0891	0.1146								14.20		0		3	ITM	---	---		
TSLA	2018-09-21	\$240.00	C	106.27	10:39:00								123.35	13:21:00											24	---	---	---	
TSLA	2018-09-21	\$245.00	C	99.80	9:31:00								119.00	13:53:00											12	---	---	---	
TSLA	2018-09-21	\$250.00	C			105.50	12:30:00	0.9424	0.0013	28.1717	-0.0967	0.1390	134.95	15:51:00	89.90	13:37:00	78.99	9:31:00			29.45	-10.91	0	0	116	---	ITM	ITM	
TSLA	2018-09-21	\$255.00	C												88.65	11:18:00	66.00	9:43:00					-22.65	0	13	---	---	ITM	
TSLA	2018-09-21	\$260.00	C	83.00	11:39:00	98.88	12:42:00	0.9294	0.0016	28.7354	-0.1149	0.1653	110.80	14:09:00	82.90	11:55:00	68.48	9:31:00			15.88	11.92	-14.42	0	0	205	ITM	ITM	ITM
TSLA	2018-09-21	\$265.00	C																				-17.27	0	28	---	---	ITM	
TSLA	2018-09-21	\$270.00	C	76.50	9:56:00								110.64	16:00:00											95	---	---	---	
TSLA	2018-09-21	\$275.00	C	69.40	11:45:00	77.00	12:23:00	0.9075	0.0024	29.6829	-0.1159	0.1994	105.26	16:00:00							7.60	28.26	0	0	41	ITM	ITM	---	
TSLA	2018-09-21	\$280.00	C	66.48	12:04:00	75.04	12:26:00	0.9000	0.0025	29.9114	-0.1213	0.2129	105.67	15:47:00	61.32	14:26:00	48.01	9:42:00			8.56	30.63	-13.31	0	0	265	ITM	ITM	ITM
TSLA	2018-09-21	\$285.00	C	65.00	10:21:00								93.00	15:59:00	57.12	14:26:00	46.45	9:39:00					-10.67	0	324	---	---	ITM	
TSLA	2018-09-21	\$290.00	C	59.44	10:15:00	70.79	12:43:00	0.8753	0.0029	29.8745	-0.1441	0.2529	90.00	15:59:00	55.20	12:17:00	41.90	9:31:00			11.35	19.21	-13.30	0	0	251	ITM	ITM	ITM
TSLA	2018-09-21	\$295.00	C	52.53	11:31:00	65.70	12:33:00	0.8702	0.0032	30.2447	-0.1440	0.2614	86.34	16:00:00	48.70	15:51:00	39.92	9:32:00			13.17	20.64	-8.78	0	0	176	ITM	ITM	ITM
TSLA	2018-09-21	\$300.00	C	48.10	11:26:00	62.09	12:43:00	0.8436	0.0036	29.5543	-0.1644	0.2962	82.00	16:00:00	44.75	16:00:00	35.20	9:31:00			13.99	19.91	-9.55	0	0	3,385	ITM	ITM	ITM
TSLA	2018-09-21	\$305.00	C	46.44	10:06:00	58.42	12:41:00	0.8341	0.0038	29.6642	-0.1715	0.3101	79.17	15:53:00	40.90	15:39:00	31.95	9:33:00			11.98	20.75	-8.95	0	0	353	ITM	ITM	ITM
TSLA	2018-09-21	\$310.00	C	43.70	10:46:00	53.20	12:36:00	0.8135	0.0043	29.3283	-0.1749	0.3331	74.35	16:00:00	37.30	15:46:00	30.00	9:35:00			9.50	21.15	-7.30	0	0	1,750	ITM	ITM	ITM
TSLA	2018-09-21	\$315.00	C	36.44	11:48:00	44.86	12:25:00	0.7725	0.0051	28.0715	-0.1892	0.3709	66.00	15:59:00	36.08	15:59:00	26.50	9:35:00			8.42	21.14	-9.58	0	0	612	ITM	ITM	ITM
TSLA	2018-09-21	\$320.00	C	34.29	12:04:00	44.30	12:46:00	0.7568	0.0052	27.7865	-0.2004	0.3882	63.35	16:00:00	29.90	15:58:00	22.50	9:32:00			10.01	19.05	-7.40	0	0	3,998	ITM	ITM	ITM
TSLA	2018-09-21	\$325.00	C	33.31	10:21:00	41.45	12:44:00	0.7337	0.0055	27.2245	-0.2090	0.4085	59.24	16:00:00	27.15	15:10:00	20.93	9:31:00			8.14	17.79	-6.22	0	0	1,402	ITM	ITM	ITM
TSLA	2018-09-21	\$330.00	C	29.55	10:47:00	38.00	12:47:00	0.7091	0.0058	26.5991	-0.2137	0.4274	55.00	15:59:00	23.50	15:51:00	16.36	9:31:00			8.45	17.00	-7.14	0	0	9,961	ITM	ITM	ITM
TSLA	2018-09-21	\$335.00	C	24.50	12:06:00	35.00	12:43:00	0.6764	0.0062	25.5675	-0.2230	0.4481	54.35	16:00:00	20.53	15:59:00	14.60	9:31:00			10.50	19.35	-5.93	0	0	2,511	ITM	ITM	ITM
TSLA	2018-09-21	\$340.00	C	21.47	12:12:00	31.00	12:47:00	0.6460	0.0065	24.6483	-0.2274	0.4644	48.00	16:00:00	17.96	16:00:00	12.53	9:31:00			9.53	17.00	-5.43	0	0	5,264	ITM	ITM	OTM
TSLA	2018-09-21	\$345.00	C	18.90	12:13:00	28.76	12:43:00	0.6103	0.0067	23.4227	-0.2349	0.4791	44.03	16:00:00	15.53	15:51:00	10.50	9:31:00			9.86	15.27	-5.03	0	0	1,853	OTM	ITM	OTM
TSLA	2018-09-21	\$350.00	C	16.80	12:15:00	25.30	12:47:00	0.5770	0.0070	22.3372	-0.2357	0.4895	39.95	16:00:00	13.17	16:00:00	8.89	9:31:00			8.50	14.65	-4.28	0	0	8,889	OTM	ITM	OTM
TSLA	2018-09-21	\$355.00	C	14.43	12:12:00	22.60	12:47:00	0.5411	0.0072	21.0907	-0.2366	0.4964	32.88	15:59:00	11.11	15:57:00	7.55	9:31:00			8.17	10.28	-3.56	0	0	4,377	OTM	ITM	OTM
TSLA	2018-09-21	\$360.00	C	12.83	12:02:00	20.05	12:47:00	0.5048	0.0073	19.7897	-0.2368	0.4992	33.80	16:00:00	9.30	15:57:00	6.14	9:31:00			7.22	13.75	-3.16	0	0	10,498	OTM	OTM	OTM
TSLA	2018-09-21	\$365.00	C	10.50	11:46:00	17.80	12:47:00	0.4687	0.0073	18.4691	-0.2355	0.4979	25.45	15:58:00	7.75	16:00:00	4.93	9:31:00			7.30	7.65	-2.82	0	0	4,422	OTM	OTM	OTM
TSLA	2018-09-21	\$370.00	C	9.36	12:15:00	15.37	12:47:00	0.4321	0.0073	17.1254	-0.2305	0.4923	27.00	16:00:00	6.30	16:00:00	4.08	9:31:00			6.01	11.63	-2.22	0	0	8,889	OTM	OTM	OTM
TSLA	2018-09-21	\$375.00	C	7.98	12:15:00	13.52	12:47:00	0.3961	0.0072	15.7800	-0.2242	0.4826	23.40	16:00:00	5.20	16:00:00	3.25	9:31:00			5.54	9.88	-1.95	0	0	12,763	OTM	OTM	OTM
TSLA	2018-09-21	\$380.00	C	6.71	12:13:00	11.65	12:46:00	0.3518	0.0070	14.0311	-0.2152	0.4630	21.71	16:00:00	4.25	16:00:00	2.68	9:31:00			4.94	10.06	-1.57	0	0	15,088	OTM	OTM	OTM
TSLA	2018-09-21	\$385.00	C	5.71	11:53:00	10.18	12:45:00	0.3185	0.0068	12.7539	-0.2059	0.4453	19.50	16:00:00	3.45	15:59:00	2.16	9:31:00			4.47	9.32	-1.29	0	0	5,357	OTM	OTM	OTM
TSLA	2018-09-21	\$390.00	C	4.82	12:12:00	8.98	12:47:00	0.2966	0.0066	11.9646	-0.1992	0.4335	16.38	16:00:00	2.78	15:59:00	1.55	9:31:00			4.16	7.40	-1.23	0	0	9,557	OTM	OTM	OTM
TSLA	2018-09-21	\$395.00	C	4.05	12:12:00	8.17	12:43:00	0.2667	0.0062	10.7879	-0.1894	0.4118	12.92	16:00:00	2.30	15:39:00	1.45	9:31:00			4.12	4.75	-0.85	0	0	2,565	OTM	OTM	OTM
TSLA	2018-09-21	\$400.00	C	3.46	12:17:00	6.96	12:47:00	0.2382	0.0059	9.6736	-0.1771	0.3881	11.60	16:00:00	1.87	16:00:00	1.25	9:31:00			3.50	4.64	-0.62	0	0	26,746	OTM	OTM	OTM
TSLA	2018-09-21	\$405.00	C	2.86	11:44:00	5.90	12:45:00	0.2065	0.0054	8.3763	-0.1641	0.3563	9.36	16:00:00	1.57	16:00:00	0.92												

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness			
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT	
TSLA	2018-09-21	\$500.00	C	0.26	10:19:00	0.40	12:44:00	0.0217	0.0009	0.9019	-0.0330	0.0650	0.47	15:54:00	0.12	11:18:00	0.09	9:50:00	0.14	0.07	-0.03	0	0	0	3,538	OTM	OTM	OTM	
TSLA	2018-09-21	\$520.00	C			0.18	12:28:00	0.0098	0.0005	0.4078	-0.0165	0.0326	0.36	13:21:00					0.18			0			344	---	---	---	
TSLA	2018-09-21	\$525.00	C			0.15	12:31:00	0.0093	0.0004	0.3904	-0.0157	0.0314	0.25	15:59:00	0.05	16:00:00	0.05	10:37:00		0.10	0.00	0	1		839	---	OTM	OTM	
TSLA	2018-09-21	\$600.00	C	0.03	11:37:00	0.12	12:39:00	0.0040	0.0002	0.1691	-0.0089	0.0151	0.08	13:23:00	0.02	9:37:00	0.03	10:36:00	0.09	-0.04	0.01	0	1	1	8,983	OTM	OTM	OTM	
TSLA	2018-09-28	\$315.00	C												37.05	9:52:00	23.00	9:51:00						0	62	---	---	ITM	
TSLA	2018-09-28	\$320.00	C												32.00	9:47:00	21.58	9:48:00						0	98	---	---	ITM	
TSLA	2018-09-28	\$325.00	C												29.00	15:37:00	20.90	9:40:00						0	93	---	---	ITM	
TSLA	2018-09-28	\$330.00	C												25.89	13:53:00	18.85	9:33:00						0	549	---	---	ITM	
TSLA	2018-09-28	\$335.00	C												23.11	13:29:00	16.70	9:32:00						0	70	---	---	ITM	
TSLA	2018-09-28	\$337.50	C												21.50	15:17:00	13.25	10:16:00						0	47	---	---	OTM	
TSLA	2018-09-28	\$340.00	C												20.50	14:07:00	14.35	9:31:00						0	102	---	---	OTM	
TSLA	2018-09-28	\$342.50	C												19.80	10:51:00	10.59	11:06:00						0	19	---	---	OTM	
TSLA	2018-09-28	\$345.00	C												17.65	14:39:00	12.15	9:39:00						0	53	---	---	OTM	
TSLA	2018-09-28	\$347.50	C												17.17	9:41:00	8.75	11:07:00						0	14	---	---	OTM	
TSLA	2018-09-28	\$350.00	C												15.00	15:39:00	10.00	9:31:00						0	537	---	---	OTM	
TSLA	2018-09-28	\$352.50	C												15.85	11:21:00	9.80	9:37:00						0	31	---	---	OTM	
TSLA	2018-09-28	\$355.00	C												15.35	11:35:00	9.20	9:35:00						0	181	---	---	OTM	
TSLA	2018-09-28	\$357.50	C												13.02	11:10:00	6.45	11:19:00						0	23	---	---	OTM	
TSLA	2018-09-28	\$360.00	C												10.94	15:50:00	7.00	9:33:00						0	111	---	---	OTM	
TSLA	2018-09-28	\$362.50	C												10.47	9:54:00	5.58	9:48:00						0	34	---	---	OTM	
TSLA	2018-09-28	\$365.00	C												9.11	15:51:00	6.43	9:31:00						0	128	---	---	OTM	
TSLA	2018-09-28	\$367.50	C												8.59	13:36:00	6.05	9:31:00						0	41	---	---	OTM	
TSLA	2018-09-28	\$370.00	C												7.68	15:50:00	5.10	9:31:00						0	103	---	---	OTM	
TSLA	2018-09-28	\$372.50	C												7.16	13:36:00	3.40	9:45:00						0	25	---	---	OTM	
TSLA	2018-09-28	\$375.00	C												6.34	15:41:00	3.95	9:43:00						0	135	---	---	OTM	
TSLA	2018-09-28	\$380.00	C												5.10	15:57:00	3.09	9:31:00						0	84	---	---	OTM	
TSLA	2018-09-28	\$382.50	C												4.71	15:51:00	2.37	9:39:00						0	36	---	---	OTM	
TSLA	2018-09-28	\$385.00	C												5.20	11:32:00	2.50	9:54:00						0	160	---	---	OTM	
TSLA	2018-09-28	\$387.50	C												3.84	15:51:00	2.70	9:31:00						0	22	---	---	OTM	
TSLA	2018-09-28	\$390.00	C												3.60	14:14:00	2.30	9:31:00						0	53	---	---	OTM	
TSLA	2018-09-28	\$392.50	C												3.30	12:42:00	1.69	9:51:00						0	45	---	---	OTM	
TSLA	2018-09-28	\$395.00	C												2.89	14:14:00	1.85	9:58:00						0	55	---	---	OTM	
TSLA	2018-09-28	\$397.50	C												2.91	11:13:00	1.75	10:19:00						0	15	---	---	OTM	
TSLA	2018-09-28	\$400.00	C												2.53	12:50:00	1.44	9:31:00						0	166	---	---	OTM	
TSLA	2018-09-28	\$402.50	C												2.11	14:01:00	2.88	9:31:00						1	21	---	---	OTM	
TSLA	2018-09-28	\$407.50	C												1.74	14:01:00									0	208	---	---	---
TSLA	2018-09-28	\$410.00	C												1.80	11:22:00	0.74	9:31:00						0	32	---	---	OTM	
TSLA	2018-09-28	\$420.00	C												1.00	14:38:00	0.44	9:31:00						0	236	---	---	OTM	
TSLA	2018-09-28	\$425.00	C												0.82	14:21:00	0.59	13:35:00						0	48	---	---	OTM	
TSLA	2018-09-28	\$430.00	C												0.63	14:04:00	0.40	9:44:00						0	33	---	---	OTM	
TSLA	2018-09-28	\$435.00	C												0.67	11:10:00									8	---	---	---	
TSLA	2018-09-28	\$450.00	C												0.45	11:52:00	0.27	11:44:00						0	3	---	---	OTM	
TSLA	2018-09-28	\$470.00	C												0.28	12:53:00	0.24	12:43:00						0	408	---	---	OTM	
TSLA	2018-10-19	\$225.00	C			135.10	12:38:00	0.9339	0.0010	39.7687	-0.0890	0.1942													10	---	---	---	
TSLA	2018-10-19	\$255.00	C	92.70	10:00:00								130.20	15:51:00												10	---	---	---
TSLA	2018-10-19	\$260.00	C			97.00	12:27:00	0.8959	0.0018	43.8359	-0.1057	0.2768							15.40					0	26	---	ITM	---	
TSLA	2018-10-19	\$270.00	C			80.74	12:20:00	0.8610	0.0025	43.2776	-0.1218	0.3342	100.90	13:12:00					20.16					0	66	---	ITM	---	
TSLA	2018-10-19	\$275.00	C	76.65	10:12:00																				8	---	---	---	
TSLA	2018-10-19	\$280.00	C			72.27	12:20:00	0.8342	0.0029	43.1445	-0.1334	0.3775	92.38	13:50:00					20.11					0	22	---	ITM	---	
TSLA	2018-10-19	\$290.00	C			76.50	12:38:00	0.8374	0.0027	44.9073	-0.1355	0.3871	83.60	13:50:00	63.10	11:30:00	43.35	9:31:00		7.10	-19.75			0	179	---	ITM	ITM	
TSLA	2018-10-19	\$295.00	C	60.40	10:12:00	68.27	12:30:00	0.8168	0.0031	44.3670	-0.1409	0.4150	74.98	12:49:00	55.50	10:48:00	44.57	9:41:00	7.87	6.71	-10.93	0	0	0	19	ITM	ITM	ITM	
TSLA	2018-10-19	\$300.00	C	54.00	11:31:00	68.00	12:41:00	0.7996	0.0032	43.8017	-0.1526	0.4411	85.00	16:00:00	51.50	15:05:00	41.07	9:41:00	14.00	17.00	-10.43	0	0	0	2,080	ITM	ITM	ITM	
TSLA	2018-10-19	\$305.00	C	50.27	9:33:00										4														

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet						8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness			
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet		NYT	FT	Tweet	NYT
				TSLA	2018-10-19	\$335.00	C	31.50	12:07:00	41.25	12:35:00	0.6489	0.0049	38.1462	-0.1872	0.5866	55.00	15:59:00	27.50	15:44:00	20.05	9:31:00	9.75		13.75	-7.45	0	0

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness			
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT	
TSLA	2018-11-16	\$420.00	C	10.10	12:15:00	15.00	12:43:00	0.2972	0.0038	25.2610	-0.1511	0.6480	14.50	16:00:00	3.80	15:26:00	2.61	9:31:00	4.90	-0.50	-1.19	0	1	0	932	OTM	OTM	OTM	
TSLA	2018-11-16	\$425.00	C												3.30	12:49:00	2.14	10:05:00				0		0	469	---	---	OTM	
TSLA	2018-11-16	\$430.00	C			10.90	12:27:00	0.2436	0.0036	20.8319	-0.1293	0.5819	10.90	15:49:00	2.77	14:01:00	2.59	9:31:00		0.00	-0.18		1	0	757	---	OTM	OTM	
TSLA	2018-11-16	\$435.00	C												2.15	15:25:00	2.57	9:31:00						1	201	---	---	OTM	
TSLA	2018-11-16	\$440.00	C			6.97	12:19:00	0.1852	0.0032	15.5548	-0.1094	0.4827	7.50	15:57:00	1.90	14:21:00	1.14	9:31:00		0.53	-0.76		0	0	313	---	OTM	OTM	
TSLA	2018-11-16	\$445.00	C												1.72	9:54:00	1.15	9:54:00						0	50	---	---	OTM	
TSLA	2018-11-16	\$450.00	C	6.40	10:10:00								7.70	14:01:00	1.39	15:38:00	1.00	9:39:00						0	3,891	---	---	OTM	
TSLA	2018-11-16	\$460.00	C												1.07	15:29:00	0.75	15:12:00						0	98	---	---	OTM	
TSLA	2018-11-16	\$480.00	C			4.00	12:33:00	0.1341	0.0025	11.8034	-0.0910	0.4054	2.03	15:56:00						-1.97			1		696	---	OTM	---	
TSLA	2018-11-16	\$490.00	C	3.15	9:52:00																				59	---	---	---	
TSLA	2018-11-16	\$500.00	C	2.35	10:45:00								1.76	15:53:00											352	---	---	---	
TSLA	2018-11-16	\$520.00	C												1.78	9:32:00									32	---	---	---	
TSLA	2018-12-21	\$140.00	C			215.00	12:28:00	0.9306	0.0004	40.0298	-0.1068	0.2559													1	---	---	---	
TSLA	2018-12-21	\$200.00	C	147.40	11:22:00								174.35	15:55:00											18	---	---	---	
TSLA	2018-12-21	\$250.00	C			118.00	12:38:00	0.8636	0.0015	71.6583	-0.0935	0.4548	127.00	12:50:00						9.00			0		28	---	ITM	---	
TSLA	2018-12-21	\$275.00	C	84.26	9:49:00																				10	---	---	---	
TSLA	2018-12-21	\$280.00	C	80.53	9:49:00								100.10	14:04:00											39	---	---	---	
TSLA	2018-12-21	\$285.00	C	76.58	9:31:00																				23	---	---	---	
TSLA	2018-12-21	\$290.00	C	73.03	9:31:00																				33	---	---	---	
TSLA	2018-12-21	\$300.00	C	64.39	11:27:00	75.90	12:35:00	0.7438	0.0027	70.5191	-0.1289	0.6831	91.00	16:00:00					11.51	15.10		0	0	208	ITM	ITM	---		
TSLA	2018-12-21	\$305.00	C			71.00	12:29:00	0.7243	0.0028	69.3321	-0.1315	0.7068	77.60	12:54:00						6.60			0		27	---	ITM	---	
TSLA	2018-12-21	\$310.00	C			64.00	12:24:00	0.6970	0.0030	67.2479	-0.1313	0.7318	77.93	15:58:00						13.93			0		171	---	ITM	---	
TSLA	2018-12-21	\$315.00	C												50.46	13:38:00	37.00	10:53:00			-13.46		0		63	---	---	ITM	
TSLA	2018-12-21	\$320.00	C			63.15	12:47:00	0.6832	0.0031	67.4187	-0.1401	0.7618	80.00	15:47:00						16.85			0		230	---	ITM	---	
TSLA	2018-12-21	\$325.00	C			58.95	12:36:00	0.6675	0.0032	66.5668	-0.1421	0.7785	76.50	15:52:00	43.55	15:24:00	33.29	10:22:00			17.55	-10.26		0	153	---	ITM	ITM	
TSLA	2018-12-21	\$330.00	C	46.61	12:07:00	57.29	12:37:00	0.6529	0.0032	65.8027	-0.1431	0.7939	63.55	15:55:00	40.20	15:57:00	33.50	9:39:00	10.68	6.26	-6.70	0	0	0	185	ITM	ITM	ITM	
TSLA	2018-12-21	\$335.00	C	45.45	10:51:00								57.50	13:16:00	38.95	10:08:00	31.00	9:39:00			-7.95		0		84	---	---	ITM	
TSLA	2018-12-21	\$340.00	C	41.93	10:00:00								60.00	16:00:00	34.73	15:24:00	30.00	9:31:00			-4.73		0		359	---	---	OTM	
TSLA	2018-12-21	\$345.00	C	39.00	11:55:00	50.00	12:39:00	0.6024	0.0035	62.1624	-0.1487	0.8335	50.77	14:00:00	34.25	11:44:00	26.75	9:36:00	11.00	0.77	-7.50	0	0	0	214	OTM	ITM	OTM	
TSLA	2018-12-21	\$350.00	C	36.80	12:06:00	45.81	12:43:00	0.5779	0.0035	59.8554	-0.1499	0.8422	51.45	16:00:00	29.34	15:48:00	23.50	9:39:00	9.01	5.64	-5.84	0	0	0	1,592	OTM	ITM	OTM	
TSLA	2018-12-21	\$355.00	C	35.50	10:11:00	43.79	12:42:00	0.5652	0.0036	59.1052	-0.1507	0.8513	48.00	15:59:00	27.00	13:51:00	21.25	9:31:00	8.29	4.21	-5.75	0	0	0	309	OTM	ITM	OTM	
TSLA	2018-12-21	\$360.00	C	34.45	10:24:00	40.60	12:36:00	0.5416	0.0037	56.9488	-0.1501	0.8558	42.90	15:56:00	24.35	14:26:00	18.95	9:33:00	6.15	2.30	-5.40	0	0	0	1,920	OTM	OTM	OTM	
TSLA	2018-12-21	\$365.00	C	30.40	11:24:00	36.70	12:29:00	0.5113	0.0038	53.9369	-0.1477	0.8540	39.75	14:03:00					6.30	3.05		0	0		414	OTM	OTM	---	
TSLA	2018-12-21	\$370.00	C			37.30	12:38:00	0.5133	0.0037	54.8743	-0.1504	0.8665	41.72	16:00:00	20.20	15:28:00	15.50	9:31:00			4.42	-4.70		0	620	---	OTM	OTM	
TSLA	2018-12-21	\$375.00	C			35.00	12:39:00	0.4920	0.0037	52.7982	-0.1500	0.8654	38.10	16:00:00	18.15	15:28:00	13.87	9:38:00			3.10	-4.28		0	485	---	OTM	OTM	
TSLA	2018-12-21	\$380.00	C	24.96	10:55:00	32.40	12:39:00	0.4736	0.0037	51.1069	-0.1492	0.8642	28.85	15:58:00	16.35	15:04:00	12.30	9:31:00	7.44	-3.55	-4.05	0	1	0	574	OTM	OTM	OTM	
TSLA	2018-12-21	\$385.00	C	24.20	10:33:00	30.76	12:38:00	0.4584	0.0037	49.8166	-0.1483	0.8637	35.90	15:46:00	14.94	12:50:00	11.75	9:35:00	6.56	5.14	-3.19	0	0	0	172	OTM	OTM	OTM	
TSLA	2018-12-21	\$390.00	C	22.99	10:20:00	28.20	12:34:00	0.4317	0.0038	47.0576	-0.1456	0.8516	27.26	15:55:00	14.00	12:05:00	8.00	9:43:00	5.21	-0.94	-6.00	0	1	0	2,604	OTM	OTM	OTM	
TSLA	2018-12-21	\$395.00	C	19.67	9:32:00								24.15	15:46:00	11.35	15:38:00	8.10	9:41:00			-3.25		0		180	---	---	OTM	
TSLA	2018-12-21	\$400.00	C	18.53	12:07:00	24.71	12:47:00	0.3956	0.0037	43.3936	-0.1419	0.8338	23.41	15:59:00	9.80	15:56:00	8.50	9:31:00	6.18	-1.30	-1.30	0	1	0	2,283	OTM	OTM	OTM	
TSLA	2018-12-21	\$410.00	C												8.55	11:18:00	5.25	9:31:00			-3.30		0		646	---	---	OTM	
TSLA	2018-12-21	\$420.00	C			19.00	12:47:00	0.3285	0.0035	36.6501	-0.1315	0.7835	15.49	16:00:00	5.50	13:50:00	4.15	9:31:00			-3.51	-1.35		1	0	2,298	---	OTM	OTM
TSLA	2018-12-21	\$430.00	C	12.75	10:37:00	14.03	12:25:00	0.2751	0.0034	30.7733	-0.1168	0.7147	11.90	16:00:00	4.09	15:53:00	2.54	9:53:00	1.28	-2.13	-1.55	0	1	0	3,329	OTM	OTM	OTM	
TSLA	2018-12-21	\$440.00	C	10.20	11:24:00								11.00	15:58:00	3.10	13:30:00	2.00	9:31:00			-1.10		0		319	---	---	OTM	
TSLA	2018-12-21	\$450.00	C	8.71	12:07:00	12.45	12:44:00	0.2405	0.0031	27.3107	-0.1122	0.6742	8.02	15:58:00	2.20	14:38:00	1.98	9:31:00	3.74	-4.43	-0.22	0	1	0	554	OTM	OTM	OTM	
TSLA	2018-12-21	\$460.00	C			9.00	12:24:00	0.1991	0.0028	22.5017	-0.0979	0.5964	5.30	15:59:00	1.70	12:20:00	1.50	9:31:00			-3.70	-0.20		1	0	491	---	OTM	OTM
TSLA	2018-12-21	\$480.00	C			8.00	12:31:00	0.1680	0.0026	19.4332	-0.0886	0.5447	5.97	14:04:00	0.89	12:15:00	0.62	10:15:00			-2.03	-0.27		1	0	161	---	OTM	OTM
TSLA	2018-12-21	\$500.00	C	4.12	12:07:00	6.30	12:41:00	0.1387	0.0022	16.1878	-0.0791	0.4817	2.36	15:58:00	0.56	15:41:00	0.55	10:38:00	2.18	-3.94	-0.01	0	1	0	996	OTM	OTM	OTM	
TSLA	2018-12-21	\$520.00	C	3.13	9:34:00								4.50	13:21:00											112	---	---	---	
TSLA	2018-12-21	\$530.00	C												0.34	11:00:00									32	---	---	---	
TSLA	2018-12-21	\$540.00	C	2.73	9:44:00	3.00	12:26:00	0.0777	0.0015	9.0776	-0.0513	0.3125	0.80	15:55:00	0.34	11:37:00	0.36	14:25:00	0.27	-2.20	0.02	0	1	1	1,327	OTM	OTM	OTM	
TSLA	2019-01-18	\$100.00	C			257.58	12:47:00																						

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet						8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness				
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet		NYT	FT	Tweet	NYT	
TSLA	2019-01-18	\$280.00	C			94.50	12:31:00	0.7851	0.0021	83.6487	-0.1073	0.6727	97.85	13:56:00	77.00	15:39:00	63.00	10:17:00		3.35	-14.00		0	0	0	148	---	ITM	ITM
TSLA	2019-01-18	\$290.00	C			87.75	12:41:00	0.7631	0.0022	83.3527	-0.1131	0.7166	98.00	15:59:00	70.40	13:37:00	54.35	10:33:00		11.75	10.25	-16.05	0	0	0	86	ITM	ITM	ITM
TSLA	2019-01-18	\$300.00	C			68.75	12:00:00	0.7370	0.0024	82.3739	-0.1183	0.7605	91.35	15:59:00	62.90	14:53:00	55.02	9:34:00		11.85	10.75	-7.88	0	0	0	7,568	ITM	ITM	ITM
TSLA	2019-01-18	\$310.00	C			73.03	12:34:00	0.7090	0.0026	81.0092	-0.1229	0.8017	79.01	15:57:00	55.70	15:08:00	44.22	10:17:00		5.98	-11.48		0	0	0	285	---	ITM	ITM
TSLA	2019-01-18	\$320.00	C			55.45	11:44:00	0.6825	0.0028	79.6117	-0.1267	0.8385	71.50	15:57:00	49.48	15:30:00	42.50	9:38:00		13.15	2.90	-6.98	0	0	0	1,304	ITM	ITM	ITM
TSLA	2019-01-18	\$330.00	C			50.10	11:51:00	0.6534	0.0029	77.7143	-0.1294	0.8719	67.85	15:55:00	43.47	15:05:00	36.00	9:31:00		11.90	5.85	-7.47	0	0	0	1,484	ITM	ITM	ITM
TSLA	2019-01-18	\$340.00	C			44.38	11:28:00	0.6119	0.0032	73.7470	-0.1316	0.9002	61.65	16:00:00	37.65	15:28:00	31.89	9:32:00		9.62	7.65	-5.76	0	0	0	1,094	ITM	ITM	OTM
TSLA	2019-01-18	\$350.00	C			40.40	12:15:00	0.5768	0.0032	70.1708	-0.1357	0.9199	55.00	16:00:00	31.95	16:00:00	28.20	9:31:00		8.15	6.45	-3.75	0	0	0	5,252	OTM	ITM	OTM
TSLA	2019-01-18	\$360.00	C			35.98	11:52:00	0.5469	0.0033	67.7182	-0.1354	0.9356	47.67	16:00:00	27.30	15:16:00	21.65	9:33:00		8.42	3.27	-5.65	0	0	0	3,634	OTM	OTM	OTM
TSLA	2019-01-18	\$365.00	C			33.90	11:34:00	0.5270	0.0034	65.7900	-0.1339	0.9392	50.00	15:49:00	25.15	14:36:00	17.40	10:47:00		8.10	8.00	-7.75	0	0	0	397	OTM	OTM	OTM
TSLA	2019-01-18	\$370.00	C			31.95	12:08:00	0.5111	0.0034	63.9656	-0.1357	0.9414	41.10	16:00:00	23.10	14:12:00	18.45	9:37:00		7.91	1.24	-4.65	0	0	0	2,622	OTM	OTM	OTM
TSLA	2019-01-18	\$375.00	C			30.30	12:03:00	0.5040	0.0034	63.9343	-0.1350	0.9503	37.30	15:59:00	20.20	16:00:00	16.25	9:31:00		8.70	-1.70	-3.95	0	1	0	1,163	OTM	OTM	OTM
TSLA	2019-01-18	\$380.00	C			28.22	11:52:00	0.4790	0.0034	60.7848	-0.1340	0.9433	37.30	16:00:00	18.50	16:00:00	14.75	9:31:00		7.53	1.55	-3.75	0	0	0	3,359	OTM	OTM	OTM
TSLA	2019-01-18	\$385.00	C			34.00	12:47:00	0.4624	0.0034	58.9817	-0.1333	0.9409	33.00	15:54:00	17.00	13:58:00	11.96	9:48:00			-1.00	-5.04	1	0	0	474	---	OTM	OTM
TSLA	2019-01-18	\$390.00	C			25.00	12:07:00	0.4457	0.0034	57.1575	-0.1322	0.9368	31.90	15:46:00	15.25	15:16:00	11.05	9:31:00		6.45	0.45	-4.20	0	0	0	2,031	OTM	OTM	OTM
TSLA	2019-01-18	\$395.00	C			29.75	12:47:00	0.4293	0.0034	55.3252	-0.1309	0.9311	29.00	15:53:00	14.87	11:51:00	10.85	9:35:00			-0.75	-4.02	1	0	0	1,319	---	OTM	OTM
TSLA	2019-01-18	\$400.00	C			22.10	12:07:00	0.4132	0.0034	53.5015	-0.1296	0.9240	26.00	16:00:00	11.95	16:00:00	10.45	9:31:00		6.00	-2.10	-1.50	0	1	0	13,622	OTM	OTM	OTM
TSLA	2019-01-18	\$405.00	C			21.80	9:41:00	0.3974	0.0034	51.6827	-0.1281	0.9154	22.98	15:59:00	10.50	13:50:00	8.00	9:31:00		4.65	-3.47	-2.50	0	1	0	634	OTM	OTM	OTM
TSLA	2019-01-18	\$410.00	C												9.45	14:11:00	6.62	9:39:00				-2.83		0	0	2,869	---	---	OTM
TSLA	2019-01-18	\$415.00	C												8.04	15:56:00	6.75	9:31:00				-1.29		0	0	1,238	---	---	OTM
TSLA	2019-01-18	\$420.00	C			16.84	11:52:00	0.3454	0.0033	45.3241	-0.1205	0.8716	17.00	16:00:00	6.96	15:56:00	5.01	9:31:00		5.05	-4.89	-1.95	0	1	0	11,687	OTM	OTM	OTM
TSLA	2019-01-18	\$430.00	C			14.72	11:52:00	0.3246	0.0032	43.1439	-0.1183	0.8570	13.60	15:59:00	5.25	15:58:00	3.10	9:46:00		5.53	-6.65	-2.15	0	1	0	2,923	OTM	OTM	OTM
TSLA	2019-01-18	\$440.00	C			13.75	9:44:00	0.2942	0.0031	39.3169	-0.1127	0.8196	11.00	16:00:00	3.95	14:01:00	2.80	9:31:00		4.12	-6.87	-1.15	0	1	0	1,157	OTM	OTM	OTM
TSLA	2019-01-18	\$450.00	C			11.00	11:41:00	0.2690	0.0030	36.1693	-0.1076	0.7854	10.00	16:00:00	3.00	14:25:00	2.29	9:42:00		4.42	-5.42	-0.71	0	1	0	6,628	OTM	OTM	OTM
TSLA	2019-01-18	\$460.00	C												2.30	16:00:00	1.19	9:31:00				-1.11		0	0	2,331	---	---	OTM
TSLA	2019-01-18	\$470.00	C			8.80	9:31:00						4.90	16:00:00	1.75	15:30:00	1.15	9:33:00				-0.60		0	0	736	---	---	OTM
TSLA	2019-01-18	\$480.00	C			7.94	12:23:00	0.1751	0.0025	23.6823	-0.0799	0.6024	4.00	15:58:00	1.27	14:31:00	1.04	10:08:00				-3.94	-0.23	1	0	2,514	---	OTM	OTM
TSLA	2019-01-18	\$490.00	C												1.00	14:48:00	0.65	9:43:00				-0.35		0	0	488	---	---	OTM
TSLA	2019-01-18	\$500.00	C			6.10	10:37:00	0.1603	0.0023	22.0264	-0.0781	0.5781	3.20	16:00:00	1.00	14:58:00	0.86	9:35:00		1.90	-4.80	-0.14	0	1	0	10,404	OTM	OTM	OTM
TSLA	2019-01-18	\$510.00	C			4.77	9:32:00	0.1377	0.0021	18.9985	-0.0694	0.5207	1.00	15:54:00	0.70	11:04:00	0.63	10:57:00		1.63	-5.40	-0.07	0	1	0	160	OTM	OTM	OTM
TSLA	2019-01-18	\$520.00	C			4.75	10:19:00	0.1287	0.0020	17.9028	-0.0668	0.5002	2.05	15:59:00	0.65	11:30:00	0.67	10:20:00		1.35	-4.05	0.02	0	1	1	417	OTM	OTM	OTM
TSLA	2019-01-18	\$530.00	C			4.15	10:48:00						3.35	13:57:00												263	---	---	---
TSLA	2019-01-18	\$540.00	C			4.00	12:23:00	0.0918	0.0016	12.6640	-0.0513	0.3854	2.50	13:41:00	0.24	11:20:00	0.51	10:44:00				-1.50	0.27	1	1	180	---	OTM	OTM
TSLA	2019-01-18	\$550.00	C			3.00	11:32:00	0.0993	0.0016	13.9664	-0.0566	0.4180	1.50	15:54:00	0.50	11:17:00	0.35	10:41:00		1.58	-3.08	-0.15	0	1	0	1,228	OTM	OTM	OTM
TSLA	2019-01-18	\$580.00	C			3.29	12:38:00	0.0751	0.0013	10.6664	-0.0464	0.3406	1.50	14:04:00	0.30	15:07:00	0.40	10:44:00				-1.79	0.10	1	1	431	---	OTM	OTM
TSLA	2019-01-18	\$590.00	C			2.24	12:22:00	0.0523	0.0010	7.2755	-0.0335	0.2494	1.70	13:24:00								-0.54		1		24	---	OTM	---
TSLA	2019-01-18	\$600.00	C			1.79	11:30:00	0.0609	0.0011	8.5971	-0.0399	0.2873	0.65	15:57:00	0.35	14:23:00	0.27	13:09:00		0.71	-1.85	-0.08	0	1	0	3,655	OTM	OTM	OTM
TSLA	2019-01-18	\$620.00	C			2.20	12:41:00	0.0508	0.0009	7.2245	-0.0348	0.2500	1.22	13:17:00								-0.98		1		135	---	OTM	---
TSLA	2019-01-18	\$640.00	C												0.20	11:17:00	0.24	10:56:00				0.04		1		61	---	---	OTM
TSLA	2019-01-18	\$650.00	C			1.09	11:31:00						2.50	15:48:00	0.18	15:56:00	0.16	10:01:00				-0.02		0	0	1,177	---	---	OTM
TSLA	2019-01-18	\$660.00	C			1.47	12:43:00	0.0358	0.0007	5.1010	-0.0268	0.1881	1.54	13:01:00						0.46	0.07		0	0	0	112	OTM	OTM	---
TSLA	2019-01-18	\$670.00	C			1.00	11:06:00	0.0300	0.0006	4.2511	-0.0228	0.1612	0.27	13:23:00						0.17	-0.90		0	1		353	OTM	OTM	---
TSLA	2019-01-18	\$680.00	C			0.87	11:51:00	0.0299	0.0006	4.2557	-0.0232	0.1617	0.40	16:00:00	0.14	13:09:00	0.18	9:43:00		0.25	-0.72	0.04	0	1	1	2,131	OTM	OTM	OTM
TSLA	2019-02-15	\$250.00	C												103.50	10:06:00	92.00	9:40:00				-11.50		0	0	11	---	---	ITM
TSLA	2019-02-15	\$280.00	C												80.50	12:36:00	64.69	9:45:00				-15.81		0	0	24	---	---	ITM
TSLA	2019-02-15	\$300.00	C			83.00	12:46:00	0.7220	0.0023	91.4559	-0.1132	0.8382	91.00	13:12:00								8.00		0	0	20	---	---	ITM
TSLA	2019-02-15	\$310.00	C												58.11	9:48:00	48.00	9:49:00				-10.11		0	0	41	---	---	ITM
TSLA	2019-02-15	\$340.00																											

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness				
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT		
TSLA	2019-02-15	\$450.00	C			19.65	12:39:00	0.3007	0.0029	46.4270	-0.1064	0.8987	17.00	15:48:00	4.67	13:48:00	3.20	10:31:00			-2.65	-1.47		1	0	297	---	OTM	OTM	
TSLA	2019-02-15	\$460.00	C												3.60	11:11:00										20	---	---	---	
TSLA	2019-02-15	\$470.00	C												2.80	11:14:00										15	---	---	---	
TSLA	2019-02-15	\$480.00	C												2.12	11:14:00	1.48	9:55:00					-0.64		0	53	---	---	OTM	
TSLA	2019-02-15	\$490.00	C												1.60	11:14:00	0.94	9:52:00					-0.66		0	83	---	---	OTM	
TSLA	2019-02-15	\$500.00	C												1.20	11:14:00	0.65	9:53:00					-0.55		0	50	---	---	OTM	
TSLA	2019-02-15	\$520.00	C	6.25	11:23:00	6.70	12:22:00	0.1380	0.0019	21.6846	-0.0635	0.5551	6.60	15:46:00	0.67	10:15:00	0.36	9:52:00	0.45	-0.10	-0.31	0	1	0	40	OTM	OTM	OTM		
TSLA	2019-03-15	\$205.00	C	147.90	11:22:00																				1	---	---	---		
TSLA	2019-03-15	\$230.00	C												120.00	15:34:00	97.15	15:30:00					-22.85		0	6	---	---	ITM	
TSLA	2019-03-15	\$250.00	C												106.20	12:11:00	86.00	9:46:00					-20.20		0	64	---	---	ITM	
TSLA	2019-03-15	\$280.00	C			91.00	12:20:00	0.7434	0.0020	99.8212	-0.0985	0.8291													15	---	---	---		
TSLA	2019-03-15	\$300.00	C			77.50	12:19:00	0.6917	0.0024	97.0793	-0.1056	0.9113	95.50	15:52:00	67.50	14:29:00	52.82	10:37:00			18.00	-14.68		0	0	121	---	ITM	ITM	
TSLA	2019-03-15	\$305.00	C	75.30	10:19:00	75.00	12:20:00	0.6806	0.0024	96.6386	-0.1068	0.9290	88.00	15:59:00							-0.30	13.00		1	0	42	ITM	ITM	---	
TSLA	2019-03-15	\$310.00	C												61.80	9:40:00	50.08	9:54:00					-11.72		0	124	---	---	ITM	
TSLA	2019-03-15	\$320.00	C												55.85	9:53:00	43.11	9:44:00					-12.74		0	2,101	---	---	ITM	
TSLA	2019-03-15	\$325.00	C	62.70	10:57:00										52.40	15:33:00	39.35	13:48:00					-13.05		0	50	---	---	ITM	
TSLA	2019-03-15	\$335.00	C	57.15	10:09:00										65.55	14:06:00	47.95	11:56:00	41.20	9:31:00			-6.75		0	24	---	---	ITM	
TSLA	2019-03-15	\$340.00	C			63.00	12:35:00	0.6112	0.0026	93.7192	-0.1149	1.0347	63.65	16:00:00	43.50	9:41:00	35.00	9:55:00			0.65	-8.50		0	0	118	---	ITM	OTM	
TSLA	2019-03-15	\$345.00	C												40.80	13:54:00	30.30	14:38:00					-10.50		0	38	---	---	OTM	
TSLA	2019-03-15	\$350.00	C	50.75	10:43:00	58.40	12:44:00	0.5841	0.0027	90.8501	-0.1169	1.0559	57.25	16:00:00	37.70	13:34:00	28.50	9:47:00	7.65	-1.15	-9.20			0	1,865	OTM	ITM	OTM		
TSLA	2019-03-15	\$360.00	C			53.00	12:44:00	0.5559	0.0028	87.6451	-0.1178	1.0716	52.35	15:56:00									-0.65		1	744	---	OTM	---	
TSLA	2019-03-15	\$365.00	C	43.38	10:12:00																					169	---	---	---	
TSLA	2019-03-15	\$375.00	C			47.10	12:37:00	0.5174	0.0028	83.5840	-0.1175	1.0890													94	---	---	---		
TSLA	2019-03-15	\$380.00	C			45.00	12:42:00	0.5054	0.0028	82.0337	-0.1183	1.0920	41.56	14:06:00									-3.44		1	750	---	OTM	---	
TSLA	2019-03-15	\$385.00	C												23.26	12:04:00	18.50	9:38:00					-4.76		0	42	---	---	OTM	
TSLA	2019-03-15	\$395.00	C												18.50	16:00:00	15.16	11:55:00					-3.34		0	3	---	---	OTM	
TSLA	2019-03-15	\$400.00	C	29.44	11:51:00	37.20	12:37:00	0.4465	0.0029	74.2250	-0.1146	1.0839	28.50	15:58:00	17.12	13:55:00	14.30	9:35:00	7.76	-8.70	-2.82	0	1	0	393	OTM	OTM	OTM		
TSLA	2019-03-15	\$410.00	C												13.87	13:48:00	11.40	9:32:00					-2.47		0	23	---	---	OTM	
TSLA	2019-03-15	\$420.00	C			30.25	12:40:00	0.3940	0.0029	66.7376	-0.1109	1.0580	21.50	15:59:00	11.00	14:32:00	9.15	9:32:00					-1.85		1	0	1,290	---	OTM	OTM
TSLA	2019-03-15	\$430.00	C												9.10	13:52:00	7.50	9:33:00					-1.60		0	558	---	---	OTM	
TSLA	2019-03-15	\$440.00	C			23.10	12:29:00	0.3286	0.0028	56.2581	-0.1010	0.9846	15.05	13:54:00									-8.05		1	105	---	OTM	---	
TSLA	2019-03-15	\$450.00	C												6.20	12:27:00	4.25	9:55:00					-1.95		0	1,180	---	---	OTM	
TSLA	2019-03-15	\$460.00	C	15.30	12:07:00	20.00	12:36:00	0.2917	0.0027	50.8751	-0.0966	0.9434	13.40	15:52:00							4.70	-6.60		0	1	286	OTM	OTM	---	
TSLA	2019-03-15	\$470.00	C			18.35	12:43:00	0.2717	0.0026	47.5955	-0.0936	0.9118	16.90	15:46:00	3.92	10:59:00	2.62	9:55:00					-1.45	-1.30	1	0	99	---	OTM	OTM
TSLA	2019-03-15	\$500.00	C	10.64	10:32:00	13.30	12:42:00	0.2180	0.0023	38.9416	-0.0829	0.8142	8.50	15:47:00	1.85	13:47:00	0.97	9:43:00	2.66	-4.80	-0.88	0	1	0	751	OTM	OTM	OTM		
TSLA	2019-03-15	\$510.00	C												1.60	15:19:00										34	---	---	---	
TSLA	2019-03-15	\$550.00	C												0.70	11:31:00										27	---	---	---	
TSLA	2019-03-15	\$560.00	C			6.70	12:31:00	0.1263	0.0017	23.0734	-0.0571	0.5713	3.85	15:46:00									-2.85		1	4	---	OTM	---	
TSLA	2019-03-15	\$700.00	C			2.00	12:33:00	0.0443	0.0007	8.2971	-0.0269	0.2588	0.30	15:59:00	0.30	9:34:00	0.32	9:32:00					-1.70	0.02	1	1	756	---	OTM	OTM
TSLA	2019-06-21	\$200.00	C			171.00	12:42:00	0.8641	0.0008	119.7182	-0.0576	0.6346	175.92	13:15:00									4.92		0	33	---	---	ITM	
TSLA	2019-06-21	\$250.00	C			132.00	12:38:00	0.8014	0.0012	135.7160	-0.0712	0.8584	135.00	13:11:00									3.00		0	6	---	---	ITM	
TSLA	2019-06-21	\$260.00	C												102.16	10:06:00										2	---	---	---	
TSLA	2019-06-21	\$270.00	C			115.00	12:30:00	0.7617	0.0015	136.0543	-0.0777	0.9595														2	---	---	---	
TSLA	2019-06-21	\$280.00	C												87.70	12:43:00	73.50	11:52:00					-14.20		0	27	---	---	ITM	
TSLA	2019-06-21	\$290.00	C												80.90	12:59:00	64.80	14:29:00					-16.10		0	21	---	---	ITM	
TSLA	2019-06-21	\$295.00	C												76.70	15:50:00										1	---	---	---	
TSLA	2019-06-21	\$300.00	C			92.00	12:24:00	0.6959	0.0019	133.1256	-0.0861	1.0929	94.35	15:59:00	75.50	11:12:00	61.00	9:44:00			2.35	-14.50		0	0	155	---	ITM	ITM	
TSLA	2019-06-21	\$310.00	C	79.02	9:32:00	88.65	12:30:00	0.6816	0.0019	133.7105	-0.0880	1.1307	87.15	15:59:00							9.63	-1.50		0	1	24	ITM	ITM	---	
TSLA	2019-06-21	\$335.00	C												53.70	9:58:00										30	---	---	---	
TSLA	2019-06-21	\$340.00	C	65.35	9:58:00																					76	---	---	---	
TSLA	2019-06-21	\$345.00	C	62.00	12:17:00	70.76	12:34:00	0.6066	0.0022	126.8295	-0.0944	1.2394									8.76			0		95	OTM	---	---	
TSLA	2019-06-21	\$350.00	C	62.00	10:29:00	68.25	12:35:00	0.5919	0.0022	124.4514	-0.0945	1.2486	66.00	14:07:00	46.75	11:58:00	38.55	10:01:00	6.25	-2.25	-8.20	0	1	0	1,386	OTM	ITM	OTM		
TSLA	2019-06-21	\$355.00	C	59.00	10:48:00								60.30	15:46:00	44.00	11:18:00	34.10	14:48:00					-9.90		0	57	---	---	OTM	
TSLA	2019-06-21	\$365.00	C	52.42	9:32:00								60.00	15:46:00												63	---	---	---	
TSLA	2019-06-21	\$370.00	C												35.97	9:38:00	29.54	11:26:00					-6.43		0	169	---	---	OTM	
TSLA	2019-06-21	\$3																												

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness								
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT						
TSLA	2019-06-21	\$410.00	C											20.68	10:00:00										38	---	---	---						
TSLA	2019-06-21	\$420.00	C											17.35	15:41:00	15.00	9:32:00								559	---	---	OTM						
TSLA	2019-06-21	\$430.00	C	30.49	11:28:00	35.00	12:25:00	0.3970	0.0024	91.3414	-0.0892	1.2463	27.00	13:53:00					4.51	-8.00		0	1		314	OTM	OTM	---						
TSLA	2019-06-21	\$440.00	C	29.47	9:59:00								23.50	15:54:00	13.10	11:44:00	9.90	9:53:00							111	---	---	OTM						
TSLA	2019-06-21	\$450.00	C	27.31	10:47:00								23.00	15:48:00											527	---	---	---						
TSLA	2019-06-21	\$460.00	C											9.80	11:20:00	7.30	10:27:00								128	---	---	OTM						
TSLA	2019-06-21	\$480.00	C			24.90	12:47:00	0.3097	0.0023	74.5464	-0.0817	1.1593	24.25	13:11:00					-0.65			1			206	---	OTM	---						
TSLA	2019-06-21	\$500.00	C	17.84	10:13:00									4.60	11:03:00	3.90	10:54:00								1,312	---	---	OTM						
TSLA	2019-06-21	\$510.00	C	16.45	9:52:00								10.19	13:55:00											5	---	---	---						
TSLA	2019-06-21	\$530.00	C	13.30	10:55:00																				15	---	---	---						
TSLA	2019-06-21	\$540.00	C	12.75	10:24:00																				80	---	---	---						
TSLA	2019-06-21	\$580.00	C	9.00	10:13:00																				96	---	---	---						
TSLA	2019-06-21	\$600.00	C	7.55	11:06:00								4.70	13:46:00	0.85	15:13:00									63	---	---	---						
TSLA	2019-06-21	\$610.00	C											0.92	15:12:00	1.00	9:31:00					0.08	1		184	---	---	OTM						
TSLA	2019-06-21	\$680.00	C			4.20	12:20:00	0.0766	0.0010	19.3242	-0.0320	0.4610	1.00	15:57:00									1		27	---	OTM	---						
TSLA	2019-06-21	\$700.00	C											0.52	15:13:00	0.35	10:05:00								724	---	---	OTM						
TSLA	2019-08-16	\$280.00	C	102.00	11:40:00																				8	---	---	---						
TSLA	2019-08-16	\$300.00	C			99.55	12:27:00	0.6962	0.0017	151.2011	-0.0787	1.1815	96.00	15:57:00	79.00	11:22:00	66.55	10:01:00						1	0	65	---	ITM	ITM					
TSLA	2019-08-16	\$305.00	C	89.75	10:13:00																				7	---	---	---						
TSLA	2019-08-16	\$310.00	C			90.00	12:23:00	0.6691	0.0018	147.5046	-0.0808	1.2188													55	---	---	---						
TSLA	2019-08-16	\$340.00	C			79.00	12:35:00	0.6188	0.0019	145.0970	-0.0858	1.3166													100	---	---	---						
TSLA	2019-08-16	\$350.00	C			68.39	12:22:00	0.5777	0.0021	136.6219	-0.0836	1.3263	75.16	13:11:00									0		56	---	ITM	---						
TSLA	2019-08-16	\$360.00	C												42.75	9:43:00	37.50	9:55:00							22	---	---	OTM						
TSLA	2019-08-16	\$365.00	C	60.95	10:21:00								65.00	15:47:00											5	---	---	---						
TSLA	2019-08-16	\$375.00	C			62.00	12:30:00	0.5430	0.0021	134.2712	-0.0874	1.3827	67.00	12:49:00									0		43	---	OTM	---						
TSLA	2019-08-16	\$380.00	C			61.30	12:34:00	0.5358	0.0021	133.6170	-0.0881	1.3921													714	---	---	---						
TSLA	2019-08-16	\$400.00	C			55.00	12:39:00	0.4966	0.0022	126.9851	-0.0881	1.4078	36.00	15:54:00										1		56	---	OTM	---					
TSLA	2019-08-16	\$420.00	C											20.20	15:58:00	16.20	9:43:00									169	---	---	OTM					
TSLA	2019-08-16	\$480.00	C											8.25	11:29:00											10	---	---	---					
TSLA	2019-08-16	\$490.00	C											7.98	11:29:00											41	---	---	---					
TSLA	2019-08-16	\$500.00	C											7.10	15:43:00	5.85	10:00:00									273	---	---	OTM					
TSLA	2019-08-16	\$660.00	C											1.59	10:57:00	0.86	10:11:00									21	---	---	OTM					
TSLA	2019-08-16	\$690.00	C											1.12	11:17:00	1.00	10:12:00									258	---	---	OTM					
TSLA	2019-08-16	\$700.00	C			7.05	12:43:00	0.1038	0.0011	30.9745	-0.0385	0.6465	2.90	15:55:00	1.17	13:54:00	0.80	10:22:00						1	0	622	---	OTM	OTM					
TSLA	2020-01-17	\$100.00	C												236.35	15:22:00	213.05	10:39:00							0	299	---	---	ITM					
TSLA	2020-01-17	\$220.00	C												137.10	10:21:00	125.00	10:04:00							0	50	---	---	ITM					
TSLA	2020-01-17	\$240.00	C	140.30	10:33:00								159.05	15:46:00	121.88	14:06:00										7	---	---	---					
TSLA	2020-01-17	\$250.00	C	131.72	12:10:00								146.50	16:00:00												170	---	---	---					
TSLA	2020-01-17	\$295.00	C			117.00	12:38:00	0.7063	0.0013	198.5647	-0.0626	1.3630	112.00	15:59:00									1		9	---	ITM	---						
TSLA	2020-01-17	\$300.00	C	103.25	10:33:00	111.95	12:45:00	0.6918	0.0014	195.0234	-0.0634	1.3824	108.00	16:00:00	83.00	13:29:00	75.00	9:31:00							8.70	-3.95	-8.00	0	1	0	1,323	ITM	ITM	ITM
TSLA	2020-01-17	\$305.00	C	101.30	10:33:00								105.00	14:05:00												111	---	---	---					
TSLA	2020-01-17	\$315.00	C			105.00	12:31:00	0.6692	0.0014	195.1829	-0.0659	1.4426	105.45	15:47:00									0.45	0		191	---	ITM	---					
TSLA	2020-01-17	\$320.00	C	91.05	9:31:00	102.50	12:43:00	0.6616	0.0015	194.8374	-0.0668	1.4612	89.95	15:58:00	70.00	10:25:00	60.55	9:31:00							11.45	-12.55	-9.45	0	1	0	158	ITM	ITM	ITM
TSLA	2020-01-17	\$325.00	C	91.00	9:53:00	99.95	12:41:00	0.6535	0.0015	194.7410	-0.0670	1.4796	89.95	13:39:00	70.45	13:31:00	61.17	9:58:00							8.95	-10.00	-9.28	0	1	0	415	ITM	ITM	ITM
TSLA	2020-01-17	\$330.00	C	88.55	10:13:00								90.00	15:52:00	66.30	9:33:00	58.65	9:31:00								261	---	---	ITM					
TSLA	2020-01-17	\$335.00	C											63.30	14:16:00	58.00	9:37:00									46	---	---	ITM					
TSLA	2020-01-17	\$340.00	C	83.10	10:52:00								78.55	15:53:00	58.10	14:52:00	55.55	9:36:00								243	---	---	OTM					
TSLA	2020-01-17	\$350.00	C	78.00	11:22:00	88.47	12:40:00	0.6109	0.0016	190.1705	-0.0696	1.5563	72.00	15:58:00	55.72	14:16:00	50.00	9:31:00							10.47	-16.47	-5.72	0	1	0	1,781	OTM	ITM	OTM
TSLA	2020-01-17	\$360.00	C			82.00	12:36:00	0.5918	0.0017	186.6828	-0.0705	1.5783	67.00	15:57:00	50.50	15:53:00	43.60	9:42:00								1	0	2,743	---	OTM	OTM			
TSLA	2020-01-17	\$370.00	C											46.25	15:18:00	38.37	9:43:00									400								

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness			
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT	
TSLA	2020-01-17	\$460.00	C	41.85	10:53:00								24.00	15:54:00	18.80	16:00:00	16.00	9:51:00				-2.80		0	360	---	---	OTM	
TSLA	2020-01-17	\$470.00	C	40.35	10:43:00								25.00	16:00:00	16.90	11:46:00	14.50	9:31:00				-2.40		0	551	---	---	OTM	
TSLA	2020-01-17	\$490.00	C	35.81	10:43:00	40.40	12:34:00	0.3757	0.0018	136.0624	-0.0675	1.5861	30.88	13:21:00	13.00	15:22:00	12.05	9:50:00	4.59	-9.52	-0.95	0	1	0	49	OTM	OTM	OTM	
TSLA	2020-01-17	\$500.00	C	32.56	11:46:00	38.00	12:47:00	0.3617	0.0018	131.7081	-0.0667	1.5673	19.00	16:00:00	12.25	14:47:00	9.55	9:31:00	5.44	-19.00	-2.70	0	1	0	4,644	OTM	OTM	OTM	
TSLA	2020-01-17	\$520.00	C	30.00	10:16:00								20.05	15:53:00											160	---	---	---	
TSLA	2020-01-17	\$550.00	C			28.59	12:46:00	0.2937	0.0017	109.7935	-0.0607	1.4407	10.77	16:00:00	7.60	16:00:00	7.40	9:33:00				-17.82	-0.20	1	0	838	---	OTM	OTM
TSLA	2020-01-17	\$560.00	C												7.45	11:48:00	6.90	9:34:00				-0.55		0	455	---	---	OTM	
TSLA	2020-01-17	\$570.00	C	22.60	10:08:00	25.00	12:28:00	0.2650	0.0016	99.6823	-0.0571	1.3633	8.70	15:55:00					2.40	-16.30		0	1	46	OTM	OTM	---		
TSLA	2020-01-17	\$590.00	C												6.00	15:18:00	5.55	9:34:00				-0.45		0	118	---	---	OTM	
TSLA	2020-01-17	\$600.00	C	18.50	12:11:00	22.00	12:45:00	0.2389	0.0016	91.4079	-0.0545	1.3015	6.00	15:55:00	5.70	15:54:00	4.95	9:40:00	3.50	-16.00	-0.75	0	1	0	3,532	OTM	OTM	OTM	
TSLA	2020-01-17	\$610.00	C												5.10	14:29:00	4.70	9:54:00				-0.40		0	526	---	---	OTM	
TSLA	2020-01-17	\$620.00	C	16.50	9:31:00								5.50	15:51:00											37	---	---	---	
TSLA	2020-01-17	\$650.00	C	14.50	9:41:00	17.20	12:38:00	0.1987	0.0014	78.3208	-0.0494	1.1870	4.87	16:00:00	4.13	14:29:00	4.19	9:33:00	2.70	-12.33	0.06	0	1	1	499	OTM	OTM	OTM	
TSLA	2020-01-17	\$680.00	C												3.90	11:43:00	3.86	9:32:00				-0.04		0	984	---	---	OTM	
TSLA	2020-01-17	\$690.00	C												3.40	9:53:00									892	---	---	---	
TSLA	2020-01-17	\$700.00	C	10.79	11:39:00	13.30	12:45:00	0.1577	0.0012	62.4338	-0.0423	1.0161	3.00	16:00:00	3.25	15:51:00	3.27	9:33:00	2.51	-10.30	0.02	0	1	1	10,452	OTM	OTM	OTM	
TSLA1	2019-01-18	\$400.00	C			3.97	12:26:00	0.5299	0.0288	7.0518	-0.0161	0.1023													6	---	---	---	
TSLA	2018-08-10	\$185.00	P	0.01	11:53:00																				6	---	---	---	
TSLA	2018-08-10	\$190.00	P			0.01	12:34:00	-0.0003	0.0000	-0.0009	-0.0111	0.0003													17	---	---	---	
TSLA	2018-08-10	\$200.00	P	0.01	10:46:00																				20	---	---	---	
TSLA	2018-08-10	\$220.00	P	0.01	10:00:00								0.01	16:00:00											42	---	---	---	
TSLA	2018-08-10	\$225.00	P	0.01	9:33:00								0.01	16:00:00											86	---	---	---	
TSLA	2018-08-10	\$235.00	P	0.01	10:26:00								0.03	15:59:00											187	---	---	---	
TSLA	2018-08-10	\$240.00	P	0.01	11:22:00	0.01	12:27:00	-0.0004	0.0000	-0.0014	-0.0107	0.0005	0.25	15:47:00					0.00	0.24		1	1	266	OTM	OTM	---		
TSLA	2018-08-10	\$245.00	P	0.01	11:28:00								0.04	14:08:00											68	---	---	---	
TSLA	2018-08-10	\$250.00	P	0.01	11:32:00	0.01	12:31:00	-0.0009	0.0001	-0.0028	-0.0191	0.0010	0.08	16:00:00					0.00	0.07		1	1	269	OTM	OTM	---		
TSLA	2018-08-10	\$255.00	P	0.02	11:10:00								0.70	15:55:00											117	---	---	---	
TSLA	2018-08-10	\$260.00	P	0.01	11:28:00	0.02	12:26:00	-0.0018	0.0002	-0.0056	-0.0339	0.0019	0.04	15:52:00					0.01	0.02		1	1	305	OTM	OTM	---		
TSLA	2018-08-10	\$265.00	P	0.02	12:01:00	0.02	12:25:00	-0.0015	0.0001	-0.0047	-0.0263	0.0016	0.10	15:52:00					0.00	0.08		1	1	442	OTM	OTM	---		
TSLA	2018-08-10	\$267.50	P			0.02	12:23:00	-0.0016	0.0002	-0.0049	-0.0261	0.0017												480	---	---	---		
TSLA	2018-08-10	\$270.00	P	0.02	11:55:00								0.06	16:00:00											243	---	---	---	
TSLA	2018-08-10	\$275.00	P	0.03	12:17:00	0.03	12:30:00	-0.0025	0.0002	-0.0078	-0.0401	0.0025	0.10	15:57:00					0.00	0.07		1	1	270	OTM	OTM	---		
TSLA	2018-08-10	\$280.00	P	0.03	11:15:00	0.03	12:21:00	-0.0030	0.0003	-0.0092	-0.0389	0.0029	0.08	15:56:00					0.00	0.05		1	1	424	OTM	OTM	---		
TSLA	2018-08-10	\$282.50	P	0.03	10:10:00								0.10	15:57:00											296	---	---	---	
TSLA	2018-08-10	\$285.00	P	0.04	12:01:00	0.23	12:41:00	-0.0023	0.0002	-0.0073	-0.0330	0.0024	0.05	15:50:00					0.19	-0.18		1	0	427	OTM	OTM	---		
TSLA	2018-08-10	\$287.50	P	0.05	10:30:00								0.10	15:53:00											173	---	---	---	
TSLA	2018-08-10	\$290.00	P	0.04	12:04:00								0.31	15:56:00											244	---	---	---	
TSLA	2018-08-10	\$292.50	P	0.05	10:07:00	0.04	12:34:00	-0.0067	0.0006	-0.0212	-0.0862	0.0062	0.10	15:50:00					-0.01	0.06		0	1	422	OTM	OTM	---		
TSLA	2018-08-10	\$295.00	P	0.06	11:51:00	0.03	12:47:00	-0.0042	0.0005	-0.0133	-0.0515	0.0041	0.16	15:57:00					-0.03	0.13		0	1	988	OTM	OTM	---		
TSLA	2018-08-10	\$297.50	P	0.07	11:46:00	0.02	12:39:00	-0.0070	0.0007	-0.0224	-0.0863	0.0065	0.19	15:58:00					-0.05	0.17		0	1	632	OTM	OTM	---		
TSLA	2018-08-10	\$300.00	P	0.07	12:13:00	0.05	12:47:00	-0.0056	0.0006	-0.0176	-0.0629	0.0053	0.12	16:00:00					-0.02	0.07		0	1	9,437	OTM	OTM	---		
TSLA	2018-08-10	\$302.50	P	0.07	11:37:00								0.18	15:59:00											509	---	---	---	
TSLA	2018-08-10	\$305.00	P	0.11	11:25:00	0.06	12:23:00	-0.0092	0.0012	-0.0286	-0.0808	0.0081	0.20	15:59:00					-0.05	0.14		0	1	573	OTM	OTM	---		
TSLA	2018-08-10	\$307.50	P	0.11	12:08:00	0.01	12:31:00	-0.0236	0.0021	-0.0749	-0.2368	0.0185	0.27	16:00:00					-0.10	0.26		0	1	561	OTM	OTM	---		
TSLA	2018-08-10	\$310.00	P	0.13	12:05:00	0.08	12:47:00	-0.0105	0.0013	-0.0330	-0.0973	0.0092	0.20	16:00:00					-0.05	0.12		0	1	3,374	OTM	OTM	---		
TSLA	2018-08-10	\$312.50	P	0.15	11:08:00	0.07	12:47:00	-0.0115	0.0014	-0.0362	-0.1011	0.0100	0.19	16:00:00					-0.08	0.12		0	1	1,011	OTM	OTM	---		
TSLA	2018-08-10	\$315.00	P	0.22	12:06:00	0.10	12:47:00	-0.0158	0.0019	-0.0496	-0.1321	0.0131	0.26	15:59:00					-0.12	0.16		0	1	2,828	OTM	OTM	---		
TSLA	2018-08-10	\$317.50	P	0.30	12:09:00	0.15	12:44:00	-0.0194	0.0024	-0.0610	-0.1502	0.0156	0.47	15:59:00					-0.15	0.32		0	1	1,384	OTM	OTM	---		
TSLA	2018-08-10	\$320.00	P	0.39	12:15:00	0.18	12:47:00	-0.0227	0.0027	-0.0716	-0.1695	0.0179	0.32	16:00:00															

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet						8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness			
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet		NYT	FT	Tweet	NYT
TSLA	2018-08-10	\$345.00	P	6.61	12:11:00	2.68	12:47:00	-0.2378	0.0178	-0.7551	-0.8650	0.1026	1.20	16:00:00					-3.93	-1.48	0	0	24,812	ITM	OTM	---		
TSLA	2018-08-10	\$347.50	P	8.14	12:11:00	3.21	12:47:00	-0.2852	0.0197	-0.9070	-0.9464	0.1127	1.20	16:00:00					-4.93	-2.01	0	0	13,010	ITM	OTM	---		
TSLA	2018-08-10	\$350.00	P	10.15	12:09:00	3.95	12:47:00	-0.3380	0.0211	-1.0775	-1.0252	0.1213	1.32	16:00:00					-6.20	-2.63	0	0	49,091	ITM	OTM	---		
TSLA	2018-08-10	\$352.50	P	11.75	12:14:00	5.20	12:47:00	-0.3932	0.0221	-1.2560	-1.0829	0.1275	1.78	16:00:00					-6.55	-3.42	0	0	14,335	ITM	OTM	---		
TSLA	2018-08-10	\$355.00	P	13.51	11:55:00	6.02	12:47:00	-0.4497	0.0228	-1.4398	-1.1128	0.1313	2.00	16:00:00					-7.49	-4.02	0	0	23,441	ITM	OTM	---		
TSLA	2018-08-10	\$357.50	P	16.90	11:51:00	7.87	12:47:00	-0.5065	0.0224	-1.6274	-1.1531	0.1323	2.00	16:00:00					-9.03	-5.87	0	0	8,040	ITM	ITM	---		
TSLA	2018-08-10	\$360.00	P	19.00	11:30:00	9.05	12:47:00	-0.5613	0.0220	-1.8089	-1.1532	0.1307	2.85	16:00:00					-9.95	-6.20	0	0	24,158	ITM	ITM	---		
TSLA	2018-08-10	\$362.50	P	18.28	10:34:00	10.03	12:42:00	-0.5830	0.0211	-1.8926	-1.1782	0.1300	3.25	16:00:00					-8.25	-6.78	0	0	4,085	ITM	ITM	---		
TSLA	2018-08-10	\$365.00	P	20.37	10:38:00	12.45	12:47:00	-0.6617	0.0199	-2.1475	-1.1025	0.1212	3.55	16:00:00					-7.92	-8.90	0	0	8,860	ITM	ITM	---		
TSLA	2018-08-10	\$367.50	P	23.84	10:18:00								4.46	16:00:00									2,629	---	---	---		
TSLA	2018-08-10	\$370.00	P	27.50	11:55:00	16.00	12:47:00	-0.7400	0.0167	-2.4229	-1.0379	0.1075	5.00	16:00:00					-11.50	-11.00	0	0	12,408	ITM	ITM	---		
TSLA	2018-08-10	\$372.50	P	28.88	9:43:00								6.00	16:00:00									2,409	---	---	---		
TSLA	2018-08-10	\$375.00	P	32.40	12:11:00	20.15	12:43:00	-0.8304	0.0139	-2.7353	-0.7498	0.0837	6.98	16:00:00					-12.25	-13.17	0	0	5,272	ITM	ITM	---		
TSLA	2018-08-10	\$380.00	P			25.00	12:30:00	-0.8671	0.0105	-2.8973	-0.6729	0.0712	9.24	16:00:00					-15.76		0	0	3,693	---	---	---		
TSLA	2018-08-10	\$395.00	P			45.50	12:23:00	-0.9868	0.0018	-3.3934	-0.1223	0.0108	28.75	14:06:00					-16.75		0	0	23	---	---	---		
TSLA	2018-08-10	\$400.00	P	56.90	11:13:00	44.50	12:47:00	-0.9325	0.0049	-3.2571	-0.5995	0.0430	24.50	15:59:00					-12.40	-20.00	0	0	237	ITM	ITM	---		
TSLA	2018-08-17	\$145.00	P											0.01	9:46:00								545	---	---	---		
TSLA	2018-08-17	\$155.00	P	0.02	10:52:00																		653	---	---	---		
TSLA	2018-08-17	\$160.00	P											0.01	10:22:00	0.01	11:08:00			0.00		1	504	---	---	OTM		
TSLA	2018-08-17	\$170.00	P	0.02	11:37:00								0.03	14:03:00									1,017	---	---	---		
TSLA	2018-08-17	\$180.00	P	0.01	9:31:00																		381	---	---	---		
TSLA	2018-08-17	\$190.00	P											0.02	9:48:00	0.01	11:38:00			-0.01		1	270	---	---	OTM		
TSLA	2018-08-17	\$195.00	P											0.02	9:46:00	0.01	12:38:00			-0.01		1	147	---	---	OTM		
TSLA	2018-08-17	\$200.00	P	0.04	12:06:00								0.15	15:56:00	0.01	14:10:00	0.01	9:55:00			0.00		1	1,766	---	---	OTM	
TSLA	2018-08-17	\$210.00	P	0.05	10:17:00								0.40	13:05:00	0.02	10:01:00	0.01	10:29:00			-0.01		1	1,554	---	---	OTM	
TSLA	2018-08-17	\$215.00	P			0.04	12:21:00	-0.0024	0.0001	-0.0244	-0.0221	0.0043											980	---	---	---		
TSLA	2018-08-17	\$220.00	P	0.06	11:28:00	0.04	12:37:00	-0.0037	0.0002	-0.0387	-0.0362	0.0065	0.03	14:02:00	0.01	11:21:00	0.01	10:04:00	-0.02	-0.01	0.00	0	0	1	544	OTM	OTM	OTM
TSLA	2018-08-17	\$225.00	P	0.04	10:26:00	0.07	12:40:00	-0.0034	0.0002	-0.0361	-0.0324	0.0062	0.20	15:46:00	0.01	10:22:00	0.02	9:31:00	0.03	0.13	0.01	1	1	0	901	OTM	OTM	OTM
TSLA	2018-08-17	\$230.00	P	0.05	11:33:00	0.06	12:43:00	-0.0020	0.0001	-0.0212	-0.0178	0.0038	0.15	15:56:00	0.04	9:43:00	0.02	10:46:00	0.01	0.09	-0.02	1	1	1	850	OTM	OTM	OTM
TSLA	2018-08-17	\$235.00	P	0.05	11:09:00								0.18	15:57:00	0.01	13:01:00	0.01	9:37:00			0.00		1	854	---	---	OTM	
TSLA	2018-08-17	\$240.00	P	0.06	11:58:00	0.04	12:47:00	-0.0035	0.0002	-0.0362	-0.0278	0.0062	0.15	15:57:00	0.01	16:00:00	0.01	9:41:00	-0.02	0.11	0.00	0	1	1	1,264	OTM	OTM	OTM
TSLA	2018-08-17	\$245.00	P	0.06	12:09:00	0.05	12:47:00	-0.0036	0.0002	-0.0379	-0.0276	0.0065	0.10	14:06:00	0.01	15:54:00	0.04	9:31:00	-0.01	0.05	0.03	0	1	0	3,746	OTM	OTM	OTM
TSLA	2018-08-17	\$250.00	P	0.08	12:08:00	0.06	12:47:00	-0.0043	0.0003	-0.0450	-0.0312	0.0076	0.25	15:59:00	0.02	15:54:00	0.02	9:32:00	-0.02	0.19	0.00	0	1	1	4,064	OTM	OTM	OTM
TSLA	2018-08-17	\$255.00	P	0.10	11:43:00								0.17	13:18:00	0.01	15:01:00	0.02	9:32:00			0.01		0	603	---	---	OTM	
TSLA	2018-08-17	\$260.00	P	0.12	11:38:00	0.09	12:35:00	-0.0062	0.0004	-0.0639	-0.0394	0.0104	0.20	15:57:00	0.03	15:16:00	0.11	9:31:00	-0.03	0.11	0.08	0	1	0	3,460	OTM	OTM	OTM
TSLA	2018-08-17	\$265.00	P	0.13	11:27:00	0.10	12:23:00	-0.0058	0.0004	-0.0582	-0.0317	0.0096	4.35	15:48:00	0.03	15:30:00	0.12	9:44:00	-0.03	4.25	0.09	0	1	0	1,474	OTM	OTM	OTM
TSLA	2018-08-17	\$270.00	P	0.14	11:27:00								0.25	15:59:00	0.03	16:00:00	0.02	9:31:00			-0.01		1	2,884	---	---	OTM	
TSLA	2018-08-17	\$275.00	P	0.17	11:52:00	0.13	12:38:00	-0.0087	0.0006	-0.0906	-0.0483	0.0142	0.25	16:00:00	0.03	15:55:00	0.05	9:32:00	-0.04	0.12	0.02	0	1	0	4,430	OTM	OTM	OTM
TSLA	2018-08-17	\$280.00	P	0.21	12:11:00	0.15	12:44:00	-0.0113	0.0008	-0.1167	-0.0564	0.0177	0.29	15:56:00	0.04	15:58:00	0.06	9:31:00	-0.06	0.14	0.02	0	1	0	8,688	OTM	OTM	OTM
TSLA	2018-08-17	\$282.50	P	0.22	12:02:00									0.04	15:43:00	0.10	9:37:00			0.06		0	901	---	---	OTM		
TSLA	2018-08-17	\$285.00	P	0.28	11:29:00	0.22	12:40:00	-0.0159	0.0010	-0.1653	-0.0771	0.0238	0.34	15:56:00	0.06	15:56:00	0.10	9:32:00	-0.06	0.12	0.04	0	1	0	3,367	OTM	OTM	OTM
TSLA	2018-08-17	\$287.50	P	0.31	10:49:00									0.06	15:45:00	0.15	9:33:00			0.09		0	1,545	---	---	OTM		
TSLA	2018-08-17	\$290.00	P	0.36	12:14:00	0.25	12:39:00	-0.0190	0.0012	-0.1975	-0.0863	0.0278	0.40	15:58:00	0.07	15:58:00	0.10	9:31:00	-0.11	0.15	0.03	0	1	0	7,494	OTM	OTM	OTM
TSLA	2018-08-17	\$292.50	P	0.41	11:44:00	0.31	12:31:00	-0.0218	0.0015	-0.2245	-0.0913	0.0309	0.38	15:58:00	0.07	15:55:00	0.21	9:32:00	-0.10	0.07	0.14	0	1	0	2,286	OTM	OTM	OTM
TSLA	2018-08-17	\$295.00	P	0.51	11:38:00	0.35	12:43:00	-0.0264	0.0017	-0.2723	-0.1080	0.0364	0.64	16:00:00	0.10	16:00:00	0.41	9:31:00	-0.16	0.29	0.31	0	1	0	6,876	OTM	OTM	OTM
TSLA	2018-08-17	\$297.50	P	0.55	11:08:00								0.40	15:59:00	0.10	15:26:00	0.27	9:32:00			0.17		0	6,383	---	---	OTM	
TSLA	2018-08-17	\$300.00	P	0.65	12:16:00	0.40	12:47:00	-0.0308	0.0020	-0.3173	-0.1167	0.0414	0.43	16:00:00	0.12	15:59:00	0.30	9:31:00	-0.25	0.03	0.18	0	1	0	40,960	OTM	OTM	OTM
TSLA	2018-08-17	\$302.50	P	1.05	9:31:00	0.54	12:47:00	-0.0361	0.0024	-0.3726	-0.1320	0.0472	0.96	15:57:00	0.11	15:42:00	0.39	9:31:00	-0.51	0.42	0.28	0	1	0	9,594	OTM	OTM	OTM
TSLA	2018-08-17	\$305.00	P	0.87	12:08:00	0.60	12:47:00	-0.0411	0.0027	-0.4240	-0.1442	0.0524	0.62	15:55:00	0.15	15:55:00	0.37	9:31:00	-0.27	0.02	0.22	0	1	0	25,439	OTM	OTM	OTM
TSLA	2018-08-17	\$307.50	P	1.13	11:29:00	0.72	12:44:00	-0.0506	0.0032	-0.5220	-0.1688	0.0619	0.60	16:00:00	0.17	16:00:00	0.50	9:31:00	-0.41	-0.12	0.33	0	0	0	7,537	OTM	OTM	OTM
TSLA	2018-08-17	\$310.00	P	1.19	11:58:00	0.75	12:																					

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness		
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT
TSLA	2018-08-17	\$330.00	P	4.52	12:16:00	2.55	12:47:00	-0.1604	0.0083	-1.6646	-0.3539	0.1451	1.70	16:00:00	1.30	16:00:00	6.74	9:31:00	-1.97	-0.85	5.44	0	0	0	29,171	OTM	OTM	OTM
TSLA	2018-08-17	\$332.50	P	5.15	12:05:00	2.92	12:47:00	-0.1827	0.0091	-1.8976	-0.3825	0.1576	1.69	16:00:00	1.90	16:00:00	9.58	9:31:00	-2.23	-1.23	7.68	0	0	0	6,559	OTM	OTM	OTM
TSLA	2018-08-17	\$335.00	P	6.00	12:05:00	3.84	12:46:00	-0.2197	0.0102	-2.2779	-0.4177	0.1754	2.00	16:00:00	2.81	16:00:00	11.20	9:31:00	-2.16	-1.84	8.39	0	0	0	18,589	OTM	OTM	OTM
TSLA	2018-08-17	\$337.50	P	6.80	12:02:00	4.00	12:47:00	-0.2319	0.0107	-2.4153	-0.4340	0.1815	2.74	15:57:00	4.20	16:00:00	14.02	9:31:00	-2.80	-1.26	9.82	0	0	0	10,292	OTM	OTM	ITM
TSLA	2018-08-17	\$340.00	P	8.45	12:12:00	4.75	12:47:00	-0.2589	0.0114	-2.6987	-0.4554	0.1926	2.59	16:00:00	5.85	16:00:00	17.00	9:31:00	-3.70	-2.16	11.15	0	0	0	29,771	OTM	OTM	ITM
TSLA	2018-08-17	\$342.50	P	9.30	12:15:00	5.78	12:47:00	-0.2883	0.0122	-3.0100	-0.4768	0.2031	3.45	15:57:00	7.90	16:00:00	20.00	9:31:00	-3.52	-2.33	12.10	0	0	0	5,657	ITM	OTM	ITM
TSLA	2018-08-17	\$345.00	P	10.45	12:05:00	6.40	12:47:00	-0.3213	0.0127	-3.3617	-0.5028	0.2131	3.15	16:00:00	10.18	16:00:00	26.00	9:31:00	-4.05	-3.25	15.82	0	0	0	12,736	ITM	OTM	ITM
TSLA	2018-08-17	\$347.50	P	11.80	12:05:00	7.23	12:45:00	-0.3740	0.0136	-3.9087	-0.5250	0.2245	3.35	16:00:00	12.50	15:53:00	23.65	9:31:00	-4.57	-3.88	11.15	0	0	0	5,229	ITM	OTM	ITM
TSLA	2018-08-17	\$350.00	P	13.35	11:59:00	8.15	12:47:00	-0.3881	0.0138	-4.0755	-0.5325	0.2279	3.60	16:00:00	14.95	15:54:00	26.92	9:31:00	-5.20	-4.55	11.97	0	0	0	35,239	ITM	OTM	ITM
TSLA	2018-08-17	\$352.50	P	15.20	12:14:00	9.21	12:45:00	-0.4444	0.0143	-4.6629	-0.5431	0.2340	4.30	16:00:00	17.50	15:56:00	30.00	9:31:00	-5.99	-4.91	12.50	0	0	0	5,168	ITM	OTM	ITM
TSLA	2018-08-17	\$355.00	P	17.45	11:31:00	10.11	12:47:00	-0.4592	0.0142	-4.8445	-0.5527	0.2360	4.60	16:00:00	20.00	15:58:00	31.57	9:31:00	-7.34	-5.51	11.57	0	0	0	9,422	ITM	OTM	ITM
TSLA	2018-08-17	\$357.50	P	19.00	12:12:00	11.50	12:47:00	-0.4956	0.0146	-5.2343	-0.5440	0.2372	5.00	16:00:00	22.32	15:46:00	34.05	9:31:00	-7.50	-6.50	11.73	0	0	0	3,526	ITM	ITM	ITM
TSLA	2018-08-17	\$360.00	P	20.55	12:15:00	13.20	12:46:00	-0.5456	0.0140	-5.7752	-0.5394	0.2350	5.50	16:00:00	25.20	15:57:00	36.57	9:31:00	-7.35	-7.70	11.37	0	0	0	11,941	ITM	ITM	ITM
TSLA	2018-08-17	\$362.50	P	22.25	9:48:00	14.90	12:46:00	-0.5828	0.0142	-6.1769	-0.5162	0.2314	6.00	16:00:00	27.18	15:45:00	48.50	10:10:00	-7.35	-8.90	21.32	0	0	0	1,391	ITM	ITM	ITM
TSLA	2018-08-17	\$365.00	P	24.35	10:06:00	14.25	12:38:00	-0.5643	0.0141	-6.0447	-0.5488	0.2359	6.90	16:00:00	29.62	15:49:00	43.05	9:31:00	-10.10	-7.35	13.43	0	0	0	3,092	ITM	ITM	ITM
TSLA	2018-08-17	\$367.50	P	26.25	12:03:00	18.00	12:46:00	-0.6505	0.0135	-6.9353	-0.4873	0.2195	8.00	16:00:00	31.70	15:27:00	43.08	9:34:00	-8.25	-10.00	11.38	0	0	0	812	ITM	ITM	ITM
TSLA	2018-08-17	\$370.00	P	27.48	10:48:00	19.10	12:47:00	-0.6677	0.0132	-7.1600	-0.5038	0.2158	8.50	16:00:00	33.93	15:05:00	47.36	9:40:00	-8.38	-10.60	13.43	0	0	0	4,958	ITM	ITM	ITM
TSLA	2018-08-17	\$372.50	P	29.60	9:39:00	20.88	12:44:00	-0.7075	0.0125	-7.6054	-0.4726	0.2038	10.00	16:00:00	37.22	14:27:00	50.00	9:39:00	-8.72	-10.88	12.78	0	0	0	832	ITM	ITM	ITM
TSLA	2018-08-17	\$375.00	P	33.07	9:50:00	22.73	12:44:00	-0.7397	0.0120	-7.9728	-0.4412	0.1924	10.00	16:00:00	39.34	14:51:00	51.60	9:31:00	-10.34	-12.73	12.26	0	0	0	2,627	ITM	ITM	ITM
TSLA	2018-08-17	\$377.50	P												42.00	15:25:00	63.60	10:14:00			21.60				779	---	---	ITM
TSLA	2018-08-17	\$380.00	P	37.00	10:49:00	26.70	12:45:00	-0.7947	0.0102	-8.6324	-0.3966	0.1680	14.00	16:00:00	44.18	14:57:00	54.40	9:36:00	-10.30	-12.70	10.22	0	0	0	3,268	ITM	ITM	ITM
TSLA	2018-08-17	\$385.00	P												49.09	15:03:00	71.30	9:51:00			22.21				248	---	---	ITM
TSLA	2018-08-17	\$390.00	P	46.04	9:37:00								19.36	16:00:00	54.65	14:22:00	67.05	9:39:00			12.40				832	---	---	ITM
TSLA	2018-08-17	\$395.00	P	52.47	11:01:00								34.20	13:15:00	56.31	12:04:00	83.40	11:50:00			27.09				133	---	---	ITM
TSLA	2018-08-17	\$397.50	P			41.57	12:33:00	-0.8994	0.0061	-10.1039	-0.2449	0.1047	34.10	14:08:00					-7.47		0				19	---	---	ITM
TSLA	2018-08-17	\$400.00	P	58.75	11:46:00	51.80	12:22:00	-0.9464	0.0037	-10.6432	-0.1500	0.0630	28.15	15:54:00	63.60	12:45:00	80.00	9:41:00	-6.95	-23.65	16.40	0	0	0	445	ITM	ITM	ITM
TSLA	2018-08-17	\$420.00	P			75.68	12:20:00	-0.9841	0.0013	-11.5549	-0.0469	0.0225	41.25	15:50:00					-34.43		0				38	---	---	ITM
TSLA	2018-08-24	\$100.00	P												0.02	15:59:00	0.06	9:42:00			0.04				1,490	---	---	OTM
TSLA	2018-08-24	\$110.00	P												0.03	15:57:00	0.07	10:32:00			0.04				1,248	---	---	OTM
TSLA	2018-08-24	\$130.00	P												0.04	10:12:00	0.10	9:43:00			0.06				430	---	---	OTM
TSLA	2018-08-24	\$140.00	P												0.05	10:39:00	0.20	9:46:00			0.15				148	---	---	OTM
TSLA	2018-08-24	\$145.00	P												0.05	11:26:00	0.13	9:42:00			0.08				658	---	---	OTM
TSLA	2018-08-24	\$150.00	P												0.05	15:38:00	0.03	9:31:00			-0.02		1		862	---	---	OTM
TSLA	2018-08-24	\$155.00	P												0.06	15:50:00	0.30	9:45:00			0.24				213	---	---	OTM
TSLA	2018-08-24	\$160.00	P												0.09	13:43:00	0.31	10:05:00			0.22				70	---	---	OTM
TSLA	2018-08-24	\$175.00	P												0.11	12:29:00	0.26	9:41:00			0.15				1,284	---	---	OTM
TSLA	2018-08-24	\$185.00	P												0.18	11:10:00	0.32	9:40:00			0.14				128	---	---	OTM
TSLA	2018-08-24	\$190.00	P												0.11	11:28:00	0.35	9:39:00			0.24				467	---	---	OTM
TSLA	2018-08-24	\$195.00	P												0.17	14:59:00	0.33	9:40:00			0.16				192	---	---	OTM
TSLA	2018-08-24	\$200.00	P			0.09	12:44:00	-0.0033	0.0001	-0.0595	-0.0230	0.0077	0.12	13:21:00	0.20	15:04:00	0.35	9:31:00			0.03	0.15	1	0	1,224	---	---	OTM
TSLA	2018-08-24	\$205.00	P												0.23	16:00:00	0.41	9:34:00			0.18				586	---	---	OTM
TSLA	2018-08-24	\$210.00	P												0.27	15:02:00	0.84	9:47:00			0.57				366	---	---	OTM
TSLA	2018-08-24	\$215.00	P												0.41	9:56:00	0.35	9:31:00			-0.06		1		317	---	---	OTM
TSLA	2018-08-24	\$220.00	P	0.14	9:44:00	0.12	12:32:00	-0.0050	0.0002	-0.0884	-0.0289	0.0111	0.10	13:59:00	0.37	11:06:00	0.56</											

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness		
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT
TSLA	2018-08-24	\$277.50	P	0.67	9:38:00	0.42	12:29:00	-0.0264	0.0013	-0.4623	-0.0822	0.0470			1.02	15:32:00	1.81	9:38:00	-0.25	0.79	0	0	0	306	OTM	---	OTM	
TSLA	2018-08-24	\$280.00	P	0.68	10:52:00	0.49	12:34:00	-0.0274	0.0013	-0.4844	-0.0859	0.0489	0.70	15:56:00	1.07	15:02:00	1.40	9:31:00	-0.19	0.21	0.33	0	1	0	3,224	OTM	OTM	OTM
TSLA	2018-08-24	\$282.50	P												1.37	10:09:00	2.08	9:38:00		0.71	0	0	0	586	---	---	OTM	
TSLA	2018-08-24	\$285.00	P	0.98	11:28:00	0.65	12:37:00	-0.0336	0.0016	-0.5962	-0.1007	0.0580	0.85	13:02:00	1.26	14:34:00	2.30	9:31:00	-0.33	0.20	1.04	0	1	0	1,761	OTM	OTM	OTM
TSLA	2018-08-24	\$287.50	P	0.89	11:34:00	0.70	12:34:00	-0.0373	0.0018	-0.6602	-0.1067	0.0631	0.55	13:43:00	1.30	15:39:00	2.37	9:36:00	-0.19	-0.15	1.07	0	0	0	533	OTM	OTM	OTM
TSLA	2018-08-24	\$290.00	P	1.07	11:59:00	0.75	12:38:00	-0.0397	0.0019	-0.7072	-0.1142	0.0668	0.85	15:58:00	1.42	15:38:00	2.60	9:31:00	-0.32	0.10	1.18	0	1	0	2,099	OTM	OTM	OTM
TSLA	2018-08-24	\$292.50	P	1.25	10:52:00	0.86	12:31:00	-0.0462	0.0022	-0.8145	-0.1223	0.0748	0.78	13:03:00	1.56	15:42:00	2.44	9:32:00	-0.39	-0.08	0.88	0	0	0	1,020	OTM	OTM	OTM
TSLA	2018-08-24	\$295.00	P	1.35	10:48:00	0.92	12:40:00	-0.0508	0.0024	-0.9024	-0.1345	0.0812	0.47	15:54:00	1.68	15:58:00	4.12	9:31:00	-0.43	-0.45	2.44	0	0	0	2,199	OTM	OTM	OTM
TSLA	2018-08-24	\$297.50	P	1.41	10:21:00	1.10	12:37:00	-0.0557	0.0026	-0.9873	-0.1415	0.0871	0.96	15:49:00	1.80	15:29:00	3.05	9:32:00	-0.31	-0.14	1.25	0	0	0	1,182	OTM	OTM	OTM
TSLA	2018-08-24	\$300.00	P	1.60	12:15:00	1.22	12:40:00	-0.0625	0.0029	-1.1109	-0.1546	0.0955	1.33	16:00:00	2.00	16:00:00	3.66	9:31:00	-0.38	0.11	1.66	0	1	0	8,264	OTM	OTM	OTM
TSLA	2018-08-24	\$302.50	P	2.07	9:35:00										2.25	14:25:00	3.83	9:31:00		1.58	0	0	0	1,188	---	---	OTM	
TSLA	2018-08-24	\$305.00	P	2.37	11:29:00	1.52	12:27:00	-0.0791	0.0038	-1.3873	-0.1681	0.1132	1.94	15:56:00	2.39	15:55:00	2.96	9:31:00	-0.85	0.42	0.57	0	1	0	3,571	OTM	OTM	OTM
TSLA	2018-08-24	\$307.50	P	2.51	11:32:00										1.70	14:01:00	2.64	14:09:00		5.65	9:31:00		0	0	1,572	---	---	OTM
TSLA	2018-08-24	\$310.00	P	3.00	11:42:00	1.88	12:40:00	-0.0943	0.0041	-1.6777	-0.2017	0.1305	1.90	16:00:00	2.86	15:00:00	5.05	9:31:00	-1.12	0.02	2.19	0	1	0	4,720	OTM	OTM	OTM
TSLA	2018-08-24	\$312.50	P	3.16	11:13:00										2.22	13:56:00	3.23	15:26:00		6.00	9:33:00		0	0	2,001	---	---	OTM
TSLA	2018-08-24	\$315.00	P	3.65	11:32:00	2.49	12:44:00	-0.1223	0.0051	-2.1646	-0.2333	0.1565	2.23	13:52:00	3.55	15:59:00	6.83	9:31:00	-1.16	-0.26	3.28	0	0	0	3,719	OTM	OTM	OTM
TSLA	2018-08-24	\$317.50	P												3.98	15:24:00	7.15	9:32:00		3.17	0	0	0	1,602	---	---	OTM	
TSLA	2018-08-24	\$320.00	P	4.40	12:05:00	3.11	12:44:00	-0.1495	0.0060	-2.6504	-0.2628	0.1796	5.00	16:00:00	4.50	16:00:00	8.30	9:31:00	-1.29	1.89	3.80	0	1	0	5,428	OTM	OTM	OTM
TSLA	2018-08-24	\$322.50	P	5.18	10:52:00	3.80	12:46:00	-0.1678	0.0066	-2.9720	-0.2779	0.1933	2.56	15:53:00	5.10	15:58:00	9.57	9:31:00	-1.38	-1.24	4.47	0	0	0	1,223	OTM	OTM	OTM
TSLA	2018-08-24	\$325.00	P	5.27	10:30:00	3.80	12:47:00	-0.1744	0.0068	-3.1009	-0.2839	0.1990	2.00	15:53:00	5.71	15:59:00	10.70	9:31:00	-1.47	-1.80	4.99	0	0	0	1,885	OTM	OTM	OTM
TSLA	2018-08-24	\$327.50	P	6.40	9:53:00	4.10	12:41:00	-0.1906	0.0071	-3.4032	-0.3036	0.2107	5.32	13:31:00	6.50	16:00:00	11.95	9:31:00	-2.30	1.22	5.45	0	1	0	1,621	OTM	OTM	OTM
TSLA	2018-08-24	\$330.00	P	7.75	11:42:00	4.92	12:44:00	-0.2179	0.0079	-3.8787	-0.3210	0.2273	2.00	15:55:00	7.30	15:59:00	13.32	9:31:00	-2.83	-2.92	6.02	0	0	0	2,811	OTM	OTM	OTM
TSLA	2018-08-24	\$332.50	P	8.50	11:25:00										2.96	15:53:00	8.30	16:00:00		14.54	9:31:00		0	0	1,292	---	---	OTM
TSLA	2018-08-24	\$335.00	P	9.16	11:24:00	5.37	12:33:00	-0.2447	0.0088	-4.3698	-0.3292	0.2433	5.25	13:50:00	9.50	16:00:00	15.00	9:31:00	-3.79	-0.12	5.50	0	0	0	2,196	OTM	OTM	OTM
TSLA	2018-08-24	\$337.50	P	11.17	9:33:00	6.29	12:39:00	-0.2594	0.0089	-4.6570	-0.3452	0.2518	6.00	13:18:00	10.85	15:57:00	18.50	9:31:00	-4.88	-0.29	7.65	0	0	0	1,271	OTM	OTM	ITM
TSLA	2018-08-24	\$340.00	P	11.00	11:56:00	7.70	12:46:00	-0.3117	0.0099	-5.5644	-0.3690	0.2724	4.05	16:00:00	12.17	15:56:00	20.05	9:31:00	-3.30	-3.65	7.88	0	0	0	2,910	OTM	OTM	ITM
TSLA	2018-08-24	\$342.50	P	11.82	10:48:00	9.35	12:23:00	-0.3910	0.0119	-6.8755	-0.3590	0.2911	5.85	15:49:00	13.70	15:41:00	21.30	9:31:00	-2.47	-3.50	7.60	0	0	0	1,319	ITM	OTM	ITM
TSLA	2018-08-24	\$345.00	P	13.90	11:38:00	9.05	12:47:00	-0.3481	0.0104	-6.2502	-0.3829	0.2858	5.30	16:00:00	15.10	15:55:00	21.99	9:31:00	-4.85	-3.75	6.89	0	0	0	2,140	ITM	OTM	ITM
TSLA	2018-08-24	\$347.50	P	14.32	10:48:00	9.69	12:41:00	-0.3685	0.0105	-6.6491	-0.3954	0.2922	7.40	15:57:00	17.00	15:51:00	26.20	9:31:00	-4.63	-2.29	9.20	0	0	0	772	ITM	OTM	ITM
TSLA	2018-08-24	\$350.00	P	16.97	11:46:00	11.30	12:45:00	-0.4217	0.0111	-7.5848	-0.4072	0.3010	6.60	16:00:00	18.36	15:38:00	26.43	9:31:00	-5.67	-4.70	8.07	0	0	0	2,896	ITM	OTM	ITM
TSLA	2018-08-24	\$352.50	P			11.79	12:47:00	-0.4304	0.0113	-7.7705	-0.3996	0.3037	6.86	15:56:00	20.45	15:48:00	30.92	9:31:00		-4.93	10.47	0	0	0	846	---	OTM	ITM
TSLA	2018-08-24	\$355.00	P	18.83	9:40:00	13.70	12:46:00	-0.4753	0.0115	-8.5765	-0.4000	0.3066	6.75	16:00:00	22.80	15:57:00	33.50	9:39:00	-5.13	-6.95	10.70	0	0	0	1,251	ITM	OTM	ITM
TSLA	2018-08-24	\$357.50	P			14.50	12:47:00	-0.4879	0.0115	-8.8481	-0.4039	0.3082	10.50	15:57:00	24.84	15:51:00	35.93	9:31:00		-4.00	11.09	0	0	0	382	---	ITM	ITM
TSLA	2018-08-24	\$360.00	P	21.37	10:38:00	15.20	12:42:00	-0.4996	0.0114	-9.1139	-0.4070	0.3096	9.64	15:59:00	26.78	15:45:00	38.02	9:31:00	-6.17	-5.56	11.24	0	0	0	1,486	ITM	ITM	ITM
TSLA	2018-08-24	\$362.50	P												28.60	15:29:00	53.83	11:13:00		25.23	0	0	0	151	---	---	ITM	
TSLA	2018-08-24	\$365.00	P	26.20	9:56:00	18.32	12:32:00	-0.5781	0.0116	-10.5497	-0.3801	0.3022	12.00	15:58:00	30.92	14:43:00	57.25	10:37:00	-7.88	-6.32	26.33	0	0	0	530	ITM	ITM	ITM
TSLA	2018-08-24	\$367.50	P												32.65	13:40:00	43.58	9:34:00		10.93	0	0	0	270	---	---	ITM	
TSLA	2018-08-24	\$370.00	P			21.50	12:32:00	-0.6336	0.0111	-11.6295	-0.3638	0.2907	16.00	15:58:00	35.25	13:37:00	47.47	9:31:00		-5.50	12.22	0	0	0	778	---	ITM	ITM
TSLA	2018-08-24	\$375.00	P												40.34	14:51:00	50.55	9:35:00		10.21	0	0	0	378	---	---	ITM	
TSLA	2018-08-24	\$380.00	P												41.00	11:17:00	58.00	9:31:00		17.00	0	0	0	310	---	---	ITM	
TSLA	2018-08-24	\$385.00	P			32.95	12:47:00	-0.7671	0.0088	-14.4014	-0.3119	0.2358	21.00	15:59:00						-11.95	0	0						

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness			
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT	
TSLA	2018-08-31	\$235.00	P	0.39	9:49:00								0.62	14:05:00	0.86	15:32:00	2.19	10:14:00				1.33			0	122	---	---	OTM
TSLA	2018-08-31	\$240.00	P	0.41	10:59:00								0.30	12:49:00	1.07	10:40:00	1.19	9:33:00				0.12			0	380	---	---	OTM
TSLA	2018-08-31	\$245.00	P			2.51	12:27:00	-0.0146	0.0006	-0.3640	-0.0477	0.0336			1.07	12:31:00	2.61	10:14:00				1.54			0	200	---	---	OTM
TSLA	2018-08-31	\$250.00	P	0.49	10:21:00	2.73	12:27:00	-0.0169	0.0007	-0.4223	-0.0527	0.0382	0.42	13:38:00	1.30	13:49:00	1.69	9:32:00	2.24	-2.31	0.39	1	0	0	1	1,163	OTM	OTM	OTM
TSLA	2018-08-31	\$255.00	P			0.47	12:46:00	-0.0198	0.0008	-0.4962	-0.0594	0.0439	0.51	13:28:00	1.32	13:58:00	1.59	9:33:00			0.04	0.27	1	0	0	407	---	---	OTM
TSLA	2018-08-31	\$260.00	P	0.62	11:42:00	0.56	12:46:00	-0.0240	0.0010	-0.6013	-0.0685	0.0516	0.46	16:00:00	1.43	12:54:00	3.20	9:55:00	-0.06	-0.10	1.77	0	0	0	0	814	OTM	OTM	OTM
TSLA	2018-08-31	\$262.50	P												1.44	12:08:00	3.70	10:09:00				2.26			0	141	---	---	OTM
TSLA	2018-08-31	\$265.00	P	0.83	11:29:00	0.72	12:19:00	-0.0336	0.0015	-0.8134	-0.0791	0.0662	0.42	15:46:00	1.55	12:54:00	3.98	10:25:00	-0.11	-0.30	2.43	0	0	0	0	520	OTM	OTM	OTM
TSLA	2018-08-31	\$267.50	P	0.83	10:21:00								2.32	12:54:00	1.71	12:44:00	2.25	9:32:00				0.54			0	198	---	---	OTM
TSLA	2018-08-31	\$270.00	P	0.92	10:34:00	0.75	12:40:00	-0.0317	0.0013	-0.8002	-0.0839	0.0656	0.70	15:49:00	1.82	13:47:00	2.22	9:31:00	-0.17	-0.05	0.40	0	0	0	0	576	OTM	OTM	OTM
TSLA	2018-08-31	\$272.50	P			0.96	12:19:00	-0.0453	0.0019	-1.0968	-0.0976	0.0844	0.50	15:46:00	1.93	12:44:00	2.42	9:37:00			-0.46	0.49	0	0	0	171	---	---	OTM
TSLA	2018-08-31	\$275.00	P	1.17	11:27:00	1.05	12:18:00	-0.0512	0.0022	-1.2325	-0.1042	0.0925	0.98	15:54:00	2.00	15:30:00	2.58	9:31:00	-0.12	-0.07	0.58	0	0	0	0	552	OTM	OTM	OTM
TSLA	2018-08-31	\$280.00	P	1.31	12:01:00								1.14	14:01:00	2.30	15:48:00	3.35	9:33:00				1.05			0	578	---	---	OTM
TSLA	2018-08-31	\$285.00	P	1.74	11:43:00								1.45	15:48:00	2.59	15:38:00	3.75	9:35:00				1.16			0	725	---	---	OTM
TSLA	2018-08-31	\$287.50	P												2.75	14:40:00	4.25	9:38:00				1.50			0	163	---	---	OTM
TSLA	2018-08-31	\$290.00	P	2.15	11:25:00	1.58	12:44:00	-0.0655	0.0025	-1.6465	-0.1342	0.1169	0.90	15:55:00	2.99	15:42:00	4.61	9:38:00	-0.57	-0.68	1.62	0	0	0	0	1,406	OTM	OTM	OTM
TSLA	2018-08-31	\$292.50	P	2.15	12:16:00										3.30	13:49:00	4.77	9:37:00				1.47			0	139	---	---	OTM
TSLA	2018-08-31	\$295.00	P	2.39	10:33:00	1.72	12:31:00	-0.0742	0.0029	-1.8633	-0.1420	0.1287	1.57	16:00:00	3.55	13:49:00	4.89	9:32:00	-0.67	-0.15	1.34	0	0	0	0	545	OTM	OTM	OTM
TSLA	2018-08-31	\$297.50	P			2.02	12:36:00	-0.0820	0.0031	-2.0653	-0.1540	0.1390	1.12	15:46:00	3.85	13:49:00	4.97	9:36:00			-0.90	1.12	0	0	0	231	---	---	OTM
TSLA	2018-08-31	\$300.00	P	2.95	12:12:00	2.23	12:45:00	-0.0962	0.0035	-2.4155	-0.1723	0.1558	1.50	16:00:00	4.10	15:52:00	7.20	9:31:00	-0.72	-0.73	3.10	0	0	0	0	2,440	OTM	OTM	OTM
TSLA	2018-08-31	\$302.50	P	3.52	11:26:00								1.72	12:49:00	4.23	12:27:00	6.90	9:33:00				2.67			0	426	---	---	OTM
TSLA	2018-08-31	\$305.00	P	3.56	12:01:00	2.58	12:40:00	-0.1051	0.0037	-2.6631	-0.1831	0.1676	2.39	15:56:00	4.55	12:27:00	7.10	9:31:00	-0.98	-0.19	2.55	0	0	0	0	591	OTM	OTM	OTM
TSLA	2018-08-31	\$307.50	P			2.79	12:42:00	-0.1138	0.0040	-2.8861	-0.1918	0.1775			5.25	15:47:00	8.85	9:41:00				3.60			0	374	---	---	OTM
TSLA	2018-08-31	\$310.00	P	4.70	11:41:00	3.14	12:42:00	-0.1233	0.0043	-3.1270	-0.2004	0.1878	2.20	15:53:00	5.50	15:16:00	8.34	9:32:00	-1.56	-0.94	2.84	0	0	0	0	1,044	OTM	OTM	OTM
TSLA	2018-08-31	\$312.50	P			3.28	12:32:00	-0.1370	0.0048	-3.4540	-0.2066	0.2010	2.67	12:51:00	5.74	12:18:00	10.02	9:40:00			-0.61	4.28	0	0	0	266	---	---	OTM
TSLA	2018-08-31	\$315.00	P	5.15	10:37:00	3.81	12:42:00	-0.1451	0.0049	-3.6853	-0.2195	0.2101	2.84	15:57:00	6.66	15:42:00	9.56	9:36:00	-1.34	-0.97	2.90	0	0	0	0	576	OTM	OTM	OTM
TSLA	2018-08-31	\$317.50	P	5.59	10:28:00								4.00	13:48:00	6.82	13:18:00	11.93	9:31:00				5.11			0	434	---	---	OTM
TSLA	2018-08-31	\$320.00	P	6.80	11:24:00	4.80	12:46:00	-0.1840	0.0060	-4.6425	-0.2453	0.2431	3.32	16:00:00	7.90	15:52:00	12.88	9:31:00	-2.00	-1.48	4.98	0	0	0	0	1,531	OTM	OTM	OTM
TSLA	2018-08-31	\$322.50	P	7.80	11:28:00	4.60	12:38:00	-0.1762	0.0058	-4.4936	-0.2415	0.2393	4.39	12:49:00	8.50	13:31:00	13.10	9:31:00	-3.20	-0.21	4.60	0	0	0	0	264	OTM	OTM	OTM
TSLA	2018-08-31	\$325.00	P	7.78	12:05:00	5.08	12:38:00	-0.1906	0.0061	-4.8645	-0.2511	0.2513	3.25	15:48:00	9.66	14:25:00	14.00	9:32:00	-2.70	-1.83	4.34	0	0	0	0	700	OTM	OTM	OTM
TSLA	2018-08-31	\$327.50	P	8.56	11:05:00	5.75	12:35:00	-0.2279	0.0070	-5.7722	-0.2707	0.2765	4.65	13:12:00	10.30	15:55:00	16.00	9:31:00	-2.81	-1.10	5.70	0	0	0	0	409	OTM	OTM	OTM
TSLA	2018-08-31	\$330.00	P	9.50	11:55:00	6.64	12:43:00	-0.2421	0.0071	-6.1575	-0.2821	0.2865	4.00	16:00:00	11.08	15:23:00	16.00	9:31:00	-2.86	-2.64	4.92	0	0	0	0	1,016	OTM	OTM	OTM
TSLA	2018-08-31	\$332.50	P	10.74	11:50:00	7.94	12:27:00	-0.2727	0.0081	-6.8793	-0.2827	0.3027	7.60	14:00:00	12.25	14:02:00	18.20	9:33:00	-2.80	-0.34	5.95	0	0	0	0	689	OTM	OTM	OTM
TSLA	2018-08-31	\$335.00	P	10.90	10:34:00	7.35	12:42:00	-0.2689	0.0076	-6.8780	-0.2960	0.3039	5.49	15:58:00	13.44	15:52:00	22.15	9:31:00	-3.55	-1.86	8.71	0	0	0	0	719	OTM	OTM	OTM
TSLA	2018-08-31	\$337.50	P	13.44	11:29:00	8.60	12:47:00	-0.2979	0.0082	-7.5983	-0.3040	0.3179	5.00	15:50:00	14.70	15:52:00	20.50	9:35:00	-4.84	-3.60	5.80	0	0	0	0	424	OTM	OTM	ITM
TSLA	2018-08-31	\$340.00	P	13.80	12:09:00	9.63	12:45:00	-0.3344	0.0086	-8.5260	-0.3210	0.3324	8.30	15:57:00	15.72	15:45:00	23.49	9:31:00	-4.17	-1.33	7.77	0	0	0	0	1,017	OTM	OTM	ITM
TSLA	2018-08-31	\$342.50	P	15.02	11:34:00								9.50	15:58:00	14.65	11:39:00	25.00	9:32:00				10.35			0	337	---	---	ITM
TSLA	2018-08-31	\$345.00	P	16.46	11:43:00	11.65	12:46:00	-0.3766	0.0092	-9.6224	-0.3245	0.3468	5.85	15:54:00	18.74	14:28:00	27.07	9:31:00	-4.81	-5.80	8.33	0	0	0	0	548	ITM	OTM	ITM
TSLA	2018-08-31	\$347.50	P	18.27	11:42:00	11.45	12:42:00	-0.3746	0.0091	-9.6502	-0.3285	0.3490	7.52	16:00:00	20.08	15:18:00	36.50	9:44:00	-6.82	-3.93	16.42	0	0	0	0	274	ITM	OTM	ITM
TSLA	2018-08-31	\$350.00	P	19.73	11:42:00	13.00	12:47:00	-0.4106	0.0095	-10.5581	-0.3313	0.3566	8.00	16:00:00	22.00	16:00:00	29.15	9:31:00	-6.73	-5.00	7.15	0	0	0	0	1,194	ITM	OTM	ITM
TSLA	2018-08-31	\$352.50	P	21.05	9:31:00	14.75	12:47:00	-0.4348	0.0097	-11.2025	-0.3339	0.3609	10.45	15:53:00	23.65	14:35:00	42.00	9:51:00	-6.30	-4.30	18.35	0	0	0	0	459	ITM	OTM	ITM
TSLA	2018-08-31	\$355.00	P	23.45	9:32:00	15.60	12:47:00	-0.4593	0.0098	-11.8584	-0.3356	0.3638	11.00	15:46:00	25.45	14:35:00	39.59	9:42:00	-7.85	-4.60	14.14	0	0	0	0	686	ITM	OTM	ITM
TSLA	2018-08-31	\$357.50	P			16.03	12:40:00	-0.4709	0.0096	-12.2328	-0.3410	0.3661	11.50	15:46:00	26.95	15:29:00	44.87	9:56:00			-4.53	17.92	0	0	0	275	---	---	ITM
TSLA	2018-08-31	\$360.00	P			18.40	12:44:00	-0.5135	0.0098	-13.3109	-0.3328	0.3649	11.86	15:58:00	29.05	13:33:00	48.15	9:50:00			-6.54	19.10	0	0	0	496	---	---	ITM
TSLA	2018-08-31	\$362.50	P												30.40	15:02:00									0	181	---	---	---
TSLA	2018-08-31	\$365.00	P																										

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness				
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT		
TSLA	2018-09-07	\$230.00	P			0.40	12:30:00	-0.0134	0.0005	-0.4392	-0.0406	0.0358			1.40	15:34:00	2.71	10:07:00			1.31		0		132	---	---	OTM		
TSLA	2018-09-07	\$240.00	P												1.69	15:34:00	5.00	10:46:00			3.31		0		83	---	---	OTM		
TSLA	2018-09-07	\$245.00	P			0.50	12:31:00	-0.0200	0.0007	-0.6539	-0.0529	0.0504	2.78	15:55:00	1.87	13:31:00	5.50	10:46:00			2.28	3.63	1	0	191	---	OTM	OTM		
TSLA	2018-09-07	\$250.00	P	0.82	9:48:00	0.67	12:40:00	-0.0237	0.0008	-0.7814	-0.0613	0.0585	0.65	13:57:00	2.00	15:51:00	2.53	9:33:00			-0.15	-0.02	0.53	0	0	0	1,454	OTM	OTM	OTM
TSLA	2018-09-07	\$255.00	P	0.91	10:48:00																				125	---	---	---		
TSLA	2018-09-07	\$260.00	P	1.06	11:41:00								0.80	13:35:00	2.41	14:34:00	3.31	9:31:00				0.90		0	722	---	---	OTM		
TSLA	2018-09-07	\$265.00	P	1.21	11:53:00								1.01	13:20:00											96	---	---	---		
TSLA	2018-09-07	\$267.50	P			1.03	12:34:00	-0.0393	0.0014	-1.2856	-0.0839	0.0885			1.01	13:56:00						-0.02	0		14	---	OTM	---		
TSLA	2018-09-07	\$270.00	P	1.30	12:03:00								1.10	13:56:00	2.94	13:06:00	3.86	9:31:00				0.92		0	110	---	---	OTM		
TSLA	2018-09-07	\$272.50	P	1.55	10:34:00										3.35	10:13:00	6.60	10:15:00				3.25		0	50	---	---	OTM		
TSLA	2018-09-07	\$275.00	P	1.66	10:28:00	1.45	12:22:00	-0.0716	0.0023	-2.3081	-0.1316	0.1392	1.61	13:26:00	3.05	11:54:00	5.00	9:41:00			-0.21	0.16	1.95	0	1	0	321	OTM	OTM	OTM
TSLA	2018-09-07	\$277.50	P			1.53	12:31:00	-0.0537	0.0019	-1.7562	-0.1022	0.1137	1.45	13:53:00								-0.08		0	108	---	OTM	---		
TSLA	2018-09-07	\$280.00	P	2.10	11:42:00	1.53	12:27:00	-0.0607	0.0021	-1.9728	-0.1096	0.1245	1.29	15:59:00	3.70	15:40:00	7.00	9:43:00			-0.57	-0.24	3.30	0	0	0	403	OTM	OTM	OTM
TSLA	2018-09-07	\$282.50	P	2.15	10:34:00										3.85	13:06:00	7.90	9:47:00				4.05		0	105	---	---	OTM		
TSLA	2018-09-07	\$285.00	P	2.57	9:49:00								1.55	13:27:00	3.85	11:16:00	8.15	10:06:00				4.30		0	72	---	---	OTM		
TSLA	2018-09-07	\$287.50	P												4.58	10:51:00	6.00	9:32:00				1.42		0	203	---	---	OTM		
TSLA	2018-09-07	\$290.00	P	3.00	9:39:00	2.02	12:33:00	-0.0777	0.0026	-2.5492	-0.1297	0.1518	2.05	14:02:00	4.80	15:21:00	7.50	9:41:00			-0.98	0.03	2.70	0	1	0	323	OTM	OTM	OTM
TSLA	2018-09-07	\$292.50	P	3.05	11:52:00	2.29	12:26:00	-0.0922	0.0031	-2.9824	-0.1394	0.1703									-0.76		0	44	OTM	---	---			
TSLA	2018-09-07	\$295.00	P	3.51	9:53:00	2.39	12:33:00	-0.0908	0.0030	-2.9805	-0.1427	0.1707	2.20	15:58:00	5.45	14:31:00	10.41	9:43:00			-1.12	-0.19	4.96	0	0	0	232	OTM	OTM	OTM
TSLA	2018-09-07	\$297.50	P	3.75	12:12:00								3.25	15:58:00	5.25	11:14:00	8.00	9:38:00				2.75		0	162	---	---	OTM		
TSLA	2018-09-07	\$300.00	P	4.40	11:26:00	3.25	12:46:00	-0.1136	0.0036	-3.7150	-0.1642	0.1997	3.15	15:59:00	6.10	15:51:00	8.30	9:31:00			-1.15	-0.10	2.20	0	0	0	1,662	OTM	OTM	OTM
TSLA	2018-09-07	\$302.50	P	4.64	11:25:00	3.30	12:28:00	-0.1263	0.0041	-4.0974	-0.1688	0.2137			6.10	11:10:00	8.55	9:35:00			-1.34	2.45	0	0	122	OTM	---	OTM		
TSLA	2018-09-07	\$305.00	P	5.21	11:26:00								2.40	16:00:00	6.98	14:30:00	9.35	9:36:00				2.37		0	203	---	---	OTM		
TSLA	2018-09-07	\$307.50	P												8.25	9:56:00	10.80	9:31:00				2.55		0	132	---	---	OTM		
TSLA	2018-09-07	\$310.00	P			4.55	12:26:00	-0.1595	0.0050	-5.1750	-0.1904	0.2500	2.97	16:00:00	8.80	9:56:00	11.41	9:31:00			-1.58	2.61		0	244	---	OTM	OTM		
TSLA	2018-09-07	\$312.50	P			4.90	12:24:00	-0.1801	0.0054	-5.8371	-0.2046	0.2693			7.40	11:54:00	11.25	9:36:00				3.85		0	252	---	---	OTM		
TSLA	2018-09-07	\$315.00	P	6.80	11:08:00	6.50	12:19:00	-0.2308	0.0067	-7.3409	-0.2213	0.3057	3.45	15:55:00	9.05	15:30:00	12.30	9:37:00			-0.30	-3.05	3.25	0	0	0	218	OTM	OTM	OTM
TSLA	2018-09-07	\$317.50	P	7.23	10:19:00										9.68	15:30:00	13.78	9:39:00				4.10		0	87	---	---	OTM		
TSLA	2018-09-07	\$320.00	P	8.32	11:37:00								4.47	15:58:00	10.30	13:29:00	14.55	9:31:00				4.25		0	532	---	---	OTM		
TSLA	2018-09-07	\$322.50	P	9.05	11:37:00								4.75	15:57:00											70	---	---	---		
TSLA	2018-09-07	\$325.00	P	9.95	11:23:00	7.20	12:46:00	-0.2352	0.0063	-7.7506	-0.2402	0.3190	6.57	13:48:00	12.09	14:53:00	17.95	9:31:00			-2.75	-0.63	5.86	0	0	0	335	OTM	OTM	OTM
TSLA	2018-09-07	\$327.50	P	10.64	11:34:00								3.58	15:49:00											387	---	---	---		
TSLA	2018-09-07	\$330.00	P	11.51	11:34:00	7.95	12:43:00	-0.2599	0.0067	-8.6150	-0.2518	0.3378	6.27	15:58:00	13.91	15:56:00	20.50	9:31:00			-3.56	-1.68	6.59	0	0	0	1,103	OTM	OTM	OTM
TSLA	2018-09-07	\$332.50	P	12.55	11:22:00										14.58	15:16:00	22.53	9:31:00				7.95		0	163	---	---	OTM		
TSLA	2018-09-07	\$335.00	P												15.60	14:06:00	22.81	9:31:00				7.21		0	129	---	---	OTM		
TSLA	2018-09-07	\$337.50	P			10.29	12:35:00	-0.3181	0.0076	-10.5506	-0.2664	0.3706			16.51	12:33:00	28.02	9:42:00				11.51		0	112	---	---	ITM		
TSLA	2018-09-07	\$340.00	P	15.40	12:14:00	11.50	12:46:00	-0.3425	0.0079	-11.3693	-0.2737	0.3811	6.60	15:54:00	18.09	13:33:00	24.50	9:36:00			-3.90	-4.90	6.41	0	0	0	673	OTM	OTM	ITM
TSLA	2018-09-07	\$345.00	P	18.00	12:14:00	12.81	12:43:00	-0.3729	0.0081	-12.4640	-0.2821	0.3941	11.45	15:58:00	19.56	13:05:00	37.00	9:44:00			-5.19	-1.36	17.44	0	0	0	335	ITM	OTM	ITM
TSLA	2018-09-07	\$347.50	P												20.36	11:16:00	30.71	9:31:00				10.35		0	76	---	---	ITM		
TSLA	2018-09-07	\$350.00	P	20.96	11:35:00	14.85	12:47:00	-0.4145	0.0085	-13.8931	-0.2867	0.4058	9.63	15:59:00	24.15	15:51:00	33.50	9:40:00			-6.11	-5.22	9.35	0	0	0	690	ITM	OTM	ITM
TSLA	2018-09-07	\$352.50	P												25.00	15:11:00	35.90	9:40:00				10.90		0	198	---	---	ITM		
TSLA	2018-09-07	\$355.00	P	23.94	9:34:00	16.00	12:38:00	-0.4359	0.0086	-14.7356	-0.2885	0.4129	13.20	15:59:00	26.20	12:49:00	35.95	9:31:00			-7.94	-2.80	9.75	0	0	0	590	ITM	OTM	ITM
TSLA	2018-09-07	\$357.50	P												28.15	9:34:00	43.42	9:42:00				15.27		0	187	---	---	ITM		
TSLA	2018-09-07	\$360.00	P	26.00	9:42:00								12.66	15:59:00	31.30	13:49:00	45.38	9:42:00				14.08		0	1,280	---	---	ITM		
TSLA	2018-09-07	\$365.00	P			24.90	12:24:00	-0.6028	0.0092	-20.1961	-0.2581	0.3948	15.00	16:00:00	34.97	14:25:00	43.06	9:35:00			-9.90	8.09		0	0	328	---	ITM	ITM	
TSLA	2018-09-07	\$370.00	P												39.07	13:49:00	55.26	10:04:00				16.19		0	365	---	---	ITM		
TSLA	2018-09-07	\$375.00	P	38.00	11:51:00								17.40	16:00:00											196	---	---	---		
TSLA	2018-09-07	\$377.50	P												41.00	11:17:00	65.00	10:14:00				24.00		0	28	---	---	ITM		
TSLA	2018-09-07	\$385.00	P	45.20	9:56:00								22.75	15:51:00											30	---	---	---		
TSLA	2018-09-07	\$395.00	P			43.70	12:47:00	-0.7736	0.0067	-27.2897	-0.2147	0.3119													25	---	---	---		
TSLA	2018-09-07	\$400.00	P	58.10	10:15:00								37.55	15:46:00											147	---	---	---		
TSLA	2018-09-07	\$405.00	P			52.15	12:47:00	-0.8267	0.0057	-29.6263	-0.1841	0.2649	50.70	13:06:00							-1.45		0		51	---	ITM	---		
TSLA	2018																													

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness		
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT
TSLA	2018-09-21	\$200.00	P	0.52	11:54:00	0.45	12:47:00	-0.0117	0.0003	-0.5719	-0.0330	0.0385	0.96	15:58:00	1.78	15:58:00	2.11	9:31:00	-0.07	0.51	0.33	0	1	0	15,212	OTM	OTM	OTM
TSLA	2018-09-21	\$205.00	P	0.61	11:27:00								1.14	16:00:00	1.69	11:34:00	2.98	9:43:00				1	29	0	4,418	---	---	OTM
TSLA	2018-09-21	\$210.00	P	0.64	10:34:00	0.58	12:27:00	-0.0162	0.0004	-0.7834	-0.0413	0.0504	1.19	16:00:00	2.10	15:17:00	2.53	9:31:00	-0.06	0.61	0.43	0	1	0	845	OTM	OTM	OTM
TSLA	2018-09-21	\$215.00	P	0.68	11:55:00	0.65	12:21:00	-0.0195	0.0006	-0.9159	-0.0445	0.0576	1.00	16:00:00	2.25	15:14:00	2.71	9:31:00	-0.03	0.35	0.46	0	1	0	389	OTM	OTM	OTM
TSLA	2018-09-21	\$220.00	P	0.78	12:17:00	0.70	12:46:00	-0.0193	0.0005	-0.9337	-0.0457	0.0588	1.00	15:59:00	2.46	15:33:00	2.70	9:32:00	-0.08	0.30	0.24	0	1	0	2,091	OTM	OTM	OTM
TSLA	2018-09-21	\$225.00	P	0.85	11:58:00	0.85	12:19:00	-0.0256	0.0007	-1.1941	-0.0526	0.0721	1.35	15:56:00	2.69	15:57:00	4.28	9:43:00	0.00	0.50	1.59	1	1	0	1,372	OTM	OTM	OTM
TSLA	2018-09-21	\$230.00	P	1.00	11:22:00	0.86	12:40:00	-0.0244	0.0007	-1.1899	-0.0545	0.0722	1.06	16:00:00	2.87	15:28:00	3.50	9:31:00	-0.14	0.20	0.63	0	1	0	1,824	OTM	OTM	OTM
TSLA	2018-09-21	\$235.00	P	1.08	12:11:00	0.93	12:30:00	-0.0273	0.0008	-1.3150	-0.0568	0.0786	1.27	15:56:00	3.12	16:00:00	3.62	9:31:00	-0.15	0.34	0.50	0	1	0	872	OTM	OTM	OTM
TSLA	2018-09-21	\$240.00	P	1.20	12:15:00	1.09	12:41:00	-0.0307	0.0009	-1.4907	-0.0624	0.0873	1.50	15:57:00	3.36	15:28:00	4.03	9:31:00	-0.11	0.41	0.67	0	1	0	3,372	OTM	OTM	OTM
TSLA	2018-09-21	\$245.00	P	1.46	11:34:00	1.23	12:44:00	-0.0356	0.0010	-1.7169	-0.0682	0.0981	1.35	16:00:00	3.65	14:45:00	4.35	9:31:00	-0.23	0.12	0.70	0	1	0	4,259	OTM	OTM	OTM
TSLA	2018-09-21	\$250.00	P	1.61	12:07:00	1.34	12:44:00	-0.0404	0.0011	-1.9506	-0.0741	0.1088	1.44	16:00:00	4.03	15:57:00	5.17	9:31:00	-0.27	0.10	1.14	0	1	0	10,798	OTM	OTM	OTM
TSLA	2018-09-21	\$255.00	P	1.80	11:59:00	1.62	12:44:00	-0.0463	0.0013	-2.2333	-0.0811	0.1214	1.50	15:56:00	4.30	15:59:00	5.40	9:31:00	-0.18	-0.12	1.10	0	0	0	1,491	OTM	OTM	OTM
TSLA	2018-09-21	\$260.00	P	2.12	12:17:00	1.83	12:46:00	-0.0531	0.0015	-2.5566	-0.0881	0.1352	1.79	15:59:00	4.70	15:29:00	5.77	9:31:00	-0.29	-0.04	1.07	0	0	0	3,536	OTM	OTM	OTM
TSLA	2018-09-21	\$265.00	P	2.59	11:24:00	2.04	12:45:00	-0.0615	0.0017	-2.9602	-0.0973	0.1516	1.65	15:57:00	5.13	15:46:00	6.38	9:31:00	-0.55	-0.39	1.25	0	0	0	1,647	OTM	OTM	OTM
TSLA	2018-09-21	\$270.00	P	2.85	11:37:00	2.25	12:47:00	-0.0665	0.0018	-3.2134	-0.1015	0.1619	2.00	16:00:00	5.68	15:57:00	7.22	9:31:00	-0.60	-0.25	1.54	0	0	0	2,656	OTM	OTM	OTM
TSLA	2018-09-21	\$275.00	P	3.25	12:08:00	2.68	12:46:00	-0.0789	0.0021	-3.8012	-0.1130	0.1838	2.27	16:00:00	6.20	15:24:00	7.50	9:31:00	-0.57	-0.41	1.30	0	0	0	4,318	OTM	OTM	OTM
TSLA	2018-09-21	\$280.00	P	3.75	12:11:00	3.10	12:46:00	-0.0901	0.0024	-4.3439	-0.1226	0.2030	2.50	16:00:00	6.75	15:47:00	8.30	9:31:00	-0.65	-0.60	1.55	0	0	0	3,449	OTM	OTM	OTM
TSLA	2018-09-21	\$285.00	P	4.35	12:07:00	3.50	12:44:00	-0.1007	0.0026	-4.8691	-0.1311	0.2209	2.52	16:00:00	7.40	15:43:00	13.34	9:31:00	-0.85	-0.98	5.94	0	0	0	4,879	OTM	OTM	OTM
TSLA	2018-09-21	\$290.00	P	5.08	12:12:00	4.15	12:46:00	-0.1168	0.0030	-5.6383	-0.1430	0.2451	3.67	16:00:00	8.27	15:59:00	10.45	9:31:00	-0.93	-0.48	2.18	0	0	0	6,658	OTM	OTM	OTM
TSLA	2018-09-21	\$295.00	P	5.83	11:58:00	4.53	12:47:00	-0.1272	0.0032	-6.1654	-0.1496	0.2613	3.72	16:00:00	9.15	15:59:00	12.48	9:31:00	-1.30	-0.81	3.33	0	0	0	2,952	OTM	OTM	OTM
TSLA	2018-09-21	\$300.00	P	6.65	12:13:00	5.28	12:47:00	-0.1444	0.0036	-7.0083	-0.1607	0.2850	3.90	16:00:00	10.10	16:00:00	13.01	9:31:00	-1.37	-1.38	2.91	0	0	0	25,295	OTM	OTM	OTM
TSLA	2018-09-21	\$305.00	P	7.85	11:38:00	6.00	12:47:00	-0.1638	0.0039	-7.9653	-0.1724	0.3098	4.71	16:00:00	10.97	15:07:00	14.20	9:32:00	-1.85	-1.29	3.23	0	0	0	2,505	OTM	OTM	OTM
TSLA	2018-09-21	\$310.00	P	8.86	12:08:00	6.95	12:47:00	-0.1847	0.0043	-8.9988	-0.1833	0.3344	6.07	15:58:00	12.42	16:00:00	15.93	9:31:00	-1.91	-0.88	3.51	0	0	0	4,801	OTM	OTM	OTM
TSLA	2018-09-21	\$315.00	P	10.01	12:03:00	7.80	12:47:00	-0.2067	0.0047	-10.0814	-0.1925	0.3580	5.69	16:00:00	13.74	15:52:00	17.75	9:31:00	-2.21	-2.11	4.01	0	0	0	5,021	OTM	OTM	OTM
TSLA	2018-09-21	\$320.00	P	11.56	12:08:00	9.20	12:46:00	-0.2396	0.0052	-11.6757	-0.2058	0.3878	5.75	16:00:00	15.30	15:59:00	22.50	9:31:00	-2.36	-3.45	7.20	0	0	0	13,059	OTM	OTM	OTM
TSLA	2018-09-21	\$325.00	P	13.10	12:02:00	10.40	12:44:00	-0.2634	0.0055	-12.8865	-0.2145	0.4085	6.64	16:00:00	17.00	15:51:00	21.53	9:31:00	-2.70	-3.76	4.53	0	0	0	3,567	OTM	OTM	OTM
TSLA	2018-09-21	\$330.00	P	15.05	12:15:00	11.85	12:47:00	-0.2883	0.0058	-14.1576	-0.2221	0.4278	7.33	16:00:00	18.77	15:54:00	23.99	9:31:00	-3.20	-4.52	5.22	0	0	0	7,770	OTM	OTM	OTM
TSLA	2018-09-21	\$335.00	P	17.30	12:11:00	13.25	12:47:00	-0.3187	0.0062	-15.6912	-0.2290	0.4474	8.86	16:00:00	20.85	16:00:00	26.19	9:31:00	-4.05	-4.39	5.34	0	0	0	2,950	ITM	OTM	OTM
TSLA	2018-09-21	\$340.00	P	19.24	12:15:00	15.40	12:46:00	-0.3604	0.0066	-17.7386	-0.2353	0.4670	9.42	16:00:00	23.07	16:00:00	28.87	9:31:00	-3.84	-5.98	5.80	0	0	0	10,302	OTM	OTM	ITM
TSLA	2018-09-21	\$345.00	P	21.55	12:05:00	16.51	12:42:00	-0.3746	0.0067	-18.6028	-0.2372	0.4769	10.92	16:00:00	25.70	15:44:00	32.28	9:31:00	-5.04	-5.59	6.58	0	0	0	2,668	ITM	OTM	ITM
TSLA	2018-09-21	\$350.00	P	24.50	12:15:00	19.00	12:47:00	-0.4198	0.0070	-20.8586	-0.2422	0.4895	11.60	16:00:00	28.35	16:00:00	38.75	9:31:00	-5.50	-7.40	10.40	0	0	0	9,307	ITM	OTM	ITM
TSLA	2018-09-21	\$355.00	P	25.71	10:21:00	21.60	12:46:00	-0.4663	0.0073	-23.1759	-0.2408	0.4956	12.50	16:00:00	31.24	15:51:00	38.92	9:34:00	-4.11	-9.10	7.68	0	0	0	2,912	ITM	OTM	ITM
TSLA	2018-09-21	\$360.00	P	29.99	9:36:00	24.00	12:45:00	-0.5029	0.0073	-25.1193	-0.2413	0.4971	14.71	16:00:00	34.70	15:56:00	43.00	9:32:00	-5.99	-9.29	8.30	0	0	0	5,577	ITM	ITM	ITM
TSLA	2018-09-21	\$365.00	P												37.89	15:53:00	47.44	9:31:00			9.55			0	1,895	---	---	ITM
TSLA	2018-09-21	\$370.00	P	35.20	10:20:00	27.65	12:38:00	-0.5455	0.0073	-27.6665	-0.2364	0.4996	17.68	16:00:00	41.68	15:59:00	50.00	9:31:00	-7.55	-9.97	8.32	0	0	0	2,744	ITM	ITM	ITM
TSLA	2018-09-21	\$375.00	P	41.60	11:44:00	31.69	12:32:00	-0.6074	0.0074	-30.7325	-0.2213	0.4800	20.00	16:00:00	45.46	15:56:00	55.01	9:31:00	-9.91	-11.69	9.55	0	0	0	1,977	ITM	ITM	ITM
TSLA	2018-09-21	\$380.00	P	43.55	10:51:00	36.10	12:45:00	-0.6439	0.0069	-32.8316	-0.2205	0.4635	23.00	16:00:00	48.33	12:46:00	68.07	9:47:00	-7.45	-13.10	19.74	0	0	0	2,450	ITM	ITM	ITM
TSLA	2018-09-21	\$385.00	P			37.85	12:43:00	-0.6713	0.0069	-34.4319	-0.2110	0.4510	24.40	16:00:00	53.50	14:48:00	65.75	9:32:00			-13.45	12.25		0	802	---	---	ITM
TSLA	2018-09-21	\$390.00	P	51.15	9:39:00								26.00	15:52:00	55.35	11:11:00	79.87	12:03:00			24.52			0	435	---	---	ITM
TSLA	2018-09-21	\$395.00	P	56.47	11:01:00								28.15	15:53:00											63	---	---	---
TSLA	2018-09-21	\$400.00	P	62.40	11:28:00	50.26	12:43:00	-0.7612	0.0059	-39.7980	-0.1789	0.3855	34.89	16:00:00	64.30	12:56:00	80.40	9:39:00	-12.14	-15.37	16.10	0	0	0	812	ITM	ITM	ITM
TSLA	2018-09-21	\$405.00	P	64.97	11:04:00	53.06	12:43:00	-0.7853	0.0055	-41.3752	-0.1691	0.3626	52.00	13:00:00					-11.91	-1.06		0	0		39	ITM	ITM	---
TSLA	2018-09-21	\$410.00	P	69.30	9:35:00	57.51	12:37:00	-0.8015	0.0052	-42.6103	-0.1610	0.3471	56.39	13:06:00					-11.79	-1.12		0	0		136	ITM	ITM	---
TSLA	2018-09-21	\$415.00																										

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness		
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT
TSLA	2018-09-28	\$310.00	P											14.41	9:40:00	17.80	9:31:00			3.39			0	98	---	---	OTM	
TSLA	2018-09-28	\$315.00	P											15.57	15:21:00	19.83	9:33:00			4.26			0	102	---	---	OTM	
TSLA	2018-09-28	\$320.00	P											15.50	11:51:00	21.30	9:31:00			5.80			0	101	---	---	OTM	
TSLA	2018-09-28	\$325.00	P											18.98	13:45:00	28.90	9:52:00			9.92			0	135	---	---	OTM	
TSLA	2018-09-28	\$330.00	P											20.75	14:37:00	34.80	10:31:00			14.05			0	59	---	---	OTM	
TSLA	2018-09-28	\$335.00	P											22.60	15:33:00	28.00	9:36:00			5.40			0	50	---	---	OTM	
TSLA	2018-09-28	\$337.50	P											23.87	13:33:00	37.15	10:24:00			13.28			0	17	---	---	ITM	
TSLA	2018-09-28	\$340.00	P											25.05	13:55:00	29.70	9:36:00			4.65			0	144	---	---	ITM	
TSLA	2018-09-28	\$345.00	P											26.68	13:22:00	33.85	9:33:00			7.17			0	68	---	---	ITM	
TSLA	2018-09-28	\$347.50	P											27.49	11:10:00	35.60	9:38:00			8.11			0	13	---	---	ITM	
TSLA	2018-09-28	\$350.00	P											30.17	14:25:00	39.90	9:31:00			9.73			0	93	---	---	ITM	
TSLA	2018-09-28	\$352.50	P											28.55	11:21:00	41.41	9:31:00			12.86			0	84	---	---	ITM	
TSLA	2018-09-28	\$355.00	P											29.45	11:29:00	41.50	9:40:00			12.05			0	302	---	---	ITM	
TSLA	2018-09-28	\$360.00	P											36.25	9:38:00	57.47	15:03:00			21.22			0	139	---	---	ITM	
TSLA	2018-09-28	\$397.50	P											65.45	9:56:00								0	7	---	---	---	
TSLA	2018-10-19	\$25.00	P											0.07	15:56:00	0.08	9:33:00			0.01			0	2,408	---	---	OTM	
TSLA	2018-10-19	\$50.00	P											0.18	15:22:00	0.25	9:31:00			0.07			0	18,425	---	---	OTM	
TSLA	2018-10-19	\$65.00	P											0.25	14:11:00	0.60	10:13:00			0.35			0	32	---	---	OTM	
TSLA	2018-10-19	\$70.00	P											0.36	14:11:00	0.68	10:29:00			0.32			0	200	---	---	OTM	
TSLA	2018-10-19	\$75.00	P	0.12	11:39:00	0.11	12:27:00	-0.0014	0.0000	-0.1181	-0.0063	0.0072	0.20	15:57:00	0.42	15:03:00	0.50	9:31:00	-0.01	0.09	0.08	0	1	0	9,220	OTM	OTM	OTM
TSLA	2018-10-19	\$80.00	P			0.10	12:45:00	-0.0026	0.0000	-0.2273	-0.0118	0.0129		0.46	15:19:00	0.89	10:23:00			0.43			0	539	---	---	OTM	
TSLA	2018-10-19	\$90.00	P	0.15	11:57:00																		0	100	---	---	---	
TSLA	2018-10-19	\$100.00	P	0.22	11:24:00								0.35	13:03:00	0.96	15:54:00	0.96	9:31:00			0.00		1	5,028	---	---	OTM	
TSLA	2018-10-19	\$105.00	P	0.27	9:42:00																		0	57	---	---	---	
TSLA	2018-10-19	\$110.00	P	0.27	11:24:00																		0	229	---	---	---	
TSLA	2018-10-19	\$115.00	P	0.37	10:51:00									0.98	13:06:00	1.66	9:49:00			0.68		0	129	---	---	OTM		
TSLA	2018-10-19	\$120.00	P	0.42	11:08:00								0.30	15:52:00	1.18	13:22:00	1.70	9:55:00			0.52		0	271	---	---	OTM	
TSLA	2018-10-19	\$125.00	P	0.40	11:54:00								0.70	15:58:00	1.19	13:06:00	1.56	9:34:00			0.37		0	1,202	---	---	OTM	
TSLA	2018-10-19	\$130.00	P											1.37	13:22:00	2.12	12:14:00			0.75		0	63	---	---	OTM		
TSLA	2018-10-19	\$150.00	P			0.57	12:30:00	-0.0104	0.0002	-0.8636	-0.0276	0.0440	0.48	14:07:00	1.98	15:39:00	2.11	9:33:00	-0.09	0.13	0	0	1,167	---	---	OTM	OTM	
TSLA	2018-10-19	\$155.00	P	0.67	11:42:00								0.90	13:43:00	2.15	10:02:00	2.35	9:36:00			0.20		0	251	---	---	OTM	
TSLA	2018-10-19	\$160.00	P											2.30	10:55:00	2.42	9:33:00			0.12		0	257	---	---	OTM		
TSLA	2018-10-19	\$165.00	P			0.75	12:43:00	-0.0134	0.0003	-1.1025	-0.0319	0.0548	0.78	13:14:00					0.03			1	574	---	---	OTM	---	
TSLA	2018-10-19	\$175.00	P	1.00	11:55:00								0.94	13:09:00									0	373	---	---	---	
TSLA	2018-10-19	\$180.00	P	1.10	10:30:00	0.97	12:45:00	-0.0194	0.0004	-1.5860	-0.0413	0.0749	1.10	16:00:00	2.85	11:59:00	3.45	9:34:00	-0.13	0.13	0.60	0	1	0	566	OTM	OTM	OTM
TSLA	2018-10-19	\$185.00	P	1.17	11:34:00									3.00	12:00:00	5.80	10:36:00			2.80		0	57	---	---	OTM		
TSLA	2018-10-19	\$190.00	P	1.25	12:05:00									3.20	11:14:00	4.10	9:34:00			0.90		0	372	---	---	OTM		
TSLA	2018-10-19	\$195.00	P	1.44	10:33:00								1.33	13:00:00	3.55	12:31:00	5.17	9:45:00			1.62		0	96	---	---	OTM	
TSLA	2018-10-19	\$200.00	P	1.55	11:56:00	1.37	12:35:00	-0.0278	0.0005	-2.2704	-0.0513	0.1018	1.85	15:56:00	4.00	15:54:00	4.50	9:31:00	-0.18	0.48	0.50	0	1	0	2,318	OTM	OTM	OTM
TSLA	2018-10-19	\$205.00	P			1.51	12:40:00	-0.0298	0.0006	-2.4439	-0.0537	0.1085		4.14	12:44:00	6.54	10:23:00			2.40		0	2,366	---	---	OTM		
TSLA	2018-10-19	\$210.00	P	1.95	10:20:00								1.78	13:49:00	4.50	15:05:00	5.50	9:39:00			1.00		0	1,188	---	---	OTM	
TSLA	2018-10-19	\$215.00	P											4.75	9:31:00	5.87	9:31:00			1.12		0	329	---	---	OTM		
TSLA	2018-10-19	\$220.00	P											5.19	14:39:00	7.25	9:44:00			2.06		0	371	---	---	OTM		
TSLA	2018-10-19	\$225.00	P	2.56	10:19:00	2.21	12:27:00	-0.0458	0.0009	-3.6985	-0.0686	0.1524	2.20	14:04:00	5.51	14:11:00	6.40	9:31:00	-0.35	-0.01	0.89	0	0	0	275	OTM	OTM	OTM
TSLA	2018-10-19	\$230.00	P	2.87	10:39:00	2.65	12:21:00	-0.0565	0.0012	-4.4493	-0.0761	0.1759	2.30	12:49:00	5.99	14:47:00	7.10	9:31:00	-0.22	-0.35	1.11	0	0	0	460	OTM	OTM	OTM
TSLA	2018-10-19	\$235.00	P	3.15	10:48:00									6.35	13:42:00	9.14	9:54:00			2.79		0	305	---	---	OTM		
TSLA	2018-10-19	\$240.00	P	3.45	10:21:00	2.95	12:43:00	-0.0617	0.0012	-5.0204	-0.0841	0.1943	2.57	15:47:00	6.65	13:00:00	7.93	9:31:00	-0.50	-0.38	1.28	0	0	0	3,593	OTM	OTM	OTM
TSLA	2018-10-19	\$245.00	P											7.30	14:57:00	8.36	9:36:00			1.06		0	199	---	---	OTM		
TSLA	2018-10-19	\$250.00	P	4.45	11:49:00	3.57	12:41:00	-0.0743	0.0014	-6.0610	-0.0941	0.2249	3.53	16:00:00	7.90	15:48:00	9.30	9:34:00	-0.88	-0.04	1.40	0	0	0	11,802	OTM	OTM	OTM
TSLA	2018-10-19	\$255.00	P											8.51	13:59:00	12.30	9:47:00			3.79		0	197	---	---	OTM		
TSLA	2018-10-19	\$260.00	P	5.43	10:17:00	4.55	12:47:00	-0.0918	0.0017	-7.4764	-0.1064	0.2631	2.83	15:53:00	8.80	12:13:00	10.56	9:31:00	-0.88	-1.72	1.76	0	0	0	779	OTM	OTM	OTM
TSLA	2018-10-19	\$265.00	P	5.84	12:04:00	4.90	12:31:00	-0.1003	0.0019	-8.1424	-0.1102	0.2803	4.80	13:48:00	9.74	15:33:00	14.13	9:54:00	-0.94	-0.10	4.39	0	0	0	235	OTM	OTM	OTM
TSLA	2018-10-19	\$270.00	P	6.67	11:46:00	5.45	12:31:00	-0.1109	0.0021	-9.0118	-0.1167	0.3014	3.99	15:58:00	10.60	15:54:00	13.05	9:31:00	-1.22	-1.46	2.45	0	0	0	612	OTM	OTM	OTM
TSLA	2018-10-19	\$275.00	P	7.22	12:04:00	6.60	12:25:00	-0.1291	0.0024	-10.3695	-0.1244	0.3315	5.68	15:56:00	11.26	15:33:00	13.44	9:37:00	-0.62	-0.92	2.18	0	0	0	610	OTM	OTM	OTM
TSLA	2018-10-19	\$280.00	P	8.50	11:29:00	6.95	12:47:00	-0.1358	0.0024	-11.0875	-0.1324	0.3478	5.41	16:00:00	12.22	15:42:00	14.48	9:31:00	-1.55	-1.54	2.26	0	0	0	1,046	OTM	OTM	OTM
TSLA	2018-10-19	\$285.00	P	9.40	11:29:00	7.40	12:42:00	-0.1448	0.0026	-11.8634	-0.1362	0.3647	6.22	16:00:00					-2.00	-1.18		0	0	0	705	OTM	OTM	---
TSLA	2018-10-19	\$290.00	P	10.20	11:30:																							

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness		
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT
TSLA	2018-10-19	\$300.00	P	12.40	12:13:00	10.22	12:44:00	-0.1972	0.0033	-16.1398	-0.1578	0.4419	7.00	16:00:00	16.65	15:56:00	19.50	9:31:00	-2.18	-3.22	2.85	0	0	0	6,864	OTM	OTM	OTM
TSLA	2018-10-19	\$305.00	P	14.15	11:29:00	10.67	12:38:00	-0.2038	0.0034	-16.8217	-0.1604	0.4548	8.21	16:00:00	17.47	15:11:00	25.95	9:45:00	-3.48	-2.46	8.48	0	0	0	462	OTM	OTM	OTM
TSLA	2018-10-19	\$310.00	P	15.25	11:35:00	12.07	12:42:00	-0.2266	0.0037	-18.6807	-0.1676	0.4819	8.25	16:00:00	18.90	15:10:00	23.72	9:31:00	-3.18	-3.82	4.82	0	0	0	1,068	OTM	OTM	OTM
TSLA	2018-10-19	\$315.00	P			14.15	12:45:00	-0.2585	0.0040	-21.2270	-0.1769	0.5132	10.00	15:57:00	20.44	15:10:00	24.05	9:35:00		-4.15	3.61	0	0	0	261	---	OTM	OTM
TSLA	2018-10-19	\$320.00	P	18.60	9:47:00	17.40	12:21:00	-0.3200	0.0047	-25.8362	-0.1870	0.5528	9.43	16:00:00	22.25	16:00:00	27.00	9:32:00	-1.20	-7.97	4.75	0	0	0	794	OTM	OTM	OTM
TSLA	2018-10-19	\$325.00	P	20.10	10:10:00	15.50	12:39:00	-0.2880	0.0043	-23.9091	-0.1830	0.5464	9.85	16:00:00	24.00	14:10:00	29.05	9:31:00	-4.60	-5.65	5.05	0	0	0	3,302	OTM	OTM	OTM
TSLA	2018-10-19	\$330.00	P	23.00	11:28:00	18.17	12:43:00	-0.3194	0.0046	-26.4798	-0.1885	0.5692	10.95	16:00:00	25.85	15:19:00	31.10	9:31:00	-4.83	-7.22	5.25	0	0	0	4,051	OTM	OTM	OTM
TSLA	2018-10-19	\$335.00	P	24.37	11:51:00	19.00	12:39:00	-0.3351	0.0047	-27.9617	-0.1911	0.5833	13.10	15:59:00	28.25	16:00:00	38.05	9:31:00	-5.37	-5.90	9.80	0	0	0	467	OTM	OTM	OTM
TSLA	2018-10-19	\$340.00	P	26.55	12:17:00	22.08	12:47:00	-0.3684	0.0050	-30.7163	-0.1948	0.6005	13.63	16:00:00	30.45	15:59:00	37.28	9:31:00	-4.47	-8.45	6.83	0	0	0	3,043	OTM	OTM	ITM
TSLA	2018-10-19	\$345.00	P	30.05	11:29:00	24.20	12:45:00	-0.4032	0.0052	-33.6280	-0.1983	0.6134	16.00	15:51:00	32.53	15:23:00	38.85	9:31:00	-5.85	-8.20	6.32	0	0	0	593	ITM	OTM	ITM
TSLA	2018-10-19	\$350.00	P	32.38	11:42:00	26.10	12:47:00	-0.4209	0.0052	-35.3235	-0.1983	0.6225	17.00	15:59:00	35.06	15:24:00	42.42	9:31:00	-6.28	-9.10	7.36	0	0	0	2,758	ITM	OTM	ITM
TSLA	2018-10-19	\$355.00	P	34.69	11:51:00	28.00	12:41:00	-0.4441	0.0053	-37.4652	-0.1995	0.6298	20.00	15:57:00	34.90	11:20:00	44.25	9:31:00	-6.69	-8.00	9.35	0	0	0	848	ITM	OTM	ITM
TSLA	2018-10-19	\$360.00	P			30.30	12:39:00	-0.4657	0.0054	-39.4961	-0.1987	0.6354	20.91	15:59:00	40.47	13:44:00	49.51	9:31:00		-9.39	9.04	0	0	0	987	---	ITM	ITM
TSLA	2018-10-19	\$365.00	P			32.90	12:34:00	-0.5019	0.0055	-42.5339	-0.1938	0.6349	22.00	16:00:00	43.75	14:25:00	59.99	10:09:00		-10.90	16.24	0	0	0	834	---	ITM	ITM
TSLA	2018-10-19	\$370.00	P												46.96	14:25:00	68.71	11:15:00			21.75	0	0	0	1,227	---	---	ITM
TSLA	2018-10-19	\$375.00	P			38.60	12:34:00	-0.5568	0.0055	-47.6109	-0.1890	0.6279	29.01	15:59:00	48.75	9:36:00	60.29	9:39:00		-9.59	11.54	0	0	0	301	---	ITM	ITM
TSLA	2018-10-19	\$390.00	P	56.65	9:39:00								30.00	15:51:00								0	0	0	23	---	---	---
TSLA	2018-10-19	\$400.00	P			56.00	12:44:00	-0.6872	0.0050	-60.3507	-0.1661	0.5596	38.34	15:54:00	69.57	15:59:00	88.77	10:10:00		-17.66	19.20	0	0	0	204	---	ITM	ITM
TSLA	2018-10-19	\$430.00	P			77.50	12:39:00	-0.7983	0.0040	-73.0695	-0.1287	0.4445	54.15	15:48:00						-23.35		0	0	0	8	---	ITM	---
TSLA	2018-11-16	\$50.00	P												0.41	15:59:00	0.55	9:32:00			0.14	0	0	0	824	---	---	OTM
TSLA	2018-11-16	\$100.00	P												1.53	15:42:00	1.76	9:36:00			0.23	0	0	0	3,360	---	---	OTM
TSLA	2018-11-16	\$120.00	P												2.10	11:13:00	2.45	9:36:00			0.35	0	0	0	45	---	---	OTM
TSLA	2018-11-16	\$140.00	P												2.95	15:40:00						0	0	0	11	---	---	---
TSLA	2018-11-16	\$150.00	P												3.28	15:53:00	4.25	9:37:00			0.97	0	0	0	156	---	---	OTM
TSLA	2018-11-16	\$160.00	P												4.00	9:34:00	5.15	10:05:00			1.15	0	0	0	39	---	---	OTM
TSLA	2018-11-16	\$180.00	P	2.24	11:42:00								2.30	15:54:00	4.75	15:37:00	6.51	9:57:00			1.76	0	0	0	365	---	---	OTM
TSLA	2018-11-16	\$185.00	P	2.24	11:20:00																	0	0	0	350	---	---	---
TSLA	2018-11-16	\$190.00	P												5.70	15:41:00	6.60	9:33:00			0.90	0	0	0	156	---	---	OTM
TSLA	2018-11-16	\$200.00	P												6.45	14:32:00	7.50	9:39:00			1.05	0	0	0	3,197	---	---	OTM
TSLA	2018-11-16	\$210.00	P												7.15	14:52:00	9.73	9:54:00			2.58	0	0	0	74	---	---	OTM
TSLA	2018-11-16	\$220.00	P												7.40	11:29:00	11.05	9:43:00			3.65	0	0	0	91	---	---	OTM
TSLA	2018-11-16	\$230.00	P	6.00	10:45:00	4.75	12:30:00	-0.0752	0.0012	-8.7370	-0.0863	0.2651	3.50	16:00:00	9.45	15:56:00	10.40	9:31:00	-1.25	-1.25	0.95	0	0	0	1,082	OTM	OTM	OTM
TSLA	2018-11-16	\$240.00	P			6.15	12:28:00	-0.0901	0.0014	-10.3616	-0.0929	0.3015			10.70	15:41:00	15.75	10:30:00			5.05	0	0	0	137	---	---	OTM
TSLA	2018-11-16	\$250.00	P												12.15	15:48:00	14.00	9:32:00			1.85	0	0	0	5,594	---	---	OTM
TSLA	2018-11-16	\$260.00	P	10.02	11:48:00																	0	0	0	2,182	---	---	---
TSLA	2018-11-16	\$265.00	P												14.10	12:59:00	19.20	9:43:00			5.10	0	0	0	105	---	---	OTM
TSLA	2018-11-16	\$270.00	P												15.12	9:32:00	17.80	9:37:00			2.68	0	0	0	826	---	---	OTM
TSLA	2018-11-16	\$275.00	P	12.40	10:52:00								10.31	13:25:00	15.41	11:49:00	20.85	9:42:00			5.44	0	0	0	115	---	---	OTM
TSLA	2018-11-16	\$280.00	P	13.65	12:08:00								11.00	13:20:00	17.35	13:53:00	20.20	9:36:00			2.85	0	0	0	422	---	---	OTM
TSLA	2018-11-16	\$285.00	P	15.00	11:25:00								12.10	12:56:00	18.72	15:56:00	21.45	9:37:00			2.73	0	0	0	477	---	---	OTM
TSLA	2018-11-16	\$290.00	P	15.91	11:40:00								10.20	15:50:00	19.75	15:20:00	22.80	9:37:00			3.05	0	0	0	2,171	---	---	OTM
TSLA	2018-11-16	\$295.00	P	17.25	11:27:00								13.61	13:18:00								0	0	0	57	---	---	---
TSLA	2018-11-16	\$300.00	P	19.01	11:41:00	16.25	12:47:00	-0.2317	0.0029	-27.4976	-0.1594	0.5705	11.07	16:00:00	22.30	14:39:00	26.00	9:32:00	-2.76	-5.18	3.70	0	0	0	1,603	OTM	OTM	OTM
TSLA	2018-11-16	\$305.00	P												22.30	11:42:00	28.75	9:40:00			6.45	0	0	0	175	---	---	OTM
TSLA	2018-11-16	\$310.00	P			18.45	12:37:00	-0.2600	0.0032	-30.9954	-0.1646	0.6087	12.00	16:00:00	25.50	15:56:00	36.93	10:34:00		-6.45	11.43	0	0	0	1,127	---	OTM	OTM</

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness			
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT	
TSLA	2018-12-21	\$80.00	P												1.42	12:56:00	1.92	9:47:00			0.50			0	93	---	---	OTM	
TSLA	2018-12-21	\$100.00	P												2.25	10:42:00	2.79	10:00:00			0.54			0	907	---	---	OTM	
TSLA	2018-12-21	\$140.00	P	2.16	11:36:00	2.00	12:41:00	-0.0229	0.0003	-3.8187	-0.0387	0.1185	2.50	15:56:00	3.76	11:52:00	5.74	10:38:00	-0.16	0.50	1.98	0	1	0	362	OTM	OTM	OTM	
TSLA	2018-12-21	\$145.00	P			2.10	12:38:00	-0.0244	0.0003	-4.0801	-0.0403	0.1257	1.93	15:55:00						-0.17		0		0	71	---	---	OTM	
TSLA	2018-12-21	\$150.00	P	2.51	11:36:00	2.38	12:47:00	-0.0275	0.0003	-4.5516	-0.0433	0.1377	2.00	15:53:00	4.42	13:37:00	5.70	10:05:00	-0.13	-0.38	1.28	0	0	0	1,438	OTM	OTM	OTM	
TSLA	2018-12-21	\$165.00	P	3.17	10:42:00	3.00	12:36:00	-0.0351	0.0004	-5.7806	-0.0500	0.1685								-0.17		0		0	34	OTM	---	---	
TSLA	2018-12-21	\$170.00	P												5.60	13:57:00	7.94	13:26:00			2.34			0	32	---	---	OTM	
TSLA	2018-12-21	\$175.00	P			3.40	12:37:00	-0.0406	0.0005	-6.6805	-0.0544	0.1903	3.10	13:51:00	6.18	14:20:00	9.00	10:37:00			2.82			0	82	---	---	OTM	
TSLA	2018-12-21	\$180.00	P	4.00	10:50:00								3.65	13:01:00										0	155	---	---	---	
TSLA	2018-12-21	\$185.00	P			3.85	12:30:00	-0.0485	0.0006	-7.9069	-0.0600	0.2182	3.60	13:44:00						-0.25		0		0	127	---	---	OTM	
TSLA	2018-12-21	\$190.00	P	4.65	10:48:00	4.32	12:25:00	-0.0539	0.0007	-8.6813	-0.0629	0.2349			7.42	9:31:00	10.00	10:13:00	-0.33		2.58	0	0	0	134	OTM	---	OTM	
TSLA	2018-12-21	\$195.00	P			4.70	12:22:00	-0.0568	0.0008	-8.9823	-0.0618	0.2425	3.50	15:57:00	7.35	11:36:00	10.11	10:02:00			2.76			0	48	---	---	OTM	
TSLA	2018-12-21	\$200.00	P	5.37	10:20:00	5.00	12:24:00	-0.0645	0.0008	-10.3696	-0.0704	0.2699	4.10	15:56:00	8.25	15:55:00	9.95	9:31:00	-0.37	-0.90	1.70	0	0	0	2,031	OTM	OTM	OTM	
TSLA	2018-12-21	\$205.00	P			5.19	12:37:00	-0.0648	0.0008	-10.5959	-0.0711	0.2760	5.20	13:06:00	9.00	9:58:00	10.50	9:31:00			1.50		1	0	74	---	---	OTM	
TSLA	2018-12-21	\$210.00	P	6.31	10:49:00								5.60	13:06:00	9.38	15:52:00	13.05	12:42:00			3.67			0	1,939	---	---	OTM	
TSLA	2018-12-21	\$220.00	P	7.30	10:15:00	6.77	12:46:00	-0.0844	0.0011	-13.7082	-0.0826	0.3352	3.00	15:54:00	10.40	14:05:00	12.45	9:41:00	-0.53	-3.77	2.05	0	0	0	229	OTM	OTM	OTM	
TSLA	2018-12-21	\$225.00	P			7.00	12:45:00	-0.0909	0.0011	-14.7605	-0.0860	0.3543	5.00	15:49:00							2.00			0	152	---	---	OTM	
TSLA	2018-12-21	\$230.00	P												11.89	14:48:00	13.64	9:32:00			1.75			0	291	---	---	OTM	
TSLA	2018-12-21	\$235.00	P												11.90	11:17:00								0	62	---	---	---	
TSLA	2018-12-21	\$240.00	P	9.85	9:44:00	9.06	12:46:00	-0.1129	0.0014	-18.3242	-0.0962	0.4147	7.05	15:55:00	13.29	13:32:00	16.90	9:42:00	-0.79	-2.01	3.61	0	0	0	421	OTM	OTM	OTM	
TSLA	2018-12-21	\$245.00	P	10.60	12:10:00	9.32	12:39:00	-0.1167	0.0014	-19.0747	-0.0980	0.4283	6.80	15:58:00	14.00	11:06:00	16.20	9:35:00	-1.28	-2.52	2.20	0	0	0	1,347	OTM	OTM	OTM	
TSLA	2018-12-21	\$250.00	P	11.58	11:43:00	10.10	12:41:00	-0.1266	0.0015	-20.6556	-0.1021	0.4523	8.15	15:46:00	14.80	13:53:00	17.70	9:39:00	-1.48	-1.95	2.90	0	0	0	2,027	OTM	OTM	OTM	
TSLA	2018-12-21	\$255.00	P	11.90	10:24:00																			0	117	---	---	---	
TSLA	2018-12-21	\$260.00	P	13.20	9:36:00								11.40	13:04:00	16.65	13:40:00	22.88	9:46:00			6.23			0	94	---	---	OTM	
TSLA	2018-12-21	\$265.00	P			12.50	12:43:00	-0.1576	0.0019	-25.7298	-0.1138	0.5232			17.87	14:56:00	23.20	9:50:00			5.33			0	166	---	---	OTM	
TSLA	2018-12-21	\$270.00	P	15.20	9:54:00	13.50	12:31:00	-0.1677	0.0020	-27.3041	-0.1157	0.5442	13.00	15:52:00						-1.70	-0.50		0	0	406	OTM	OTM	---	
TSLA	2018-12-21	\$275.00	P			14.52	12:43:00	-0.1798	0.0021	-29.4009	-0.1207	0.5693	9.40	15:55:00							-5.12			0	576	---	---	OTM	
TSLA	2018-12-21	\$280.00	P	17.36	10:32:00								10.00	15:56:00	20.35	11:13:00	27.50	9:43:00			7.15			0	502	---	---	OTM	
TSLA	2018-12-21	\$290.00	P			18.45	12:45:00	-0.2211	0.0024	-36.1791	-0.1316	0.6417	11.00	16:00:00	23.66	14:49:00	26.81	9:34:00			3.15			0	851	---	---	OTM	
TSLA	2018-12-21	\$295.00	P	21.80	9:57:00	19.10	12:42:00	-0.2271	0.0025	-37.4426	-0.1328	0.6571	12.63	16:00:00	23.20	11:32:00	28.32	9:34:00	-2.70	-6.47	5.12	0	0	0	296	OTM	OTM	OTM	
TSLA	2018-12-21	\$300.00	P	23.41	10:52:00	20.35	12:43:00	-0.2453	0.0026	-40.3847	-0.1366	0.6824	13.75	15:59:00	25.70	12:13:00	30.00	9:31:00	-3.06	-6.60	4.30	0	0	0	2,156	OTM	OTM	OTM	
TSLA	2018-12-21	\$305.00	P	25.25	9:48:00	21.60	12:38:00	-0.2526	0.0027	-41.8812	-0.1382	0.6984	18.12	14:07:00	28.05	14:16:00	36.50	9:46:00			8.45			0	162	OTM	OTM	OTM	
TSLA	2018-12-21	\$310.00	P	26.00	10:24:00	23.32	12:43:00	-0.2752	0.0029	-45.4703	-0.1418	0.7239	17.20	15:52:00							2.68	-6.12		0	0	1,960	OTM	OTM	---
TSLA	2018-12-21	\$315.00	P			25.60	12:30:00	-0.2929	0.0030	-48.2995	-0.1429	0.7438	16.96	15:59:00	31.27	14:56:00	41.20	9:51:00			9.93			0	0	591	---	---	OTM
TSLA	2018-12-21	\$320.00	P	30.10	10:35:00	27.80	12:46:00	-0.3113	0.0031	-51.5169	-0.1465	0.7632	18.47	15:57:00	31.85	11:13:00	39.25	9:31:00	-2.30	-9.33	7.40	0	0	0	656	OTM	OTM	OTM	
TSLA	2018-12-21	\$325.00	P	31.95	10:19:00	28.50	12:41:00	-0.3215	0.0031	-53.5674	-0.1483	0.7782	22.00	15:58:00	33.10	11:17:00	46.50	9:46:00	-3.45	-6.50	13.40	0	0	0	319	OTM	OTM	OTM	
TSLA	2018-12-21	\$330.00	P	34.79	10:06:00	31.29	12:45:00	-0.3461	0.0033	-57.6199	-0.1510	0.7957	21.75	15:58:00	36.20	13:01:00	41.20	9:31:00	-3.50	-9.54	5.00	0	0	0	423	OTM	OTM	OTM	
TSLA	2018-12-21	\$335.00	P	37.60	9:48:00	34.00	12:25:00	-0.3736	0.0035	-61.6117	-0.1479	0.8097	22.00	15:55:00	38.90	13:59:00	45.00	9:31:00	-3.60	-12.00	6.10	0	0	0	213	OTM	OTM	OTM	
TSLA	2018-12-21	\$340.00	P	39.50	11:52:00	37.30	12:22:00	-0.4054	0.0037	-66.5354	-0.1479	0.8197	26.05	15:55:00	41.03	14:08:00	46.43	9:37:00	-2.20	-11.25	5.40	0	0	0	1,646	OTM	OTM	ITM	
TSLA	2018-12-21	\$345.00	P	42.00	12:14:00	36.60	12:42:00	-0.3890	0.0035	-65.6460	-0.1535	0.8334	23.85	15:54:00	42.00	13:14:00	52.00	9:41:00	-5.40	-12.75	10.00	0	0	0	120	ITM	OTM	ITM	
TSLA	2018-12-21	\$350.00	P	44.25	9:49:00	39.50	12:35:00	-0.4157	0.0036	-69.9714	-0.1529	0.8417	26.00	15:59:00	45.58	14:57:00	52.73	9:31:00	-4.75	-13.50	7.15	0	0	0	1,485	ITM	OTM	ITM	
TSLA	2018-12-21	\$355.00	P												48.14	14:49:00	59.25	9:42:00			11.11			0	486	---	---	ITM	
TSLA	2018-12-21	\$360.00	P	51.00	11:29:00	43.80	12:42:00	-0.4438	0.0036	-75.6653	-0.1547	0.8575	31.30	15:59:00						-7.20	-12.50		0	0	263	ITM	ITM	---	
TSLA	2018-12-21	\$365.00	P	53.95	11:28:00								33.20	16:00:00										0	150	---	---	---	
TSLA	2018-12-21	\$370.00	P												56.09	14:52:00	70.02	9:43:00			13.93			0	408	---	---	ITM	
TSLA	2018-12-21	\$400.00	P			67.00	12:38:00	-0.5861	0.0037	-103.4169	-0.1451	0.8444	50.00	15:58:00	72.50	11:17:00	92.05	10:06:00			19.55			0	159	---	---	ITM	
TSLA	2018-12-21	\$450.00	P			110.00	12:24:00	-0.7704	0.0030	-141.9463	-0.1050	0.6291												0	6	---	---	---	
TSLA	2019-01-18	\$10.00	P	0.06	11:26:00	0.05	12:37:00	-0.0003	0.0000	-0.0822	-0.0018	0.0030	0.05	15:55:00	0.10	15:36:00	0.11	9:35:00	-0.01	0.00	0.01	0	1	0	15,050	OTM	OTM	OTM	
TSLA	2019-01-18	\$15.00	P												0.14	12:32:00	0.20	9:40:00			0.06			0	366	---			

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness			
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT	
TSLA	2019-01-18	\$65.00	P													1.35	10:47:00									8	---	---	---
TSLA	2019-01-18	\$70.00	P	0.96	10:40:00								0.66	15:46:00												342	---	---	---
TSLA	2019-01-18	\$75.00	P	1.10	11:23:00	0.86	12:25:00	-0.0081	0.0001	-1.7173	-0.0183	0.0525	0.66	15:46:00	1.70	13:57:00	2.53	10:45:00	-0.24	-0.20	0.83	0	0	0	1,467	OTM	OTM	OTM	
TSLA	2019-01-18	\$80.00	P	1.15	10:41:00	1.09	12:43:00	-0.0090	0.0001	-1.9082	-0.0197	0.0579	0.84	13:45:00					-0.06	-0.25		0	0		329	OTM	OTM	---	
TSLA	2019-01-18	\$95.00	P			1.39	12:38:00	-0.0123	0.0001	-2.6140	-0.0245	0.0769	1.35	12:52:00							-0.04		0			609	---	OTM	---
TSLA	2019-01-18	\$100.00	P	1.70	11:44:00	1.61	12:47:00	-0.0142	0.0001	-2.9902	-0.0270	0.0863	1.40	16:00:00	2.65	15:58:00	2.83	9:33:00	-0.09	-0.21	0.18	0	0	0	10,302	OTM	OTM	OTM	
TSLA	2019-01-18	\$110.00	P	1.94	10:24:00								1.85	13:14:00	3.24	9:47:00									110	---	---	---	
TSLA	2019-01-18	\$115.00	P			1.95	12:31:00	-0.0186	0.0002	-3.8651	-0.0316	0.1086													9	---	---	---	
TSLA	2019-01-18	\$120.00	P	2.32	10:22:00	2.10	12:34:00	-0.0202	0.0002	-4.1929	-0.0333	0.1167	2.14	13:27:00	3.50	14:59:00	4.50	9:51:00	-0.22	0.04	1.00	0	1	0	515	OTM	OTM	OTM	
TSLA	2019-01-18	\$125.00	P	2.50	11:25:00	2.35	12:33:00	-0.0221	0.0002	-4.5718	-0.0352	0.1259	0.70	15:58:00	3.76	15:16:00	4.00	9:31:00	-0.15	-1.65	0.24	0	0	0	463	OTM	OTM	OTM	
TSLA	2019-01-18	\$130.00	P	2.65	10:24:00										3.95	15:52:00	5.25	9:50:00			1.30				114	---	---	OTM	
TSLA	2019-01-18	\$135.00	P	2.85	10:24:00								2.25	15:49:00	4.15	11:34:00									48	---	---	---	
TSLA	2019-01-18	\$140.00	P												4.66	14:17:00	5.32	9:33:00			0.66		0		96	---	---	OTM	
TSLA	2019-01-18	\$145.00	P	3.40	10:03:00	3.15	12:30:00	-0.0313	0.0003	-6.3995	-0.0434	0.1679	3.00	15:52:00					-0.25	-0.15		0	0		94	OTM	OTM	---	
TSLA	2019-01-18	\$150.00	P	3.50	11:29:00	3.35	12:44:00	-0.0341	0.0004	-6.9658	-0.0458	0.1802	2.55	16:00:00	5.35	14:40:00	6.07	9:33:00	-0.15	-0.80	0.72	0	0	0	5,825	OTM	OTM	OTM	
TSLA	2019-01-18	\$155.00	P	3.78	10:28:00																				146	---	---	---	
TSLA	2019-01-18	\$160.00	P	4.15	9:41:00	3.86	12:23:00	-0.0413	0.0005	-8.2438	-0.0501	0.2071			6.18	10:51:00	7.25	9:41:00	-0.29		1.07	0	0	266	OTM	---	OTM		
TSLA	2019-01-18	\$170.00	P												6.90	14:48:00	10.25	10:45:00			3.35		0		152	---	---	OTM	
TSLA	2019-01-18	\$175.00	P	5.09	11:46:00	4.95	12:22:00	-0.0506	0.0006	-9.9637	-0.0547	0.2430	3.70	15:50:00	7.27	15:17:00	8.50	9:35:00	-0.14	-1.25	1.23	0	0	0	389	OTM	OTM	OTM	
TSLA	2019-01-18	\$180.00	P	5.45	12:00:00	5.01	12:30:00	-0.0537	0.0006	-10.8400	-0.0592	0.2598	3.50	15:53:00	7.78	15:37:00	11.50	10:40:00	-0.44	-1.51	3.72	0	0	0	1,016	OTM	OTM	OTM	
TSLA	2019-01-18	\$185.00	P			5.75	12:19:00	-0.0641	0.0007	-12.5064	-0.0637	0.2887	5.30	13:53:00	8.30	15:45:00	9.55	9:37:00			1.25	0	0		198	---	OTM	OTM	
TSLA	2019-01-18	\$190.00	P	6.30	9:54:00	5.68	12:31:00	-0.0619	0.0007	-12.4804	-0.0641	0.2909	4.80	15:50:00	8.72	15:40:00	11.00	9:42:00	-0.62	-0.88	2.28	0	0	0	600	OTM	OTM	OTM	
TSLA	2019-01-18	\$195.00	P			6.25	12:23:00	-0.0702	0.0008	-13.8731	-0.0675	0.3147	4.50	15:59:00	9.15	12:20:00	10.55	9:31:00			1.40	0	0	0	194	---	OTM	OTM	
TSLA	2019-01-18	\$200.00	P	7.20	12:01:00	6.67	12:47:00	-0.0721	0.0008	-14.5799	-0.0706	0.3280	5.30	16:00:00	9.90	15:54:00	11.30	9:31:00	-0.53	-1.37	1.40	0	0	0	10,445	OTM	OTM	OTM	
TSLA	2019-01-18	\$210.00	P			7.50	12:36:00	-0.0821	0.0009	-16.5431	-0.0750	0.3619	5.20	13:54:00	11.15	15:57:00	12.85	9:33:00			1.70	0	0	0	1,727	---	OTM	OTM	
TSLA	2019-01-18	\$220.00	P	9.60	10:04:00	8.65	12:47:00	-0.0949	0.0011	-19.1223	-0.0814	0.4030	6.54	15:59:00	12.47	13:43:00	14.04	9:33:00	-0.95	-2.11	1.57	0	0	0	1,617	OTM	OTM	OTM	
TSLA	2019-01-18	\$230.00	P	10.90	11:31:00	10.00	12:43:00	-0.1088	0.0012	-21.9035	-0.0873	0.4449	7.35	15:58:00	14.00	15:55:00	18.42	9:31:00	-0.90	-2.65	4.42	0	0	0	3,700	OTM	OTM	OTM	
TSLA	2019-01-18	\$240.00	P	12.30	10:40:00	11.25	12:41:00	-0.1225	0.0013	-24.7001	-0.0924	0.4852	9.20	16:00:00	16.10	9:51:00	18.80	9:41:00	-1.05	-2.05	2.70	0	0	0	903	OTM	OTM	OTM	
TSLA	2019-01-18	\$250.00	P	13.75	10:25:00	13.00	12:45:00	-0.1435	0.0015	-28.8154	-0.1000	0.5372	8.50	15:59:00	17.40	14:55:00	19.96	9:31:00	-0.75	-4.50	2.56	0	0	0	3,919	OTM	OTM	OTM	
TSLA	2019-01-18	\$260.00	P	16.33	11:24:00	14.75	12:45:00	-0.1622	0.0017	-32.5878	-0.1055	0.5826	9.27	15:58:00	19.50	13:48:00	22.20	9:33:00	-1.58	-5.48	2.70	0	0	0	4,299	OTM	OTM	OTM	
TSLA	2019-01-18	\$270.00	P	18.40	11:52:00	16.50	12:41:00	-0.1786	0.0019	-36.1023	-0.1099	0.6236	10.65	14:08:00	21.65	15:43:00	27.00	9:31:00	-1.90	-5.85	5.35	0	0	0	6,297	OTM	OTM	OTM	
TSLA	2019-01-18	\$280.00	P	21.33	11:25:00	18.75	12:41:00	-0.2008	0.0021	-40.6571	-0.1151	0.6701	12.50	15:55:00	24.00	15:39:00	26.80	9:31:00	-2.58	-6.25	2.80	0	0	0	1,950	OTM	OTM	OTM	
TSLA	2019-01-18	\$290.00	P	23.93	11:20:00	21.54	12:44:00	-0.2288	0.0023	-46.3411	-0.1212	0.7196	13.52	15:59:00	26.95	14:22:00	30.73	9:39:00	-2.39	-8.02	3.78	0	0	0	705	OTM	OTM	OTM	
TSLA	2019-01-18	\$300.00	P	27.50	11:26:00	24.50	12:46:00	-0.2568	0.0025	-52.0465	-0.1255	0.7641	15.25	16:00:00	29.70	15:57:00	33.50	9:31:00	-3.00	-9.25	3.80	0	0	0	5,404	OTM	OTM	OTM	
TSLA	2019-01-18	\$310.00	P	30.65	11:01:00	27.50	12:47:00	-0.2816	0.0026	-57.4838	-0.1298	0.8031	17.59	16:00:00	32.75	15:43:00	37.00	9:39:00	-3.15	-9.91	4.25	0	0	0	1,558	OTM	OTM	OTM	
TSLA	2019-01-18	\$320.00	P	34.70	11:34:00	31.15	12:45:00	-0.3163	0.0028	-64.6622	-0.1341	0.8420	20.00	16:00:00	36.18	14:46:00	40.95	9:31:00	-3.55	-11.15	4.77	0	0	0	2,308	OTM	OTM	OTM	
TSLA	2019-01-18	\$330.00	P	39.25	11:48:00	35.10	12:46:00	-0.3465	0.0030	-71.1780	-0.1357	0.8735	22.00	16:00:00	40.15	15:26:00	44.85	9:31:00	-4.15	-13.10	4.70	0	0	0	3,388	OTM	OTM	OTM	
TSLA	2019-01-18	\$340.00	P	43.21	10:08:00	38.45	12:40:00	-0.3705	0.0031	-76.9275	-0.1377	0.9005	25.22	16:00:00	44.09	15:38:00	50.00	9:33:00	-4.76	-13.23	5.91	0	0	0	1,882	OTM	OTM	ITM	
TSLA	2019-01-18	\$350.00	P	48.94	11:25:00	43.59	12:44:00	-0.4100	0.0032	-85.3184	-0.1385	0.9206	26.00	16:00:00	48.50	15:57:00	55.04	9:31:00	-5.35	-17.59	6.54	0	0	0	2,884	ITM	OTM	ITM	
TSLA	2019-01-18	\$360.00	P			47.80	12:42:00	-0.4370	0.0033	-91.9076	-0.1394	0.9375	32.33	16:00:00	53.85	13:59:00	60.29	9:34:00			6.44	0	0	0	1,595	---	ITM	ITM	
TSLA	2019-01-18	\$370.00	P			53.39	12:41:00	-0.4731	0.0034	-100.0455	-0.1382	0.9445	34.00	16:00:00							19.39	0			450	---	ITM	---	
TSLA	2019-01-18	\$375.00	P			57.50	12:46:00	-0.4968	0.0034	-105.1442</																			

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness		
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT
TSLA	2019-02-15	\$280.00	P	25.00	9:31:00								16.00	15:56:00	26.65	13:34:00	32.11	9:42:00			5.46		0	0	69	---	---	OTM
TSLA	2019-02-15	\$290.00	P			25.50	12:45:00	-0.2401	0.0021	-58.4419	-0.1164	0.7963									-9.50		0	0	340	---	---	OTM
TSLA	2019-02-15	\$300.00	P			27.66	12:39:00	-0.2573	0.0022	-63.2300	-0.1190	0.8338	18.00	15:58:00	32.50	14:19:00	36.30	9:37:00			3.80		0	0	74	---	---	OTM
TSLA	2019-02-15	\$310.00	P			31.50	12:42:00	-0.2837	0.0024	-69.9420	-0.1223	0.8745	28.82	12:49:00	36.50	9:47:00					-2.68		0	0	39	---	---	OTM
TSLA	2019-02-15	\$320.00	P												38.95	9:36:00	48.35	9:48:00			9.40		0	0	69	---	---	OTM
TSLA	2019-02-15	\$330.00	P	42.73	10:47:00								35.14	13:35:00	43.02	14:10:00	48.70	9:31:00			5.68		0	0	115	---	---	OTM
TSLA	2019-02-15	\$340.00	P	47.50	9:36:00	45.00	12:24:00	-0.3890	0.0029	-95.6794	-0.1272	0.9675			45.24	11:49:00	63.00	11:40:00	-2.50		17.76	0	0	0	39	OTM	---	ITM
TSLA	2019-02-15	\$350.00	P	53.15	10:04:00	49.00	12:26:00	-0.4164	0.0030	-103.2236	-0.1276	0.9872	32.51	15:56:00	52.00	14:39:00	64.10	9:52:00	-4.15	-16.49	12.10	0	0	0	702	ITM	OTM	ITM
TSLA	2019-02-15	\$360.00	P			52.50	12:42:00	-0.4286	0.0030	-108.4867	-0.1302	1.0094	50.75	13:34:00							-1.75		0	0	288	---	---	ITM
TSLA	2019-02-15	\$370.00	P			58.20	12:42:00	-0.4591	0.0030	-117.0281	-0.1298	1.0194	37.35	16:00:00							-20.85		0	0	82	---	---	ITM
TSLA	2019-02-15	\$400.00	P	83.20	12:02:00	76.52	12:35:00	-0.5575	0.0031	-144.8675	-0.1227	1.0031								-6.68		0	0	17	ITM	---	---	
TSLA	2019-02-15	\$410.00	P	92.00	9:32:00																				7	---	---	---
TSLA	2019-02-15	\$420.00	P			95.10	12:22:00	-0.6424	0.0031	-167.4184	-0.1080	0.9231	84.12	13:35:00							-10.98		0	0	25	---	---	ITM
TSLA	2019-03-15	\$50.00	P	1.07	10:03:00	1.01	12:28:00	-0.0071	0.0001	-2.2150	-0.0158	0.0539	1.08	15:59:00	1.50	15:14:00	2.00	9:31:00	-0.06	0.07	0.50	0	1	0	1,094	OTM	OTM	OTM
TSLA	2019-03-15	\$100.00	P	3.02	10:32:00								3.30	13:54:00	4.02	14:32:00	5.05	9:31:00			1.03		0	0	750	---	---	OTM
TSLA	2019-03-15	\$110.00	P			3.20	12:38:00	-0.0241	0.0002	-7.1421	-0.0339	0.1576	2.90	14:03:00							-0.30		0	0	7	---	---	OTM
TSLA	2019-03-15	\$130.00	P			4.35	12:23:00	-0.0354	0.0003	-10.0850	-0.0415	0.2111												3	---	---	---	
TSLA	2019-03-15	\$145.00	P												6.80	12:45:00									11	---	---	---
TSLA	2019-03-15	\$150.00	P	6.00	11:28:00	5.90	12:21:00	-0.0539	0.0005	-15.3926	-0.0561	0.2935	3.96	13:55:00	7.21	13:32:00	9.00	9:43:00	-0.10	-1.94	1.79	0	0	0	200	OTM	OTM	OTM
TSLA	2019-03-15	\$165.00	P												9.00	10:29:00	11.72	12:56:00			2.72		0	0	158	---	---	OTM
TSLA	2019-03-15	\$175.00	P												10.50	9:40:00									80	---	---	---
TSLA	2019-03-15	\$180.00	P			8.00	12:27:00	-0.0698	0.0007	-19.7415	-0.0610	0.3672	7.35	13:06:00	10.24	11:13:00	13.42	9:48:00			-0.65	3.18	0	0	76	---	---	OTM
TSLA	2019-03-15	\$190.00	P			9.30	12:24:00	-0.0796	0.0008	-22.1337	-0.0636	0.4023													13	---	---	---
TSLA	2019-03-15	\$200.00	P	11.03	10:37:00	10.40	12:42:00	-0.0881	0.0008	-25.1372	-0.0698	0.4431	5.00	15:52:00	13.50	10:21:00	16.40	9:31:00	-0.63	-5.40	2.90	0	0	0	701	OTM	OTM	OTM
TSLA	2019-03-15	\$210.00	P												14.70	15:47:00	18.20	9:51:00			3.50		0	0	39	---	---	OTM
TSLA	2019-03-15	\$220.00	P												16.10	11:57:00	19.70	9:46:00			3.60		0	0	250	---	---	OTM
TSLA	2019-03-15	\$230.00	P												18.10	13:33:00									11	---	---	---
TSLA	2019-03-15	\$240.00	P	17.95	10:56:00	16.63	12:44:00	-0.1447	0.0013	-40.9933	-0.0888	0.6263	7.50	15:51:00	19.41	11:14:00	24.20	9:59:00	-1.32	-9.13	4.79	0	0	0	170	OTM	OTM	OTM
TSLA	2019-03-15	\$250.00	P	19.81	10:37:00	18.65	12:27:00	-0.1636	0.0015	-46.0510	-0.0928	0.6753	11.50	15:48:00	21.44	12:57:00	26.70	9:59:00	-1.16	-7.15	5.26	0	0	0	588	OTM	OTM	OTM
TSLA	2019-03-15	\$255.00	P												21.95	11:29:00	28.00	9:43:00			6.05		0	0	53	---	---	OTM
TSLA	2019-03-15	\$260.00	P	22.55	11:24:00								12.00	15:52:00											155	---	---	---
TSLA	2019-03-15	\$275.00	P			24.20	12:27:00	-0.2126	0.0018	-60.0367	-0.1027	0.7932	14.50	15:47:00	27.35	9:31:00	33.30	9:42:00			-9.70	5.95	0	0	66	---	---	OTM
TSLA	2019-03-15	\$280.00	P												28.18	11:13:00	34.50	9:41:00			6.32		0	0	88	---	---	OTM
TSLA	2019-03-15	\$290.00	P			28.04	12:39:00	-0.2385	0.0020	-68.4777	-0.1087	0.8565	19.65	15:46:00							-8.39		0	0	44	---	---	OTM
TSLA	2019-03-15	\$295.00	P	32.79	9:31:00	30.05	12:41:00	-0.2517	0.0020	-72.1992	-0.1102	0.8792	28.76	12:59:00	33.43	15:58:00	43.90	11:33:00	-2.74	-1.29	10.47	0	0	0	346	OTM	OTM	OTM
TSLA	2019-03-15	\$300.00	P			31.70	12:41:00	-0.2636	0.0021	-75.7696	-0.1119	0.9004	19.00	16:00:00	33.12	11:29:00	47.43	10:51:00			-12.70	14.31	0	0	750	---	---	OTM
TSLA	2019-03-15	\$305.00	P			33.40	12:41:00	-0.2758	0.0022	-79.4253	-0.1134	0.9207													57	---	---	---
TSLA	2019-03-15	\$315.00	P												40.23	15:44:00	50.00	9:45:00			9.77		0	0	53	---	---	OTM
TSLA	2019-03-15	\$320.00	P												39.90	11:19:00	51.00	9:43:00			11.10		0	0	189	---	---	OTM
TSLA	2019-03-15	\$325.00	P			41.00	12:30:00	-0.3317	0.0025	-95.8003	-0.1176	0.9932	26.55	15:59:00	41.80	11:19:00	55.00	9:45:00	-14.45	13.20		0	0	0	294	---	---	OTM
TSLA	2019-03-15	\$330.00	P												43.65	11:37:00	50.40	9:36:00			6.75		0	0	695	---	---	OTM
TSLA	2019-03-15	\$335.00	P												45.75	11:35:00	57.00	9:42:00			11.25		0	0	32	---	---	OTM
TSLA	2019-03-15	\$340.00	P			50.73	12:22:00	-0.3927	0.0028	-112.3489	-0.1171	1.0290	36.20	15:47:00	50.35	15:48:00	60.00	9:42:00	-14.53	9.65		0	0	0	46	---	---	OTM
TSLA	2019-03-15	\$345.00	P	55.22	11:28:00										49.85	11:37:00	58.39	9:31:00			8.54		0	0	178	---	---	ITM
TSLA	2019-03-15	\$350.00	P			51.00	12:38:00	-0.3914	0.0027	-115.5172	-0.1214	1.0595	36.90	15:57:00	52.10	11:37:00	61.95	9:40:00			-14.10	9.85	0	0	747	---	---	OTM
TSLA	2019-03-15	\$355.00	P												54.55	11:35:00	75.45	13:15:00			20.90		0	0	148	---	---	ITM
TSLA	2019-03-15	\$360.00	P	62.16	9:46:00								42.50	15:46:00	58.82	10:42:00	70.62	9:43:00			11.80		0	0	361	---	---	ITM
TSLA	2019-03-15	\$370.00	P			66.53	12:22:00	-0.4809	0.0030	-140.3334	-0.1157	1.0629	43.10	15:59:00	62.05	11:35:00	85.06	13:08:00			-23.43	23.01	0	0	99	---	---	ITM
TSLA	2019-03-15	\$375.00	P	71.10	11:21:00								43.00	15:54:00											63	---	---	---
TSLA	2019-03-15	\$380.00	P												70.35	14:52:00	79.10	9:31:00			8.75		0	0	60	---	---	ITM
TSLA	2019-03-15	\$400.00	P												82.80	14:55:00	106.00	13:00:00			23.20		0	0	47	---	---	ITM
TSLA	2019-03-15	\$415.00	P												93.49	10:31:00									2	---	---	---
TSLA	2019-03-15	\$420.00	P												96.12	10:42:00									18	---	---	---
TSLA	2019-03-15	\$650.00	P			294.65	12:32:00	-0.9203	0.0010	-374.8111	-0.0206	0.3462			309.80	11:21:00								100	---	---	---	
TSLA	2019																											

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness		
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT
TSLA	2019-06-21	\$50.00	P	2.05	10:19:00	2.08	12:31:00	-0.0104	0.0001	-5.0996	-0.0172	0.0912	1.00	15:59:00	2.20	15:58:00	2.50	9:47:00	0.03	-1.08	0.30	1	0	0	2,752	OTM	OTM	OTM
TSLA	2019-06-21	\$95.00	P	4.80	11:05:00																				550	---	---	---
TSLA	2019-06-21	\$100.00	P	5.30	9:47:00	4.80	12:36:00	-0.0289	0.0002	-13.3190	-0.0320	0.2188	2.33	15:59:00	5.50	14:14:00	5.90	9:31:00	-0.50	-2.47	0.40	0	0	0	1,678	OTM	OTM	OTM
TSLA	2019-06-21	\$110.00	P			5.85	12:22:00	-0.0388	0.0003	-17.7695	-0.0397	0.2722													1	---	---	---
TSLA	2019-06-21	\$130.00	P												7.90	10:10:00	9.50	9:46:00						1.60	48	---	---	OTM
TSLA	2019-06-21	\$140.00	P	8.70	11:26:00	8.00	12:31:00	-0.0518	0.0004	-23.1238	-0.0440	0.3512	7.33	13:23:00					-0.70	-0.67		0	0		1,036	OTM	OTM	---
TSLA	2019-06-21	\$150.00	P	9.80	11:16:00								6.00	15:50:00	9.45	15:10:00	11.10	9:43:00						1.65	522	---	---	OTM
TSLA	2019-06-21	\$170.00	P			12.00	12:21:00	-0.0846	0.0006	-36.9068	-0.0582	0.4984			12.28	15:49:00	15.50	9:56:00						3.22	24	---	---	OTM
TSLA	2019-06-21	\$175.00	P	12.90	10:00:00	11.90	12:39:00	-0.0798	0.0006	-35.3949	-0.0558	0.4939	8.00	15:54:00					-1.00	-3.90		0	0		285	OTM	OTM	---
TSLA	2019-06-21	\$180.00	P	13.65	10:02:00	12.60	12:37:00	-0.0848	0.0006	-37.4465	-0.0573	0.5159	8.00	15:52:00					-1.05	-4.60		0	0		22	OTM	OTM	---
TSLA	2019-06-21	\$190.00	P			14.25	12:37:00	-0.0952	0.0007	-41.9429	-0.0607	0.5619	12.00	13:43:00						-2.25					76	---	---	OTM
TSLA	2019-06-21	\$195.00	P			15.20	12:28:00	-0.1041	0.0008	-45.2727	-0.0628	0.5917	14.50	12:49:00	15.60	11:32:00	20.10	10:23:00				-0.70	4.50		10	---	OTM	OTM
TSLA	2019-06-21	\$200.00	P	17.00	11:25:00	15.85	12:44:00	-0.1080	0.0008	-47.3897	-0.0646	0.6130	9.40	15:59:00	16.82	13:22:00	17.70	9:32:00	-1.15	-6.45	0.88	0	0	0	927	OTM	OTM	OTM
TSLA	2019-06-21	\$215.00	P	19.90	9:31:00								17.00	12:54:00											125	---	---	---
TSLA	2019-06-21	\$220.00	P												20.88	10:10:00	25.00	10:03:00						4.12	14	---	---	OTM
TSLA	2019-06-21	\$235.00	P			22.43	12:33:00	-0.1532	0.0011	-67.2107	-0.0755	0.7828													3	---	---	---
TSLA	2019-06-21	\$250.00	P	28.25	11:51:00	25.60	12:38:00	-0.1745	0.0013	-77.1062	-0.0803	0.8562	14.00	16:00:00	27.30	16:00:00	30.00	9:31:00	-2.65	-11.60	2.70	0	0	0	2,063	OTM	OTM	OTM
TSLA	2019-06-21	\$255.00	P	29.55	9:51:00								16.00	15:58:00											93	---	---	---
TSLA	2019-06-21	\$270.00	P			32.00	12:43:00	-0.2126	0.0015	-93.7188	-0.0862	0.9577	24.00	13:48:00	31.75	12:00:00	39.00	9:45:00				0	0		362	---	OTM	OTM
TSLA	2019-06-21	\$275.00	P			33.58	12:29:00	-0.2260	0.0016	-98.9603	-0.0873	0.9836			33.85	14:29:00	38.72	9:31:00				0	0		45	---	---	OTM
TSLA	2019-06-21	\$280.00	P			34.45	12:41:00	-0.2301	0.0016	-101.7653	-0.0885	1.0036	25.00	13:52:00	35.13	15:58:00	41.00	9:41:00				-9.45	5.87		469	---	OTM	OTM
TSLA	2019-06-21	\$295.00	P			39.60	12:37:00	-0.2593	0.0017	-115.1574	-0.0917	1.0699	31.00	13:47:00	39.14	12:19:00	45.00	9:40:00				-8.60	5.86		52	---	OTM	OTM
TSLA	2019-06-21	\$300.00	P	44.60	10:07:00	41.50	12:36:00	-0.2712	0.0018	-120.4545	-0.0928	1.0912	28.10	15:47:00	41.49	10:30:00	48.50	9:41:00	-3.10	-13.40	7.01	0	0	0	1,103	OTM	OTM	OTM
TSLA	2019-06-21	\$315.00	P												46.79	10:33:00	57.00	9:55:00						10.21	10	---	---	OTM
TSLA	2019-06-21	\$320.00	P												49.25	13:49:00	59.68	9:45:00						10.43	123	---	---	OTM
TSLA	2019-06-21	\$330.00	P			54.85	12:46:00	-0.3394	0.0020	-152.4811	-0.0974	1.1972	40.57	13:57:00					-14.28			0			87	---	---	OTM
TSLA	2019-06-21	\$345.00	P			64.90	12:19:00	-0.4000	0.0023	-176.2520	-0.0950	1.2199	44.00	15:48:00	60.00	13:46:00	70.43	10:03:00				-20.90	10.43		7	---	OTM	ITM
TSLA	2019-06-21	\$350.00	P												59.53	11:19:00	68.68	9:40:00					9.15		1,346	---	---	ITM
TSLA	2019-06-21	\$370.00	P												71.00	10:50:00									22	---	---	---
TSLA	2019-06-21	\$390.00	P												83.63	10:30:00									1	---	---	---
TSLA	2019-06-21	\$400.00	P												88.83	9:36:00	111.07	11:27:00						22.24	293	---	---	ITM
TSLA	2019-06-21	\$410.00	P												95.33	9:36:00	118.30	11:27:00						22.97	147	---	---	ITM
TSLA	2019-06-21	\$420.00	P												104.44	15:41:00	121.00	9:50:00						16.56	201	---	---	ITM
TSLA	2019-08-16	\$50.00	P	2.50	10:38:00								1.62	15:50:00	2.50	9:43:00	2.80	9:38:00				0.30		0	687	---	---	OTM
TSLA	2019-08-16	\$55.00	P			2.80	12:46:00	-0.0124	0.0001	-7.1539	-0.0167	0.1149	2.60	13:08:00								-0.20		0	12	---	---	OTM
TSLA	2019-08-16	\$100.00	P												6.50	14:00:00	8.00	9:51:00					1.50		111	---	---	OTM
TSLA	2019-08-16	\$115.00	P			8.08	12:18:00	-0.0450	0.0003	-24.0911	-0.0373	0.3268													8	---	---	---
TSLA	2019-08-16	\$120.00	P												8.80	15:56:00	10.50	10:14:00					1.70		62	---	---	OTM
TSLA	2019-08-16	\$135.00	P			10.27	12:18:00	-0.0593	0.0004	-31.3075	-0.0431	0.4067													10	---	---	---
TSLA	2019-08-16	\$140.00	P			10.89	12:18:00	-0.0634	0.0005	-33.4187	-0.0448	0.4285													9	---	---	---
TSLA	2019-08-16	\$150.00	P	12.00	10:33:00								7.00	15:55:00											195	---	---	---
TSLA	2019-08-16	\$200.00	P												19.30	12:42:00	22.00	9:41:00					2.70		353	---	---	OTM
TSLA	2019-08-16	\$205.00	P	21.40	11:47:00								7.00	15:47:00											2	---	---	---
TSLA	2019-08-16	\$210.00	P												21.11	13:00:00									1	---	---	---
TSLA	2019-08-16	\$220.00	P	24.71	10:16:00																				4	---	---	---
TSLA	2019-08-16	\$230.00	P			25.29	12:31:00	-0.1536	0.0010	-81.9862	-0.0697	0.8467													12	---	---	---
TSLA	2019-08-16	\$250.00	P			30.30	12:38:00	-0.1806	0.0012	-97.4535	-0.0753	0.9470	24.00	13:38:00	29.00	12:01:00	35.00	9:43:00				-6.30	6.00	0	187	---	OTM	OTM
TSLA	2019-08-16	\$265.00	P			34.95	12:43:00	-0.2081	0.0013	-111.8803	-0.0788	1.0239	33.15	13:03:00								-1.80		0	32	---	---	OTM
TSLA	2019-08-16	\$300.00	P			46.30	12:38:00	-0.2676	0.0016	-145.7853	-0.0854	1.1809	30.00	15:57:00								-16.30		0	166	---	---	OTM
TSLA	2019-08-16	\$310.00	P			50.00	12:38:00	-0.2869	0.0017	-156.8991	-0.0869	1.2208													167	---	---	---
TSLA	2019-08-16	\$320.00	P												52.00	15:59:00									11	---	---	---
TSLA	2019-08-16	\$330.00	P			61.50	12:22:00	-0.3489	0.0020	-187.5915	-0.0876	1.2805	35.00	15:51:00	54.00	11:31:00						-26.50	0		8	---	---	OTM
TSLA	2019-08-16	\$335.00	P												60.00	9:46:00									2	---	---	---
TSLA	2019-08-16	\$340.00	P												61.95	14:19:00	77.99	11:42:00				16.04		0	79	---	---	ITM
TSLA	2019-08-16	\$345.00	P												63.00	12:07:00									25	---	---	---
TSLA	2019-08-16	\$380.00	P												82.46	14:49:00									409	---	---	---
TSLA	2019-08-16	\$420.00	P																									

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness					
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT			
TSLA	2020-01-17	\$15.00	P											0.62	13:53:00	0.55	9:32:00				-0.07		1	665	---	---	OTM				
TSLA	2020-01-17	\$20.00	P			1.15	12:46:00	-0.0040	0.0000	-3.7164	-0.0059	0.0499	0.60	15:57:00	0.95	13:56:00	1.09	9:38:00				-0.55	0.14	0	0	4,095	---	---	OTM		
TSLA	2020-01-17	\$25.00	P			1.45	12:41:00	-0.0052	0.0000	-4.8740	-0.0073	0.0644	0.90	15:55:00	1.21	12:21:00	1.42	10:24:00				-0.55	0.21	0	0	610	---	---	OTM		
TSLA	2020-01-17	\$30.00	P			1.77	12:46:00	-0.0065	0.0000	-5.9379	-0.0085	0.0781	1.25	16:00:00								-0.52		0		848	---	---	OTM		
TSLA	2020-01-17	\$35.00	P	2.51	9:37:00								1.51	15:59:00											252	---	---	---			
TSLA	2020-01-17	\$50.00	P	3.53	11:01:00	3.42	12:46:00	-0.0135	0.0001	-11.8845	-0.0142	0.1469	2.35	15:59:00	3.04	14:40:00	3.55	9:33:00				-0.11	-1.07	0.51	0	0	0	10,053	OTM	OTM	OTM
TSLA	2020-01-17	\$55.00	P												3.40	11:16:00	3.75	10:29:00				0.35		0		143	---	---	OTM		
TSLA	2020-01-17	\$70.00	P	5.74	9:44:00								4.76	13:07:00												36	---	---	---		
TSLA	2020-01-17	\$80.00	P												5.60	11:16:00	7.32	12:33:00				1.72		0		69	---	---	OTM		
TSLA	2020-01-17	\$85.00	P												6.50	14:25:00	8.00	13:12:00				1.50		0		89	---	---	OTM		
TSLA	2020-01-17	\$90.00	P	7.75	12:00:00								4.65	15:50:00												449	---	---	---		
TSLA	2020-01-17	\$95.00	P			8.30	12:32:00	-0.0353	0.0002	-29.9826	-0.0266	0.3314	5.00	15:54:00	7.40	14:59:00	8.90	9:48:00				-3.30	1.50	0	0	75	---	---	OTM		
TSLA	2020-01-17	\$100.00	P	9.23	10:42:00	8.80	12:46:00	-0.0384	0.0002	-32.4017	-0.0279	0.3540	5.40	16:00:00	8.00	15:28:00	8.55	9:31:00				-0.43	-3.40	0.55	0	0	0	14,928	OTM	OTM	OTM
TSLA	2020-01-17	\$105.00	P												8.65	15:56:00	10.20	9:49:00				1.55		0	41	---	---	---	OTM		
TSLA	2020-01-17	\$110.00	P	10.55	10:14:00	9.96	12:32:00	-0.0445	0.0003	-37.4583	-0.0305	0.4002	8.70	14:02:00								-0.59	-1.26	0	0	40	OTM	OTM	---		
TSLA	2020-01-17	\$120.00	P			11.45	12:32:00	-0.0514	0.0003	-43.0148	-0.0331	0.4486	7.00	15:52:00	10.25	14:01:00	13.90	10:29:00				-4.45	3.65	0	0	72	---	---	OTM		
TSLA	2020-01-17	\$125.00	P												11.50	13:11:00	13.80	10:29:00				2.30		0	490	---	---	---	OTM		
TSLA	2020-01-17	\$130.00	P	13.45	10:43:00								8.00	15:59:00												74	---	---	---		
TSLA	2020-01-17	\$145.00	P			15.60	12:28:00	-0.0721	0.0004	-59.1665	-0.0397	0.5778			15.00	9:50:00										93	---	---	---		
TSLA	2020-01-17	\$150.00	P	16.90	10:54:00	16.12	12:38:00	-0.0736	0.0004	-61.1856	-0.0405	0.5976	8.70	15:58:00	14.80	15:28:00	16.50	9:34:00				-0.78	-7.42	1.70	0	0	0	1,359	OTM	OTM	OTM
TSLA	2020-01-17	\$160.00	P			18.29	12:28:00	-0.0855	0.0005	-69.8362	-0.0433	0.6571	10.70	15:59:00								-7.59		0		82	---	---	OTM		
TSLA	2020-01-17	\$170.00	P			20.35	12:24:00	-0.0958	0.0006	-77.5715	-0.0455	0.7113	11.50	15:54:00	18.10	12:53:00	18.00	9:31:00				-8.85	-0.10	0	1	266	---	---	OTM		
TSLA	2020-01-17	\$175.00	P			20.70	12:32:00	-0.0981	0.0006	-80.4313	-0.0466	0.7343	12.80	16:00:00	19.20	15:30:00	22.40	9:44:00				-7.90	3.20	0	0	527	---	---	OTM		
TSLA	2020-01-17	\$180.00	P												20.30	13:21:00	23.50	9:46:00				3.20		0		259	---	---	OTM		
TSLA	2020-01-17	\$190.00	P	25.40	11:53:00								15.50	15:53:00	21.30	13:21:00	22.97	9:31:00				1.67		0	100	---	---	OTM			
TSLA	2020-01-17	\$195.00	P												21.95	11:52:00	28.89	11:36:00				6.94		0	53	---	---	OTM			
TSLA	2020-01-17	\$200.00	P	27.75	11:51:00	26.50	12:45:00	-0.1262	0.0007	-103.0957	-0.0526	0.8751	14.00	16:00:00	24.00	15:53:00	24.90	9:31:00				-1.25	-12.50	0.90	0	0	0	4,054	OTM	OTM	OTM
TSLA	2020-01-17	\$210.00	P			28.75	12:47:00	-0.1368	0.0008	-112.1798	-0.0547	0.9292	19.05	16:00:00	25.90	15:57:00	28.05	9:31:00				-9.70	2.15	0	0	532	---	---	OTM		
TSLA	2020-01-17	\$220.00	P			31.42	12:46:00	-0.1504	0.0009	-122.7425	-0.0567	0.9854	19.50	15:55:00	27.25	9:31:00	36.00	11:34:00				-11.92	8.75	0	0	167	---	---	OTM		
TSLA	2020-01-17	\$240.00	P			37.50	12:46:00	-0.1770	0.0010	-144.7239	-0.0605	1.0940	21.90	15:47:00	33.00	9:47:00	41.80	10:43:00				-15.60	8.80	0	0	419	---	---	OTM		
TSLA	2020-01-17	\$250.00	P	41.60	9:31:00	39.65	12:37:00	-0.1885	0.0010	-154.8865	-0.0620	1.1449	20.00	15:59:00	35.75	15:58:00	38.05	9:37:00				-1.95	-19.65	2.30	0	0	0	2,470	OTM	OTM	OTM
TSLA	2020-01-17	\$255.00	P			41.92	12:46:00	-0.1984	0.0011	-162.5159	-0.0630	1.1724	31.25	14:08:00								-10.67		0		186	---	---	OTM		
TSLA	2020-01-17	\$260.00	P			43.66	12:46:00	-0.2058	0.0011	-168.7205	-0.0638	1.1979	26.65	15:56:00	37.45	12:03:00	49.20	10:43:00				-17.01	11.75	0	0	1,269	---	---	OTM		
TSLA	2020-01-17	\$270.00	P	49.45	9:31:00								28.60	15:47:00	41.55	12:36:00	43.00	9:31:00				1.45		0		541	---	---	OTM		
TSLA	2020-01-17	\$275.00	P												43.10	15:11:00	52.53	10:15:00				9.43		0		636	---	---	OTM		
TSLA	2020-01-17	\$280.00	P												44.24	9:41:00	53.04	9:51:00				8.80		0		201	---	---	OTM		
TSLA	2020-01-17	\$285.00	P	54.86	9:50:00	52.73	12:29:00	-0.2462	0.0013	-202.2941	-0.0671	1.3177	31.60	15:58:00								-2.13	-21.13	0	0	102	OTM	OTM	---		
TSLA	2020-01-17	\$290.00	P	57.40	10:53:00	54.37	12:45:00	-0.2527	0.0013	-208.6744	-0.0678	1.3401	32.61	15:57:00								-3.03	-21.76	0	0	909	OTM	OTM	---		
TSLA	2020-01-17	\$295.00	P	58.50	10:33:00								37.80	15:56:00												238	---	---	---		
TSLA	2020-01-17	\$300.00	P	61.80	11:40:00	58.55	12:47:00	-0.2667	0.0014	-221.6402	-0.0688	1.3835	34.00	16:00:00	52.10	15:51:00	53.95	9:31:00				-3.25	-24.55	1.85	0	0	0	2,901	OTM	OTM	OTM
TSLA	2020-01-17	\$305.00	P												53.74	14:16:00	58.32	9:31:00				4.58		0		85	---	---	OTM		
TSLA	2020-01-17	\$310.00	P	66.35	11:29:00	63.43	12:26:00	-0.2897	0.0014	-239.4198	-0.0693	1.4206	33.70	15:52:00								-2.92	-29.73	0	0	77	OTM	OTM	---		
TSLA	2020-01-17	\$315.00	P	69.15	11:42:00								40.00	15:50:00	57.18	10:35:00	70.00	9:45:00				12.82		0	0	61	---	---	OTM		
TSLA	2020-01-17	\$320.00	P			66.50	12:42:00	-0.2981	0.0015	-250.2432	-0.0704	1.4627	38.67	15:59:00	59.76	14:16:00	65.85	9:31:00				-27.83	6.09	0	0	241	---	---	OTM		
TSLA	2020-01-17	\$325.00	P	72.75	10:13:00								46.65	15:47:00	60.60	12:01:00	70.00	9:42:00				9.40		0		332	---	---	OTM		
TSLA	2020-01-17	\$330.00	P	75.90	9:57:00								41.99	16:00:00	63.00	12:45:00	68.99	9:31:00				5.99		0		599	---	---	OTM		
TSLA	2020-01-17	\$335.00	P	78.05	9:44:00								64.62	13:33:00												102	---	---	---		
TSLA	2020-01-17	\$340.00	P												70.00	15:54:00	72.10	9:31:00				2.10		0		331	---	---	ITM		
TSLA	2020-01-17	\$350.00	P	86.50	11:42:00	80.76	12:40:00	-0.3504	0.0016	-297.9435	-0.0718	1.5562	52.30	15:59:00	74.05	14:40:00	78.00	9:31:00				-5.74	-28.46	3.95	0	0	0	1,041	ITM	OTM	ITM
TSLA	2020-01-17	\$360.00	P			86.00	12:31:00	-0.3709	0.0017	-315.8642	-0.0715	1.5768	66.50	13:49:00	80.35	15:34:00	84.50	9:34:00				-19.50	4.15	0	0	1,206	---	---	ITM		
TSLA	2020-01-17	\$370.00	P												83.00	15:32:00	97.96	9:51:00				14.96		0		834	---	---	ITM		
TSLA																															

Appendix H: Intraday Data for Options Trading around the FT Article, Tweet, or NYT Article

Root	Expiration Date	Strike	Call/ Put	Pre FT		Pre Tweet							8/7 Last		8/16 Last		8/17 First		Price Change			Typical (=0)			Class Period Volume	Moneyness			
				Price	Time	Price	Time	Delta	Gamma	Rho	Theta	Vega	Price	Time	Price	Time	Price	Time	FT	Tweet	NYT	FT	Tweet	NYT		FT	Tweet	NYT	
TSLA	2020-01-17	\$660.00	P												323.00	11:25:00										11	---	---	---

Notes:

Source: Cboe DataShop Option Interval data.

Price is the "close" price for the one-minute interval

Pre FT price and time correspond to the last trade prior to 12:18 p.m. on August 7, 2018.

Pre Tweet price and time correspond to the last trade prior to 12:48 p.m. but after 12:17 p.m. on August 7, 2018

8/7 Last price and time correspond to the last trade on August 7, 2018.

8/16 Last price and time correspond to the last trade on August 16, 2018.

8/17 First price and time correspond to the first trade on August 17, 2018.

Price Changes: (i) for FT is [Pre Tweet - Pre FT]; for Tweet is [8/7 Last - Pre Tweet] for NYT is [8/17 First - 8/16 Last].

Typical (=0) is set to 0 or 1 as follows:

FT and Tweet: for calls(puts), 0 if positive(negative) price change, otherwise 1

NYT: for calls(puts), 0 if negative(positive) price change, otherwise 1

Class Period Volume - see Appendix G.

Moneyness is set as follows:

FT: for calls(puts), ITM if strike less than (greater than) \$342.26; OTM if strike greater than (less than) \$342.26.

Tweet: for calls(puts), ITM if strike less than (greater than) \$356.85; OTM if strike greater than (less than) \$356.85.

NYT: for calls(puts), ITM if strike less than (greater than) \$335.45; OTM if strike greater than (less than) \$335.45.

(source for Tesla intraday stock price on August 7, 2018: Bloomberg, GIT function).

The LOGISTIC Procedure

OptType=C

Model Information	
Data Set	WORK.TAUG0717
Response Variable	Typ0807TW
Number of Response Levels	2
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	771
Number of Observations Used	443

Response Profile		
Ordered Value	Typ0807TW	Total Frequency
1	1	102
2	0	341

Probability modeled is Typ0807TW=1.

Note: 328 observations were deleted due to missing values for the response or explanatory variables.

Model Convergence Status	
Convergence criterion (GCONV=1E-8) satisfied.	

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	480.065	162.293
SC	484.158	186.855
-2 Log L	478.065	150.293

R-Square	0.5228	Max-rescaled R-Square	0.7920
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Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	327.7712	5	<.0001
Score	185.0685	5	<.0001
Wald	51.7587	5	<.0001

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	0.1722	0.5882	0.0857	0.7698
delta1247	1	-15.7233	6.0665	6.7175	0.0095
gamma1247	1	1428.6	809.3	3.1161	0.0775
rho1247	1	-0.0470	0.0196	5.7153	0.0168
theta1247	1	75.2080	31.6979	5.6295	0.0177
vega1247	1	16.9414	2.5964	42.5736	<.0001

The LOGISTIC Procedure

OptType=C

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
delta1247	<0.001	<0.001	0.022
gamma1247	>999.999	<0.001	>999.999
rho1247	0.954	0.918	0.992
theta1247	>999.999	>999.999	>999.999
vega1247	>999.999	>999.999	>999.999

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	97.7	Somers' D	0.955
Percent Discordant	2.3	Gamma	0.955
Percent Tied	0.0	Tau-a	0.339
Pairs	34782	c	0.977

The LOGISTIC Procedure

OptType=P

Model Information	
Data Set	WORK.TAUG0717
Response Variable	Typ0807TW
Number of Response Levels	2
Model	binary logit
Optimization Technique	Fisher's scoring

Number of Observations Read	854
Number of Observations Used	424

Response Profile		
Ordered Value	Typ0807TW	Total Frequency
1	1	89
2	0	335

Probability modeled is Typ0807TW=1.

Note: 430 observations were deleted due to missing values for the response or explanatory variables.

Model Convergence Status	
Convergence criterion (GCONV=1E-8) satisfied.	

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	437.729	180.860
SC	441.779	205.158
-2 Log L	435.729	168.860

R-Square	0.4671	Max-rescaled R-Square	0.7274
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Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	266.8693	5	<.0001
Score	164.5727	5	<.0001
Wald	46.0074	5	<.0001

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	1.1726	0.4858	5.8259	0.0158
delta1247	1	12.5163	7.3212	2.9227	0.0873
gamma1247	1	-1408.6	700.1	4.0474	0.0442
rho1247	1	0.6358	0.2560	6.1679	0.0130
theta1247	1	-27.1361	15.2977	3.1466	0.0761
vega1247	1	2.1167	8.7021	0.0592	0.8078

The LOGISTIC Procedure

OptType=P

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
delta1247	>999.999	0.160	>999.999
gamma1247	<0.001	<0.001	<0.001
rho1247	1.889	1.143	3.119
theta1247	<0.001	<0.001	17.232
vega1247	8.304	<0.001	>999.999

Association of Predicted Probabilities and Observed Responses			
Percent Concordant	96.7	Somers' D	0.934
Percent Discordant	3.3	Gamma	0.934
Percent Tied	0.0	Tau-a	0.310
Pairs	29815	c	0.967