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**HYPERFUNDING: REGULATING  
FINANCIAL INNOVATIONS**

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*Innovations in corporate finance are driven by frustrations with present regulations and fueled by the internet and social media. Hyperfunding is one such example: Tesla paved the way for an electric vehicle revolution by preselling hundreds of thousands of its Model 3 EV direct to consumers. Unwary consumers may not have realized that they were underwriting Tesla's bold strategy to transform multiple product markets. Risks were not disclosed. Rewards proved illusory. Investors would have been entitled to disclosures and colorable claims of fraud when Tesla missed milestones and deadlines. But consumers can only get their \$1000 deposit back, without interest, if Tesla has the financial and reputational capital to refund consumers. What happens when an undercapitalized or fraudulent firm uses the same technique and fails to deliver? Are cryptocurrency promoters and "initial coin offerings" already Hyperfunding, pumping, and dumping vaporware? This Article explores challenges with regulating novel techniques in corporate finance and discusses an initial framework for protecting investors while promoting innovation.*

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INTRODUCTION.....	1034
I. INNOVATIONS IN FUNDRAISING.....	1039
A. <i>Hyperfunding</i> .....	1039
B. <i>Elon Musk and Henry Ford</i> .....	1041
C. <i>Financial Regulatory Theory</i> .....	1044
D. <i>Tesla’s Reservation Agreement</i> .....	1047
E. <i>Hype or Funding?</i> .....	1050
II. A MARKET FOR ELECTRIC VEHICLES.....	1055
A. <i>Multi-Sided Market Problems</i> .....	1056
B. <i>Hyperfunding Solutions</i> .....	1063
III. HYPERFUNDING LAW & FINANCE.....	1069
A. <i>Securities</i> .....	1072
1. Preferred Stock.....	1072
2. Investment Contracts.....	1075
B. <i>Crowdfunding</i> .....	1078
C. <i>Presales</i> .....	1082
1. Interstate Land Sales.....	1084
2. Ponzi Schemes.....	1086
3. Bankruptcy Protections.....	1088
4. Fair Credit Billing Act Protections.....	1089
D. <i>Initial Coin Offerings</i> .....	1090
CONCLUSION.....	1093

## INTRODUCTION

Tesla, Inc. raised almost \$400,000,000 by selling cars that do not exist.<sup>1</sup> From a regulatory perspective, this unprecedented “presale” does not exist.<sup>2</sup> There is no law designed to govern such activities because they have never occurred before.<sup>3</sup> But this is hardly the first experiment in creative corporate finance. From the invention of preferred stock that financed railways in the 1870s<sup>4</sup> to the deployment of collateralized debt obligations that transformed sub-prime

1. Fred Lambert, *Tesla Has 373,000 Model 3 Reservations as of May 15, After 8k Cancellations and 4k Duplicates*, ELECTREK (May 18, 2016, 5:05 PM), <https://electrek.co/2016/05/18/tesla-model-3-reservations-cancellations-duplicates/> [<https://perma.cc/P9CT-5YTX>].

2. *See infra* Part III.

3. *Id.*

4. William N. Goetzmann & Andrey Ukhov, *British Investment Overseas 1870-1913: A Modern Portfolio Theory Approach* (Nat’l Bureau of Econ. Working Paper No. 11266, 2005) <http://scholarship.sha.cornell.edu/articles/369> [<https://perma.cc/TF8C-JGGA>].

mortgages into top-rated securities sold through 2007,<sup>5</sup> and now, initial coin offerings (ICOs) on cryptocurrency blockchains,<sup>6</sup> regulators are constantly confronted and confounded by new financial products.

We are entering an era when innovation outpaces regulation.<sup>7</sup> In this brave new world, private consumers will become increasingly responsible for their own financial security. Public watchdogs and legislatures lack the capacity to keep up with emerging FinTech<sup>8</sup> like blockchain<sup>9</sup> and cryptocurrency.<sup>10</sup> This Article focuses on one such financial innovation, which has not been previously discussed in the legal literature, uses it as a case study to demonstrate challenges with regulating novel financial instruments, and sets forth an initial framework for consumer and retail-investor protection in an era of diminishing regulatory capacity.

“Hyperfunding” is fundraising many millions of dollars in a brief campaign that directly targets a broad base of consumers

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5. FIN. CRISIS INQUIRY COMM’N, THE FINANCIAL CRISIS INQUIRY REPORT 127 (2011), <https://www.gpo.gov/fdsys/pkg/GPO-FCIC/pdf/GPO-FCIC.pdf> [<https://perma.cc/35AV-9X3Z>].

6. Public Statement, Chairman Jay Clayton, U.S. Sec. & Exch. Comm’n, Statement of Cryptocurrencies and Initial Coin Offerings (Dec. 11, 2017), <https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11> [<https://perma.cc/TQZ6-WBCE>].

7. See Jeremy Kidd, *Fintech: Antidote to Rent-Seeking?*, 93 CHI.-KENT L. REV. 165 (2018).

8. FinTech is a “technologically enabled financial innovation. It is giving rise to new business models, applications, processes and products. These could have a material effect on financial markets and institutions and the provision of financial services.” FIN. STABILITY BD., FINANCIAL STABILITY IMPLICATIONS FROM FINTECH (2017), <http://www.fsb.org/wp-content/uploads/R270617.pdf> [<https://perma.cc/SD6J-DQBQ>].

9. See François R. Velde, *Bitcoin: A Primer*, CHI. FED. LETTER, no. 317, Dec. 2013, at 2–3 <https://www.chicagofed.org/publications/chicago-fed-letter/2013/december-317> [<https://perma.cc/D23E-UN5Q>] (explaining that blockchain is a continuously growing list of records, called blocks, which are linked and secured using cryptography that is published in an open, distributed ledger that can record transactions between two parties efficiently and in a verifiable and permanent way).

10. Sarah Jane Hughes & Stephen T. Middlebrook, *Advancing a Framework for Regulating Cryptocurrency Payments Intermediaries*, 32 YALE J. REG. 495, 504–05 (2015) (“A subset of virtual currency is ‘cryptocurrency,’ by which we mean an internet-based virtual currency in which the ownership of a particular unit of value is validated using cryptography. Cryptocurrencies are not legal tender and, thus, their use requires the consent of both parties to a transaction. They are not denominated in or backed by gold or silver. Economists call currencies backed by precious metals and the like ‘commodity-based currencies.’”).

or investors via the internet.<sup>11</sup> I call such activities “Hyperfunding” because of the high speed at which capital is raised and as an homage to Elon Musk, CEO and Founder of Tesla<sup>12</sup> and progenitor of the Hyperloop.<sup>13</sup> This term also captures the zeitgeist of the era of accelerated financial innovation.

Hyperfunding is not equity financing because it does not meet the *Howey* test,<sup>14</sup> so it is not regulated by securities laws.<sup>15</sup> Hyperfunding is not crowdfunding because it does not use an intermediary or portal to indirectly raise funds, so it is not regulated by crowdfunding laws either.<sup>16</sup> Hyperfunding is several orders of magnitude larger and more uncertain than a traditional presale program, so off-the-shelf consumer protection rules are insufficient.<sup>17</sup> While it is not directly analogous to any well-established financial instruments or technique, Hyperfunding is remarkably similar to other new financing devices such as Initial Coin Offerings (ICOs), which are also virtually unregulated.<sup>18</sup>

This Article proceeds as follows: In Part I, this Article contributes to the literature on corporate finance by making the first effort to classify a new category in fundraising. It uses Tesla’s incredible and unprecedented Model 3 “presale” as a case study situated in its historical, technological, and regulatory context. This event was remarkable because, in one week, Tesla, Inc. presold almost 400,000 to-be-developed Model 3 electric vehicles (EVs), projecting almost \$20 billion in net sales.<sup>19</sup> In contrast, the Camry is America’s best-selling

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11. See *infra* Part I.A.

12. Elon Musk is the co-founder, CEO, and Product Architect at Tesla, overseeing all product development, engineering, and design of the company’s electric vehicles, battery products, and solar roofs. See *Elon Musk*, TESLA, <https://www.tesla.com/elon-musk> (last visited Feb. 19, 2018) [<https://perma.cc/H557-85QJ>].

13. Danielle Muoio, *Everything We Know About Elon Musk’s Ambitious Hyperloop Plan*, BUS. INSIDER (Aug. 17, 2017), <http://www.businessinsider.com/elon-musk-hyperloop-plan-boring-company-2017-8> [<https://perma.cc/CN4A-GZR5>].

14. See *SEC v. W.J. Howey Co.*, 328 U.S. 293, 299–300 (1946) (outlining a four-part test for determining an investment contract: an investment of money, with the expectation of profit, in common enterprise, and the profits to come solely from the efforts of others).

15. See *infra* Section III.A.

16. See *infra* Section III.B.

17. See *infra* Section III.C.

18. See *infra* Section III.D.

19. Musk collected about 373,000 reservations during the initial presale

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car,<sup>20</sup> and throughout all of 2015, Toyota sold only 429,355 Camry automobiles, for roughly \$9.5 billion in total.<sup>21</sup> Part I argues that Tesla deployed an innovative corporate finance strategy—Hyperfunding—to pre-sell about as many futuristic Model 3 EVs in one week as the amount of Camrys actually sold by Toyota in one year.

In Part II, this Article contributes to the business literature by being the first to suggest that Hyperfunding was introduced to solve a two-sided market problem. Tesla needed to simultaneously sell EVs to consumers and to convince investors and third parties to build EV charging stations. Tesla solved this “chicken-and-egg” problem by collecting \$1,000 “refundable reservations” for this future vehicle.<sup>22</sup> This simultaneously proved demand and provided working capital. Part II argues that Hyperfunding is a financial technique that could be used to solve other two-sided market problems.

In Part III, this Article contributes to the regulatory literature by developing a framework for analyzing whether and how Hyperfunding and similar financial innovations may be regulated. Securities laws developed in the 1930s are ill-equipped to regulate financial innovations like Hyperfunding. Some first principles regarding disclosure and liability for fraud remain applicable. Part III argues that lawmakers must not overregulate against financial innovations so that enterprising corporations can continue to solve societal problems.

The Article concludes with some considerations about why

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campaign and later announced the Model 3’s starting price will be \$49,000 for the first production vehicles. A cheaper shorter-range version will be available later for \$35,000, and a more expensive all-wheel-drive version will be available after that. Chuck Jones, *How Much Will Tesla’s Model 3 Really Cost?*, FORBES (July 30, 2017), <https://www.forbes.com/sites/chuckjones/2017/07/30/how-much-will-tesla-model-3-really-cost/#3cf139c57deb> [https://perma.cc/2YWW-L8NU].

20. Lyndon Bell, *Camry: The History of Toyota’s Best Selling Car in America*, AUTOBYTEL, <https://www.autobytel.com/toyota/camry/car-buying-guides/camry-the-history-of-toyota-s-best-selling-car-in-america-130599/> (last visited Feb. 19, 2018) [https://perma.cc/5QKN-94YR].

21. Kelsey Mays, *Toyota Camry Tops Most American-Made Vehicle Index*, CHICAGO TRIB. (July 1, 2016), <http://www.chicagotribune.com/classified/automotive/sc-most-american-made-autocover-0630-20160629-story.html> [https://perma.cc/4ZQM-97N2].

22. Claudia Assis, *Tesla: Model 3 Had ‘Biggest One-Week Launch of Any Product Ever’*, MARKETWATCH (Apr. 7, 2016, 8:10 PM), <http://www.marketwatch.com/story/tesla-picks-up-325000-reservations-for-model-3-2016-04-07> [https://perma.cc/475L-VAVA].

regulations promulgated in response to a perceived or actual crisis are often inefficient. Professor Roberta Romano declared that the Sarbanes-Oxley Act of 2002<sup>23</sup> was “quack corporate governance.”<sup>24</sup> Professor Stephen Bainbridge argued that the Dodd-Frank Act of 2010 was even worse.<sup>25</sup> How do we avoid these deleterious, knee-jerk legislative reactions?

This Article proposes that perhaps we can avoid some of the frauds, crises, and bubbles that empower legislators to pass such quack laws. It begins with the assumption that innovation is not only necessary but also inevitable. Then it considers the first principles of corporate governance: we need financial regulation to prevent money managers (agents) from taking advantage of investors (principals). These “agency costs” are higher when investors lack information or the ability to organize and negotiate for themselves. Therefore, instead of proposing overbroad, far-reaching, potentially inefficient regulation, this Article recommends some common sense, light-touch regulations such as minimal disclosures and capital requirements. These regulations are not meant to protect every investor or consumer from the perils of the marketplace, but rather to avoid massive financial catastrophes. It also provides some avenues for further study.

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23. Sarbanes-Oxley, or SOX, is a federal law that implemented a comprehensive reform for public accounting firms, corporate management, and corporate boards of directors. The Sarbanes-Oxley Act was passed in response to a number of corporate accounting scandals that occurred between 2000 and 2002, most notably, the Enron and Worldcom collapses. See Larry E. Ribstein, *Market vs. Regulatory Responses to Corporate Fraud: A Critique of the Sarbanes-Oxley Act of 2002*, 28 J. CORP. L. 1 (2002).

24. Roberta Romano, *The Sarbanes-Oxley Act and the Making of Quack Corporate Governance*, 1523–26 (Yale Faculty Scholarship Series, Paper No. 1919), [http://digitalcommons.law.yale.edu/fss\\_papers/1919](http://digitalcommons.law.yale.edu/fss_papers/1919) [<https://perma.cc/PHA4-64PG>] (identifying eight attributes of quack corporate governance: (1) bubble act enacted in response to major economic failure, (2) enacted during a crisis, (3) responded to populist and anti-corporate sentiment, (4) adopted by the federal government, (5) transferred power from states to the federal government, (6) supported by interest groups who are strong at the federal level but weak at the Delaware state level, (7) fulfilled some longstanding agenda item of a federally powerful interest group, and (8) “supported” by weak or mixed empirical evidence).

25. Stephen M. Bainbridge, *Dodd-Frank: Quack Federal Corporate Governance Round II*, 95 MINN. L. REV. 1779 (2011) (arguing that Dodd-Frank satisfies substantially all of Romano’s eight criteria for quack corporate governance).

## I. INNOVATIONS IN FUNDRAISING

This Part begins by identifying and describing a new financing technique that was recently employed by Elon Musk.<sup>26</sup> Musk leveraged his wunderkind personality to his great fundraising advantage, as did a young Henry Ford.<sup>27</sup> These two Renaissance men share traits of mechanical genius, business acumen, and electric personality, which attracted investors even when fundamental economics counseled otherwise.<sup>28</sup> This Part explains how financial regulations were developed to protect investors against the sort of irrational exuberance that Musk and Ford can generate.<sup>29</sup> But our 1930s era financial regulations are poorly suited for today's rapidly changing financial landscape, as evidenced by Musk's Tesla Model 3 Reservation Agreement.<sup>30</sup> This Part closes by asking whether the unprecedented success of that Reservation Agreement demonstrates an important new financing technique or is merely another example of how charisma plus hype plus the internet results in unprecedented risks for consumers.<sup>31</sup>

A. *Hyperfunding*

Elon Musk<sup>32</sup> recently experimented with an innovative fundraising mechanism, which I term Hyperfunding, to finance a new generation of EVs.<sup>33</sup> Musk claims that Tesla's upcoming Model 3 will be the first EV for the everyman.<sup>34</sup> But Musk must do far more than create an appealing EV. He must also

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26. See *infra* Section I.A.

27. Legend holds that by age ten, Henry Ford was repairing delicate pocket watches using only rudimentary tools, and by age thirteen he developed a new sort of steam engine. *A Young Henry Ford*, HENRY FORD HERITAGE ASS'N, <http://hfha.org/the-ford-story/young-henry-ford/> (last visited Feb. 19, 2018) [<https://perma.cc/SA5H-YE8M>].

28. See *infra* Section I.B.

29. See *infra* Section I.C.

30. See *infra* Section I.D.

31. See *infra* Section I.E.

32. See generally MATT DOEDEN, *SPACE X AND TESLA MOTORS ENGINEER ELON MUSK* (2015).

33. Dana Hull, *Musk Unveils Tesla's \$35,000 Model 3 in Push for Mass Market*, BLOOMBERG (Apr. 1, 2016, 12:43 PM), <http://www.bloomberg.com/news/articles/2016-04-01/musk-unveils-tesla-s-35-000-model-3-in-push-for-mass-market> [<https://perma.cc/CB96-JBN9>].

34. *Id.*

create or foster the creation of a national network of EV charging stations.<sup>35</sup> EV charging networks pose a range of design problems that could foil many innovators.<sup>36</sup> The attempt to develop both EVs and EV charging networks simultaneously presents an incredible, multi-sided market problem.<sup>37</sup> To solve these challenges, Musk (perhaps inadvertently) invented and deployed a new method of raising money: Hyperfunding.

The first example of Hyperfunding—a term this Article uses to describe a fundraising campaign that raises many millions of dollars by directly targeting a broad base of consumers or investors via the Internet—was likely Tesla’s Model 3 financing scheme. In March 2016, Tesla sold a half million places in line to buy electric cars. While corporations have always engaged in presales for bespoke items, where a tailor or an exotic car manufacturer will take a deposit and then build a unique item for a particular customer, this level of broad, public financial commitment for a mass-production item is heretofore undocumented. Hyperfunding is more like crowdfunding, where startups generally raise a few hundred thousand dollars by advertising a product they want to develop on a portal like Kickstarter, but Hyperfunding eschews the portals and raises many orders of magnitude more money.<sup>38</sup> The sheer volume and speed of Hyperfunding is similar to ICOs, where new blockchains and cryptocurrencies receive millions of dollars in time periods as short as twenty-four seconds<sup>39</sup> (sometimes with disastrous results).<sup>40</sup> Hyperfunding

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35. *Building the Supercharger Network for the Future*, TESLA: BLOG (Jan. 12, 2017), <https://www.tesla.com/blog/building-supercharger-network-future> [<https://perma.cc/R8Z6-R4KY>]; see also Holly Yan, *Public Charging Stations Fuel Desire for Electric Cars*, CNN (Oct. 24, 2012, 9:52 AM), <http://www.cnn.com/2012/10/24/us/public-car-chargers/> [<https://perma.cc/YS75-6H2Q>].

36. See, e.g., Kai Huang, Pavlos Kanaroglou, & Xiaozhou Zhang, *The Design of Electric Vehicle Charging Networks*, 49 TRANSP. RES. PART D: TRANSPORT & ENV’T 1, 1 (2016).

37. Enrico Gerding et. al, *Two-sided Online Markets for Electric Vehicle Charging*, 12TH INT’L CONF. ON AUTONOMOUS AGENTS & MULTIAGENT SYSTEMS 989, 989–90 (2013).

38. C. Steven Bradford, *Crowdfunding and the Federal Securities Laws*, 2012 COLUM. BUS. L. REV. 1, 16–17 (“Kickstarter requires its projects to offer what it calls ‘rewards,’ typically of the pre-purchase variety. According to Kickstarter, rewards are typically items produced by the project itself.”).

39. Chance Barnett, *Inside the Meteoric Rise of ICOs*, FORBES (Sept. 27, 2017), <https://www.forbes.com/sites/chancebarnett/2017/09/23/inside-the-meteoric-rise-of-icos/#419f3d105670> [<https://perma.cc/3BRB-AVWU>].

40. Steven Norton, *Downfall of DAO Digital Currency Fund Shows*



is legally distinguishable from ICOs. Hyperfunding, however, would probably fail the *Howey* test for securities offerings because it is not about earning returns on investment but actually receiving a desired product; whereas, according to the SEC, ICOs have met the *Howey* test.<sup>41</sup> Since Hyperfunding would probably not subject its promoter to securities liability, the law should consider whether alternative means of protecting people from its negligent or fraudulent use is warranted.

### B. *Elon Musk and Henry Ford*

Creating an electric car for \$35,000 that can be driven from state to state thanks to a network of Supercharger stations is a feat of engineering, finance, salesmanship, and politics.<sup>42</sup> A project of this magnitude is reminiscent of Henry Ford's project to create the first affordable gasoline-powered car.<sup>43</sup> Ford, like Musk, was an unconventional inventor who did not always agree with his investors.<sup>44</sup> Ford loved the spotlight

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*Blockchain Reputational Risk*, WALL ST. J.: CIO JOURNAL. (June 20, 2016, 6:35 PM), <https://blogs.wsj.com/cio/2016/06/20/downfall-of-dao-digital-currency-fund-shows-blockchain-reputational-risk/> [https://perma.cc/Y9CX-D99V].

41. Sec. & Exch. Comm'n, Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO, Release No. 81207, July 25, 2017, <https://www.sec.gov/litigation/investreport/34-81207.pdf> [https://perma.cc/BFJ4-W8GN] [hereinafter SEC DAO Report] ("The DAO, an unincorporated organization, was an issuer of securities.").

42. See John C.K. Pappas, *A New Prescription for Electric Cars*, 35 ENERGY L.J. 151, 188 (2014) (stating that while EVs present an optimistic future of less dependence on oil and fossil fuels, the industry has a long way to go before the United States universally accepts these cars). Although this is not as ambitious as sending people to Mars. See Olivia Solon, *Elon Musk Has Ambitious Plans for Mars. Are They as Crazy as They Sound?*, GUARDIAN (Sept. 27, 2016, 7:00 AM), <https://www.theguardian.com/technology/2016/sep/27/elon-musk-spacex-mars-exploration-space-science> [https://perma.cc/GFR4-7TL5] (discussing Elon Musk's ambition to colonize Mars through his private company SpaceX by launching its first manned mission in 2024).

43. See Cadie Thompson, *The Fascinating Evolution of the Electric Car*, BUS. INSIDER (Feb. 15, 2017, 1:20 PM), <http://www.businessinsider.com/electric-car-history-2017-2/#the-electric-car-burst-onto-the-scene-in-the-late-1800s-and-early-1900s-1> [https://perma.cc/CJZ7-5CSW] (discussing how Ford, in meeting an overwhelming demand for the first Model T, introduced revolutionary new mass production methods, including large production plants and standardized parts).

44. VINCENT CURCIO, HENRY FORD 30–33 (2013) (In the early days of the Detroit Automobile Company, Ford convinced investors to lend him money to build a two-seat delivery wagon, but "[i]n actuality, the Detroit Automobile Company had not been expending a lot of effort in building commercial vehicles.

and used the media to drive investors and consumers to his products.<sup>45</sup> But Ford's animus for money led him to engage in sharp business practices that would probably be illegal today.<sup>46</sup> Ford bamboozled investors<sup>47</sup> to finance the Model T, a "minor" deception that would be illegal under modern securities regulation<sup>48</sup> but ostensibly permissible in 1900 and perhaps today under Hyperfunding.

Ford's anti-shareholder attitudes led to the famous case of *Dodge v. Ford Motor Co.*,<sup>49</sup> which has become the textbook paradigm for the principle that corporations must seek to maximize shareholder value.<sup>50</sup> Yet for a time, the general public adored Ford,<sup>51</sup> despite his many foibles (such as his violent opposition to unions<sup>52</sup> and his vocal anti-

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Ford was not really happy working for hire with only a small profit participation; oftentimes he wasn't around the shop, in essence hiding from his backers. What he really did with the \$86,000 the company lost was to investigate the building of a racing car").

45. *Id.* at 33 ("[Ford] would make enormous use of publicity in the coming decades; in fact, he would become one of its great masters.").

46. Even Ford's most apologetic biographer admits that Ford essentially tricked his initial investors. Ford disagreed with his investors about what kind of cars to develop. "Ford wanted cheaper ones for the masses, and Malcomson wanted the company to turn out more luxurious models like their new six-cylinder Model K." *See id.* at 44–55. Ford got rid of Malcomson by creating a new company, the Ford Manufacturing Company, and dedicated his resources to it. *See id.* The behavior would almost certainly constitute a conflict of interest under modern fiduciary duties.

47. STEVEN WATTS, *THE PEOPLE'S TYCOON: HENRY FORD AND THE AMERICAN CENTURY* 51–98 (2006) ("Yet [Ford] used subterfuge to deceive his investors, and once even directed machinists to produce auto parts that would never go into a car, just to make investors think that his factory was actually manufacturing something.").

48. *See, e.g.*, Employment of Manipulative and Deceptive Devices, 17 C.F.R. § 240.10b-5 (2018). The Securities Exchange Act of 1934 Rule 10b-5 prohibits any act or omission resulting in fraud or deceit in connection with the purchase or sale of any security.

49. 170 N.W. 668 (Mich. 1919).

50. *See, e.g.*, ALAN PALMITER & FRANK PARTNOY, *CORPORATIONS: A CONTEMPORARY APPROACH* 98 (2d ed. 2014) ("Dodge v. Ford Motor is often cited by academic writers as support of the shareholder primacy view: 'A business corporation is organized and carried on primarily for the profit of the stockholders.'").

51. CURCIO, *supra* note 44, at xi ("In the wake of the announcement of the five-dollar, eight-hour day at the Ford Motor Company at the beginning of 1914, Ford was lionized, and sometimes mobbed, by a grateful populace. They considered him a public benefactor of the highest quality, a force for good beyond that found in the souls of ordinary men.").

52. WATTS, *supra* note 47, at 441–54 ("[Henry Ford] hir[ed] thugs to beat union organizers.").

Semitism<sup>53</sup>). Ford's funeral was attended by 100,000 people.<sup>54</sup> The corporation that bears his name is still one of the top ten most successful American companies of all time.<sup>55</sup>

Both Ford and Tesla combined ingenuity with reckless disregard for convention, which earned them the admiration of the people. At times, both populist capitalists Musk<sup>56</sup> and Ford<sup>57</sup> may have disregarded the law. Ford in particular despised his shareholders,<sup>58</sup> tried to limit their profits,<sup>59</sup> and may have deceived them.<sup>60</sup> Musk, for his part, is now caught up in a shareholder lawsuit that claims Tesla misled stockholders in its proxy statement soliciting them to vote for Tesla's acquisition of SolarCity.<sup>61</sup> But both steadfastly proclaimed a populist message, which resonated with consumers, regulators, and many investors. Their charisma allowed them to push the envelope in tech, law, and finance.

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53. Ford's anti-Semitism was so renowned that Adolf Hitler mentioned Ford (and no other American) in *Mein Kampf*, and "Hitler was also said to have a full-length portrait of Ford in the headquarters of the National Socialist Party." CURCIO, *supra* note 44, at 144. *See also* WATTS, *supra* note 47, at 376–400 ("[Henry Ford] was a virulent anti-Semite and a 'bigot.'").

54. CURCIO, *supra* note 44, at 267.

55. *Here Are the Top 10 Most Successful American Companies*, FORTUNE MAG. (June 6, 2016), <http://fortune.com/2016/06/06/fortune-500-top-10-companies/> [<https://perma.cc/5SCF-VFK6>] ("9. Ford Motor Fortune 500 Rank: No. 9, 2015 Revenue: \$149.6 billion.").

56. For example, Musk allegedly ran an illegal speakeasy bar out of his dorm room at the University of Pennsylvania. Adeo Ressi, *Musk's College Speakeasy Days*, ELON ENTHUSIAST (Aug. 13, 2012, 7:55 AM), <http://elonenthusiast.com/post/29338272966/lets-start-a-nightclub> [<https://perma.cc/7U77-8JMK>].

57. Even Ford's official biographer Allan Nevins does not entirely gloss over the fact that "[Henry Ford] hir[ed] thugs to beat union organizers." WATTS, *supra* note 47, at 51–98.

58. CURCIO, *supra* note 44, at 103; *see also* SAMUEL MARQUIS, HENRY FORD: AN INTERPRETATION 159 (2007) ("Stockholders, in his opinion, as he expressed it, were in danger of becoming 'parasites.' And so in time the stockholders went.").

59. CURCIO, *supra* note 44, at 103–05.

60. *Id.*

61. Complaint at 32, *In re Tesla Motors, Inc., Stockholders Litigation*, C.A. No. 12711-VCS (Del. Ch. 2016) (No. 12745-VCS), 2016 WL 4821727. ("73. On August 31, 2016, Tesla and SolarCity filed the Proxy with the SEC. In the Proxy, the Board asks for Tesla's stockholders to vote to approve the Proposed Acquisition and corresponding share issuance. However, the Proxy omits material information that prevents Tesla's stockholders from making a fully informed vote.").

### C. *Financial Regulatory Theory*

Ford's motto can be summed up thus: "you cannot make an omelet without breaking eggs."<sup>62</sup> He's right, but who should be allowed to take a crack? Policymakers and regulators must make rules that pertain equally to a similarly situated class of market participants. The United States should not have one set of laws and regulations for popular capitalists like Henry Ford and Elon Musk, and another set for everyone else.<sup>63</sup> Optimal regulation will allow some rotten things.

Financial regulatory policy must allow for some rotten egg-breaking because "[t]he optimal amount of [business] risk is not zero."<sup>64</sup> Likewise, in commercial contexts, "the optimal level of regulation is not zero."<sup>65</sup> Therefore, we do not seek zero crime,<sup>66</sup> zero pollution,<sup>67</sup> or zero constitutional violations.<sup>68</sup>

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62. This adage means that "it is hard to achieve something important without causing unpleasant effects." *You can't make an omelet without breaking eggs*, CAMBRIDGE DICTIONARY, <http://dictionary.cambridge.org/us/dictionary/english/you-can-t-make-an-omelette-without-breaking-eggs> (last visited Feb. 19, 2018) [<https://perma.cc/5NMR-EV9Y>].

63. This is at least ostensibly the case, although it is not beyond credibility that the U.S. regulatory system is at least somewhat subject to the problems of "crony capitalism." See generally Stephen Haber, *Introduction: The Political Economy of Crony Capitalism*, in *CRONY CAPITALISM AND ECONOMIC GROWTH IN LATIN AMERICA: THEORY AND EVIDENCE* xiii, xix (Stephen Haber ed., 2002); STEVE FRASER, *EVERY MAN A SPECULATOR: A HISTORY OF WALL STREET IN AMERICAN LIFE* (2005) (arguing that Wall Street dominated politics in the 1920s such that President Coolidge supported a public policy of crony capitalism).

64. Frank H. Easterbrook & Daniel R. Fischel, *Limited Liability and the Corporation*, 52 U. CHI. L. REV. 89, 105 (1985); see also Paul B. Stephan, *The Futility of Unification and Harmonization in International Commercial Law*, 39 VA. J. INT'L L. 743, 747 (1999) ("There is, in other words, an optimal level of legal risk that is greater than zero.").

65. Oren Bar-Gill, *The Behavioral Economics of Consumer Contracts*, 92 MINN. L. REV. 749, 795 (2008) ("The impediments to welfare-enhancing regulation are numerous and substantial. These impediments caution against any regulation, not only against regulation motivated by consumer mistakes. Still, despite all the costs and risks and imperfections, the optimal level of regulation is not zero. Some regulation is welfare-enhancing.").

66. See, e.g., Murat Mungan, *Optimal Preventive Law Enforcement and Intervention Standards* (Fla. St. U. College of Law, Public Law Research Paper No. 701), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2481367&rec=1&srcabs=2596108&alg=1&pos=1](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2481367&rec=1&srcabs=2596108&alg=1&pos=1) [<https://perma.cc/HE8P-XZ9W>].

67. See John C. Coffee, Jr., *Paradigms Lost: The Blurring of the Criminal and Civil Law Models—and What Can Be Done About It*, 101 YALE L.J. 1875, 1885 (1992) ("Clearly, however, the optimal level of pollution or worker accidents is above zero, because to reduce these levels to zero would require unlimited expenditures on precautions.").

68. See Daryl J. Levinson, *Making Government Pay: Markets, Politics, and the*

Cost-benefit analysis can reveal optimal regulation, but analysis takes efficient implementation, time, money, and sustained political will.<sup>69</sup> Besides, most legislatures do not pontificate about regulating securities that have just begun to exist.<sup>70</sup> That is for scholars.

Categorical regulation is extremely difficult and often leads to failure.<sup>71</sup> Overbroad, oversimplified, categorical regulations often result from governmental responses to panic and chaos.<sup>72</sup> History is replete with examples of controversial regulations forged by crisis.<sup>73</sup> Crises seem especially effective

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*Allocation of Constitutional Costs*, 67 U. CHI. L. REV. 345, 369 (2000) (“For categories of constitutional violations that do generate substantial compliance costs, we seem to accept, in practice if not in theory, that the optimal level of constitutional violations is greater than zero.”).

69. See John C. Coates IV, *Cost-Benefit Analysis of Financial Regulation: Case Studies and Implications*, 124 YALE L.J. 882 (2015).

70. Congress did not regulate credit default swaps until they were blamed for sending the entire world economy into a deep recession. See Douglas B. Levene, *Credit Default Swaps and Insider Trading*, 7 VA. L. & BUS. REV. 231, 263–65 (2012) (describing legislation enacted by Congress with respect to Rule 10b-5 and insider trading in equity securities, including credit default swaps).

71. Barak Orbach, *What Is Regulation?*, 30 YALE J. REG. ONLINE 1, 8 (2013) (discussing the controversial nature of regulations forbidding financial instruments that enable the accumulation of debt).

72. E.g., Mark B. Baker, *Promises and Platitudes: Toward A New 21st Century Paradigm for Corporate Codes of Conduct?*, 23 CONN. J. INT’L L. 123, 141 (2007) (“A final problem is that when the government creates legislation in response to a crisis, it may create overreaching or overbroad regulation.”).

73. Controversial regulations forged in crisis include the following: the Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, 116 Stat. 745, see Romano, *supra* note 24, at 1594 (“Financial turmoil thus appears to be a necessary but not sufficient condition for the enactment of market regulation, and the quality of federal legislative decisionmaking in such an environment has consistently left much to be desired.”); the Patriot Act of 2001, Pub. L. No. 107-56, 115 Stat. 272 (Oct. 26, 2001), see Rebecca M. Kysar, *Lasting Legislation*, 159 U. PA. L. REV. 1007, 1067 n.254 (2011) (“An example of when Congress used temporary legislation in response to a crisis is the antiterrorist legislation known as the USA PATRIOT Act, passed in response to the attacks on the United States in September 2001, with the goal of expanding the investigatory power of law enforcement, the discretion of authorities to detain and deport suspected terrorists, and the ability of the Treasury Department to regulate suspicious financial transactions.”); the federal securities laws, including the Securities Act of 1933, 15 U.S.C. §§ 77a *et seq.* (2012), and the Securities Exchange Act of 1934, 15 U.S.C. §§ 78a *et seq.* (2012), see Marcel Kahan & Edward Rock, *Symbiotic Federalism and the Structure of Corporate Law*, 58 VAND. L. REV. 1573, 1589 (2005) (“The classic examples of large scale federal incursion into corporate law in response to crisis and scandal are the enactment of the 1933 Securities Act and the 1934 Securities Exchange Act, which created the SEC and, more recently, the enactment of the Sarbanes-Oxley Act and the changes in the stock exchange listing rules.”).

in galvanizing the legislature to enact new financial regulations.<sup>74</sup> Studying new phenomena in corporate finance in order to better understand them and proactively consider whether and how to regulate<sup>75</sup> them can stave off the overly restrictive and hyper-reactive regimes that are too often harshly imposed when these innovations are flatly blamed for economic crises.

Ford's story also teaches powerful lessons about innovation, personality, and regulation, which are directly applicable to understanding Musk and Hyperfunding. Like Ford, Tesla is likewise doing something massive that requires bending or breaking a few of the old rules. Creating a physical multi-sided network requires massive scale. This includes building a "gigafactory" for industrial-scale battery production,<sup>76</sup> developing new industrial materials,<sup>77</sup> obtaining scarce resources needed for next-generation mass production of electric vehicles,<sup>78</sup> and creating an infrastructure of vehicle recharging stations.<sup>79</sup> A project of this magnitude presents unique financing needs. To finance this unprecedented undertaking, Tesla simultaneously demonstrated the prototype Model 3 and accepted \$1,000 "reservations" for this future

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74. Stuart Banner, *What Causes New Securities Regulation? 300 Years of Evidence*, 75 WASH. U. L.Q. 849, 850 (1997) ("If new technology doesn't cause new securities regulation, what does? In a nutshell, crashes. All of the 18th-century English regulation, and even all of the 18th-century proposed regulation, came immediately after sustained price declines. The first significant American securities regulation, passed in 1792 in New York, followed the big crash of that year. And of course the federal securities acts of the early 1930s came soon after the crash of 1929.") (footnotes omitted); see also Brian T. Sullivan, *CSX Corp. v. Children's Investment Fund Management and the Need for Sec Expansion of Beneficial Ownership*, 87 N.C. L. REV. 1300, 1303 n.18 (2009) ("Interestingly, the enactment of each piece of legislation tended to follow closely on the heels of a major economic crisis, indicating that securities regulation has been more reactionary than proactive in nature.").

75. Regulation here means only the public intervention in the private domain. This can include both prohibitory and permissive regulation. See Orbach, *supra* note 71, at 6.

76. *Tesla Gigafactory*, TESLA, <https://www.tesla.com/gigafactory> (last visited Feb. 19, 2018) [<https://perma.cc/C338-FHSP>].

77. Henry Sanderson, *Tesla in High Demand for Lithium Supply*, FIN. TIMES, (June 8, 2017), <https://www.ft.com/content/90d65356-4a9d-11e7-919a-1e14ce4af89b> [<https://perma.cc/83YE-66JR>].

78. *Id.*

79. *Building the Supercharger Network for the Future*, *supra* note 35.

79. *Id.*

vehicle.<sup>80</sup>

#### D. *Tesla's Reservation Agreement*

Tesla's Model 3 Reservation Agreement is a strange sort of contract. At first blush, a consumer would think that she is giving \$1,000 to Tesla as a down payment on a Model 3. Indeed, that is normal in the auto industry.<sup>81</sup> But the Reservation Agreement that one receives upon providing the \$1,000 deposit expressly "does not constitute the purchase or order of a vehicle," and "[u]ntil you enter into a Purchase Agreement, your Reservation may be cancelled at any time."<sup>82</sup> Indeed, Tesla does not really promise to provide anything in return for the \$1,000 deposit: Tesla's unlimited option to cancel the Reservation makes Tesla's performance entirely optional. An entirely optional promise is illusory and does not constitute good and valuable consideration.<sup>83</sup> Therefore, at the outset, it is not even clear that the Reservation Agreement is a binding contract.<sup>84</sup>

Even if the Reservation Agreement requires Tesla to deliver a Model 3 car to a Reservation Holder, there is no timetable for Tesla's performance. Tesla has taken advantage of this ambiguity. CEO Elon Musk originally promised to deliver 5,000 cars per week in 2017Q4, but the company only delivered 1,550 vehicles in that quarter, and Tesla has failed to meet additional production targets since then.<sup>85</sup> While there

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80. Assis, *supra* note 22.

81. Auto consumers expect to make a down payment when placing a factory order for a car. This type of transaction is so typical that third party intermediaries are in the business of facilitating such transactions. See *Why Special Ordering a New Car Can Be Your Best Choice*, CARTELLIGENT, <https://www.cartelligent.com/blog/why-special-ordering-new-car-can-be-your-best-choice> (last visited Feb. 19, 2018) [<https://perma.cc/7GT3-5TVS>].

82. *Model 3 Reservation Terms & Conditions*, TESLA, [https://www.tesla.com/sites/default/files/pdfs/model\\_3\\_reservation\\_agreement.pdf](https://www.tesla.com/sites/default/files/pdfs/model_3_reservation_agreement.pdf) (last visited Feb. 19, 2018) [<https://perma.cc/HCU8-23MX>].

83. Words of promise, which by their terms make performance entirely optional with the "promisor," do not constitute a promise. RESTATEMENT (SECOND) OF CONTRACTS § 77 (AM. LAW INST. 1981).

84. To constitute consideration, a performance or a return promise must be bargained for. RESTATEMENT (SECOND) OF CONTRACTS § 71 (AM. LAW INST. 1981).

85. Jack Stewart, *Tesla Delays Its Model 3 Production Goals—Again*, WIRED (Jan. 3, 2018, 5:57 PM), <https://www.wired.com/story/musk-model-3-tesla-production-delays-january/> [<https://perma.cc/7DW8-GUSZ>] ("If you are eagerly awaiting your Tesla Model 3, it might be time to download that meditation app,

are not yet any reports of Reservation Holders suing Tesla for the delay—perhaps because the Reservation Agreement does not actually give them any recourse—at least one shareholder filed suit alleging that Tesla and Musk improperly hid production problems from investors.<sup>86</sup>

In other words, the Reservation Agreement is not a typical deposit agreement. It is notable or peculiar for at least nine reasons. First, it is not really a reservation agreement but a revocable option to place an order.<sup>87</sup> Second, it guarantees prepurchasers almost nothing for certain.<sup>88</sup> Third, at only one page long, Tesla’s Reservation Agreement is very short and clearly missing many terms that are usually found when someone purchases or invests in something.<sup>89</sup> Fourth, prepurchasers do not learn their position in the queue.<sup>90</sup> Fifth, position in the queue affects price because federal tax credits of \$7,500 are available only to the first 200,000 buyers.<sup>91</sup> Sixth, unlike most deposits, which are for a particular good that already exists or for a specific item to be produced, Tesla preorder “customers” do not even know the final price or features available on the Model 3.<sup>92</sup> Seventh, deposits are not just applied to build that prepurchaser’s car or even the Model 3 generally: Musk said these funds would build the Gigafactory

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because you’re gonna have to relax and get ready to wait.”).

86. Chris Isidore, *Tesla Sued for Model 3 Delays*, CNN TECH (Oct. 31, 2017, 3:10 PM), <http://money.cnn.com/2017/10/31/technology/tesla-shareholder-suit-model-3/index.html> [<https://perma.cc/AQ5M-N5ND>]; Complaint, *Wochos v. Tesla, Inc.*, No. 17-cv-05828 (N. D. Cal., Oct. 10, 2017), ECF No. 1.

87. *Model 3 Reservation Terms & Conditions*, *supra* note 82.

88. Although deposits are eligible for a refund (while funds last!). *See id.* The Reservation Agreement states that “[Y]our Reservation may be cancelled at any time, in which case you will receive a full refund of your Reservation Payment.” *Id.*

89. *Id.*

90. *See id.* In fact, Tesla changed the source code of its website expressly to prevent Reservation Holders from determining their priority position. *See* Fred Lambert, *Tesla Model 3: There’s a Way to See Where You Are in the Queue, Check It Before Tesla Finds Out*, ELECTREK (June 7, 2016, 5:34 AM), <https://electrek.co/2016/06/07/tesla-model-3-reservation-queue-number/> [<https://perma.cc/B6RX-Y2GV>] (“Update #2: It looks like Tesla changed the source code of the ‘My Tesla’ page and the ‘common\_reservation\_id’ number is not accessible anymore.”).

91. Evan Niu, *3 Things You Need to Know Before Reserving Tesla’s Model 3 Next Month*, MOTLEY FOOL (Feb. 14, 2016, 12:00 PM), <http://www.fool.com/investing/general/2016/02/14/3-things-you-need-to-know-before-reserving-teslas.aspx> [<https://perma.cc/3M74-YYNG>].

92. *Id.*



that makes all Tesla batteries and produce other Tesla vehicles like the Model S and Model X.<sup>93</sup> Eighth, “consumers” appear to be attempting to re-sell their preorder rights in an informal secondary market.<sup>94</sup>

Ninth, and perhaps more important for policy consideration, Tesla raised almost a half-billion dollars from the general public without any sort of regulatory filing or oversight.<sup>95</sup> On the first day of taking reservation payments for the Model 3, Musk boasted that Tesla received 180,000 orders within twenty-four hours.<sup>96</sup> Crunching some numbers, Musk went on to say that, at an average sale price of \$42,000, Tesla sold roughly \$7.5 billion worth of cars that day.<sup>97</sup> At the end of June, the number of reservations was reported to be roughly 400,000, or \$400 million worth of reservation payments.<sup>98</sup> By the end of 2016, Tesla received almost \$700 million in Model 3 deposits.<sup>99</sup> With no concrete timeframe, production schedule, infrastructure, escrow, oversight, or accountability to deliver the Model 3, this does not appear to be a typical reservation scenario.

What is Tesla’s Reservation Agreement? What regulatory systems should govern it? It has features of both a security and a deposit, but the regulations and protections of neither.<sup>100</sup> Reservation Holders’ rights turn on the analysis of this contract. Understanding this ambiguous agreement requires extrinsic evidence as to its purpose and intent. Its purpose for

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93. Jack Stewart, *This Is the Enormous Gigafactory, Where Tesla Will Build Its Future*, WIRED (July 7, 2016, 7:00 AM), <https://www.wired.com/2016/07/tesla-gigafactory-elon-musk/> [<https://perma.cc/7NEA-7R8T>].

94. Even though such a transfer violates Tesla’s Reservation Agreement, it appears depositors are finding work-arounds. See John Voelcker, *Tesla Model S Depositors: You Can’t Sell Your Reservation, Legally*, GREEN CAR REPS. (Dec. 11, 2012), [http://www.greencarreports.com/news/1081031\\_tesla-model-s-depositors-you-cant-sell-your-reservation-legally](http://www.greencarreports.com/news/1081031_tesla-model-s-depositors-you-cant-sell-your-reservation-legally) [<https://perma.cc/ZJ75-KGUT>] (discussing how four Tesla Model S electric sport sedans were offered for sale on eBay despite language in the Reservation Agreement that explicitly restricted transfers).

95. Lambert, *supra* note 1.

96. Steve Hanley, *Tesla Crushes Nearly 250,000 Model 3 Reservations into Day 2*, TESLARATI (Apr. 2, 2016), <http://www.teslarati.com/tesla-crushes-nearly-250000-model-3-reservations/> (last visited Feb. 19, 2018) [<https://perma.cc/DVY7-VF5B>].

97. *Id.*

98. Fred Lambert, *Tesla is Now Holding onto \$700 million in Consumer Deposits*, ELECTREK (Oct. 27, 2016, 8:34 AM), <https://electrek.co/2016/10/27/tesla-model-3-700-million-customer-deposits/> [<https://perma.cc/WDX2-R2WE>].

99. *Id.*

100. See *infra* Part III.

both Tesla and its prepurchasers is to fund a market for EVs.

*E. Hype or Funding?*

While raising almost a billion dollars seems like quite a feat, was this really a financing operation or just done for marketing hype? While I argue that Tesla's presale meets criteria for both hype and funding, it is important to consider the factors that may indicate this was really about hype and not about funding.

Tesla does not struggle to access capital markets. As a publicly traded company, Tesla can raise money interest-free by selling stock.<sup>101</sup> As of March 31, 2017, Tesla had accumulated over \$8.5 billion of paid-in capital by issuing common stock.<sup>102</sup> On that date, when Tesla had 164,164,000 shares of common stock outstanding,<sup>103</sup> Tesla's common stock price closed at \$278.30 per share,<sup>104</sup> for a market capitalization of over \$45.6 billion. At that time, Tesla was authorized to issue up to two billion shares of common stock,<sup>105</sup> which could have raised significant funds without requiring any interest payments.<sup>106</sup> But issuing more stock is not free: first, it dilutes existing shareholders' value and control, including the value and control of managers<sup>107</sup> like Elon Musk who have significant stakes in Tesla.<sup>108</sup> Second, even if a company is

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101. U.S. Sec. & Exch. Comm'n, *Public Companies*, INVESTOR.GOV, <https://www.investor.gov/introduction-investing/basics/how-market-works/public-companies> (last visited Feb. 19, 2018) [<https://perma.cc/79AA-V3DU>].

102. Tesla Motors, Inc., Quarterly Report (Form 10-Q) 4 (May 10, 2017) [hereinafter *Tesla March 2017 10-Q*].

103. *Id.*

104. *Tesla Historical Stock Prices*, NASDAQ, <https://www.nasdaq.com/symbol/tsla/historical> (last visited Feb. 19, 2018) [<https://perma.cc/VG98-VJYC>].

105. Tesla Motors, Inc., Annual Report (Form 10-K) (Mar. 1, 2017).

106. This does not mean that Tesla could have raised up to \$510.9 billion by selling all its authorized but unissued shares. The stock price falls as additional stock is issued. RICHARD BREALEY & STEWART C. MYERS, *PRINCIPLES OF CORPORATE FINANCE* 297 (3d ed. 1988); *see also* Paul Asquith & David W. Mullins, Jr., *Equity Issues and Offering Dilution*, 15 J. FIN. ECON. 61, 61 (1986) ("Financial executives, investment bankers and many regulators argue that selling equity causes a firm's stock prices to fall.").

107. Jeffrey N. Gordon, *Ties that Bond: Dual Class Common Stock and the Problem of Shareholder Choice*, 76 CALIF. L. REV. 1, 52 (1988) ("The dilution of management's control position by the issuance of additional common stock eliminates its ability to consume prerequisites [sic]. This results in a wealth transfer from managers to public shareholders.").

108. Elon Musk owns about 27% of Tesla. *See Tesla, Inc. Ownership Summary*,

already publicly listed on a stock exchange, it can be very expensive to issue more stock, even if the company conducts a “shelf takedown” using SEC Rule 415.<sup>109</sup>

Tesla could also access the debt market to secure a loan. Tesla has a revolving credit facility<sup>110</sup> under which it could draw about \$360 million at 4.2% to 6.5% interest rates.<sup>111</sup> Tesla also has a credit agreement to borrow almost \$1 billion at 1% plus LIBOR.<sup>112</sup> Tesla is paying 1%, or 100 basis points, above LIBOR, so its interest rate on August 6, 2017, would be about 0.81%.<sup>113</sup> This is a very low interest rate when compared to the bonds Tesla issued in August 2017,<sup>114</sup> but both pale in

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NASDAQ, <http://www.nasdaq.com/symbol/tsla/ownership-summary> (last visited Feb. 21, 2018) [<https://perma.cc/2WQD-WQPU>].

109. A shelf offering occurs where a company has previously registered more securities than it intended to sell. Later, pursuant to SEC Rule 415, the company can “takedown” those registered securities by filing a Form S-3. While this process is less costly than repeating the entire registration process, it still requires substantial legal work and filing fees and may increase agency costs, see James J. Park, *Two Trends in the Regulation of the Public Corporation*, 7 OHIO ST. ENTREPRENEURIAL BUS. L.J. 429, 438 (2012) (“Though it reduces offering costs, shelf registration also undermines the ability of underwriters to scrutinize public companies each time they offer securities to the public.”), although it may result in lower due diligence costs, see Joseph K. Leahy, *The Irrepressible Myths of Barchris*, 37 DEL. J. CORP. L. 411, 451–52 (2012) (“[T]he benefits stemming from due diligence in shelf-registered offerings do not outweigh the costs from an investors perspective.”).

110. A revolving credit facility, or “revolver,” is a line of credit, similar to a credit card. The borrower pays an up-front fee in exchange for the ability to borrow up to a certain amount of money from a bank. The borrower only pays interest on the outstanding balance. The interest rate on the outstanding balance of a revolver may vary depending on extrinsic factors like LIBOR and intrinsic factors like the borrower’s current creditworthiness.

111. Tesla March 2017 10-Q, *supra* note 102.

112. LIBOR stands for the London Interbank Offered Rate. It is often used as a benchmark for variable interest rates because it reflects the rate that one of the world’s leading banks would charge another leading bank to lend money. There are different LIBOR rates for short-term and long-term loans, and short-term LIBOR is generally lower than long-term LIBOR. If the term is not specified, the 12-month LIBOR rate is generally presumed. LIBOR can be positive or negative. Most businesses are not as creditworthy as leading banks, so most business pay more than LIBOR for loans. Depending on the creditworthiness of the business, lenders will charge them “basis points.” One basis point is equal to 0.01%. *Basis Point (BPS)*, INVESTOPEDIA, <https://www.investopedia.com/terms/b/basispoint.asp> (last visited Mar. 13, 2018) [<https://perma.cc/H7U7-38M3>].

113. On July 6, 2017, the 12-month LIBOR was -0.18986%. *12 Month US Dollar LIBOR Interest Rate*, GLOBAL-RATES.COM, <http://www.global-rates.com/interest-rates/libor/libor.aspx> (last visited Feb. 19, 2018) [<https://perma.cc/UCQ8-JHEA>].

114. Claudia Assis & Ciara Linnane, *Tesla’s Junk Bonds are Trading Under Water—And it Could Spell Trouble for Elon Musk*, MARKETWATCH (Nov. 15, 2017,

comparison when considering the Model 3 presale raised interest-free capital.<sup>115</sup> Moreover, it is not clear that Tesla could obtain another loan on such favorable rates. Tesla may have already collateralized all of its property, and its creditworthiness may have decreased.<sup>116</sup>

On the other hand, Musk's penchant for the spectacular suggests that the Tesla Model 3 presale was a publicity stunt. On Sunday, January 21, 2018, Musk announced The Boring Company (another enterprise he owns that plans to dig transit tunnels many levels deep to solve traffic congestion problems and enable Hyperloop adoption)<sup>117</sup> will raise money by pre-selling The Boring Company Flamethrower ("Guaranteed to liven up any party! World's safest flamethrower!").<sup>118</sup> In less than a week, The Boring Company presold \$3.5 million worth of flamethrowers.<sup>119</sup> While some laud Musk for making The Boring Company a "hot ticket,"<sup>120</sup> others remark that this publicity stunt is a "colossally bad idea."<sup>121</sup> Meanwhile,

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8:00 AM), <https://www.marketwatch.com/story/teslas-junk-bonds-are-trading-under-water-and-it-could-spell-trouble-for-elon-musk-2017-11-10> [https://perma.cc/PUS5-KU9P].

115. *See id.*

116. While it has not yet been empirically demonstrated, a decline in stock price has caused credit rating agencies to downgrade their rating of a publicly traded company. Downgrading a company's credit rating can lead to the inability to borrow money, a cash-flow crisis, and bankruptcy. *See, e.g.,* Marleen A. O'Connor, *The Enron Board: The Perils of Groupthink*, 71 U. CIN. L. REV. 1233, 1234 (2003) ("The decline in Enron's stock price caused credit rating agencies to downgrade their assessments of Enron. Within weeks, the crisis of confidence led Enron to file bankruptcy."). In fact, Tesla's stock price decreased substantially since it was able to secure loans at LIBOR plus 100 basis points. Tae Kim, *Tesla Sinks 20% from High – Entering Bear Market Territory – as Concerns about 'Bubble Stock' Mount*, CNBC (July 6, 2017, 8:38 AM), <http://www.cnbc.com/2017/07/06/tesla-shares-plunge-12-percent-this-week-on-disappointing-deliveries.html> [https://perma.cc/J49J-3DXH]. This may indicate that Tesla would now have a much higher cost of capital for debt.

117. *FAQs*, BORING CO., <https://www.boringcompany.com/faq/> (last visited Feb. 20, 2018) [https://perma.cc/8SC5-6G95].

118. *Flamethrower*, BORING CO., <https://www.boringcompany.com/flamethrower/> (last visited Feb. 20, 2018) [https://perma.cc/R8T9-FKM8].

119. Ryan Browne, *Elon Musk's Boring Company Sold \$3.5 Million Worth of Flamethrowers*, USA TODAY (Jan. 29, 2018, 8:09 AM), <https://www.usatoday.com/story/tech/news/2018/01/29/elon-musks-boring-company-sold-3-5-million-worth-flamethrowers/1074037001/> [https://perma.cc/TW45-ZZJ9].

120. *Fire Sale: How Elon Musk Made a Boring Flamethrower a Hot Ticket*, GUARDIAN (Jan. 30, 2018, 7:39 AM), <https://www.theguardian.com/technology/shortcuts/2018/jan/30/fire-sale-how-elon-musk-made-a-boring-flamethrower-a-hot-ticket> [https://perma.cc/2C8G-STKE].

121. Eric Adams, *Elon Musk's Boring Company Flamethrower Seems Like a*

California Assemblyman Miguel Santiago (D-Los Angeles) plans to introduce a bill that would ban its sale, so it is not clear whether presale consumers will ever get their hands on the “world’s safest flamethrower.”<sup>122</sup>

Musk once again employed shock-and-awe marketing tactics on February 6, 2018, when he sent a Tesla sports car into space aboard a SpaceX Falcon Heavy cargo-lifting rocket.<sup>123</sup> In what has been hailed as a “marketing innovation,”<sup>124</sup> Musk live-streamed the \$100,000 red roadster en route to Mars through the vacuum of space with a dummy wearing an official SpaceX spacesuit in the driver’s seat,<sup>125</sup> the words “Don’t Panic” written on the windshield in large, friendly letters,<sup>126</sup> and David Bowie’s song “Space Oddity” playing on its

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*Colossally Bad Idea*, DRIVE (Jan 29, 2018), <http://www.thedrive.com/tech/18040/elon-musks-boring-company-flamethrower-seems-like-a-colossally-bad-idea> [<https://perma.cc/6F37-NC7U>].

122. Nick Statt, *California Politician Will Seek Sale Ban on Elon Musk’s Boring Company Flamethrower*, VERGE (Jan. 29, 2018, 6:15 PM), <https://www.theverge.com/2018/1/29/16948090/elon-musk-boring-company-flamethrower-california-sales-ban-miguel-santiago> [<https://perma.cc/ES89-AYAM>].

123. Elizabeth Howell, *Facts About SpaceX’s Falcon Heavy Rocket*, SPACE.COM (Feb. 21, 2018, 8:25 PM), <https://www.space.com/39779-falcon-heavy-facts.html> [<https://perma.cc/6T8S-CUA4>] (“On that debut test flight, the Falcon Heavy met almost all of its major objectives, including (notably) flying company founder and CEO Elon Musk’s Tesla Roadster, carrying a mannequin named ‘Starman,’ to space.”).

124. David Griner, *With a \$0 Ad Budget, Tesla Just Pulled Off One of the Greatest Marketing Stunts Ever*, ADWEEK (Feb. 7, 2018), <http://www.adweek.com/brand-marketing/with-a-0-ad-budget-tesla-just-pulled-off-one-of-the-greatest-marketing-stunts-ever/> [<https://perma.cc/Y45Q-7S4L>] (“Elon Musk pulled off a double marketing coup on Tuesday with the first successful test launch of his Falcon Heavy rocket, the flagship of his private space-flight company SpaceX, and the subsequent debut of its payload—a Tesla Roadster driven by a dummy nicknamed Starman—as the first car in space.”).

125. Henneke Weitering, *Elon Must Unveils ‘Starman’ in Tesla Roadster Launching on SpaceX’s Falcon Heavy Rocket*, SPACE.COM (Feb. 5, 2018, 11:07 AM), <https://www.space.com/39593-starman-aboard-tesla-roadster-spacex-falcon-heavy.html> [<https://perma.cc/F47S-FT4L>] (“[I]n a series of Instagram photos captioned ‘Starman in a Red Roadster,’ Musk debuted a dummy wearing an official SpaceX spacesuit, buckled up and apparently ready to blast off on a mission to Mars.”).

126. Mimi Launder, *Why It Says ‘Don’t Panic’ on the Dashboard of the Car Elon Musk Just Shot Toward Mars*, INDEPENDENT (Feb. 2018), <https://www.indy100.com/article/elon-musk-spacex-starman-tesla-roadster-dont-panic-car-falcon-heavy-launch-timelapse-8198921> [<https://perma.cc/YML2-SG2G>] (explaining that “Don’t Panic” is a reference to Hitchhiker’s Guide to the Galaxy, a book by Douglas Adams that has become a cult classic for its tongue-in-cheek approach to the meaning of life, the universe, and everything).

radio.<sup>127</sup> While some have lauded Musk for mesmerizing the world with this Starman stunt,<sup>128</sup> others have blasted him for throwing away money<sup>129</sup> and for potentially contaminating Mars with Earthly microbes.<sup>130</sup> More troubling for terrestrial purposes is the fact that Musk is launching cars into space when he is unable to deliver them on Earth, perhaps to divert attention away from Model 3 production delays.<sup>131</sup>

Flamethrowers and Starman aside, since reports came out that Tesla is burning cash at the rate of roughly \$8,000 a minute,<sup>132</sup> it is safe to assume that Tesla needed the money that it raised from its Model 3 campaign to help finance their expensive operations.<sup>133</sup> Moreover, its economic significance and consumer-protection concerns are no different regardless of Elon Musk's privately held intentions. Concerns about Tesla's illusory promises to Reservation Holders and failure to provide material information to investors<sup>134</sup> seem to pale in comparison

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127. James Dean & Emre Kelly, *Floating Through Space, SpaceX's 'Starman' Mesmerizes the World*, FLA. TODAY (Feb. 7, 2018, 4:11 PM), <https://www.florida.com/story/news/2018/02/07/floating-through-space-spacexs-starman-mesmerizes-world/316398002/> [<https://perma.cc/NMY4-C6PN>] (“Just like the car’s sound system playing David Bowie’s ‘Space Oddity,’ a song about an astronaut who is lost forever to the void — a song that can’t be heard in the vacuum of space — the goal was to mesmerize.”).

128. *Id.*

129. Jason Davis, *Let's Talk About Elon Musk Launching His Tesla Into Space*, PLANETARY SOC'Y: BLOG (Feb. 5, 2018), <http://www.planetary.org/blogs/jason-davis/2018/20180205-space-tesla.html> [<https://perma.cc/3KUN-GRLZ>] (“[R]ather than throwing away a perfectly good supercar, Musk could have donated it to charity for auction. The carbon footprint and factory labor used to build the car will be destroyed for no reason. SpaceX could have also asked if anyone wanted to gamble a satellite for this high-risk mission, though integrating satellites to a rocket isn’t trivial and SpaceX probably wants to avoid the logistics.”).

130. *Id.* (“NASA goes to great lengths sterilizing spacecraft designed to land on Mars, in order to make sure there’s no chance of Earthly microbes contaminating the surface. Such a contamination could harm existing life and muddle scientific efforts to search for said life.”).

131. Vlad Savov, *Sending a Tesla into Space Wasn't Such a Dumb Idea*, VERGE (Feb. 7, 2018, 6:47 AM), <https://www.theverge.com/tldr/2018/2/7/16984284/tesla-space-falcon-heavy-launch-elon-musk> [<https://perma.cc/REN9-QKMV>] (“[P]lus this pomp is helping divert attention from Tesla’s recent Model 3 production delays. It’s the greatest publicity stunt we’ve seen in a long time.”).

132. Gina Hall, *Report: Tesla Spends About \$8,000 per Minute*, SILICON VALLEY BUS. J. (Nov. 27, 2017, 1:10 PM), <https://www.bizjournals.com/sanjose/news/2017/11/22/tesla-cash-burn-tesla-model-3-roadster-truck.html> [<https://perma.cc/5T5N-9L7P>].

133. *Id.*

134. *See, e.g.*, Clement Thibault, *3 Reasons Why Tesla Shares Keep Pushing Higher*, INVESTING.COM (Feb. 22, 2017, 1:27 AM), <https://www.investing.com/>

with Musk's bravado.<sup>135</sup> Moreover, it's not just Musk who has found a way to raise money without regulations. In 2017, investors contributed \$3.7 billion in 235 unregulated "initial coin offerings."<sup>136</sup>

As more and more ordinary investors select opportunities that are not regulated by the SEC, we need to rethink our 1930s-era regulatory strategy for the Internet era. This Article will detail some of our financial regulatory insufficiencies.<sup>137</sup> But before it concludes with policy prescriptions for our economic future,<sup>138</sup> Part II reminds us that innovations (including financial ones) are necessary if we are to overcome some of the biggest problems facing society today. Regulating against innovation prevents progress as well as fraud. A more nuanced approach is needed to continue protecting investors and consumers in a rapidly changing world.

## II. A MARKET FOR ELECTRIC VEHICLES

Whether hype, funding, or both, Tesla's historic campaign seems to have solved the multi-sided market problem presented by EVs. EVs become more valuable as more EV resources like charging stations come online across America.<sup>139</sup> But it does not make sense to build charging stations when there are no cars. This is a "chicken-and-egg" problem.<sup>140</sup> Elon Musk cracked it with Hyperfunding, which simultaneously

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analysis/what%27s-pushing-tesla%27s-share-price-and-market-cap-higher-200176388 [https://perma.cc/TU84-TPRJ] ("Laudatory language and illusory promises can only take a stock so high.").

135. Michael Lewitt, *Tesla Shareholders: Are You Drunk on Elon Musk's Kool-Aid?*, FORBES (Oct. 13, 2017, 10:46 AM), <https://www.forbes.com/sites/michaelle Witt/2017/10/13/tesla-shareholders-are-you-drunk-on-elon-musk-s-kool-aid/#4d9a753b2e2f> [https://perma.cc/2LWQ-MDP5].

136. See *infra* Section III.D.

137. See *infra* Part III.

138. See *infra* Conclusion.

139. *An Infrastructure for Charging Electric Vehicles Takes Shape*, ECONOMIST (Sept. 7, 2017), <https://www.economist.com/news/business/21728671-reliable-network-should-not-prove-insurmountable-roadblock-infrastructure-charging> [https://perma.cc/Z6DR-CQBD].

140. See generally Bernard Caillaud & Bruno Jullien, *Chicken & Egg: Competition Among Intermediation Service Providers*, 34 RAND J. ECON. 309 (2003) (examining the "chicken and egg" problem and how in order to attract one group, an intermediary needs participation from a larger number of other platform participants, who in turn are willing to participate only if they expect the former group to do so too); see also Jean-Charles Rochet & Jean Tirole, *Platform Competition in Two-Sided Markets*, 1 J. EURO. ECON. ASS'N 990 (2003).

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proves there is mass-market demand for EVs and provides the capital to build them and their charging stations.

Hyperfunding may have been the best or only way to manufacture an EV for the masses. To succeed, Tesla needs to simultaneously build a national EV charging network and make and sell enough EVs to make that EV charging network profitable.<sup>141</sup> Knowing this, Musk might have used Hyperfunding to prove the demand for his EVs will support others' investment in charging networks.<sup>142</sup> To put this in economic terms, Hyperfunding might be a financial solution to multi-sided market problems.

### A. *Multi-Sided Market Problems*

The economic literature has long recognized the difficulty in creating a new marketplace that requires simultaneously attracting both buyers and sellers. For a market to be two-sided, it requires more than just the existence of a buyer and a seller.<sup>143</sup> Traditionally, this is called a “two-sided” market problem,<sup>144</sup> but more recent research refers to this situation as a “multi-sided” market (suggesting that the same economics apply where there are more than one side to build in creating a new market).<sup>145</sup> In a nutshell, multi-sided markets present a

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141. Michael Holder, *Does the Power Grid Have Enough Juice to Keep Up With EV Sales?*, GREENBIZ (May 10, 2017, 2:20 AM), <https://www.greenbiz.com/article/does-power-grid-have-enough-juice-keep-ev-sales> [https://perma.cc/6RMT-DTDC].

142. Fred Lambert, *Tesla's Supercharger Expansion is in Full Swing Ahead of Model 3 Production*, ELECTREK (June 1, 2017, 5:28 AM), <https://electrek.co/2017/06/01/tesla-supercharger-expansion-model-3/> [https://perma.cc/9SN2-EQZS] (observing that Tesla is taking the EV charging station expansion seriously in anticipation of the release of Model 3).

143. Jean-Charles Rochet & Jean Tirole, *Two-Sided Markets: A Progress Report*, 37 RAND J. ECON. 645, 646 (2006) (“Two-sided (or more generally multi-sided) markets are roughly defined as markets in which one or several platforms enable interactions between end-users, and try to get the two (or multiple) sides ‘on board’ by appropriately charging each side. That is, platforms court each side while attempting to make, or at least not lose, money overall. Examples of two-sided markets readily come to mind. Videogame platforms, such as Atari, Nintendo, Sega, Sony Play Station, and Microsoft X-Box, need to attract gamers in order to persuade game developers to design or port games to their platform, and they need games in order to induce gamers to buy and use their videogame console.”).

144. See, e.g., Marc Rysman, *The Economics of Two-Sided Markets*, 23 J. ECON. PERSPECTIVES 125, 126 (2009).

145. Robert Seamans & Feng Zhu, *A Simple Model of a Three-Sided Market*



“chicken-and-egg problem.”<sup>146</sup>

Eisenmann, Parker, and Van Alstyne offer twelve examples of two-sided networks.<sup>147</sup> Notably, they recognize that platforms (or marketplaces) can be either proprietary or shared.<sup>148</sup> Proprietary platforms have a clear subsidy side (a group of users who are highly valued by users on the money side) and a clear money side (a group of users who are willing to pay for access to subsidy-side users).<sup>149</sup> Conversely, shared platforms tend to lack a subsidy side (meaning that all users are willing to pay for their own access to shared platforms).<sup>150</sup> An example of a proprietary network is a health maintenance network (HMO), which is provided by a proprietary platform such as Kaiser Permanente, a health insurance company. There, doctors subsidize patients by accepting a lower rate for services rendered than they could command in an open market in return for access to a higher volume of patients.<sup>151</sup> Patients thus get cheaper health care, which encourages them to join the system. This in turn makes access to that network more valuable for doctors, who would then be willing to further lower their rates in order to access that network, which further reduces the cost of health care for patients, thereby driving more patients onto the network. Economists call this a positive

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(Oct. 16, 2013) (unpublished manuscript), <https://ssrn.com/abstract=2341356> [<https://perma.cc/ZE59-PYPZ>] (“Existing multi-sided market literature focuses on pricing dynamics across two-sided markets. . . . In this paper, we present a simple, stylized model of a three-sided market.”).

146. Rochet & Tirole *supra* note 140, at 990 (“Buyers of video game consoles want games to play on; game developers pick platforms that are or will be popular among gamers. Cardholders value credit or debit cards only to the extent that these are accepted by the merchants they patronize; affiliated merchants benefit from a widespread diffusion of cards among consumers. More generally, many if not most markets with network externalities are characterized by the presence of two distinct sides whose ultimate benefit stems from interacting through a common platform. Platform owners or sponsors in these industries must address the celebrated ‘chicken-and-egg problem’ and be careful to ‘get both sides on board.’”).

147. Thomas Eisenmann et al., *Strategies for Two Sided Markets*, 84 HARVARD BUS. REV., Oct. 2006, at 92, 96 (noting that PC operating systems, online recruitment, telephone yellow pages, web search, health maintenance organizations, video games, shopping malls, application servers, Wi-Fi equipment, DVDs, associations of realtors, gas-powered engines, and universal product codes are examples of two-sided networked markets).

148. *Id.*

149. *Id.* at 95–96.

150. *Id.*

151. *Id.* at 95.

cross-side network effect, where money-side users will pay increasing amounts to reach an increasing number of subsidy-side users.<sup>152</sup>

A related but distinct effect occurs when increasing subsidy-side users increases demand for additional subsidy-side users to join the network. This is called a positive same-side network effect.<sup>153</sup> For example, Facebook's business model is to sell users' views to advertisers.<sup>154</sup> But Facebook users are not accessing that network to enjoy advertisements; rather, they want to connect with friends online.<sup>155</sup> Therefore, a Facebook user's value of that network is correlated with the number of other subsidy-side users on that network. A network of one is worthless, whereas a network that allows one to reach the entire world is maximally valuable. The advertisers, who are subsidizing the user's (free) experience, also benefit from the same-side network effect, and should be willing to pay more for advertisements to the broader network on Facebook. This allows Facebook to fund improvements in the user experience, and thus drive more users to its network. But while cross-side effects are generally positive, same-side effects are often negative because they create competition and network congestion.<sup>156</sup> As a gasoline-powered-automobile owner, would

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152. *Id.* at 96 ("These platforms exhibit two types of network effects, which may be either positive or negative: A same-side effect, in which increasing the number of users on one side of the network makes it either more or less valuable to users on the same side; and a cross-side effect, in which increasing the number of users on one side of the network makes it either more or less valuable to the users on the other side. Cross-side network effects are typically positive, but they can be negative (TV viewers preferring fewer ads). Same-side network effects are often negative (sellers preferring fewer rivals in a B2B exchange), but they may be positive (Microsoft Xbox owners valuing the fact that they can play games with friends).").

153. *Id.* at 95.

154. Lynn C. Percival, IV, *Public Policy Favoritism in the Online World: Contract Voidability Meets the Communications Decency Act*, 17 TEX. WESLEYAN L. REV. 165, 177 (2011).

155. *Using Social Media to Keep in Touch*, PEW RESEARCH CTR. (Dec. 22, 2011), <http://www.pewresearch.org/fact-tank/2011/12/22/using-social-media-to-keep-in-touch/> [https://perma.cc/F6HR-LP5Y] (Roughly two-thirds (67%) of social media users say that staying in touch with current friends and family members is a major reason they use these social media sites like Facebook, Twitter, MySpace, or LinkedIn.)

156. See Stephen P. King, *Two-Sided Markets*, 46 AUSTL. ECON. REV. 247, 248 (2013) ("[I]f consumers use a store, congestion that occurs when the store becomes crowded reduces customer amenity and is a negative externality between participants on the same side of the platform.").

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you prefer to have more or fewer cars trying to access the same gas station that you use? Setting aside the ex ante effect that a lack of car owners might have prevented the gas station from being built in the first place, on an ex post basis you would prefer less competition for gasoline (and less traffic), and thus you experience a negative same-side effect in this network.

This Section will now present three generally accepted economic definitions of multi-sided markets and show that the market for EVs meets that definition. Additionally, this Section will show that the market for EVs is analogous to other markets that we know are multi-sided.

Rysman defines a market as multi-sided where agents interact through an intermediary and thus create value or costs for each other. Rysman two-sided markets include search engines (connecting advertisers and searchers via the Google AdWords platform), traditional marriage matchmakers (connecting heterosexual men and women through a dating-coach intermediary), and video games (connecting game developers and game players through the Xbox platform).<sup>157</sup> In other words, Rysman focuses on the intermediary, and the defining characteristic of a Rysman multi-sided market is that neither agent is interested in the platform if the other party is not interested (e.g., advertisers will not pay to be featured on a website that gets no visitors, heterosexual men will not pay for a dating web app that features no women, and gamers will not purchase a console that has no games).

Rochet and Tirole focus on pricing structure when defining multi-sided markets. Like Rysman, Rochet and Tirole require a platform, but Rochet and Tirole also require that the platform allows one side of the market to subsidize the other.<sup>158</sup> For

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157. Rysman, *supra* note 144, at 125. A two-sided market is “one in which 1) two sets of agents interact through an intermediary or platform, and 2) the decisions of each set of agents affects the outcomes of the other set of agents, typically through an externality.” *Id.* Note that economists generally use “externality” to mean a consequence of economic activity experienced by unrelated third parties that can be positive or negative. In this sense, a factory that legally dumps polluting waste into a river that damages the health of riparian residents has created a negative externality. Here, Rysman is using the term somewhat differently to describe positive externalities between economically related market participants. For example, a video game developer for the Sony PlayStation platform will benefit if Sony creates a “positive externality” for the video game developer by advertising and selling more PlayStations and thus broadening the potential customer base for the video game.

158. Rochet & Tirole, *supra* note 143, at 664–65 (“A market is two-sided if the

example, Tinder charges ten dollars to people under thirty and twenty dollars to people over thirty.<sup>159</sup> In this way, Tinder's older users pay a premium that subsidizes its younger users. One might thereby infer that older users of dating apps want younger users to also be on the platform. In this way, Tinder brings both sides on board.

Eisenmann, Parker, and Van Alstyne focus on the value chain when defining multi-sided markets.<sup>160</sup> In a traditional company, value moves from cost to revenue. For example, Nestle incurs costs for cocoa, labor, equipment, logistics, and advertising, and creates value by selling each candy bar for more than it costs. In multi-sided markets, there are costs and value on all sides. For example, Tinder incurs marginal costs for each additional user, and it also receives marginal revenue from each additional user. Let us assume the cost per user is twelve dollars. In this case, each user over age thirty pays twenty dollars and costs twelve dollars, resulting in eight dollars marginal revenue. Meanwhile, each user under age thirty pays ten dollars and costs two dollars, resulting in minus two dollars marginal revenue. This negative marginal revenue makes business sense only if it is subsidized by an increasing number of profitable new customers.

Regardless of which of the three definitions we apply here, EVs operate in a multi-sided market.

Applying the first part of the two-part Rysman definition,<sup>161</sup> EVs require at least two sets of agents: sellers of vehicles and sellers of electricity. The vehicles cannot run and are useless without electricity. Moreover, the nature of vehicles

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platform can affect the volume of transactions by charging more to one side of the market and reducing the price paid by the other side by an equal amount; in other words, the price structure matters, and platforms must design it so as to bring both sides on board.”).

159. Tinder's cofounder Sean Rad expressly stated that “[o]ur intent is to provide a discount for our younger users.” Maya Kosoff, *Sean Rad Gave a Cringeworthy Defense to Why Tinder Charges its Older Users More Money*, BUS. INSIDER (May 5, 2016), <http://www.businessinsider.com/sean-rad-explains-age-based-tinder-plus-pricing-2015-5> [<https://perma.cc/NGJ5-E572>].

160. Eisenmann et al., *supra* note 147, at 2 (“[T]wo-sided networks differ from [traditional product and service offerings] in a fundamental way. In the traditional value chain, value moves from left to right: To the left of the company is cost, to the right is revenue. In two-sided networks, cost and revenue are both to the left and the right, because the platform has a distinct group of users on each side. The platform incurs costs in serving both groups and can collect revenues from each, although one side is often subsidized.”).

161. Rysman, *supra* note 144, at 125.

is to be ambulatory, and their value is positively correlated with their range. Therefore, electricity must be available for cars not just in major metropolitan areas but also outside and between these areas, so that the vehicles may be driven from one city to another. Tesla recognizes this and has been trying to build up EV charging networks across America to drive up demand for its cars.<sup>162</sup> Second, the actions of sellers of vehicles directly affect the sellers of electricity for vehicles, and vice versa. EV manufacturers can decide whether to have open or closed standards for their cars' charging capabilities. While SAE J1772<sup>163</sup> has been adopted as the North American standard for electrical connections for EV,<sup>164</sup> Tesla built a network of "Supercharger" electric charging stations that do not comply with SAE J1772 and therefore do not provide positive externalities for other EV manufacturers such as Nissan, Chevrolet, and Fisker.<sup>165</sup>

Under the Rochet and Tirole definition, the inquiry focuses on whether the platform can enforce a cross-subsidy. Although scholars have suggested that "open"<sup>166</sup> or "shared"<sup>167</sup> two-sided network platform providers (as opposed to "proprietary"<sup>168</sup> ones) cannot enforce cross-subsidies, the EVs still seem to be a multi-sided market. While books and records of EV charging station providers are likely unavailable for the public to review, there is strong circumstantial evidence. First, Tesla began building the two-sided EV market by subsidizing EV buyers with free electricity, even though it invested millions or billions of dollars into its extensive Supercharger network.<sup>169</sup> Second,

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162. *Tesla Revs Up: Coast-to-Coast Charging Stations by Next Year*, ADAGE (May 30, 2013), <http://adage.com/article/news/tesla-announces-coast-coast-charging-stations/241793/> [<https://perma.cc/HY2Q-864T>].

163. SAE Recommended Practice J1772, *SAE Electric Vehicle and Plug in Hybrid Electric Vehicle Conductive Charger Coupler J1772\_201202*, SAE INT'L, (Feb. 21, 2012), [http://standards.sae.org/j1772\\_201202/](http://standards.sae.org/j1772_201202/) [<https://perma.cc/WX72-CZFA>].

164. *Id.*

165. See Joel Hruska, *Tesla's New Superchargers Leave Roadster, Other EV Owners Flat*, EXTREMETECH.COM (Sept. 27, 2012, 7:30 AM), <https://www.extremetech.com/extreme/136903-teslas-new-superchargers-leave-roadster-other-ev-owners-flat> [<https://perma.cc/D4JU-95VW>].

166. Ramon Casadesus-Masanell & Gaston Llanes, *Investment Incentives in Open-Source and Proprietary Two-Sided Platforms*, J. ECON. & MGMT. STRATEGY 1, 12, 15 (2013).

167. *Id.*

168. *Id.* at 11–14.

169. See Daniel Sparks, *Tesla Motors, Inc. Likely to Offer Free Charging on*

Tesla has apparently managed to reverse their initial cross-subsidy. Tesla initially offered free Supercharger access to purchasers of its EVs, but it has reversed that policy and now charges users for electricity.<sup>170</sup> Analysts have even suggested that Tesla has made its Supercharger centers profitable.<sup>171</sup> Tesla has seemingly managed to control subsidies across its EV-charging network.

The Eisenmann, Parker, and Van Alstyne definition<sup>172</sup> also accords that EVs are in a multi-sided market: Tesla incurs costs and generates value on both sides of the EV market. Tesla has invested billions of dollars into its Supercharger network, which reflects a significant cost. Tesla has also invested billions of dollars into developing new products.<sup>173</sup> In addition, Tesla derives value from both sides of this market. As mentioned above, Tesla now appears to be profitably charging its EV station users for electricity. Tesla also earns gross margins of about 24 percent on sales of its cars.<sup>174</sup> This is clearly not the traditional single-sided value chain where value moves from cost to value; rather, this is an Eisenmann-Parker-Van Alstyne multi-sided market where costs and value come from both sides.

In addition, EVs are also highly analogous to the recognized two-sided market for gasoline-powered engines. In

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*Model X*, MOTLEY FOOL (Sept. 10, 2015, 2:00 PM), <https://www.fool.com/investing/general/2015/09/10/tesla-motors-inc-likely-to-offer-free-charging-for.aspx> [https://perma.cc/KH3M-FC7U] (“Tesla’s Supercharger network is a key selling point for Tesla’s fully electric vehicles. By placing these high-speed charging stations, which can charge a Tesla battery by about 80% in just 40 minutes, strategically along major routes, the company has essentially enabled travel to almost anywhere in the United States.”).

170. Brian Silvestro, *No More Unlimited Free Charging for New Tesla Customers*, ROAD & TRACK (Nov. 7, 2016), <http://www.roadandtrack.com/new-cars/car-technology/news/a31463/tesla-supercharger-station-no-longer-free/> [https://perma.cc/WUF3-KG47].

171. Siddharth Dalal, *Superchargers as a Profit Center for Tesla*, SEEKING ALPHA (Dec. 31, 2013), <http://seekingalpha.com/article/1923251-superchargers-as-a-profit-center-for-tesla> [https://perma.cc/ZZZ3-V2HR].

172. Eisenmann et al., *supra* note 147, at 3.

173. Tesla’s Gigafactory alone costs \$5 billion to build. See Great Speculations, Opinion, *Gigafactory Will Cost Tesla \$5 Billion But Offers Significant Cost Reductions*, FORBES (Mar. 11, 2014, 8:46 AM), <https://www.forbes.com/sites/greatspeculations/2014/03/11/gigafactory-will-cost-tesla-5-billion-but-offers-significant-cost-reductions/#4c4b3a432ebe> [https://perma.cc/H32N-FB67].

174. Vincent Wolters, *Tesla: A Closer Look at Margins and Profitability*, SEEKING ALPHA (May 23, 2017), <https://seekingalpha.com/article/4075701-tesla-closer-look-margins-profitability> [https://perma.cc/5HCV-ECC6].

that market, auto owners once enjoyed many benefits (or subsidies) from fueling stations, such as personal service, free windshield cleaning and tire inflation, and other services. Now that the market for fueling stations is so competitive that market participants do not have pricing power or the ability to enforce cross-subsidies, the subsidies to car owners seem limited to less expensive benefits, such as free restrooms along the highway, that fueling station platform providers such as Exxon and Shell provide to entice buyers. Likewise, when EVs and charging stations were nascent and competition was scarce, many companies offered free charging. Now that the market is more competitive, EV owners pay for electricity out of pocket—although, curiously, advertisers may enter as a third side of this multi-sided market to subsidize the cost of electricity for EV owners in return for their views.<sup>175</sup> In addition to the obvious analogy between gasoline-powered motors and electricity-powered motors, the early history and emerging structure of the EV market is very similar to the established multi-sided market for gasoline vehicles.

### *B. Hyperfunding Solutions*

MIT Sloan economist Andrei Hagiu outlines<sup>176</sup> four challenges faced by multi-sided markets<sup>177</sup> (which he calls multi-sided platforms or “MSPs”): (1) the number of sides to

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175. Some EV-charging stations are now offering digital advertising such that advertisers can subsidize EV-charging station users in exchange for their views. This may represent an additional complexity in multi-sided markets that has not yet been explored in the economics literature. See, e.g., *The First EV Charging Station with Digital Advertising*, EV STRUCTURE, <http://evstructure.com/ad-kit.pdf> (last visited Feb. 20, 2018) [<https://perma.cc/25M4-UPWL>].

176. Andrei Hagiu, *Strategic Decisions for Multisided Platforms*, MIT SLOAN MGMT. REV., Winter 2014, at 72.

177. Hagiu identifies the following MSPs as exemplars of the category:

Alibaba.com, eBay, Taobao and Rakuten (buyers and sellers); Airbnb (dwelling owners and renters); the Uber app (professional drivers and passengers); Facebook (users, advertisers, third-party game or content developers and affiliated third-party sites); Apple’s iOS (application developers and users); Google’s Android operating system (handset manufacturers, application developers and users); Sony’s PlayStation and Microsoft’s Xbox gaming consoles (game developers and users); American Express, PayPal and Square (merchants and consumers); shopping malls (retail stores and consumers); Fandango (cinemas and consumers); and Ticketmaster (event venues and consumers).

*Id.* at 71.

bring on board; (2) design; (3) pricing structure; and (4) governance rules.<sup>178</sup>

Hagiü, agreeing with Rochet and Tirole,<sup>179</sup> describes the first difficulty as an “inherent chicken-and-egg problem: No side will join with the other or others. Overcoming the chicken-and-egg problem is one of the most difficult challenges for many MSPs.”<sup>180</sup> Rysman observed that some firms solve this by beginning with a one-sided model and switching to a two-sided model.<sup>181</sup> For example, Amazon began as a standard online book retailer before introducing the Amazon Marketplace.<sup>182</sup> But other firms do not have this luxury. For example, when Microsoft entered the video game industry with the Xbox in 2001, it was not able to leverage its entrenched dominance in the operating system market.<sup>183</sup> Instead, Microsoft had to provide the market need for Xbox by selling to both sides of the market from inception: Microsoft aggressively priced and marketed the Xbox while its newly created subsidiary Microsoft Game Studios<sup>184</sup> developed exclusive titles for the Xbox, such as Halo,<sup>185</sup> that drove demand to the platform. This is a very expensive and uncertain solution to the chicken-and-egg problem, as evidenced by the fact that the Xbox may have never been profitable for Microsoft.<sup>186</sup>

Tesla ingeniously solved the chicken-and-egg problem by using Hyperfunding to simultaneously raise money and prove demand. Instead of spending millions of dollars to prove

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178. Hagiü defines MSPs as “technologies, products or services that create value primarily by enabling direct interactions between two or more consumer or participant groups” where “the value to customers on one side of the platform typically increases with the number of participating customers on the other side.” *Id.* at 71–72. This is essentially the Rysman definition limited to platforms that have cross-side network effects (which would typically not include shared or open platforms).

179. *See id.* at 72.

180. *Id.*

181. Rysman, *supra* note 144, at 132.

182. *Id.*

183. *See* Hagiü, *supra* note 176, at 73–74.

184. Microsoft Corporation, Annual Report (Form 10-K) (Aug. 25, 2006).

185. *Id.*

186. Matt Rosoff, *Microsoft's Board Is Now Worried About How Much Money Xbox Will Lose*, BUS. INSIDER (Apr. 21, 2011, 2:45 PM), <http://www.businessinsider.com/next-xbox-may-be-profitable-on-day-one-2011-4> [<https://perma.cc/3BMA-G6H7>]; *see also* Daemon Hatfield, *Xbox 360 Still Not Profitable*, IGN (July 20, 2007), <http://www.ign.com/articles/2007/07/20/xbox-360-still-not-profitable> [<https://perma.cc/U5NX-ULDP>].



demand, as Microsoft did, Tesla actually raised millions of dollars while proving demand for the Model 3.<sup>187</sup> The stock market responded very favorably to this event. Before the presale, on Thursday, March 31, 2016, TSLA closed at \$229.77 per share.<sup>188</sup> The next day, the stock opened over 6 percent higher, and it rose to a high of \$260.82 per share on Friday, April 8—a remarkable 12.5 percent increase—upon news that Tesla presold almost 325,000 vehicles for \$14.5 billion in potential sales that week.<sup>189</sup>

In preselling the Model 3, Tesla not only improved its working capital and stock value, but also encouraged investors to invest in TSLA. Within a month of its successful Hyperfunding campaign, Tesla filed an S-3 statement<sup>190</sup> to sell up to \$2 billion in additional debt and equity securities.<sup>191</sup> In its related press release, Tesla stated, “Because of the overwhelming demand that it has received for Model 3, Tesla intends to use the net proceeds from this offering to accelerate the ramp of Model 3.”<sup>192</sup> Then, just a few months after

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187. See, e.g., Bill Vlastic, *Tesla’s New Model 3 Jump-Starts Demand for Electric Cars*, N.Y. TIMES (Apr. 1, 2016), [https://www.nytimes.com/2016/04/02/business/teslas-new-model-3-jump-starts-demand-for-electric-cars.html?\\_r=0](https://www.nytimes.com/2016/04/02/business/teslas-new-model-3-jump-starts-demand-for-electric-cars.html?_r=0) [<https://perma.cc/JK5H-HQ6W>] (“[T]he Tesla’s introduction is a sign that latent demand for electric cars could translate into big sales in the showroom down the road.”).

188. *Historical Data for TSLA Stock*, YAHOO! FIN., <https://finance.yahoo.com/quote/TSLA/history?period1=1451631600&period2=1460095200&interval=1d&filter=history&frequency=1d> (last visited Feb. 20, 2018) [<https://perma.cc/5PVU-TP42>].

189. *Id.*; see also Lucas Mearian, *Tesla’s Model 3 Now Has 325k Pre-Orders – and \$14.5B in Potential Sales*, COMPUTERWORLD (Apr. 7, 2016, 9:16 AM), <http://www.computerworld.com/article/3053553/car-tech/teslas-model-3-now-has-325k-pre-orders-and-145b-in-potential-sales.html> [<https://perma.cc/54AL-AQ3A>].

190. Tesla Motors, Inc., Registration Statement (Form S-3) (May 18, 2016). An S-3 statement is a securities registration form issued by the SEC. It can only be used by United States-based companies that have been required to report under the Securities Exchange Act of 1934 for a minimum of twelve months immediately preceding the filing and have also timely filed all required reports. In the twelve months prior to filling out the form, a company must have met all debt and dividend requirements. PRACTICAL LAW CORP. & SEC., REGISTRATION STATEMENT: FORM S-3 (2017).

191. Richard Saintvilus, *Tesla Issues \$2 Billion Offering To Fund Model 3 (TSLA)*, INVESTOPEDIA (May 19, 2016, 7:12 AM), <http://www.investopedia.com/articles/markets/051916/tesla-issues-2-billion-offering-fund-model-3-tsla.asp> [<https://perma.cc/AM4R-UYXX>].

192. *Tesla Raising Money to Accelerate the Ramp of Model 3*, MARKETWIRED (May 18, 2016), <http://www.marketwired.com/press-release/tesla-raising-money-to-accelerate-the-ramp-of-model-3-2126458.htm> [<https://perma.cc/QL4L-CUH3>].

Hyperfunding the Model 3, Tesla filed an S-4 stating that “Tesla is currently planning to raise additional funds by the end of this year, including through potential equity or debt offerings.”<sup>193</sup> Specifically, “[s]uch additional funds would be used primarily for tooling, production equipment and construction of the Tesla’s Model 3 production lines, equipment to support cell production at Tesla’s Gigafactory, as well as new Tesla retail locations, service centers and Supercharger locations.”<sup>194</sup> In other words, once Tesla proved the demand for one side of its EV MSP, it found it much easier to raise money for the other side of that MSP.<sup>195</sup>

Solving the chicken-and-egg problem is the most substantial contribution of Hyperfunding to addressing challenges in two-sided markets. But Hyperfunding also addresses the challenges of platform design, pricing, and governance. For example, many recent MSPs have designed their platforms to subsidize customers with advertisers’ dollars, where advertisers are essentially paying for access to eyeballs. But this strategy can interfere with consumer privacy<sup>196</sup> and relevancy.<sup>197</sup> Hyperfunding avoids the need to subsidize the EV-charging market with advertising dollars, even as an initial strategy, by avoiding the “mistake” of designing “in favor of the side that brings in the largest share of current revenues.”<sup>198</sup> Instead, the vast amount of capital raised by Hyperfunding allowed Tesla to “solve trade-offs in favor of the participant group that is more important to the

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193. Tesla Motors, Inc., Registration Statement (Form S-4) (Aug. 31, 2016) [hereinafter Tesla, Form S-4]. The SEC form S-4 is used in relation to a business merger or exchange offer. PRACTICAL LAW CORP. & SEC., REGISTRATION STATEMENT: FORM S-4 AND BUSINESS COMBINATIONS (2017).

194. Tesla, Form S-4, *supra* note 193, at 134.

195. See *Cash-Strapped Tesla Needs to Raise More Money This Year*, FORTUNE (Aug. 31, 2016), <http://fortune.com/2016/08/31/tesla-raise-money/> [<https://perma.cc/325S-LXWJ>]; see also John Kilhefner, *Tesla Motors Inc (TSLA) Needs More Cash for Gigafactory, Model, 3*, INVESTORPLACE (Aug. 31, 2016, 11:23 AM), <http://investorplace.com/2016/08/tesla-tesla-stock-needs-more-cash/#.WKCMCYWcGmQ> [<https://perma.cc/9SK5-YB8S>].

196. For example, Microsoft introduced do-not-track features in Internet Explorer 9 in response to demands for more consumer privacy, although this disrupted the advertiser-subsidy model of many Internet-based MSPs. See Hagi, *supra* note 176, at 75.

197. For example, eBay discontinued its Featured First advertising programs, which allowed advertisers to pay for higher-ranked search results, because buyers preferred to see the most relevant product listings first. See *id.*

198. *Id.*

MSP's long-term success.”<sup>199</sup> Hyperfunding also allowed Tesla to solve its pricing problem by generating real-world supply and demand data. Tesla apparently used this data (e.g., the high demand for the Model 3) to determine it was no longer necessary to subsidize EV purchasers by offering free charging for life.<sup>200</sup> Tesla also seems to have leveraged the success of the Model 3 Hyperfunding campaign to enforce its MSP governance rules, which exclude non-Tesla EVs from using its Supercharger network.<sup>201</sup> Presumably, Tesla may have provided access to J1772 (ISO-compliant, non-Tesla) EVs if this were necessary to build that side of the network.<sup>202</sup>

It is perhaps ironic that in order to finance a multi-sided market, Tesla eschewed conventional platforms and instead developed a direct-marketing scheme. The hallmark of Hyperfunding—its direct-to-consumer approach—is oddly reminiscent of the earliest joint-stock companies.<sup>203</sup> Yet its

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199. *Id.*

200. Bob Sorokanich, *Musk Says Tesla Model 3 Won't Get Free Supercharging Access After All*, ROAD & TRACK (June 1, 2016), <http://www.roadandtrack.com/new-cars/future-cars/news/a29367/tesla-model-3-supercharger-station-free-elon-musk/> [<https://perma.cc/ZN74-ZXHZ>]; see also Silvestro, *supra* note 170.

201. Alex Roy, *Teslas Can Use Chargepoint, But Non-Teslas Can't Use Superchargers, Ergo. . .*, YAHOO! NEWS (Sept. 20, 2016), <https://www.yahoo.com/news/teslas-chargepoint-non-teslas-cant-130042616.html> [<https://perma.cc/2RUB-MFG5>].

202. Opening up a proprietary MSP in the face of uncertain demand is the strategy some say destroyed Atari. BOGDAN ION PURCARU, GAMES VS. HARDWARE, THE HISTORY OF PC VIDEO GAMES: THE 80S, at 165 (2014). The Atari 2600 had no digital rights management (DRM), so anyone could produce games for that platform. The system was highly criticized for having horrible games. In fact, Atari literally tried to buy up and bury one of its worst games, *E.T. The Extra Terrestrial*, in Alamogordo, New Mexico, next to the first atomic bomb site, because it was not able to enforce quality control on its open platform. This massive failure in DRM is the subject of the feature-length documentary, *Atari: Game Over* (2014), by director Zak Penn. In what is perhaps ironic, the movie about the death of Atari was first released on Xbox. See also Hagi, *supra* note 176, at 76.

203. The joint stock company began in English common law at a time when the privilege of incorporation was difficult to attain. Herbert A. Shannon asserts that “the general movement [to joint stock enterprise] could not take place until certain economic and legal changes had been effected . . . . The legal change was the substitution of the law of corporations for the law of partnership . . . . But before the legal changes of 1844 and 1855, English law virtually prohibited joint-stock enterprise for ordinary trading and manufacturing purposes.” Herbert A. Shannon, *Coming of General Limited Liability*, 2 ECON. HIST. 267, 267 (1931), reissued in *ESSAYS IN ECONOMIC HISTORY*, VOL. I 358 (E.M. Carus-Wilson, ed., 1954).

economics are similar to crowdfunding,<sup>204</sup> although critically different in that Hyperfunding does not require a platform. A platform may prevent fraud through self-regulation and reputational effects,<sup>205</sup> and create trust,<sup>206</sup> but there is no platform here. Instead, we have a system that is very reminiscent of the direct-to-investor bucket shops where fraudsters prompted the securities laws of the 1930s.<sup>207</sup> Prior to the October 24, 1929 “Black Tuesday” stock market crash and the resulting Great Depression, the regulation of securities markets “was left almost entirely to the states,” which led to “non-existent or completely inadequate” enforcement.<sup>208</sup> Under this patchwork of regulation, the offering circular for securities listed off exchange typically contained “very little information as to the use of proceeds, a rather brief description of the securities themselves, and very few if any material facts relating to the business of the issuer.”<sup>209</sup> An optimistic public invested in these sketchy deals because “each company was assumed to be a potential Ford Motor Co.”<sup>210</sup> The next Part of this Article will show the dangers of Hyperfunding where every new Tesla is presumed to be the next Ford Motor Co. These dangers are even more severe where every new cryptocurrency is presumed to be the next Bitcoin.<sup>211</sup> Nevertheless, regulators should not forget that Tesla’s Hyperfunding made mass-market EVs a reality in America, and the blockchain technology underpinning Bitcoin could literally change the world.<sup>212</sup> Part

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204. See *infra* Section III.B.

205. Seth Oranburg, *Bridgdfunding: Crowdfunding and the Market for Entrepreneurial Finance*, 25 CORNELL J. OF L. & PUB. POL’Y 297 (2015).

206. See Li-Ling Hsua et al., *Determinants of Successful Online Transactions – Effects of Transaction Assurance Seal and Reputation Rating Affecting Trust and Purchase Intention of Consumers*, 34 HUM. SYS. MGMT. 105, 107 (2015).

207. Morris J. Cashel, *Bucket Shops*, 2 AM. POL. SCI. REV. 48, 48–49 (1907).

208. Thomas A. Halleran & John N. Calderwood, *Effect of Federal Regulation on Distribution of and Trading in Securities*, 28 GEO. WASH. L. REV. 86, 86 (1959).

209. *Id.* at 94.

210. H.R. REP. No. 73-85, pt. 18, at 2 (1933), reprinted in 2 LEGISLATIVE HISTORY OF THE SECURITIES ACT OF 1933 AND THE SECURITIES EXCHANGE ACT OF 1934, (J.S. Ellenberger & E. Mahar, eds. 1973).

211. See, e.g., Panos Mourdoukoutas, *5 Tips for Finding the Next Bitcoin, Ethereum, and Ripple*, FORBES (Jan. 14, 2018, 8:56 AM), <https://www.forbes.com/sites/panosmourdoukoutas/2018/01/14/5-tips-for-finding-the-next-bitcoin-ethereum-and-ripple/#2eca7645dcdc> [https://perma.cc/TW6A-FF2W].

212. Michael Pisa & Matt Juden, *Blockchain and Economic Development: Hype vs. Reality* (Ctr. for Global Dev. Pol’y Paper No. 107, 2017), [https://www.cgdev.org/sites/default/files/blockchain-and-economic-development-hype-vs-reality\\_0.pdf](https://www.cgdev.org/sites/default/files/blockchain-and-economic-development-hype-vs-reality_0.pdf) [https://perma.cc/42LN-LU8M].

III identifies the regulatory insufficiencies in Hyperfunding law and finance, then this Article concludes with normative prescriptions for policymakers and regulators regarding Hyperfunding.

### III. HYPERFUNDING LAW & FINANCE

Hyperfunding is hard to categorize under existing law. Hyperfunding is probably not issuing a security (i.e., not debt, equity, or an investment contract)<sup>213</sup> under the predominate *Howey* test,<sup>214</sup> although stranger things have been deemed securities,<sup>215</sup> while more obvious securities like ICOs have not followed securities laws.<sup>216</sup> The Model 3 presale has similarities to the undeveloped land sales agreements that prompted the Interstate Land Sales Act of 1968 (ILSA), but Hyperfunding in general is certainly not governed by ILSA.<sup>217</sup>

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213. See Securities Act of 1933, 15 U.S.C. § 77b (2012). (“The term ‘security’ means any note, stock, treasury stock, security future, security-based swap, bond, debenture, evidence of indebtedness, certificate of interest or participation in any profit-sharing agreement, collateral-trust certificate, preorganization certificate or subscription, transferable share, investment contract, voting-trust certificate, certificate of deposit for a security, fractional undivided interest in oil, gas, or other mineral rights, any put, call, straddle, option, or privilege on any security, certificate of deposit, or group or index of securities (including any interest therein or based on the value thereof), or any put, call, straddle, option, or privilege entered into on a national securities exchange relating to foreign currency, or, in general, any interest or instrument commonly known as a ‘security’, or any certificate of interest or participation in, temporary or interim certificate for, receipt for, guarantee of, or warrant or right to subscribe to or purchase, any of the foregoing.”).

214. *SEC v. W.J. Howey Co.*, 328 U.S. 293, 299–300 (1946) (outlining a four-part test for determining an investment contract: an investment of money, with the expectation of profit, in common enterprise, and the profits to come solely from the efforts of others).

215. See *infra* Section III.C. For example, in *SEC v. W.J. Howey Co.*, the Supreme Court found the purchase of orange groves together with service contracts an investment contract because the promoters had committed to making the orange groves productive. 328 U.S. at 299–300. However, if the investors had been required to tend the orange groves themselves, the Court would not have found the land contracts to be “investment contracts” under the federal securities laws. *Id.*

216. See Public Statement, *supra* note 6.

217. See *infra* Section III.D. The ILSA was enacted in 1968 to protect consumers from abuses in the sale of unimproved, subdivided land. 15 U.S.C. §§ 1701–1720 (2012). Specifically, ILSA “was meant to prevent fraud in land sales by protecting unsuspecting and ill-informed investors from buying undesirable land.” *Zhou Jie Plant v. Merrifield Town Ctr. Ltd. P’ship*, 751 F. Supp. 2d 857, 869 (E.D. Va. 2010) (internal quotes omitted).

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And while Hyperfunding could theoretically be used to facilitate a Ponzi scheme, there are no facts that show Musk perpetrated one here.<sup>218</sup> Perhaps Hyperfunding is an interest-free loan.<sup>219</sup> Regardless, from financial and securities law perspectives, Hyperfunding does not exist.<sup>220</sup>

Hyperfunding is a new, distinct way that corporations can raise money. While Hyperfunding is within the genus of direct public market corporate finance, Hyperfunding is distinct because it leverages the power of the Internet to raise a large amount of money in a brief period of time from the general public without listing on any public stock exchange or even participating on a semi-public peer-to-peer platform. In fact, Hyperfunding is only possible when performed by a corporation which already has such prominence and stature as to locate and attract investors without leveraging a preexisting marketplace.

While the world has never seen anything exactly like Elon Musk's incredible half-billion-dollar financing of Tesla, performed without any intermediaries and legally executed without any regulatory compliance, Hyperfunding does share aspects with preexisting modalities of corporate finance. Thus, the Tesla Model 3 presale is unlikely to be an isolated incident; rather, like the B&O preferred stock sale of 1838, Musk's incredible success is likely to entice other corporations to attempt similar transactions. Therefore, scholars should explore and attempt to understand the nature of Hyperfunding and the normative and positive consequences of its emergence onto the corporate finance landscape.

Now that Elon Musk has revealed Hyperfunding as a successful means of corporate finance, it is very likely that other corporations or even individuals will use this technique to raise money. While one might be comfortable or even pleased that the much-loved<sup>221</sup> Elon Musk used this technique to finally create much-needed electric cars,<sup>222</sup> but this same

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218. See *infra* Section III.C.2.

219. Although that appears to be economically irrational.

220. Although perhaps some state consumer protection laws apply.

221. Zachary Shahan, *Why Elon Musk is Loved So Much*, CLEAN TECHNICA (Feb. 10, 2016), <https://cleantechnica.com/2016/02/10/why-elon-musk-is-loved-so-much/> [<https://perma.cc/AZ3F-RVTV>].

222. E.g., Bill Destler, *Why Electric Cars Are Our Future*, HUFFINGTON POST: BLOG (Oct. 1, 2012, 4:26 PM), [http://www.huffingtonpost.com/bill-destler/electric-cars\\_b\\_1929481.html](http://www.huffingtonpost.com/bill-destler/electric-cars_b_1929481.html) [<https://perma.cc/E9C6-VR5M>]; *Why EVs?*, EVGO,

technique could be used for less auspicious ends.

But there is nothing truly new under the sun.<sup>223</sup> One might understand Hyperfunding as a variation or derivation of existing financial techniques. Regulation of Hyperfunding might also be understood analogously to existing regulation. Hyperfunding has facial similarities to traditional presales, crowdfunding, investment contracts, undeveloped land sales, and Ponzi schemes. While it is ultimately distinct from all of these precedents, they may inform whether and how to regulate Hyperfunding.

Perhaps it is not necessary to regulate Hyperfunding. It is merely a tool. Tools are good means so long as they are used for good ends. But any financial tool that has the power to draw a half-billion dollars from ordinary people in just over a week merits some observation and scrutiny by scholars and policymakers.<sup>224</sup> A proactive, deliberative, nuanced consideration of whether and how to regulate Hyperfunding will avoid reactive, impulsive, innovation-destroying regulation of this powerful new financial technique while protecting . . . investors?

In the hand of a benevolent, trustworthy, capitalist genius, Hyperfunding might disrupt the entire energy grid and mitigate human impact on climate change.<sup>225</sup> One might consider Musk such a benevolent genius; after all, he has announced a plan to colonize Mars and save humanity.<sup>226</sup> But Hyperfunding also opens Pandora's box: once this financing is unveiled, it can be used by anyone. History is replete with

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<https://www.evgo.com/why-evs/> (last visited Feb. 20, 2018) [<https://perma.cc/7KDE-FELC>]; Brian Merchant, *Why We Need Electric Cars*, TREEHUGGER (Aug. 3, 2010), <http://www.treehugger.com/cars/why-we-need-electric-car-subsidies.html> [<https://perma.cc/FCH4-3ZDZ>]; Steve Heckerth, *Why We Need Electric Cars*, MOTHER EARTH NEWS (Nov. 2006), <http://www.motherearthnews.com/green-transportation/electric-cars-zmaz06onzraw> [<https://perma.cc/9QJT-U57T>].

223. *Ecclesiastes* 1:9.

224. Harrison Weber, *Elon Musk: Tesla Model 3 Orders Hit \$14 Billion in One Week*, VENTUREBEAT (Apr. 7, 2016, 9:56 AM), <https://venturebeat.com/2016/04/07/elon-musk-tesla-model-3-orders-surpass-14-billion-in-one-week/> [<https://perma.cc/TR39-DU5S>].

225. Evanthia Nanaki & Christopher Koroneos, *Climate Change Mitigation and the Deployment of Electric Vehicles in Urban Areas*, 99 RENEWABLE ENERGY: INT'L J. 1153 (2016).

226. Nick Stockton, *Elon Musk Announces His Plan to Colonize Mars and Save Humanity*, WIRED (Sept. 27, 2016, 9:13 PM), <https://www.wired.com/2016/09/elon-musk-colonize-mars/> [<https://perma.cc/2A3X-Z2TU>].

examples of financial schemes gone awry.<sup>227</sup> The task at hand, therefore, is to see if Hyperfunding fits into an existing paradigm in corporate finance.

### A. *Securities*

Taxonomy of securities under the 1933 Securities Act and the 1934 Investment Act is an evolving process. For example, consider the textbook examples of securities: debt and equity.<sup>228</sup> These straightforward terms simply do not, and never did really, capture the wide range of financial activities that occur in the wild. As an initial matter, the commonplace notion of a clear distinction between debt and equity is belied by the existence of preferred stock.<sup>229</sup> Often referred to as an equity that has debt-like characteristics,<sup>230</sup> preferred stock is generally regulated under the law as equity but has financial characteristics of debt, like regular payment on a fixed schedule (dividends)<sup>231</sup> and may lack voting rights typically associated with common stock.<sup>232</sup> This once-novel security provides a valuable illustration for how one might begin to understand and regulate the new financial technique of Hyperfunding.

#### 1. Preferred Stock

Just like Hyperfunding, preferred stock was once an innovation in the world of finance. Curiously, the earliest use of preferred stock, which is now a staple of private corporate finance, appears to have arisen first in a contentious public investment by the State of Maryland in a private corporation.<sup>233</sup> In 1834, the Baltimore and Ohio Railroad

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227. See *infra* Section III.A.1.

228. See Jared Hecht, *Debt vs. Equity Financing: Which Way Should Your Business Go?*, ENTREPRENEUR (July 19, 2016), <https://www.entrepreneur.com/article/278430> [<https://perma.cc/C3Z7-Q9SZ>].

229. Lynn A. Stout, *The Unimportance of Being Efficient: An Economic Analysis of Stock Market Pricing and Securities Regulation*, 87 MICH. L. REV. 613, 640 (1988).

230. *Id.*

231. *Id.*

232. *Id.*

233. George Herberton Evans, Jr., *The Early History of Preferred Stock in the United States*, 19 AM. ECON. REV. 43, 43–44 (1929).



(B&O) ran from Baltimore, Maryland, to Harper's Ferry, West Virginia.<sup>234</sup> The next year, B&O extended its line from Baltimore to Washington, D.C., and began lobbying the Maryland legislature for funds to complete an additional line to Pittsburgh, Pennsylvania.<sup>235</sup> Meanwhile, the Chesapeake & Ohio Canal Company (C&O), which was then unprofitable (perhaps due to its lack of access to Pennsylvania's rich coal fields), also asked Maryland for capital-improvement funds.<sup>236</sup> In this time of great expansion of America's infrastructure, other companies also desired funds. The Maryland Assembly heard a bill on March 9, 1836, which would subscribe \$8 million of state funds to the capital stocks of five private railroad and canal companies.<sup>237</sup> This is the equivalent of approximately \$205 million today.<sup>238</sup>

The Maryland Assembly rejected the bill, but the financiers were undeterred.<sup>239</sup> The Ways and Means Committee introduced a second bill, which called for a stock subscription to B&O *provided that the company guarantee a six percent annual dividend to the state.*<sup>240</sup> This bill also failed, although the concept prevailed: local newspapers reported that the bill "giving a *preference* to the state in the Baltimore and Ohio Rail Company, was lost."<sup>241</sup> Through further negotiations, other "preferences" emerged. The State of Maryland demanded the right to appoint one director for every 5,000 shares of stock it might hold, a provision designed to give Maryland control

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234. John A. Lynch, Jr., *Justice Douglas, The Chesapeake & Ohio Canal, and Maryland Legal History*, 35 U. BALT. L.F. 104, 113 (2005).

235. Evans, *supra* note 233, at 43.

236. *Id.* at 44.

237. H.D.B. accompanying the Rep. of the Comm. of Ways and Means, on the Subject of the Finances and Internal Improvements (Md. 1835) (Md. Pub. Documents, Doc. k) (subscribing \$3 million to Baltimore and Ohio Railroad Co., \$3 dollars to Chesapeake and Ohio Canal Co., \$1 million to Eastern Shore Railroad Co., \$500,000 to Maryland Canal Co., and \$500,000 to Annapolis and Potomac Canal Co.).

238. *Inflation Calculator*, DAVEMANUEL.COM, <http://www.davemanuel.com/inflation-calculator.php> (last visited Feb. 20, 2018) [<https://perma.cc/BU4X-ESHM>] (computing that \$8 million of "1836 dollars would be worth: \$205,128,205.13 in 2015").

239. *Ches. & Ohio Canal Co. v. Balt. & Ohio R.R. Co.*, 4 G. & J. 1, 41 (Md. 1832).

240. Evans, *supra* note 233, at 49.

241. *Id.* at 45 (citing BALTIMORE AMERICAN & COMMERCIAL DAILY ADVERTISER, June 2, 1836).

over one third of the B&O board.<sup>242</sup>

Other B&O stockholders now opposed this “preference” for the State of Maryland. The Corporation of Georgetown, which held a significant amount of B&O stock, published an editorial which stated:

It is to the unreasonable and anomalous character of the loan that Georgetown objects. Upon what principle of justice does Maryland claim to receive a certain stipulated dividend, or interest, if you please, *to the exclusion of all other stockholders*, and at the same time to have *equal rights* with those excluded stockholders in controlling by *her vote*, the interests and work of the company?<sup>243</sup>

Note that Georgetown classified this preferred-stock issuance as a loan, not as an equity security.<sup>244</sup> Georgetown described the dividend as “interest,” which is a characteristic of debt.<sup>245</sup> Moreover, the description of this instrument as “anomalous” indicates its novelty.<sup>246</sup> From this historical anecdote one may surmise not only that preferred stock was a novelty, but also that its character as an equity security was far from clear and had long been debated. Financial innovations are often threatening to the status quo, which may use arguments of justice and fairness to defend its heretofore “preferred” position.

The aftermath of the B&O preferred-stock story is also instructive. Economic historian George Herberton Evans, Jr., reports:

Between 1834 and 1850 there were so many successful and unsuccessful efforts to sell preferred stock to individuals that it might almost be said that by the latter date this instrument had become in this country an established method for raising railroad capital in emergencies. Newspaper advertisements and stock exchange quotations testify to the increasing popularity of preferred stock in this

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242. *Id.* at 49.

243. *Id.* at 48 (citing BALTIMORE AMERICAN & COMMERCIAL DAILY ADVERTISER, June 15, 1836).

244. *Id.* at 48.

245. *Id.*

246. *Id.*

early railroad construction period.<sup>247</sup>

In other words, once B&O provided the success of fundraising through preferred stock, most similarly situated companies followed suit.<sup>248</sup> Thus, as a novel fundraising device proves to be an effective mode of corporate finance, it expands beyond its inception. The same should be expected of Hyperfunding.

## 2. Investment Contracts

While Hyperfunding does not appear to be an “investment” as that term is commonly understood to mean “debt” or “equity,”<sup>249</sup> but it might still be an “investment contract” as that term is defined in the Securities Act of 1933.<sup>250</sup> The statutory definition of a “security” is as obtuse as the implications of being deemed a securities issuer are broad. Securities issuers are subject to registration, mandatory disclosure, and heightened antifraud liability.<sup>251</sup> Others involved in securities transactions may also be subject to SEC registration, rules, supervision,<sup>252</sup> and participants in securities transactions are exposed to civil and criminal liability.<sup>253</sup> On the contrary, non-securities transactions receive much less regulatory attention.<sup>254</sup>

A security is defined by the 1933 Securities Act expressly to include stocks, bonds, debentures, and transferrable shares.<sup>255</sup> These standard financial instruments are surely

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247. *Id.* at 51.

248. This is particularly remarkable when, as was the case in the mid-1800s, the power to issue preferred stock generally required a legislative action by states. *See, e.g., Amending the Charter of the Housatonic Railroad Company, Passed 1850, in 4 RESOLVES AND PRIVATE LAWS OF THE STATE OF CONN. 1836-1857*, at 206. This may indicate a further lesson to be learned about the need for corporate-state partnership in capital formation.

249. *Investment*, BLACK’S LAW DICTIONARY (9th ed. 2009). Defining an investment as: “[a]n expenditure to acquire property or assets to produce revenue; a capital outlay.”

250. Securities Act of 1933, 15 U.S.C. § 77b (2012).

251. Cynthia A. Williams, *The Securities and Exchange Commission and Corporate Social Transparency*, 112 HARV. L. REV. 1197, 1199–1207 (1999).

252. *Id.*

253. *Id.*

254. *Id.*

255. 15 U.S.C. § 77b(a)(1) (“[S]ecurity’ means any note, stock, treasury stock, security future, bond, debenture, evidence of indebtedness, certificate of interest

subject to securities regulation.<sup>256</sup> However, the definition in the Securities Act includes several catchall generic terms, such as: investment contracts, evidence of indebtedness, and certificates of interest in profit-sharing agreements.<sup>257</sup> It is not clear whether Hyperfunding involves the issues of these or other catchall “securities.”

The Supreme Court in *SEC v. W.J. Howey Company* set forth a four-part test to determine whether an investment contract exists.<sup>258</sup> The Supreme Court defined an investment contract as any transaction in which “[1] a person invests his money, [2] in a common enterprise and [3] is led to expect profits [4] solely from the efforts [of others].”<sup>259</sup> Although the *Howey* test has set certain parameters on what exactly should be classified as an “investment contract,” it remains challenging to determine what exactly a court may deem a security under this classification.<sup>260</sup>

Because “most transfers of consideration will satisfy [the first two prongs] of the *Howey* test,” it is likely that Hyperfunding would as well.<sup>261</sup> Here, prepurchasers paid \$1,000 to Tesla, which is a transfer of consideration, and that would likely suffice for a court to find the first prong is met.

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or participation in any profit-sharing agreement, collateral-trust certificate, preorganization certificate or subscription, transferable share, investment contract, voting-trust certificate, certificate of deposit for a security, fractional undivided interest in oil, gas, or other mineral rights, any put, call, straddle, option, or privilege on any security, certificate of deposit, or group or index of securities (including any interest therein or based on the value thereof), or any put, call, straddle, option, or privilege entered into on a national securities exchange relating to foreign currency, or, in general, any interest or instrument commonly known as a ‘security,’ or any certificate of interest or participation in, temporary or interim certificate for, receipt for, guarantee of, or warrant or right to subscribe to or purchase, any of the foregoing.”).

256. 15 U.S.C. § 77b.

257. *Id.*

258. *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).

259. *Id.* at 298–99.

260. See Jeremy Epstein, *4 Reasons Why Tezos Could be the Netscape of the Blockchain*, VENTUREBEAT (May 21, 2017, 10:25 AM), <https://venturebeat.com/2017/05/21/4-reasons-why-tezos-could-be-the-netscape-of-the-blockchain/> [<https://perma.cc/E66M-VZLZ>]. For example, ICOs are a new form of investment not regulated by the SEC. *Id.* ICOs provide a way in which a new blockchain venture sells a digital currency they create to use with their software before the software itself is written. Most ICOs raise money in Bitcoin or other cryptocurrencies. *Id.*

261. 2 CHECKLISTS FOR CORPORATE COUNSEL, § 12:9. CHECKLIST FOR DETERMINING WHAT IS A SECURITY (2017) [hereinafter CHECKLIST FOR DETERMINING WHAT IS A SECURITY].

There is a common enterprise, namely, the mass production of the Model 3 and EV charging stations to support it, satisfying the second prong of the *Howey* Test.<sup>262</sup> The last prong is also met because “the essential managerial or entrepreneurial efforts which affect the failure or success of the enterprise are performed by the promoter.”<sup>263</sup> Tesla, the promoter, is performing all the efforts which would bring about the mass production of the Model 3, while the prepurchaser has contributed nothing but money. Moreover, the last prong would be met even if the prepurchasers were found to be making some sort of minor contribution because courts have generally not read “solely” as a strict or literal limitation.<sup>264</sup>

Applying *Howey* to Hyperfunding, therefore, turns mainly on the issue of whether prepurchasers expected profits. Expected profits is defined as “the expected return, whether fixed or variable must be the principal motivation for the investment.”<sup>265</sup> Furthermore, “[t]he returns must come from earnings of the enterprise or appreciation of the investment based on anticipated earnings, but not merely from additional contributions.”<sup>266</sup>

While at first blush it may seem obvious that there are no expected profits in the Tesla Model 3 example, recall the purpose of this Part is to discuss not only how Musk used this new financial species, but also to provide consideration of how others may use it, and it would not be hard to imagine this

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262. *Howey Co.*, 328 U.S. at 298–99.

263. CHECKLIST FOR DETERMINING WHAT IS A SECURITY, *supra* note 261.

264. *See, e.g.*, SEC v. Glenn W. Turner Enterprises, Inc., 474 F.2d 476, 482 (9th Cir. 1973), *cert. denied*, 414 U.S. 821 (1973) (“We hold, however, that in light of the remedial nature of the legislation, the statutory policy of affording broad protection to the public, and the Supreme Court’s admonitions that the definition of securities should be a flexible one, the word ‘solely’ should not be read as a strict or literal limitation on the definition of an investment contract, but rather must be construed realistically, so as to include within the definition those schemes which involve in substance, if not form, securities.”); *see also* CHECKLIST FOR DETERMINING WHAT IS A SECURITY, *supra* note 261 (“The courts generally agree that a strict interpretation of ‘solely’ would frustrate the purpose of *Howey*.”); Peter S. Pearlman & Mark Lipton, *What Is A Security?*, N.J. LAW. MAG., May 1988, at 15, 17 (“Later courts read the ‘solely’ language out of the *Howey* test in order to embrace within the definition of investment contract those schemes in which the investor participated in the enterprise but whose efforts were not the critical efforts necessary for its success.”).

265. ALAN R. PALMITER, SECURITIES REGULATION, EXAMPLES AND EXPLANATIONS 52 (6th ed. 2014).

266. *Id.*

instrument being used in connection with some sort of profit interest. In fact, there is some evidence here that profit may have encouraged some to prepurchase the Model 3 itself.

### B. Crowdfunding

Hyperfunding is similar to “crowdfunding,” which is raising a large amount of money from a large number of people via the internet,<sup>267</sup> but it has at least one vital distinction. Crowdfunding raises money through intermediaries called “portals” such as Kickstarter, GoFundMe, IndieGogo, Crowdfunder, and others.<sup>268</sup> These portal-intermediaries function as self-regulating entities that impose regulations on themselves in order to protect consumers and investors.<sup>269</sup> Intermediaries make a small amount of money from each transaction that occurs on their portals, so they are motivated to self-regulate because their business model is to develop the trust and confidence of users in the long run.<sup>270</sup> Hyperfunding, on the other hand, is a direct fundraising campaign, where the company sells directly to the general public with no intermediaries. This is a one-time game, so fundraisers lack the incentive to build up trust over time.

Musk surely leveraged his charismatic personality to bring customers directly to the Model 3 presale. Indeed, this celebrity<sup>271</sup> CEO personally selected the guest list to attend the Model 3 unveiling.<sup>272</sup> In a performance reminiscent of the late

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267. Seth C. Oranburg, *A Place of Their Own: Crowds in the New Market for Equity Crowdfunding*, 100 MINN. L. REV. HEADNOTES 147, 148 (2016).

268. Bradford, *supra* note 38, at 5.

269. Yancey Strickler, Perry Chen, & Charles Adler, *Kickstarter Is Not A Store*, KICKSTARTER: BLOG (Sept. 20, 2016), <https://www.kickstarter.com/blog/kickstarter-is-not-a-store> [<https://perma.cc/8LAW-LDLR>]; *see also* David Murphy, *New PayPal Crowdfunding Plan Aims to Avoid Frozen Funds*, PC MAG. (Mar. 14, 2014, 4:15 PM), <http://www.pcmag.com/article2/0,2817,2455006,00.asp> [<https://perma.cc/G95B-SP7D>].

270. Bradford, *supra* note 38, at 5.

271. Musk is not only a well-known personality, but he also has been featured in TV and movies such as the National Geographic documentary *MARS* and was invited to the premiere of HBO's hit TV series *Silicon Valley*. Logan Hill, *Inside Nat Geo's Incredible Documentary Mission to Mars*, WIRED (Oct. 17, 2016, 6:55 AM), <https://www.wired.com/2016/10/how-we-will-get-to-mars/> [<https://perma.cc/Q4K4-RCU2>]; Benjamin Kabin, *What Elon Musk Really Thinks of 'Silicon Valley,'* ENTREPRENEUR (Apr. 4, 2014), <https://www.entrepreneur.com/article/232837> [<https://perma.cc/L98B-FHE3>].

272. Fred Lambert, *Tesla Model 3 Unveiling Event Reportedly Will Have Only*

Steve Jobs, Musk whipped the crowd into a veritable frenzy as he teased the \$35,000 EV.<sup>273</sup> Leveraging this immense star power to perform a direct-to-consumer financing is remarkably different from the “traditional” method of crowdfunding via a platform.

The platform is the hallmark of crowdfunding. A new economy is rising on digital platforms such as Amazon, Etsy, Facebook, Google, Salesforce, and Uber.<sup>274</sup> The centrality and essentiality of the platform in crowdfunding is widely accepted in the economic literature as well.<sup>275</sup> There are four problems in crowdfunding—coordination, gatekeeping, inexperience, and patronage—which crowdfunding *platforms* solve.<sup>276</sup> For example, a coordination problem arises where no one wants to fund a project that will not receive enough funds from others to succeed, so it is very difficult to raise the first dollar.<sup>277</sup> Tilt, “the social payments app of the future,”<sup>278</sup> solves the coordination problem by allowing entrepreneurs to raise money from a large number of people over a secure financial network while mandating that the money must be returned at no cost if the fundraising goal is not met.<sup>279</sup>

Remarkably, Tesla managed to solve all four of these

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*a Small Guest List Selected by Elon Musk*, ELECTREK (Mar. 8, 2016, 5:25 AM), <https://electrek.co/2016/03/08/tesla-model-3-event-guest-list-elon-musk/> [<https://perma.cc/N839-3TTT>].

273. *Tesla Unveils Model 3*, YOUTUBE (Mar. 31, 2016), <https://www.youtube.com/watch?v=Q4VGQPk2D18> [<https://perma.cc/8T2A-N4WF>].

274. Michael Cusumano, *How Traditional Firms Must Compete in the Sharing Economy*, COMMUNICATIONS OF THE ACM, Jan. 2015, at 32 (arguing that new sharing economy web platforms increasingly threaten traditional business models).

275. See, e.g., Moriah Meyskens & Lacy Bird, *Crowdfunding and Value Creation*, 5(2) ENTREPRENEURSHIP RES. J. 155, 156 (“Crowdfunding facilitates the financing process by providing a platform that enables individuals passionate about an idea or cause to easily invest small amounts of capital and to share the idea with others.”) (citing Paul Belleflamme et al., *Crowdfunding: An Industrial Organization Perspective* (June 10, 2010) (unpublished manuscript) (prepared for Digital Business Models: Understanding Strategies workshop); Ethan Mollick, *The Dynamics of Crowdfunding: An Exploratory Study*, 29 J. BUS. VENTURING 1, 1–16 (2014); Todd W. Moss et al., *The Effect of Virtuous and Entrepreneurial Orientations on Microfinance Lending and Repayment: A Signaling Theory Perspective*, 39 ENTREPRENEURSHIP THEORY & PRACTICE 1, 27–52 (2015)).

276. Peter Younkin & Keyvan Kashkooli, *What Problems Does Crowdfunding Solve?*, 50 CAL. MGMT. REV. 20, 22 (2016).

277. *Id.* at 24, 26.

278. TILT, <https://www.tilt.com/> (last visited Feb. 20, 2018), [<https://perma.cc/XJE3-BSAE>].

279. Meyskens & Bird, *supra* note 275, at 161.

crowdfunding challenges without the use of a platform. This is not possible for smaller entrepreneurs. Tesla was able to forgo traditional crowdfunding and instead use Hyperfunding because the corporation has the star power of its CEO Elon Musk. Tesla has financial and technological infrastructure to host a major publicity event, develop a web site that allows for safe transfer of funds, and compliance with public-company security regulation and corporate-governance safeguards. Therefore, since Tesla did not use a platform to raise money via the internet, it did not perform traditional crowdfunding. Rather, Tesla leveraged its unique assets to raise money directly from the public in a manner not subject to the constraints and challenges of crowdfunding.

First, despite provisions in the Model 3 Deposit to the contrary,<sup>280</sup> people have apparently been trading and re-selling their priority positions to purchase the new EV.<sup>281</sup>

Second, early purchasers will pay less for the Model 3 than later ones, thanks to the federal EV tax credit phase-out:<sup>282</sup> only the first two hundred thousand Tesla EVs qualify for a \$7,500 tax credit under Internal Revenue Code Section 30D.<sup>283</sup> In addition, many states also offer incentives to purchasers of EVs, some of which also phase out.<sup>284</sup> Tesla actively promotes these incentives on its website, although it makes no mention there of the federal phase-out.<sup>285</sup>

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280. *Model 3 Reservation Terms & Conditions*, *supra* note 82.

281. Sickfox, Comment to *Will You Sell Your New Model 3 for a Profit?*, TESLAFORUM (May 23, 2016), <https://teslamotorsclub.com/tmc/threads/will-you-sell-your-new-model-3-for-a-profit.70670/> [<https://perma.cc/QZ2Q-GWRT>].

282. *Plug-in Electric Vehicle Credit at a Glance*, IRS (Jan. 25, 2017), <https://www.irs.gov/credits-deductions/individuals/plug-in-electric-drive-vehicle-credit-section-30d> [<https://perma.cc/J87A-Y89Q>].

283. 26 U.S.C. § 30D, 26 I.R.C. § 30D (2012). The credit under section 30D applies to certain “low-power” electric vehicles. Under section 30D a taxpayer is allowed a one-time credit against income tax with respect to each new qualified EV placed in service during the taxable year. *Id.*

284. Kristy Hartman, *State Efforts Promote Hybrid and Electric Vehicles*, NAT'L CONF. OF ST. LEG. (Dec. 3, 2015), <http://www.ncsl.org/research/energy/state-electric-vehicle-incentives-state-chart.aspx> [<https://perma.cc/XY8N-T9E7>].

285. *Support*, TESLA, <https://www.tesla.com/support/incentives> (last visited Feb. 11, 2018) [<https://perma.cc/GQ9K-2NER>] (stating that “[a] \$7,500 federal income tax credit is available to all customers” without mentioning that this tax credit is only available for each automaker until such automaker sells 200,000 EVs). As of May 30, 2018, Tesla sold 179,029 EVs, so the \$7,500 federal tax credit will only be available for the next 21,000 Tesla EV purchasers. *See Federal EV Tax Credit Phase Out Tracker by Automaker*, EV ADOPTION, <http://evadoption.com/ev-sales/federal-ev-tax-credit-phase-out-tracker-by->



This would not be the strangest case where the courts found that a “creative” presale agreement was in fact a security. In *Howey* itself, the defendant was a large land owner in Lake County, Florida. The defendant offered prospective customers a deal styled as two separate agreements: a land sales contract, pursuant to which customers purchased a small plot of land from W. J. Howey Company, and a service contract, pursuant to which Howey-in-the-Hills Service, Inc. planted and maintained citrus trees.<sup>286</sup> The purchasers were mainly non-residents of Florida who knew little about cultivating citrus trees, and the individual tracts were not fenced off or well-marked.<sup>287</sup> Meanwhile, the service contract gave Howey-in-the-Hills a ten-year leasehold over the land, and the purchasers (who had no right to enter the land and take or market their own fruit) expected to receive a share of the proceeds from what the service company sells.<sup>288</sup> On these facts, the *Howey* Court held that this purported land sale and service agreement was actually an investment contract.<sup>289</sup>

While the Tesla Model 3 presale is not particularly analogous to the facts of *Howey*, Hyperfunding could clearly be used to promote a similar scheme.<sup>290</sup> Additionally, as the next

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automaker/ (last visited May 30, 2018) [<https://perma.cc/Q6BJ-Z5UK>].

286. SEC v. W.J. Howey Co., 328 U.S. 293, 295–96 (1946).

287. *Id.* at 296–97.

288. *Id.*

289. *Id.* at 300. (“Thus all the elements of a profit-seeking business venture are present here. The investors provide the capital and share in the earnings and profits; the promoters manage, control and operate the enterprise. It follows that the arrangements whereby the investors’ interests are made manifest involve investment contracts, regardless of the legal terminology in which such contracts are clothed. The investment contracts in this instance take the form of land sales contracts, warranty deeds and service contracts which respondents offer to prospective investors. And respondents’ failure to abide by the statutory and administrative rules in making such offerings, even though the failure result from a bona fide mistake as to the law, cannot be sanctioned under the Act.”).

290. See *Smith v. Gross*, 604 F.2d 639, 641 (9th Cir. 1979) (holding that an advertisement to solicit buyers to raise earthworms constituted a security and the material misrepresentations about the growth and market value of earthworms constitutes a violation of federal securities fraud laws); *Miller v. Cent. Chinchilla Grp., Inc.*, 494 F.2d 414 (8th Cir. 1974) (finding that defendant’s sale of chinchillas was in furtherance of a common enterprise to raise chinchillas and holding that defendant violated registration and antifraud provisions in the Securities Act of 1933, Rule 10b of the Securities Exchange Act of 1934, Rule 10b-5, and common fraud law); *SEC. v. Koscot Interplanetary, Inc.*, 497 F.2d 473, 479 (5th Cir. 1974) (holding that multi-level pyramid scheme constitutes an unregistered issuance of securities where participants purchased cosmetics upon “the expectation of galactic profits”).

Section will discuss, the presale of land has itself become the subject of consumer-protection regulations.

### C. Presales

Presales are when goods are sold before they are fully designed or manufactured.<sup>291</sup> They are relatively common in the high-end automotive industry,<sup>292</sup> so this seems to be a reasonable first approximation for a Hyperfunding analogy. The Model 3 presale, however, is readily distinguishable from traditional automotive presales for at least two reasons. First, traditional automotive presales are very exclusive and limited to the rich and famous, whereas the Model 3 presale was open to the general public and designed for the “everyman.”<sup>293</sup> Second, traditional automotive presales fund the one-off development of rare and customized supercars.<sup>294</sup> The Model 3 presale funds the development not only of an “everyman’s” car but also to build a massive car production facility that also will produce other vehicles, a battery factory that will be used for both automotive and home use, and a network of EV charging stations.<sup>295</sup>

Exotic automakers like Ferrari and Lamborghini primarily sell their most exclusive cars only to select brand-loyal customers, who often make deposits years before receiving the car.<sup>296</sup> You cannot merely walk into a Ferrari dealership and purchase the LaFerrari supercar.<sup>297</sup> In fact, Ferrari puts limitations and expectations on buyers that must be fulfilled before they are even allowed to write a check.<sup>298</sup> Several high-

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291. David Burkus, *Sell Your Product Before It Exists*, HARVARD BUS. REV. (Dec. 25, 2013), <https://hbr.org/2013/12/sell-your-product-before-it-exists> [<https://perma.cc/7S85-3S5P>].

292. Jordon Golson, *How to Earn the Right to Buy Ferrari’s Most Exclusive Hypercar*, WIRED (Oct. 24, 2014, 2:03 PM), <https://www.wired.com/2014/10/herjavec-ferrari-laferrari/> [<https://perma.cc/D8LS-HBQZ>].

293. Andrew P. Collins, *What It’s Actually Like To Ride In The Tesla Model 3*, JALOPNIK (Apr. 1, 2016, 2:23 PM), <http://jalopnik.com/what-its-actually-like-to-ride-in-the-tesla-model-3-1768405248> [<https://perma.cc/9HDX-S4WH>].

294. Golson, *supra* note 292.

295. See, e.g., Chris Ziegler, *Elon Musk Bought \$100 Million More Worth of Tesla this Week*, VERGE (Jan. 29, 2016, 6:15 PM), <http://www.theverge.com/2016/1/29/10873576/elon-musk-100-million-option-exercise-stock-tesla> [<https://perma.cc/735G-NJ2P>].

296. Golson, *supra* note 292.

297. *Id.*

298. *Id.*

profile buyers have been turned down in their request to buy this \$1.3 million machine.<sup>299</sup>

While it may not seem patently alarming that some millionaires are denied the right to buy supercars, at least one of these “victims” of the limited exotic automobile presale modality is seeking damages.<sup>300</sup> Preston Henn, an 85-year-old Florida resident and self-defined “Ferrarista,”<sup>301</sup> is suing Ferrari North America Inc. for defamation and seeking \$75,000 in damages to his reputation when Ferrari returned his \$1,000,000 deposit check for a LaFerrari.<sup>302</sup>

The Tesla Model 3 presale may have the opposite problem. Far from being exclusive, Tesla will pre-sell a Model 3 to anyone who makes a \$1,000 deposit.<sup>303</sup> While one might, at first blush, be tempted to applaud Tesla for being far more egalitarian than Ferrari, some alternative concerns may arise when companies sell expensive items people cannot afford. For example, some economists claim that the mortgage crisis was instigated by the large number of homes that were sold to people who obviously could not afford them.<sup>304</sup> Likewise, Tesla, who also operates as a lender in financing and leasing cars to its customers, has legal obligations to ensure its financees and lessees can afford the car.<sup>305</sup> Tesla seems aware of this, as indicated by their web page titled *Tesla Leasing*, which includes a paragraph titled “Which Model S fits in my monthly budget?” and a financial calculator.<sup>306</sup> The Tesla Model 3 presale page offers no discussion about budget or affordability

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299. Alex Davies, *It Takes a Lot More Than Money to Buy the Latest Ferrari Supercar*, BUS. INSIDER (June 7, 2013, 9:24 AM), <http://www.businessinsider.com/how-to-buy-a-ferrari-laferrari-2013-6/> [<http://perma.cc/U428-GCPM>].

300. Complaint, *Henn v. Ferrari North America, Inc.*, (No. 0:16-cv-61830) (S.D. Fla. Aug. 1, 2016), 2016 WL 4087776.

301. A Ferrarista is a Ferrari owner. See THEFERRARISTA.COM, <https://www.theferrarista.com/> (last visited Apr. 12, 2018) <https://perma.cc/2VVT-YSMC>.

302. Complaint, *supra* note 300.

303. *Model 3 Reservation Terms & Conditions*, *supra* note 82.

304. See, e.g., *Why Did Banks Give Home Loans to People Who They Knew Couldn't Pay?*, WASHINGTON'S BLOG (Oct. 27, 2010), <http://www.washingtonsblog.com/2010/10/why-did-banks-give-home-loans-to-people-who-they-knew-couldnt-pay.html> [<https://perma.cc/2WM7-QZM3>].

305. *Tesla Lending*, TESLA, <https://www.tesla.com/support/tesla-lending> (last visited Feb. 21, 2018) [<https://perma.cc/T88G-FZ4J>].

306. *Tesla Leasing*, TESLA, <https://www.tesla.com/support/tesla-leasing> (last visited Feb. 21, 2018) [<https://perma.cc/7XPX-KGCY>].

whatsoever.<sup>307</sup>

From a contract analysis standpoint, the deposit agreement is not a typical deposit agreement. As discussed above, the so-called “Reservation Agreement” is distinguishable from a traditional deposit agreement for at least nine reasons.<sup>308</sup>

While Tesla has no legal obligation to ensure that those who reserve a Model 3 can afford to buy it, the vast difference between the financial means of an “everyman” Model 3 prepurchaser and the “rich and famous” prepurchasers of the supercars that typify the automotive presale counsels that Hyperfunding should not be thought of or regulated as a traditional automotive presale.

### 1. Interstate Land Sales

While Hyperfunding appears to be a completely new phenomenon, enabled by the power of the internet, this is not the first time a new technology and the right market conditions have given rise to new marketplaces and new modalities of fundraising. After World War II, the US government provided many veterans with money to build houses in the suburbs.<sup>309</sup> As automobile ownership became more widespread, housing developments spread far beyond urban centers.<sup>310</sup> As demand for far-flung virgin land increased, so did deceptive and fraudulent sales.<sup>311</sup> Unscrupulous land sellers used new technology, long distance home phone service (the internet of its day), to target many veterans and senior citizens.<sup>312</sup> In 1968, Congress responded by passing the Interstate Land Sale Act (ILSA) to curb the increasing use of fraudulent schemes to

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307. *Model 3 Reservation Terms & Conditions*, *supra* note 82.

308. *See supra* Section I.D.

309. *G.I. Bill*, HISTORY.COM, <http://www.history.com/topics/world-war-ii/gi-bill#> (last visited Feb. 22, 2018) [<https://perma.cc/9V3E-KGKG>] (“The government guaranteed loans for veterans who borrowed money to purchase a home, business or farm. These loans enabled hordes of people to abandon city life and move to mass-produced, ‘cookie cutter’ homes in suburbia.”).

310. Robert Bruegmann, *The Housing Bubble and The Boomer Generation*, NEWGEOGRAPHY (Dec. 3, 2008), <http://www.newgeography.com/content/00452-the-housing-bubble-and-boomer-generation> [<https://perma.cc/F4SQ-VANT>].

311. Joseph Einav, *Read Between the Lines: Why Recent ILSA Litigation Is Bad for Business and Contravenes Congressional Intent*, 33 CARDOZO L. REV. 2139, 2147 (2012).

312. *Id.*

sell large tracts of undevelopable land to unsuspecting consumers.<sup>313</sup>

ILSA is germane to analyzing Hyperfunding because both undeveloped-land sales and undeveloped-car sales are similar products of different eras' zeitgeist and verve. ILSA is also instructive because it is based on perhaps the most far-reaching consumer and investor protection regulation: the Securities Act of 1933.<sup>314</sup> The Securities Act relies heavily on disclosure requirements because contemporary thinkers like Justice Louis Brandeis convinced the legislature that “[s]unlight is said to be the best of disinfectants; electric light the most efficient policeman.”<sup>315</sup> ILSA likewise requires undeveloped-land sellers to furnish potential buyers with accurate information about the property.<sup>316</sup> One might likewise consider imposing a disclosure regime on Hyperfunding.

But such disclosure regimes are far from perfect. In fact, legal scholars have convincingly argued that investors' protections like security-disclosure requirements have massive costs that harm investors more than they help.<sup>317</sup> Professor Richard A. Epstein identifies four regulatory pitfalls that should be avoided generally.<sup>318</sup> These apply to Hyperfunding: first, the value of regulation depreciates over time, as static regulations calcify the dynamic skeleton of innovation; second, regulations add cost, which depresses demand and can potentially regulate a good out of existence; third, once regulation is enacted, it tends to metastasize; and fourth, regulators are prone to capture by the few entities who greatly benefit from the regulation at the expense of the many who are slightly harmed by it.<sup>319</sup> As a case in point, ILSA itself may have outlived its usefulness. For example, Joseph Einav points out that litigants have begun abusing ILSA to rescind non-fraudulent land sales.<sup>320</sup> This is precisely the sort of capture

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313. 15 U.S.C. §§ 1701–1720 (2012).

314. 15 U.S.C. § 77a (2012).

315. LOUIS D. BRANDEIS, OTHER PEOPLE'S MONEY AND HOW THE BANKERS USE IT 92 (1914).

316. Einav, *supra* note 311, at 2147.

317. See, e.g., Richard A. Epstein, *The Dangers of “Investor Protection” in Securities Markets*, 12 TEX. REV. L. & POL. 411, 413 (2008).

318. *Id.*

319. *Id.* at 414–17.

320. See Einav, *supra* note 311, at 2158.

and harm against which Professor Epstein warns.<sup>321</sup>

Similar to the land sales that were subject to high levels of consumer risk and prompted the enactment of ILSA, and perhaps even more akin to the securities frauds that promoted the 1933 Securities Act, Hyperfunding raises new questions about promoting consumer interests in our digital era. It is important to recognize at this nascent stage that heavy-handed regulations often derail emerging companies and stymie development of innovation technologies and techniques, while at the same time recognizing that a failure to implement sensible consumer protections can lead to a public backlash and exactly the sort of knee-jerk legislation that also crushes entire nascent industries.<sup>322</sup>

## 2. Ponzi Schemes

Sometimes it appears that the difference between brilliance and fraud is whether, in retrospect, the scheme was successful. While one may trust Elon Musk to follow through on his Hyperfunding promises, it would be imprudent to ignore how this sort of corporate finance technique could be used to propagate outright fraud such as Ponzi schemes.

“Ponzi scheme” is defined by Black’s Law Dictionary as “[a] fraudulent investment scheme in which money contributed by later investors generates artificially high dividends or returns for the original investors, whose example attracts even larger investments.”<sup>323</sup> This dictionary definition somewhat sterilizes what is otherwise a term of art used to describe a wide variety of fraud.<sup>324</sup> Since 2008, any discussion of Ponzi schemes instantly brings Bernie Madoff and his elaborate financial hoax to mind.<sup>325</sup> However, it was an Italian immigrant, Charles Ponzi, whose early 1900s fraud led to the infamous name

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321. See, e.g., Epstein, *supra* note 317, at 413.

322. See Lucas E. Buckley et al., *The Intersection of Innovation and the Law*, WYO. LAW., Aug. 2015, at 36, 38–39 (2015) (observing how with the advent of an “on-demand economy,” companies such as Uber and Lyft face new problematic regulations and widespread opposition).

323. *Ponzi scheme*, BLACK’S LAW DICTIONARY (10th ed. 2014).

324. Mark A. McDermott, *Ponzi Schemes and the Law of Fraudulent and Preferential Transfers*, 72 AM. BANKR. L.J. 157, 158 (1998).

325. David A. Gradwohl & Karin Corbett, *Equity Receiverships for Ponzi Schemes*, 34 SETON HALL LEGIS. J. 181, 183 (2010).

“Ponzi scheme.”<sup>326</sup>

At first glance, Charles Ponzi and Bernie Madoff could not be more different, although they came to a similar end. Unlike Madoff’s long-lasting fraud, Ponzi’s scheme was very brief, lasting only from December 1919 until August 1920.<sup>327</sup> Ponzi devised a system of buying postal reply coupons in European currencies at fixed, outdated rates of exchange and redeeming them in the United States for American currency, thus generating a guaranteed profit.<sup>328</sup> Families and individuals alike entrusted Ponzi with their cash hoping to maximize their savings.<sup>329</sup> Unfortunately, as the story goes, Ponzi’s scheme turned out to be less profitable than he had hoped, generating only enough returns to pay those redeeming their coupons.<sup>330</sup> Ponzi duped tens of thousands of people out of millions of dollars in a short-lived craze that became the defining confidence scheme of its time.<sup>331</sup> Ponzi was ultimately convicted of mail fraud.<sup>332</sup>

Mitchell Zuckoff, Mr. Ponzi’s biographer, claims “[Ponzi] did it with such verve and charisma, and it attracted so much attention” in a time when the newspapers were eager to break a story of this magnitude.<sup>333</sup> Zuckoff commended Ponzi’s ability to tap into the desires of the masses and captivate average citizens to trust him with their money.<sup>334</sup> Charles Ponzi maintained until he passed away that he was acting in good faith.<sup>335</sup> Zuckoff describes the rise and fall of his scheme by stating: “The underpinning of his scheme was a theoretically possible form of arbitrage. He was sure that if he just had enough money to carry it out it would be O.K.—and on paper it would have, but it would logistically have been impossible.”<sup>336</sup>

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326. *Id.* at 183–84.

327. *Id.* at 188.

328. *Id.* at 188–89.

329. MITCHELL ZUCKOFF, *PONZI’S SCHEME: THE TRUE STORY OF A FINANCIAL LEGEND* 5–17 (2006).

330. *Id.*

331. *Id.*

332. *How a Master Scammer Met His Match: Ponzi vs. the Postal Inspection Service*, U.S. POSTAL INSPECTION SERV., [https://postalinspectors.uspis.gov/radDocs/consumer/Ponzi\\_vs\\_USPIS.html](https://postalinspectors.uspis.gov/radDocs/consumer/Ponzi_vs_USPIS.html) (last visited March 13, 2018) [<https://perma.cc/Q2S9-FFLV>].

333. ZUCKOFF, *supra* note 329, at 236–48, 293–314.

334. *Id.*

335. *Id.*

336. *Id.*

Ponzi transactions are simple in their execution: the fraudsters retain the investors' capital in exchange for empty promises of high returns.<sup>337</sup> The would-be fraudster may even believe his own promises of high returns to be genuine and true at the outset, but eventually the scheme fails, and history is the judge. If Elon Musk fails to deliver on the Model 3, was the funding of the Model 3 a giant Ponzi scheme for purposes of funding the Model S and Model X? If Elon Musk is successful, does he open the door for others to implement a similar strategy to raise money from consumers who are not adequately protected?

### 3. Bankruptcy Protections

Fortunately, the United States Bankruptcy Code provides some consumer protections that may apply to Hyperfunding, although these protections are limited in ability to compensate victims of mistaken or fraudulent Hyperfunding schemes. Although Tesla's presale contract does not specify any priority position for repayment of depositors in bankruptcy—and collective action and rational apathy problems would make it virtually impossible for such a diverse group of people to negotiate for such rights—federal law does provide a backstop.

In bankruptcy, expenses and claims generally have the following priority<sup>338</sup>: (1) unsecured claims for domestic support obligations,<sup>339</sup> (2) Federal Reserve bank loans,<sup>340</sup> (3) claims arising in the ordinary course of business after bankruptcy was declared but before a trustee is appointed,<sup>341</sup> (4) wages, salaries, and sales claims up to \$12,850 per person,<sup>342</sup> (5) contributions to employee benefit plans up to \$12,850 per employee,<sup>343</sup> (6) unsecured claims by producers of grain or fish up to \$6,325 per person,<sup>344</sup> (7) unsecured claims for consumer

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337. *Id.*

338. 11 U.S.C. §§ 507 *et seq.* (2012).

339. 11 U.S.C. § 101 (14A) (2012) (“The term ‘domestic support obligation’ means a debt that accrues before, on, or after the date of the order for relief in a case under this title, including interest that accrues on that debt as provided.”).

340. 12 U.S.C. § 343 (2012).

341. 11 U.S.C. § 502(f) (2012).

342. As adjusted per 11 U.S.C. § 104.

343. As adjusted per 11 U.S.C. § 104.

344. As adjusted per 11 U.S.C. § 104.



deposits that were not delivered up to \$2,850 per person,<sup>345</sup> (8) unsecured claims of governmental units,<sup>346</sup> (9) unsecured claims based on the commitment of an FDIC-insured lender,<sup>347</sup> and (10) claims for personal injury and wrongful death resulting from the debtor's unlawful, intoxicated use of a motor vehicle or vessel.

In other words, people who gave a \$1,000 deposit to Tesla have a statutory right to be seventh in priority for bankruptcy claims. But holding the seventh unsecured position (which is subordinate to fishmongers) does not guarantee repayment. Additionally, this right only covers deposits up to \$2,850, and future Hyperfunding could solicit funds in excess of the covered amount. Indeed, there have been at least fourteen crowdfunding campaigns to date whose maximum pledge exceeded the covered amount,<sup>348</sup> and Hyperfunding has proven capable of raising far more money more quickly than crowdfunding. Therefore, the bankruptcy protections for Hyperfunding depositors may be illusory in many cases.

#### 4. Fair Credit Billing Act Protections

The Fair Credit Billing Act (FCBA)<sup>349</sup> imposes requirements on credit and charge card accounts to ensure that creditors handle accounts fairly and promptly.<sup>350</sup> When consumers who use a credit card are billed for merchandise they never receive, they may be able to receive their money back, up to \$5,000, from the credit provider pursuant to the FCBA.<sup>351</sup> However, the statute does not have an express

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345. As adjusted per 11 U.S.C. § 104.

346. Unsecured claims of governmental units in bankruptcy are subject to many caveats. *See* 11 U.S.C. § 507(a)(8).

347. The Federal Depository Insurance Corporation (FDIC) provides deposit insurance to US banks.

348. According to Shopify Inc., these crowdfunding companies received single pledges in excess of \$2,850: 3Doodler (\$10,000), ARKYD (\$10,000), Canary (\$8,800), Emotiv Insight (\$5,000), GravityLight (\$5,000), Kano (\$10,000), Kreyos (\$11,000), Misfit Shine (\$14,999), Pebble (\$10,000), Pono Music (\$5,000), Robot Dragonfly (\$2,899), Scandu Scout (\$16,000), SCiO (\$10,000), and The Dash (\$2,999). *The Ultimate Guide to Crowdfunding: Optimizing Rewards and Perks*, SHOPIFY, <https://www.shopify.com/guides/crowdfunding/optimizing-rewards-perks> (last visited Feb. 9, 2018) [<http://perma.cc/PN92-VVQR>].

349. 15 U.S.C. §§ 1666-1666j (2012).

350. Oren Bar-Gill & Elizabeth Warren, *Making Credit Safer*, 157 U. PA. L. REV. 1, 87 n.284 (2008).

351. *Consumer Information: Disputing Credit Charges*, FED. TRADE COMM'N,

provision for the return of funds for goods and services never received. Rather, these transactions are captured under § 1666, Correction of Billing Errors, which requires the consumer to notify the creditor within sixty days of receiving the credit statement on which this charge appears.<sup>352</sup>

Hyperfunding (and most crowdfunding campaigns) may not promise delivery within sixty days. Indeed, Elon Musk said it would be at least one year from deposit to delivery.<sup>353</sup> By the time that a consumer can theoretically know that the product will not be delivered on time, if at all, the window for filing a complaint has already closed. Therefore, the FCBA does not seem to provide any real protections for victims of Hyperfunding (or crowdfunding) fraud or failure. Rather, the long time between deposit and receipt means that the governing law for such transactions is *caveat emptor*.

#### D. Initial Coin Offerings

An ICO is a crowdfunding centering around cryptocurrency.<sup>354</sup> The term “ICO” entered the vernacular around 2014, when Ethereum raised about \$2.3 million in just over twelve hours.<sup>355</sup> Ethereum called this a “presale,” but

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<https://www.consumer.ftc.gov/articles/0219-disputing-credit-card-charges> (last visited Feb. 21, 2018) [<http://perma.cc/D8UT-M277>] (“You also can sue a creditor who violates the FCBA. If you win, you may be awarded damages, plus twice the amount of any finance charge—as long as it’s between \$500 and \$5,000, or higher amounts if a pattern or practice of violations is established.”).

352. 15 U.S.C. § 1666(a), (b)(3).

353. Jordan Golson, *Tesla Model 3 Announced: Release Set for 2017, Price Starts at \$35,000*, VERGE (Mar. 31, 2016, 11:58 PM), <https://www.theverge.com/2016/3/31/11335272/tesla-model-3-announced-price-release-date-specs-preorder> [<https://perma.cc/QW57-H9EJ>] (“Musk is ‘fairly confident’ that deliveries will begin by the end of 2017.”).

354. Usman W. Chohan, *Initial Coin Offerings (ICOs): Risks, Regulation, and Accountability* (Nov. 30, 2017) (unpublished manuscript, Univ. New S. Wales), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3080098](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3080098) [<http://perma.cc/89FX-MX7M>].

355. Armand Tanzarian, *Ethereum Raises 3,700 BTC in First 12 Hours of Ether Presale*, COINTELEGRAPH (July 23, 2014), <https://cointelegraph.com/news/ethereum-raises-3700-btc-in-first-12-hours-of-ether-presale> [<http://perma.cc/6NCR-8N8H>]. Ethereum sold 7.4 million “Ether” (ETH) tokens for 3,700 “Bitcoins” (BTC) tokens. Victoria van Eyk, *Ethereum Launches Own ‘Ether’ Coin, With Millions Already Sold*, COINDESK (July 23, 2014, 12:30 PM), <https://www.coindesk.com/ethereum-launches-ether-coin-millions-already-sold/> [<https://perma.cc/W7LL-D7EJ>] (“7 million ether (ETH) sold after approximately 12 hours.”). At the time, one BTC was trading for about \$620. *Historical Data for*

what was it really selling? Ethereum's founder, Vitalik Buterin, explained that it was selling "Ether," which is "simply a token useful for paying transaction fees or building or purchasing decentralized application services on the Ethereum platform."<sup>356</sup> Buterin was careful to proclaim that "Ether is a product, NOT a security or investment offering."<sup>357</sup> Fast-forward to three years later: you can now invest your retirement funds in Ether.<sup>358</sup> With the benefit of hindsight, we can clearly see that Buterin was selling an investment opportunity in 2014.

Indeed, ICOs are widely regarded as some of the hottest investment opportunities today.<sup>359</sup> Even some officials at the NASDAQ stock exchange have expressed interest in ICOs.<sup>360</sup> ICO proceeds grew forty times from 2016 to 2017,<sup>361</sup> and more than 180 new ICOs are scheduled to launch in 2018.<sup>362</sup>

Yet most investors do not understand ICOs and their risks.<sup>363</sup> First, almost all ICOs use Bitcoin as a reserve

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*Bitcoin*, COINMARKETCAP.COM, <https://coinmarketcap.com/currencies/bitcoin/historical-data/?start=20140722&end=20140724> (last visited Mar. 26, 2018) [<https://perma.cc/E4C7-3Y3H>].

356. Vitalik Buterin, *Announcement: Launching the Ether Sale*, ETHERIUM BLOG (July 22, 2014), <https://blog.ethereum.org/2014/07/22/launching-the-ether-sale/> [<http://perma.cc/9DZA-529V>].

357. *Id.*

358. Alexander Lielacher, *You Can Now Put Ethereum's Ether in Your Retirement Fund*, BTCMANAGER.COM (Apr. 19, 2017), <https://btcmanager.com/you-can-now-put-ethereums-ether-in-your-retirement-fund/> [<http://perma.cc/B4LL-49YE>] (discussing how BitcoinIRA.com created a new investment product that allows individuals with a self-directed investment retirement account to hold Ether as an investment).

359. See, e.g., Laura Shin, *How to Speculate in ICOs and Buy Tokens: An Easy Step-By-Step Guide*, FORBES (July 18, 2017, 8:00 AM), <https://www.forbes.com/sites/laurashin/2017/07/18/how-to-speculate-in-icos-and-buy-tokens-an-easy-step-by-step-guide/#1f232a05743a> [<https://perma.cc/N6AZ-LF2U>]; Bernard Moon, *Don't Be Dumb: How to Invest Money in ICOs and Blockchain Startups*, FORBES (Dec. 5, 2017, 1:27 AM), <https://www.forbes.com/sites/sparklabs/2017/12/05/dont-be-dumb-money-how-to-invest-in-icos-and-blockchain-startups/#76c9a5897c74> [<https://perma.cc/883R-6FS3>].

360. Alex Lielacher, *Should You Invest in ICOs?*, NASDAQ: BLOG (Sept. 7, 2017, 2:26 PM), <https://www.nasdaq.com/article/should-you-invest-in-icos-cm842513> [<https://perma.cc/39X4-UVYH>].

361. Sergi Dromo, *ICOs Raised \$4 Bln in 2017, What 2018 Has in Store*, COINTELEGRAPH (Dec. 31, 2017), <https://cointelegraph.com/news/icos-raised-4-bln-in-2017-what-2018-has-in-store> [<https://perma.cc/45YQ-DTTZ>].

362. See generally ICOBENCH, <https://icobench.com> (last visited Feb. 21, 2018) [<http://perma.cc/EX8S-NQUC>].

363. Olga Kharif, *Investing in ICOs May Be Even Riskier than You Realize*, BLOOMBERG: TECH. (Nov. 6, 2017, 9:27 AM), <https://www.bloomberg.com/news>

currency.<sup>364</sup> This means that all the risks associated with Bitcoin also apply to any ICOs that leverage Bitcoin.<sup>365</sup> Bitcoin's regulatory risk is growing as the SEC is shifting its attention and resources to Bitcoin.<sup>366</sup> Second, ICOs themselves are subject to substantial regulatory risk: SEC Chairman Jay Clayton and Commissioners Kara Stein and Michael Piowar jointly stated that many ICO promoters are not following securities laws and foreshadowed enhanced SEC scrutiny of ICOs.<sup>367</sup> Moreover, ICO promoters' unlawful activity puts ICO investors at risk as well.<sup>368</sup> Even the research director for Coin Center, a blockchain advocacy group, acknowledged that "[m]any token sales are outright securities fraud that differ little from a typical pyramid or Ponzi scheme."<sup>369</sup>

Why are ordinary investors throwing billions of dollars into ICOs when they cannot even understand the "white paper" that explains what the fundraising is about?<sup>370</sup> One reason is, simply, hype. Experts may acknowledge that many ICO promoters are merely "putting lipstick on the pig," but investors take their cues from a marketplace where many products are "only popular because [they are] being

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/articles/2017-11-06/three-fourth-of-digital-tokens-are-riskier-than-you-realized [http://perma.cc/6HQN-DEZM].

364. Timothy B. Lee, *How Bitcoins Became Worth \$10,000*, ARS TECHNICA (Nov. 28, 2017, 8:40 PM), <https://arstechnica.com/tech-policy/2017/11/how-bitcoins-became-worth-10000/> [https://perma.cc/Q98G-MY6R] ("Bitcoin serves as the reserve currency for the cryptocurrency economy in much the same way that the dollar serves as the main anchor currency for international trade.").

365. See Sean Williams, *The 6 Biggest Risks to Bitcoin*, MOTLEY FOOL (Nov. 27, 2017, 10:00 AM), <https://www.fool.com/investing/2017/11/27/the-6-biggest-risks-to-bitcoin.aspx> [http://perma.cc/ENR6-JYL3].

366. *SEC Warns Bitcoin, Cryptocurrency Investors at Risk*, REUTERS BUS. NEWS (Jan. 4, 2018, 9:59 AM), <https://in.reuters.com/article/us-usa-sec-bitcoin/sec-warns-bitcoin-cryptocurrency-investors-at-risk-idINKBN1ET1YI> [https://perma.cc/TD8Q-YNKC].

367. *Id.*

368. Several ICOs have already been revealed as outright frauds. For example, the SEC halted PlexCorp's ICO of PlexCoin after its founders, Dominic Lacroix, a "recidivist Quebec securities law violator," and Sabrina Paradis-Royer, claimed that PlexCoin would bring in profits of 1,354% within twenty-nine days. See Laura Shin, *\$15 Million ICO Halted by SEC for Being Alleged Scam*, FORBES: DIGITAL MONEY (Dec. 4, 2017, 2:36 PM), <https://www.forbes.com/sites/laurashin/2017/12/04/15-million-ico-halted-by-sec-for-being-alleged-scam/#4cb762a41569> [https://perma.cc/FY5S-BZYL].

369. *Id.*

370. *Why Read the ICO White Paper Before You Buy The Token?*, IKIGUIDE, (Dec. 27, 2017), <https://ikiguide.com/2017/12/27/ico-white-paper/> [https://perma.cc/N3P4-EHQE].

pumped.”<sup>371</sup>

In many ways, ICOs are the closest analogue to Hyperfunding. Both rely on big personalities and hype to pump a “limited opportunity.”<sup>372</sup> Both offer few or no disclosures regarding the opportunity. And both claim to be the unregulated presale of a product, not a regulated investment opportunity. While ICOs probably meet the *Howey* test and thus are probably sales of securities as a matter of law,<sup>373</sup> they can be nearly impossible for the SEC to regulate as a practical matter;<sup>374</sup> any regulatory guidance provided is therefore of limited use.<sup>375</sup>

## CONCLUSION

This Article has thus far demonstrated that Hyperfunding is an innovative fundraising vehicle, but it introduces new risks. Enabled by the internet and fueled by hype, corporations can now raise hundreds of millions of dollars in just a few days, even if they have nothing to sell but hopes and dreams. In April 2016, Tesla collected \$400 million and promised to deliver 400,000 cars, priced at “just \$35,000,” within a year.<sup>376</sup> But

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371. Nick Ayton, *Good, Bad and Ugly Side of ICOs*, COINTELEGRAPH (Sept. 23, 2017), <https://cointelegraph.com/news/good-bad-and-ugly-side-of-icos> [<https://perma.cc/XC5V-FG6U>].

372. See, e.g., *Beware SCAM! Huge Loss as Cryptocurrency Investors in ICO*, STEEMIT (Aug. 27, 2017, 4:56 AM), <https://steemit.com/ico/@steemofficials/beware-scam-huge-loss-as-cryptocurrency-investors-in-ico-initial-coin-offer> [<https://perma.cc/58PU-ACQS>] (“The reason ordinarily web-savvy individuals fall for scams like these may lie in the time-sensitive nature of ICO’s. The limited opportunity within token sale events means investors tend to rush into early access trades, making them easy targets for phishing attacks.”).

373. SEC DAO Report, *supra* note 41 (finding that the sale of cryptocurrency tokens by the “distributed autonomous organization” (DAO) meets the *Howey* test for an investment contract, and that the unregistered sales of these tokens to the public violated the securities laws).

374. ICOs can be conducted by natural persons residing in the United States, in which case the SEC has jurisdiction over them, but frequently the ICO promoters are non-U.S. persons, foreign business entities, or autonomous or pseudonymous people, or even completely autonomous decentralized software programs running on other cryptocurrency networks. See Public Statement, *supra* note 6; see also SEC DAO Report, *supra* note 41.

375. See Alexander B. Lindgren, *Blockchain Regulation: Growing Pains of a Financial Revolution*, 59 ORANGE COUNTY L. 38 (2017).

376. Golson, *supra* note 353 (“Musk is ‘fairly confident’ that deliveries will begin by the end of 2017, and ‘you will not be able to buy a better car for \$35,000, even with no options.’”).

Tesla only delivered 1,772 cars by the end of 2017,<sup>377</sup> and priced them at \$50,000 to start.<sup>378</sup> As this Article is going to print in April 2018, the \$35,000 electric car still does not exist because Elon Musk unilaterally decided to break his express promise to produce a “mass market, affordable car.”<sup>379</sup> Instead, he decided to build premium vehicles<sup>380</sup> and send one of them into space.<sup>381</sup> And there is nothing presale purchasers can do about it, except ask for their money back—without interest—and wait up to three months to get it.<sup>382</sup>

Hyperfunding is likely to become more prevalent as blockchain technology enables fundraising through ICOs.

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377. Stewart, *supra* note 93 (“If you are eagerly awaiting your Tesla Model 3, it might be time to download that meditation app, because you’re gonna have to relax and get ready to wait.”).

378. Bob Sorokanich, *The ‘\$35,000 Tesla Model 3’ Still Doesn’t Exist*, ROAD & TRACK (Mar. 23, 2018), <https://www.roadandtrack.com/new-cars/future-cars/a19578653/the-dollar35000-tesla-model-3-still-doesnt-exist/> [<https://perma.cc/M2XT-ANBJ>] (“The version we drove carried a \$52,500 sticker price. Where’s that \$35,000 American-built electric car Elon Musk promised us? Still very much not here.”).

379. *Rough Transcript of Model 3 Launch*, BYP GROUP, <http://bypgroup.com/wp-content/uploads/2016/04/Transcript-on-BYP-letterhead.pdf> (last visited Mar. 26, 2018) [<https://perma.cc/6LNM-VGSX>] (“So, now then going from the S and the X, we finally come to step 3 or the final step in the master plan – a mass market, affordable car.”).

380. Alan Ohnsman, *The Elusive \$35,000 Model 3: A Godot-Like Wait for the ‘Mass Market’ Tesla*, FORBES (Feb. 20, 2018, 9:00 AM), <https://www.forbes.com/sites/alanohnsman/2018/02/20/the-elusive-35000-model-3-a-godot-like-wait-for-the-mass-market-tesla/#373c45744251> [<https://perma.cc/SQN6-KKHM>] (“Right now [Tesla is] focused on long-range premium versions that start at \$49,000 and can top \$60,000 with options. And before the \$35,000 base car goes into production, Tesla plans to build dual-motor, all-wheel-drive versions that will also cost more than the Standard.”).

381. *E.g.*, Marina Koren, *The Symbolism of Elon Musk Sending a Car Into Space*, ATLANTIC (Feb. 6, 2018), <https://www.theatlantic.com/science/archive/2018/02/the-symbolism-of-elon-musk-sending-a-car-into-space/552479/> [<https://perma.cc/FSM4-F4KT>] (“Musk, the South African business mogul and progenitor of perhaps too many companies to name, picked as the payload for the first flight of his new rocket a cherry-red Tesla convertible.”).

382. Kyle Hyatt, *Tesla Model 3 Delays May Mean More Cancelled Reservations*, CNET: ROAD SHOW (Feb. 15, 2018), <https://www.cnet.com/roadshow/news/tesla-model-3-cancelled-reservations/> [<https://perma.cc/LT7E-PNUM>] (“Disillusionment is a natural thing to feel after having bought into Elon’s version of the D.E.N.N.I.S. System, and as such, many people have reached the Separate Entirely phase and are asking Tesla for their \$1,000 back, though getting that money isn’t proving as easy as they’d hoped . . . . Currently, the company is telling customers that it may be upward of three months before they see their money if they want it by check, or significantly less time if they want a refund via debit card.”).

Indeed, Tezos raised \$232 million through an ICO in July 2017.<sup>383</sup> Now, Tezos is going through its own crisis. Kathleen and Arthur Breitman are the husband-and-wife team who developed Tezos technology and own all of its intellectual property.<sup>384</sup> But investors would be hesitant to buy Tezos coins (“Tezzies”) if the Breitmans owned the majority of these Tezzies and controlled the Tezos Network. Instead, the Breitmans established “The Tezos Foundation,” “an independent Swiss entity whose goal is to promote and foster the use of the Tezos blockchain.”<sup>385</sup> After the ICO, the Breitmans accused the President of the Tezos Foundation, Johann Gevers, of self-dealing and excess bonus payments to himself, and Gevers responded by suing the Breitmans for infringing on the foundation’s autonomy.<sup>386</sup> Until this dispute gets resolved, Tezzies are frozen.<sup>387</sup> And there is nothing that the more than 30,000 participants in the Tezos ICO can do about it, except wait for a settlement.<sup>388</sup>

The parallels between Tezzies and Teslas demonstrate

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383. Alex Lielacher, *Top 5 Biggest ICOs (by Amount Raised)*, BITCOIN MKT. J. (Dec. 7, 2017, 8:00 AM), <https://www.bitcoinmarketjournal.com/biggest-icos/> [<https://perma.cc/72H8-YWFC>] (“The Tezos project raised over \$232 million during its ICO in July 2017.”).

384. Paul Vigna, *Tezos Raised \$242 Million in a Hot Coin Offering, Then a Fight Broke Out*, WALL ST. J. (Oct. 19, 2017, 12:07 AM), <https://www.wsj.com/articles/tezos-raised-232-million-in-a-hot-coin-offering-then-a-fight-broke-out-1508354704> [<https://perma.cc/K5NE-KJHG>] (“The couple control Dynamic Ledger Solutions Inc., which, according to Tezos’s website, ‘owns all of the Tezos-related intellectual property.’”).

385. *The Self-Amending Cryptographic Ledger*, TEZOS, [https://www.tezos.com/static/papers/Tezos\\_Overview.pdf](https://www.tezos.com/static/papers/Tezos_Overview.pdf) (last visited Mar. 26, 2018) [<https://perma.cc/LF2R-Z2VM>].

386. Sharon Yin, *Tezos, Case Study from a Legal Perspective*, YIN LAW FIRM (Oct. 27, 2017), <http://cryptocurrencylegalhelp.com/index.php/2017/10/27/tezos-ico-cryptocurrency-a-case-study/> [<https://perma.cc/8G6M-PMBR>] (“The Breitmans accused Gevers of self-dealing and excess bonus payments while Gevers has filed a complaint with Swiss regulators citing the Breitman’s infringement on the Foundation’s autonomy.”).

387. Colin Harper, *Tezos in Turmoil and Project Faces In-Fighting, Token Distribution Delays*, COIN CENT. (Jan. 27, 2018), <https://coincentral.com/tezos-in-turmoil-as-project-faces-in-fighting-token-distribution-delays/> [<https://perma.cc/LN6M-89DH>] (“Good news is, investor funds are safe yet frozen until this dispute is resolved, but that’s likely little consolation to contributors who have been waiting for over half-a-year for their tokens to be distributed.”).

388. Paul Vigna, *A \$232 Million Cryptocurrency Fight Comes to a Close*, WALL ST. J. (Feb. 22, 2018, 3:31 PM), <https://www.wsj.com/articles/a-232-million-cryptocurrency-fight-comes-to-a-close-1519331027> [<https://perma.cc/Y5RV-8JW7>] (“More than 30,000 participants in that coin offering, one of the biggest of 2017, were in limbo while the two sides duked it out.”).

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that consumer protection mechanisms for the new economy are not in place. Corporations—and unincorporated, decentralized organizations—are mastering digital marketing campaigns that bring the “hype” necessary to fundraise quickly and at scale. This is a problem when reality does not live up to the hype. But is also a solution for financing disruptive innovations that can change the world for the better.

Hyperfunding is risky, but it also can be very rewarding. This Article demonstrated how Hyperfunding may have solved the very difficult chicken-and-egg problems in two-sided markets that had previously prohibited the mass development of EVs.<sup>389</sup> With the benefit of hindsight, Elon Musk’s 2016 publicity stunt might be reframed as a great victory in the fight against pollution and global warming, for equal access to transportation, for energy security, for logistics that lower the price of basic necessities, and for human well-being in general. Likewise, the Tezos ICO could lead to a new generation of smart applications through better blockchain governance.<sup>390</sup> This could result in safer payment systems, more efficient contracts, clearer property records, and other improvements in financial systems.

That leads to the question of what should be done about Hyperfunding. It may not be possible to raise funds for these hyper-risky, hyper-rewarding ventures through conventional means. Moreover, not every company that might avail itself of Hyperfunding will necessarily deliver on its promises. In fact, history has shown that presales in particular have been used to defraud consumers and investors. The cult of personality, the power of the internet, and the corporate liability shield may undermine wise crowds, turning them into herds of misinformed investors. Limited time, combined with vague or misleading promoter claims, can turn crowd wisdom into information cascades, irrational behavior, folly, and crisis.

This Article proposes a return to first principles upon which securities regulations were formed. The progenitors of the 1930s securities laws were persuaded by Justice Louis Brandeis: “Publicity is justly commended as a remedy for social and industrial diseases. Sunlight is said to be the best of

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389. See *supra* Part II.

390. Alice Lloyd George, *Behind the Scenes with Tezos, a New Blockchain Upstart*, TECH CRUNCH (July 12, 2017), <https://techcrunch.com/2017/07/12/behind-the-scenes-with-tezos-a-new-blockchain-upstart/> [<https://perma.cc/7NL5-HWB4>].



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disinfectants; electric light the most efficient policeman.”<sup>391</sup> Information, particularly information about risk factors, is lacking in many of the Hyperfunding ventures seen today. Tesla consumers do not know how difficult it is to scale in the auto industry. Tezos investors do not know whether a foundation’s by-laws provide sufficient mechanisms for corporate governance. And no one can know what a Hyperfunding promoter truly intends to do with funds.

Therefore, this Article prescribes an information solution to the Hyperfunding problem: companies that engage in large internet presales should make disclosures about the risks involved. Promises made to consumers should be clear and unequivocal. Methods involved in the production of new products should be spelled out in enough detail for consumers to make informed decisions about whether to “invest” their time and money in the project. This is analogous to the risk-factor disclosures required by a public company when selling stock, but it should be much more minimal and tailored narrowly to fit the unique needs of start-up companies and rapid innovators.

These Hyperfunding disclosures should be backed up with protections for consumers when the promoter’s statements are false or misleading. Even when a corporation is compelled to speak, its words are still subject to anti-fraud laws. A liability regime similar to 10b-5,<sup>392</sup> which enables both private citizens and the SEC to hold sellers of securities liable for fraud, should make the Hyperfunding disclosures salient.

Corporate fraud liability is only valuable so long as the corporation is solvent, however, and Hyperfunding and similar vaporware presale techniques are likely to be used by minimally capitalized start-up corporations. Indeed, to circumvent the disclosure-and-liability regime discussed above, a promoter could form a shell corporation and use it to deploy Hyperfunding. It is possible, perhaps likely, that the market will remedy this because people will simply not give their money to a tiny start-up company with an unknown promoter. But if reputational effects do not obviate this risk, then a

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391. Louis D. Brandeis Legacy Fund for Social Justice, *Justice Louis D. Brandeis*, BRANDEIS U., <https://www.brandeis.edu/legacyfund/bio.html> (last visited Mar. 26, 2018) [<https://perma.cc/7HS8-7U9B>] (reprinted from THE ENCYCLOPEDIA OF WORLD BIOGRAPHY).

392. 17 C.F.R. 240.10b-5 (2018).

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promoter-liability regime for corporate fraud could be employed when a Hyperfunding corporation is undercapitalized. This would deter bad actors from abusing the corporate form and the Hyperfunding technique.

Finally, if remedial measures prove ineffective, the law could prophylactically require Hyperfunding assets to be maintained in escrow until certain milestones or thresholds are met. Collective action problems make it unlikely that thousands of Hyperfunding consumer-investors would band together and demand these protections, but these protections are exactly what one finds when looking at collective-action crowdfunding websites like Kickstarter. Further study is required before insisting on any escrow amount or threshold, as this protection could stymie the productive power of Hyperfunding to finance innovations.

Tesla has already taken some of these sensible actions, such as disclosing the amount of money received, providing updates about production schedules, and demonstrating prototypes. This shows that the market may require Hyperfunding companies to institute certain consumer protections in certain instances in order to be an attractive investment opportunity. This sort of flexible, ad hoc, self-regulation would be forestalled by over-inclusive, one-size-fits-all federal regulations. But if companies do not regulate themselves, and if policy makers do not encourage these sensible actions, the unfortunate result may be a failure or fraud of such proportions that legislatures will be galvanized to institute Draconian requirements that squelch this nascent and promising contribution to corporate finance.

Entrepreneurship creates opportunities for people to better themselves. Innovation advances our quality of life. And financing is necessary for both entrepreneurship and innovation. But financial innovation can be hard to regulate. On the one hand, financing itself must evolve to meet the changing needs of businesses. On the other hand, novel instruments can confuse investors and confound regulators. This Article has shown how the uber-entrepreneur Elon Musk invented a new financing method, Hyperfunding, to fuel the development of electric vehicles. Thus, this Article demonstrated that financial innovation is essential for economic and environmental progress. But this Article also showed how new financial tools—such as initial coin

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offerings—can be used to accelerate fraud. Moreover, centralized governments are decreasingly capable of regulating financial markets that are becoming increasingly decentralized and transnational.

Financial regulation must evolve. This Article has argued that securities laws enacted in response to economic crises in the early 20th century are a poor fit for financial markets in this 21st century. In general, the law progresses too slowly to keep up with Hyperfunding. In this new era of corporate finance, policymakers should explore new ways to encourage financial self-regulation.