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## ARTICLES

### The Supercharged IPO

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*A new innovation on the IPO landscape has emerged in the last two decades, allowing owner-founders to extract billions of dollars from newly public companies. These IPOs—labeled supercharged IPOs—have been the subject of widespread debate and controversy: lawyers, financial experts, journalists, and members of Congress have all weighed in on the topic. Some have argued that supercharged IPOs are “brilliant, just brilliant,” while others have labeled them “underhanded” and “bizarre.”*

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*In this Article, we explore the supercharged IPO and explain how and why this new deal structure differs from the more traditional IPO. We then outline various theories of financial innovation and note that the extant literature provides useful explanations for why supercharged IPOs emerged and spread so quickly across industries and geographic areas. Theory provides support for both legitimate and opportunistic uses of the supercharged IPO.*

*With the help of a large-N quantitative study—the first of its kind—we investigate the adoption and diffusion of this new innovation. We find that the reason parties have begun to supercharge their IPOs is not linked to a desire to steal from naive investors but rather for tax-planning purposes. Supercharged IPOs enable both owner-founders and public investors to save substantial amounts of money in federal and state taxes. We conclude our study by demonstrating how our empirical findings can be used to (1) advance the literature on innovation, (2) assist firms going public in the future, and (3) shape legal reform.*

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## I. INTRODUCTION

Suppose you make an offer to purchase a new home. While reviewing the offer, the seller sees that you plan to get a home mortgage, which in turn means that you may qualify for the home mortgage interest tax deduction.<sup>1</sup> This deduction is potentially quite valuable and could save you tens of thousands of dollars in taxes over

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1. See DEAN STANSEL & ANTHONY RANDAZZO, REASON FOUND., UNMASKING THE MORTGAGE INTEREST DEDUCTION: WHO BENEFITS AND BY HOW MUCH 5 (2011), available at <http://perma.cc/T5C7-9WLF> (noting Congress's Joint Committee on Taxation's estimate that 20–25% of tax returns claim a home mortgage interest deduction).

the period in which you make interest payments.<sup>2</sup> Recognizing this value, the seller counteroffers, proposing a deal whereby you give her 85% of your tax savings. If your mortgage interest deduction saves you \$1,000 in taxes each year, this deal would require that you make annual transfers of \$850 to the seller as you obtain that tax break. Put differently, the proposed deal would require you to make an up-front payment for the purchase of the property in the year of the sale, along with an additional \$850 every year thereafter while you maintain your mortgage and take advantage of the mortgage interest tax deduction. Why would you ever agree to share your tax benefits with the seller?<sup>3</sup>

As it turns out, tax-sharing agreements, often labeled “tax receivable agreements” (“TRAs”), are common in many corners of the legal and financial landscape.<sup>4</sup> TRAs, for example, routinely emerge between partners in small businesses,<sup>5</sup> employers and employees,<sup>6</sup> and corporations and their shareholders.<sup>7</sup> These sharing agreements come

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2. See *id.* at 9 (estimating the average annual tax savings from mortgage interest deduction is between \$96 and \$2221).

3. After all, it is commonly believed that the tax benefit of the home mortgage interest deduction is capitalized into the price of residential property. See, e.g., Richard Voith, *Does the Federal Tax Treatment of Housing Affect the Pattern of Metropolitan Development?*, BUS. REV., Mar.–Apr. 1999, at 3, 7 (noting a range of estimates of the extent to which the benefits are capitalized). In the IPO context, the focus of this paper, it is less clear whether the tax benefits associated with the deal are fully capitalized into price. See *infra* notes 64–65 and accompanying text.

4. That the sharing of tax benefits and liabilities occurs both implicitly and explicitly is widely understood and extensively studied. See, e.g., Anne Beatty, *The Cash Flow and Informational Effects of Employee Stock Ownership Plans*, 38 J. FIN. ECON. 211, 211–40 (1994) (empirically examining the relationship between tax savings and firm value); Dan S. Dhaliwal et al., *The Effect of Seller Income Taxes on Acquisition Price: Evidence from Purchases of Taxable and Tax-Exempt Hospitals*, J. AM. TAX. ASS’N, Fall 2004, at 1, 1–21 (stating that large tax liabilities generated by sale increase the price of assets); Merle M. Erickson & Edward L. Maydew, *Implicit Taxes in High Dividend Yield Stocks*, 73 ACCT. REV. 435, 435–58 (1998) (asserting presence of implicit tax sharing when tax-favored preferred stock produces lower returns); Douglas A. Shackelford & Terry Shevlin, *Empirical Tax Research in Accounting*, 31 J. ACCT. & ECON. 321, 321–87 (2001) (discussing extensive study of tax-sharing agreements in accounting literature); Douglas A. Shackelford, *The Market for Tax Benefits: Evidence from Leveraged ESOPs*, 14 J. ACCT. & ECON. 117, 117–45 (1991) (arguing competitive markets are more likely to cause companies to share tax benefits with investors).

5. See J. WILLIAM CALLISON & MAUREEN A. SULLIVAN, PARTNERSHIP LAW AND PRACTICE § 4.15 (2012) (describing how tax benefits and tax liabilities pass through the partnership and are shared by the partners).

6. See Shackelford & Shevlin, *supra* note 4, at 330–31 (discussing the extent to which companies trade off higher salaries for tax deductions via stock options).

7. See Lynda Livingston et al., *Investigating the DARPS Market Meltdown Through an Investments Project*, 2 BUS. EDUC. & ACCREDITATION 77, 77–78 (2010) (describing arrangement in which nontaxable companies issue stock with the explicit purpose of enabling fully taxable corporate investors to share benefits of tax breaks). See generally Merle M. Erickson & Shiing-wu Wang, *Exploiting and Sharing Tax Benefits: Seagram and DuPont*, J. AM. TAX. ASS’N, Fall 1999,

in many different forms, but they all involve the same underlying feature: the parties apportion tax benefits (and sometimes tax liabilities) according to a pre-agreed-upon formula.

In this Article, we focus on TRAs that have made their way into an entirely new arena: initial public offerings. Owners of private companies who sell their business assets in a public offering now sometimes demand that the new public company share the value of various underlying tax benefits, such as tax deductions and tax credits, well after the deal has been completed. These types of IPOs—deals supercharged with post-sale payments—were unseen and unheard of prior to 1993.<sup>8</sup> Today, they involve the transfer of billions of dollars back to the original owners on an annual basis,<sup>9</sup> and they have become more than a little controversial.<sup>10</sup>

Commentators and analysts have argued these payments are “a little bit underhanded,”<sup>11</sup> “unusually one-sided,”<sup>12</sup> “pure gravy,”<sup>13</sup> and a “bizarre siphoning off of cash.”<sup>14</sup> Skeptics argue that insiders are taking advantage of the great uncertainty associated with IPO pricing, which may not reflect the post-sale TRA payments made to the original owner-founder. At the same time, advocates argue that financial innovators have devised a useful means to compensate founders for the company they created and the costs of going public.

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at 35, 35 (analyzing a widely admired tax plan in which tax benefits were shared between corporation and corporate shareholder in a stock purchase agreement between Seagram and DuPont).

8. The first notable supercharged IPO emerged in 1993, but supercharged IPOs did not become more prevalent until the mid-2000s. See Amy S. Elliot, *IPO Agreements that Shift the Basis of Step-Up to Sellers Proliferate*, TAX NOTES, July 25, 2011, at 334, 338, available at <http://perma.cc/J283-KHW2> (providing a brief history of TRAs in an IPO context).

9. *Blackstone Partners May Avoid Tax on IPO Gains*, <http://perma.cc/462W-V5NJ> (reuters.com, archived Feb. 3, 2014) (describing a 2007 deal that enabled sellers to recoup roughly \$900 million in post-sale payments stemming from investors’ tax benefits).

10. TRAs invite suspicion for a couple of reasons. First, the founders appear to take advantage of a tax arbitrage: payments received under the TRA are treated as capital gains—as a portion of the sales proceeds from the IPO—while the public holding company takes deductions at the higher ordinary-income rate. See *infra* notes 58–60 and accompanying text. Second, when the dust settles, the selling founders are effectively reimbursed for any taxes they have paid to the government. As tax lawyer Lee Sheppard noted, “These guys have figured out how to turn paying taxes into an annuity.” David Cay Johnston, *Blackstone Devises Way to Avoid Taxes on \$3.7 Billion*, <http://perma.cc/CNR7-ZJ3Y> (nytimes.com, archived Feb. 3, 2014) (critiquing TRAs as fundamentally unfair because they provide tax benefits that are inconsistent with those available to other high earners).

11. Elliot, *supra* note 8, at 334 (quoting Robert Willens).

12. *Blackstone Partners May Avoid Tax on IPO Gains*, *supra* note 9 (quoting Lee Sheppard).

13. Elliot, *supra* note 8, at 337 (quoting Robert Willens).

14. *Carlyle’s “Cash Tax Savings” Won’t Go to Unit Holders*, <http://perma.cc/Z9MU-GQPC> (peureport.blogspot.com, archived Feb. 3, 2014).

There is “nothing nefarious about it,”<sup>15</sup> notes Robert Willens, a leading tax expert and the one who coined the term “supercharged IPO.”<sup>16</sup> The agreements, he notes, are “all disclosed” to the public well before the IPO takes place.<sup>17</sup> Notwithstanding the vocal skepticism over the deals’ rationale and underlying fairness, many experts describe supercharged IPOs as “masterpiece[s],”<sup>18</sup> works of “artistry,”<sup>19</sup> and “[b]rilliant, just brilliant.”<sup>20</sup>

Supercharged IPOs have generated substantial notice, debate, and controversy, but no commentator has posed the question, “Why now?” After all, owners and founders have taken companies public for well over four hundred years,<sup>21</sup> yet these unusual payout schemes emerged just two decades ago. Moreover, this innovative IPO has spread across industries and geographic areas, a process that raises the question of how and why financial innovations diffuse. Finally, and perhaps most importantly, the supercharged IPO raises the question of who actually benefits: the owner-founders, the public investors, or both? In this study, we seek to answer these questions with the help of a large database of IPO transactions—the first of its kind—which includes both conventional and supercharged deals over the course of the last several decades.

Our study begins in Parts II.A and B by comparing and contrasting traditional IPOs with the new supercharged IPO.<sup>22</sup> We note that supercharged IPOs come in different forms and have gone through a series of complex iterations over the course of time, but they all contain one key component: a TRA that requires the new public company to transfer large sums of cash to the owner-founders in the post-IPO period. After describing supercharged IPOs as an important

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15. Elliot, *supra* note 8, at 339.

16. Robert Willens, *General Electric ‘Supercharges’ the Genworth Financial IPO*, TAX NOTES, Aug. 9, 2004, at 661, available at <http://perma.cc/P9YF-TYC4>.

17. Elliot, *supra* note 8, at 339; see also Jeffrey J. Rosen & Peter A. Furci, *Monetizing the Shield: Tax Receivable Agreements in Private Equity Deals*, DEBEVOISE & PLIMPTON PRIVATE EQUITY REP., Fall 2010, at 9–10, 23, available at <http://perma.cc/G625-234C> (arguing that, despite risks and drawbacks of TRAs, they have a “certain symmetry because existing owners receive tax benefits associated with a tax liability they have borne”).

18. Allan Sloan, *GE Perfects the Fine Art of Tax Savings*, <http://perma.cc/3BCV-NDYH> ([washingtonpost.com](http://washingtonpost.com), archived Feb. 3, 2014).

19. *Id.*

20. *Id.* (quoting Robert Willens).

21. See Bill Baue & Marcy Murningham, *The Accountability Web: Weaving Corporate Accountability and Interactive Technology* 18 (Corporate Soc. Responsibility Initiative, Working Paper No. 58, 2010), available at <http://perma.cc/UJ34-JGQN> (asserting that the Dutch East India Trading Company conducted the world’s first IPO in 1602).

22. See *infra* notes 34–69 and accompanying text.

financial innovation, Part II.C then outlines the means by which companies disclose the details of the payout schemes to their investors, highlighting the various risks that each party undertakes.<sup>23</sup>

In Part III, we turn to the theoretical literature to understand how and why financial innovations, such as supercharged IPOs, enter the market.<sup>24</sup> We focus first on the drivers of the financial innovation. We observe that the incentive to generate new strategies is not a discoverer's passion and zeal, but a desire to solve specific problems that arise in the transactional context, like risk aversion, information asymmetry, and regulatory costs.<sup>25</sup> We then explore the underlying theories for how and why innovations diffuse across markets and industries; we find that many theorists associate this process with factors such as elite financial intermediaries, professional networks, firm culture, and media coverage.<sup>26</sup> Part III presents a series of interconnected theories and hypotheses that explain the rise and the spread of the supercharged IPO, thereby framing our empirical investigation in Part IV.<sup>27</sup>

Few scholars have attempted an empirical exploration of financial innovations,<sup>28</sup> and no scholar or team of scholars has sought

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23. See *infra* notes 70–74 and accompanying text.

24. Quite a few scholars have investigated financial innovation from both a theoretical and qualitative perspective. Many historical and sociological studies, for example, have cataloged significant inventions throughout history, and economists have proffered a variety of theories for why inventions emerge and proliferate. See Darrell Duffie & Rohit Rahi, *Financial Market Innovation and Security Design: An Introduction*, 65 J. ECON. THEORY 1, 5–7 (1993) (listing economic events and innovations that followed between 1971 and 1986); see also Symposium, *Financial Market Innovation and Security Design*, 65 J. ECON. THEORY 1, 43–298 (1993) (investigating innovation from various perspectives).

25. See EVERETT M. ROGERS, *DIFFUSION OF INNOVATIONS* 10–12, 132–34 (1995) (discussing the need to spur innovation and establishing a framework to describe how innovations spread); David M. Schizer, *Frictions as a Constraint on Tax Planning*, 101 COLUM. L. REV. 1312, 1316–17 (2001) (noting that innovations emerge to address problems with market frictions); see also MYRON S. SCHOLES ET AL., *TAXES & BUSINESS STRATEGY* (4th ed. 2008) (integrating traditional MBA topics to explain how taxes affect decisionmaking).

26. See *infra* notes 113–24 and accompanying text.

27. See *infra* notes 75–125 and accompanying text.

28. See Mahbrouk Abir & Mamoghli Chokri, *Dynamic Financial Innovation and Performance of Banking Firms: Context of an Emerging Banking Industry*, 51 INT'L RES. J. FIN. & ECON. 17, 18 (2010) (“[I]n spite of extensive descriptive literature on financial innovation, there is a paucity of empirical studies.”); Jalal Akhavein et al., *The Diffusion of Financial Innovations: An Examination of the Adoption of Small Business Credit Scoring by Large Banking Organizations*, 78 J. BUS. 577, 578 (2005) (acknowledging seven quantitative studies investigating the process by which innovation diffuses); Josh Lerner, *The New New Financial Thing: The Origins of Financial Innovations*, 79 J. FIN. ECON. 223, 224 (2006) (stating that, despite the importance of financial innovation, only thirty-nine empirical studies exist on the topic). This gap in the literature is not surprising: it is often difficult to identify the specific time and place of most innovations, and diffusion patterns depend on data that is obscure and

to explain the emergence of supercharged IPOs. In this study, we seek to fill these surprising gaps. Part IV.A outlines our data-collection process and explains our statistical models.<sup>29</sup> Part IV.B presents our findings vis-à-vis the supercharged IPO's rise and proliferation. We find the initial motivation for pursuing this new deal structure relates to tax planning, not opportunism, as some critics have alleged. More specifically, our data indicate that supercharged IPOs are highly correlated with the existence of a tax-arbitrage opportunity—namely, the ability to sell the company's assets (and pay tax at a low capital gains rate) while the new public company amortizes that same asset at higher ordinary-income rates.<sup>30</sup> By contrast, we find little evidence of devious planning by owner-founders to profit from naive investors. If the desire to sneak money away from shareholders was the motivating force, we would expect to find more supercharged IPOs in the absence of tax arbitrage, and we would expect them to be more frequent in deals where information costs are high and shareholders more vulnerable.<sup>31</sup> With respect to how new ideas diffuse in the financial sector, we find that the process is best explained by two factors: elite lawyers and professional networks—especially those located in New York City.<sup>32</sup>

Finally, in Part V, we note that our findings have important implications for transactional lawyers, legislators, and scholars who study financial innovation.<sup>33</sup> Our qualitative analyses indicate that supercharged IPOs enable the parties in the deal to save substantial amounts of money in taxes when they are subject to different tax rates, making tax arbitrage a possibility. We highlight the specific means by which transactional lawyers and deal planners can achieve these results, given the findings of our study. This tax-avoidance opportunity, however, raises the normative question of whether the revenue losses from these innovative deals reduce overall social welfare. Congress has proposed legislation to eliminate tax benefits of supercharged IPOs, but our analysis indicates the extant proposals are underinclusive and may not achieve the stated goals. We propose

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frequently unavailable outside private firms. Fortunately, these hurdles do not exist for our study, in large part because federal securities laws require public companies to disclose details of the post-IPO payouts, and for this reason, we are able to track both the emergence and the diffusion of the supercharged IPO.

29. See *infra* notes 126–35 and accompanying text.
30. See *infra* notes 136–59 and accompanying text.
31. See *infra* notes 136–59 and accompanying text.
32. See *infra* notes 157–59 and accompanying text.
33. See *infra* notes 160–90 and accompanying text.

alternative routes that would enable legal reformers to close the perceived loophole both in the IPO context and more broadly. Finally, our study advances the existing literature on financial innovation. The literature is largely theoretical and often presents a series of competing explanations for any given innovation. Our approach builds on this scholarship and demonstrates how scholars can use empirical data to test the competing theories, and it shows that it is possible to extricate the value of each theory for explaining financial innovation.

## II. INITIAL PUBLIC OFFERINGS

IPOs are transactions where privately held companies register and sell stock to the public for the first time. A successful IPO infuses the company with substantial cash, thereby making it possible to expand and diversify the business, increase research and development, retire debt obligations, and so forth.<sup>34</sup> By creating a public market in a company's shares, IPOs also often provide liquidity and exit options for the founders, investors, and employees who own shares in the company. Indeed, for many insiders, the true benefit of going public is monetizing the pre-IPO owners' interest in the company: founders often realize a sizable return by selling shares directly to the public or in a secondary offering a few months after the IPO.<sup>35</sup>

Pricing a company for sale to the public, however, is a complex endeavor that involves consideration of many factors, including the underlying company assets; trends in sales and earnings; adequacy of present and projected capital and cash flow; and the experience, integrity, and quality of management.<sup>36</sup> The first factor—the company's underlying assets—often includes a category labeled “tax assets,” which are simply the tax deductions, credits, and exemptions that generate tax savings for the company in the future, just like the

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34. Companies that go public file a prospectus that includes a description of the business along with the growth plans. See, e.g., Fortress Inv. Grp. LLC, Registration Statement (Form S-1) (Feb. 2, 2007), available at <http://perma.cc/6JQG-4PVP>. For a useful review of the IPO process and theories for why companies go public, see CARL W. SCHNEIDER ET AL., GOING PUBLIC 1–5 (2002); PATRICK J. SCHULTHEIS ET AL., THE INITIAL PUBLIC OFFERING 1–12 (2004); and Jay Ritter & Ivo Welch, *A Review of IPO Activity, Pricing, and Allocations*, 57 J. FIN. 1795, 1796–1802 (2002).

35. ANDREW W. NEEDHAM, PRIVATE EQUITY FUNDS, at A-90 (Tax Mgmt. Portfolio No. 735, 2d ed. 2010).

36. SCHULTHEIS ET AL., *supra* note 34, at 186–88.

home mortgage interest deduction for individuals.<sup>37</sup> For example, if a company purchases goodwill (an item associated with corporate identity and customer relationships, among other things) for \$15 million and ratably amortizes the cost of that asset over fifteen years on its tax return, it would take a deduction of \$1 million a year.<sup>38</sup> At a 35% tax rate, this deduction could save the company a total of \$5.25 million in taxes over fifteen years.<sup>39</sup> That savings becomes known as a tax asset: because a corporation's ability to reduce its tax burden is valuable to its bottom line, companies account for future tax deductions—or deferred tax assets, as they are more formally known—on their balance sheets, just as future tax liabilities are.<sup>40</sup> This information, in turn, can play a role in the valuation process when companies go public in an IPO: as the value of net tax assets increase, so too should a company's market value.

Tax assets are routinely tracked and valued by companies on their balance sheets, but there is some debate as to whether and how well the market prices these assets into the stock at the time of an IPO. The value of a deferred tax asset, for example, is a function of the company's future profits and future tax rate, factors that force managers and accountants to exercise some discretion in valuing the tax assets.<sup>41</sup> Indeed, many argue that the valuation process is more art than science given the inherent unpredictability of profits and tax rates.<sup>42</sup> Moreover, and perhaps more alarming, there is some reason to think that IPO stock analysts pay little attention to tax assets, focusing instead on the valuation of comparable companies that

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37. For a useful and detailed discussion of tax assets, see generally Anja De Waegenaere et al., *Valuation of Deferred Tax Assets from a Net Operating Loss Carryover* (Tilburg Sch. Econ. & Mgmt. CentER, Discussion Paper No. 2001-24, 2001); Gregory Miller & Douglas J. Skinner, *Determinants of the Valuation Allowance for Deferred Tax Assets Under SFAS No. 109*, 73 ACCT. REV. 213 (1998).

38. See I.R.C. § 197(a), (d)(1)(A) (2012) (calculating deduction on intangible assets by amortizing over fifteen-year period).

39.  $\$15,000,000 \times .35 = \$5,250,000$ .

40. See generally Miller & Skinner, *supra* note 37 (examining how to account for deferred tax assets).

41. See generally Robert Willens, *Accounting for Deferred Tax Assets and Liabilities—Citigroup*, WILLENS REP., Jan. 9, 2013 (demonstrating that the realization of future tax benefits depend on many factors and decisions); Miller & Skinner, *supra* note 37, at 217–19 (same, comparing decisionmaking among three companies).

42. Robert Stammers, *What Does an IPO Price Mean?*, <http://perma.cc/AHG9-HYQ7> (forbes.com, archived Feb. 3, 2014) (discussing the asset-based, income, and market approaches for valuing companies in an IPO); see Miller & Skinner, *supra* note 37, at 217–19 (comparing the unpredictability in valuing deferred tax assets).

already trade on the public markets.<sup>43</sup> As we discuss below, the presence of tax assets and the uncertainty of their role in IPO pricing are prime motivators for supercharged IPO deals.

### A. The Traditional IPO

To understand the supercharged IPO as a financial innovation, it is useful to consider the traditional IPO. To begin, assume that Founders Co., a privately held corporation, operates its business through a subsidiary. Assume also that the assets of the company include real property that can be depreciated (such as a building)<sup>44</sup> and intangible property that cannot be depreciated (such as self-created goodwill).<sup>45</sup> This company, in short, has three assets: the building, the goodwill, and a tax asset linked to the tax deductions for future depreciation, all of which will be listed on the company's balance sheet.

If Founders Co. chooses to go public in a traditional IPO (as depicted in Figure 1), it will sell newly issued shares of stock to the public for an agreed-upon price, a structure that reflects a simplified version of the IPO. The public offering infuses Founders Co. with substantial cash based on the value of the underlying assets (or possibly based on comparable firms trading on the market, as just

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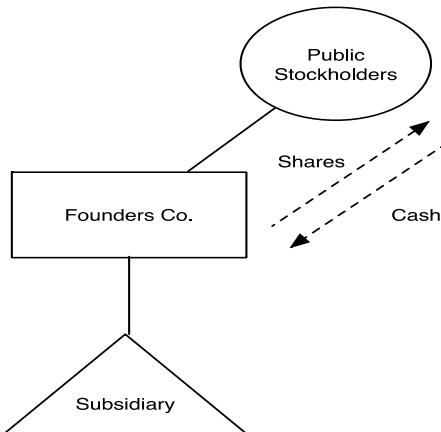
43. See Sanjeev Bhojraj & Charles M.C. Lee, *Who is My Peer? A Valuation-Based Approach to the Selection of Comparable Firms*, 40 J. ACCT. RES. 407, 407–35 (2002) (acknowledging that the comparable firm approach is widely used and arguing that accurate valuations depend on the identification of appropriate peer firms); Stammers, *supra* note 42 (highlighting LinkedIn's day-one stock climb despite the wide disparity of its balance sheet when judged by non-GAAP versus GAAP metrics).

44. See I.R.C. §§ 167–68 (2012) (setting rules governing tax deductions for asset depreciation).

45. Congress defines goodwill as “the value of a trade or business attributable to the expectancy of continued customer patronage . . . due to the name or reputation of a trade or business or any other factor.” Treas. Reg. § 1.197-2(b)(1) (as amended in 2013). In the accounting context, the term is an indication on the balance sheet that the whole is greater than the sum of its parts. Andrew F. Halaby, Comment, *Treatment of Goodwill by the Seller Under I.R.C. Section 197*, 43 U. KAN. L. REV. 903, 905 (1995). Many corporate assets give rise to amortization and depreciation tax deductions, thereby enabling the company to recover its costs and save substantial monies in taxes over the course of years. Goodwill, however, is subject to a unique rule: if the asset is *self-generated*, it cannot be amortized, but if it is *purchased*, the tax laws allow the purchaser to amortize the cost of the asset over a fifteen-year period. See I.R.C. § 197 (providing deduction only for acquired intangible assets). As we will see, acquired goodwill—along with the tax benefits this asset provides—is a key factor underlying many of the recent supercharged IPOs.

noted). From a tax perspective, however, the IPO is a nonevent—typically, none of the parties will pay any tax on the deal.<sup>46</sup>

**Figure 1: The Traditional IPO**



Note: Founders Co. sells stock to the public and obtains substantial cash, but the transaction does not generate any tax costs for any of the parties.

The traditional IPO generates substantial cash for the company and avoids tax costs, but many commentators view the transaction as inefficient and wasteful for at least two reasons. First, the deal could have been structured to accomplish the parties' goals while reducing taxes.<sup>47</sup> Second, experts believe that IPO investors routinely undervalue companies, given the arcane nature of the tax assets that reside inside the company, and thus founders are undercompensated for their companies.<sup>48</sup> A TRA—an agreement to share tax benefits generated in an IPO transaction—could address these twin problems, enabling the parties to capture most of the value lost by the overpayment of taxes and the undervaluation of the stock price.<sup>49</sup>

46. See I.R.C. § 1032(a) (“No gain or loss shall be recognized to a corporation on the receipt of money or other property in exchange for stock (including treasury stock) of such corporation.”). If the founders sell some of their own stock in connection with or after the IPO, they will typically pay tax at long-term capital gains rates. *See id.* §§ 1(h), 1221–23. But these sales will typically have no effect on the tax profile of the company.

47. *See infra* notes 50–58 and accompanying text.

48. *See supra* notes 34–43 and accompanying text for an explanation of tax assets; *infra* notes 62–69 and accompanying text for a discussion of investor undervaluation of companies with tax assets.

49. Willens, *supra* note 16, at 661 (outlining ways in which the TRA addresses inefficiencies of traditional IPO).

### B. The Supercharged IPO

A supercharged IPO differs from a traditional IPO for one key reason: it *always* involves a TRA that calls for the parties to share the value of the company's underlying tax assets. Recall from above that tax assets are simply deductions, credits, or exemptions that allow a company to reduce its tax liability down the road. Since 1993, when the first supercharged IPO appeared, several different formulations of the deal have emerged, but each new generation has built on the basics of the earliest deals. For this reason, we limit our discussion to two iterations of these new deal structures to illustrate the key features. As we note below, experts justify each new wave with a different underlying rationale, ranging from legitimate and efficiency enhancing to pure thievery on the part of the founders.

The most typical supercharged IPO deal structure enables the parties to reduce future taxes by *creating* new tax assets for the company. To accomplish this feat, the parties add some additional steps to the deal. First, Founders Co. transfers its subsidiary to a newly created corporation, Public Co., in exchange for Public Co.'s stock. Founders Co. and Public Co. then sell a large percentage of Public Co. stock to a third party (the investing public).<sup>50</sup> This arrangement, depicted in Figure 2 below, is an alternative to that presented in Figure 1 and has the advantage of not only transferring Founders Co.'s preexisting tax assets to Public Co., but also generating new tax assets.

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50. Actually, Founders Co. sells the shares to an investment bank, which then sells to the public. SCHNEIDER ET AL., *supra* note 34, at 20–30; SCHULTHEIS ET AL., *supra* note 34, at 35–45. From a tax perspective, this arrangement can have important consequences. The deal can be structured to fail the so-called control test, turning the deal from a tax nonrecognition event into a mere taxable exchange without tax consequences. I.R.C. §§ 351, 338(h)(3)(A)(iii). In the lexicon of tax lawyers, this means that the deal is a “busted 351 transaction” and, as such, qualifies as a taxable transaction. The tax treatment is important here because it determines the basis of Public Co.’s assets. The tax basis in an asset is the amount that generates depreciation deductions, *id.* §§ 167–68, and is adjusted as depreciation tax deductions are taken. *Id.* § 1011. Thus, if Public Co. inherits a “carry-over basis” in an ordinary 351 transaction, it would obtain assets with a low basis that has been depreciated down in the hands of Founders Co. Of course, Public Co. does not want the carry-over basis but prefers a “stepped-up basis” that reflects the fair market value of the asset (and allows for substantially more depreciation down the road). Public Co. will thus want the parties to make a section 338(h) election and treat the transaction as sale. *Id.* § 338(h). This election enables Public Co. to obtain a stepped-up basis in the underlying assets, reflecting their current fair market value. For a description of these rules, see Rev. Rul. 79-70, 1979-1 C.B. 144; Rev. Rul. 79-194, 1979-1 C.B. 145; I.R.S. Tech. Adv. Mem. 97-47-001 (July 1, 1997); I.R.S. Priv. Ltr. Rul. 95-41-039 (July 20, 1995), as modified by I.R.S. Priv. Ltr. Rul. 95-49-036 (Sept. 15, 1995); I.R.S. Priv. Ltr. Rul. 91-42-013 (July 17, 1991).

It is easy to understand the role of preexisting tax assets in the deal: these assets are listed on the company's balance sheet, and like all the other company assets, they are transferred to Public Co., thereby enabling Public Co. to use them to reduce taxes down the road.<sup>51</sup> But how are new tax assets created in the deal? The answer to this question has to do with an unusual provision found inside the tax code: after taking the steps just described, Founders Co. and Public Co. can elect to treat the transaction as a "sale" of assets.<sup>52</sup> While our goal in this study is not to explain the tax-related intricacies of going public, it is useful to understand that the parties have control over the size and extent of the tax assets that will reside inside the new Public Co. If the parties elect to treat the transaction as a sale, they literally create new tax assets for Public Co.<sup>53</sup> Recall from above, for example, that Founders Co. has goodwill that it could not amortize because it was self-created, but if Public Co. is viewed as having purchased that goodwill, then the latter will be permitted to amortize the value of the asset.<sup>54</sup> Public Co.'s new tax assets—the amortization tax deductions permitted due to the elected sale—are far from inconsequential. The new company stands to save millions of dollars *each* year well into the future.<sup>55</sup> These deductions were not available to Founders Co. and would not be available to Public Co. absent the steps described above and absent the election to treat the transaction as a sale in the supercharged deal structure.

Public Co. and its investors obviously reap valuable benefits in this innovative deal (they have access to new tax assets absent in the traditional IPO), but there is also a major drawback. The deal is likely

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51. Preexisting tax assets residing inside the company may include items such as deductible net operating losses, tax credits and so forth. Willens, *supra* note 41, at 1.

52. The parties make a section 338(h)(10) election to treat the transfer of subsidiary stock as an asset sale, triggering a step-up in basis. *See supra* note 50 (discussing the details of the I.R.C. § 338(h)(10) election). In this supercharged IPO structure, the selling founders must sell at least 50% of the Public Co. stock within 2 years, which may force a quicker exit than intended. *See* I.R.S. Priv. Ltr. Rul. 200427011 (Oct. 6, 2003) (private letter ruling regarding GE/Genworth IPO and discussing the election); Willens, *supra* note 16, at 661 (same); *see also supra* note 50. Furthermore, the Founders effectively pay tax up front on all the built-in gain, albeit at the lower capital gains rate. I.R.C. §§ 1(f), 1221–23. Recall from above that the traditional IPO involved only the company's sale of stock to the public, no transfer of assets. *See supra* note 46.

53. *See supra* notes 50–51.

54. *See supra* notes 42–43, 45, and accompanying text.

55. *See generally* Robert Willens, *ILFC Will Exit the AIG Family with a Valuable "Basis Step-Up,"* WILLENS REP., Sept. 3, 2011 (stating that basis step-up can save companies billions in taxation, if not eliminate the tax bill altogether).

to generate substantial taxes on Founders Co. and its owners.<sup>56</sup> The important takeaway for purposes of this Article is the fact that in the traditional IPO structure, there were no new tax assets created, but there were also no immediate tax burdens triggered. These two factors—new tax assets plus new tax liabilities—are the reasons for the emergence of supercharged IPOs.

Founders Co. must pay tax on the sale in the supercharged IPO, but Public Co. agrees to compensate Founders Co. for incurring this tax with a TRA. The typical TRA requires Public Co. to pay Founders Co. 85% of the tax benefits realized as a result of the tax savings that were not available in the traditional IPO. Above we noted that if Public Co. amortized its new asset, for example, goodwill worth \$15 million ratably over fifteen years, it would take a deduction of \$1 million a year and would save \$5.25 million in taxes over the amortization period.<sup>57</sup> If the parties executed a TRA, Public Co. would be required to pay Founders Co. 85% of this amount, or \$4,462,500. The timing of the individual payments corresponds to the deductions as they are used to reduce the corporate tax burden. Public Co., in other words, makes the TRA payments to the founders as it realizes the tax savings and not before that time.<sup>58</sup> Figure 2 is a simplified depiction of a supercharged IPO in which Founders Co. exacts payments from Public Co. through a TRA in return for allowing Public

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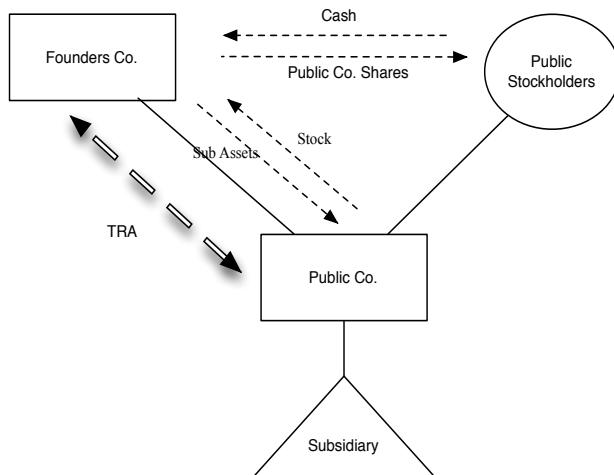
56. This double tax is associated with the fact that the parties elected to treat the deal as a sale of assets and not a mere contribution of property to a controlled corporation. *See supra* note 49. Founders Co. may suffer a taxable gain at the subsidiary level, depending on a number of factors such as the amount of unrealized gain and the availability of net operating losses. Moreover, to the extent that Founders Co. has appreciated in value, the original owner-founders may still have to pay a second level of tax when they sell or liquidate Founders Co. MARTIN D. GINSBURG ET AL., MERGERS, ACQUISITIONS, AND BUYOUTS ¶ 405 (2011) (discussing tax consequences); Willens, *supra* note 16, at 661 (same). The basis step-up occurs when Founders Co. contributes stock, assets, or subsidiary interests to Public Co. in a busted 351 transaction—a strategy that the buyers almost always prefer and gives the sellers’ some initial hesitation. *See* GINSBURG ET AL., *supra*, ¶¶ 405–06; Willens, *supra* note 16, at 661; *see also* discussion *supra* note 50.

57. *See supra* notes 38–40 and accompanying text; *see also* Rosen & Furci, *supra* note 17, at 9.

58. Rosen & Furci, *supra* note 17, at 9. The amounts transferred under the TRA are determined on an annual basis, comparing Public Co.’s actual tax liability to its notional tax liability as if such deductions were unavailable. Public Co. makes a payment equal to 85% of that difference per the parties’ TRA, although some agreements indicate that the pre-IPO investors can accelerate the payments. An interesting feature of the TRA payments is linked to the effects of the obligation going forward. Because each TRA payment is viewed as part of the purchase price of the stock or partnership interest by Public Co., every payment causes the basis in the underlying assets to increase, which in turn leads to additional TRA payments to the pre-IPO owners. *Id.*

Co. to benefit from the tax assets that were transferred and created in the multistep transaction.

**Figure 2: The Supercharged IPO: Seller Extracts More Cash with a TRA**



Note: As described in the text, Founders Co. first transfers its subsidiary to Public Co. in exchange for stock; then Founders Co. sells the stock to the public and at the same time executes a TRA with Public Co. Ultimately, Public Co. will make payments to Founders Co. in the post-IPO period per the terms of the TRA.

Many IPO commentators have noted that it may not appear rational for the parties to agree to the supercharged deal because it is possible that the net costs to Founders Co. will equal (or exceed) the net benefits to Public Co.—making the deal complicated without any payoff.<sup>59</sup> This potential drawback, however, is addressed by the fact that the deals often involve a partnership and a corporation, rather than two corporations.<sup>60</sup> When Founders Co. is operating as a partnership for tax purposes (Founders LLC), it will be subject to fewer and lower tax liabilities than the tax benefits obtained by Public Co.—a reality that exists due to the differential tax rates applied to

59. GINSBURG ET AL., *supra* note 56, ¶¶ 405–06.

60. Robert Willens, “*Up-C*” Incorporations Feature “Tax Receivable Agreements,” 5 WILLENS REP. 1 (2011) (the rules are even more “felicitous” when partnerships sell assets to public corporations in the context of an IPO); *Did You Know . . . ?: Benefits of Structuring an IPO as an “Up-C,”* THIS MONTH IN M&A (Wash. Nat'l Tax Servs./PricewaterhouseCoopers), Oct. 2011, at 1, 2, <http://perma.cc/P6RQ-6X42> [hereinafter *Did You Know?*] (discussing how the new IPO structure involving partnerships and corporations can provide selling partners with up to 30–40% more in compensation).

these two different types of entities.<sup>61</sup> We discuss this tax-arbitrage opportunity, and the way that all the parties divide the surplus, in more detail below and in the Appendix. We find that this arbitrage opportunity helps to explain the popularity of supercharged IPOs.

In some more recent supercharged IPOs, however, the deal structure begins to look substantially fishier from the perspective of Public Co. and the investors. For example, the parties engage in an IPO that looks very much like that presented in Figure 2, but they do not elect to treat the transaction as a sale of assets for tax purposes.<sup>62</sup> This eliminates the two effects discussed above. First, while Public Co. inherits Founders Co.'s preexisting tax assets, it does not gain the benefits associated with newly created tax assets.<sup>63</sup> Second, failure to treat the transaction as a sale eliminates the tax liability on Founders Co. and its owners.<sup>64</sup> In short, the substance of this deal looks very much like the traditional IPO—in the sense that it does not create new tax assets nor generate a tax burden—and yet the form of the deal is akin to the supercharged IPO, and the parties execute a TRA, enabling the founders to share in the value of the underlying tax assets transferred.

Why the parties would pursue this strategy is related to investors' perceived failure to understand or value tax assets accurately. While tax assets, as we know, are simply the estimated savings associated with deductions and credits, and while they are

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61. The basic structure of the deal is the same when "Founders LLC" is organized as a partnership—the founders simply sell their partnership interests to Public Co. in exchange for cash or stock. See Mark Silverman et al., *Thinking Outside the Box and Inside the Circle (or Triangle?): Use of LLCs in Consolidated Return Context, in Corporate Acquisitions, and Otherwise, in the Public Space*, in 8 THE CORPORATE TAX PRACTICE SERIES (2010); Eric Sloan, *Partnerships in the Public Space*, in THE CORPORATE TAX PRACTICE SERIES, *supra*; Willens, *supra* note 60, at 1; *Did You Know?*, *supra* note 60, at 2–3.

Because partnerships do not pay an entity-level tax, there is no tax owed at the entity level, nor any tax associated with the distribution of cash to the selling partners. Willens, *supra* note 60, at 1; *Did You Know?*, *supra* note 60, at 2–3. And generally speaking, the sale of a partnership is treated as the sale of a capital asset, and so selling partners pay tax on any gains at the lower long-term capital gains rate. Willens, *supra* note 60, at 1; *Did You Know?*, *supra* note 60, at 2–3. On the other side of the transaction, Public Co. is still treated as purchasing goodwill, amortizable at the higher ordinary-income rate of 35%. Willens, *supra* note 60, at 1; *Did You Know?*, *supra* note 60, at 2–3. This tax arbitrage—selling goodwill at capital gains rates while generating deductions at ordinary-income rates—made supercharged IPOs especially attractive for companies that operated as partnerships before going public. Willens, *supra* note 60, at 1; *Did You Know?*, *supra* note 60, at 2–3.

62. Robert Willens, *Is an NOL "Personal" to the Shareholders?*, WILLENS BULL., Oct. 8, 2010, at 1 (noting that the new trend is to execute a TRAs without the elections to treat the transaction as a sale).

63. See *supra* notes 50–61 and accompanying text.

64. See *supra* notes 50–61 and accompanying text.

listed on the company's balance sheet, many believe that public investors simply do not account for these types of assets when purchasing stock. The lack of knowledge may be due to the assets' esoteric nature or perhaps to investment banks' choice to disregard these assets when valuing a company for IPO purposes.<sup>65</sup> Whatever the reason, if investors refuse to pay for the assets that reside inside the company at the time of a stock purchase, then it is rational for Founders Co. to retain this value with the help of a TRA.<sup>66</sup>

Owners of private companies, in short, have adopted a complex series of steps to take their businesses public and now routinely demand large payments from public companies in the post-IPO period. One justification for these innovative IPOs relates to the tax liability that the owners suffer in order to generate new tax assets and the opportunity for tax arbitrage. A second justification revolves around the idea that investors fail to pay for the preexisting tax assets that the new public company inherits.<sup>67</sup> Various commentators argue that owners are simply enhancing the efficiency of the deals and assuring they receive a fair price for their business, while others argue owners are nothing more than thieves taking advantage of new companies and public investors.<sup>68</sup> After all, it is unclear whether IPO investors properly discount the price to reflect the removal of tax assets through a TRA. If they do not, then TRAs amount to little more than a complex scheme to steal corporate assets. We empirically investigate these theories below,<sup>69</sup> but we first note that all companies going public divulge the details of the TRA well before the IPO takes place.

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65. Rosen & Furci, *supra* note 17, at 9.

66. To understand the justification for this newer wave of supercharged IPOs more fully, suppose Founders Co. owns exactly one asset: an oyster with a valuable pearl that cannot be harvested for three years. Also imagine that Founders Co. would like to sell the entire asset, but the investors value only the shell and not the pearl (either because the purchaser does not understand the nature of the hidden gem or because it simply desires to own the shell itself and nothing else). Founders Co. has several options: (1) refuse to sell, (2) sell but demand an up-front price that reflects the value of the hidden pearl, or (3) sell the shell and retain the rights to the pearl when it becomes available three years hence. If Founders Co. selects the third option, the parties will execute a supplemental contract provision that supercharges the deal with a "pearl receivable agreement."

The key question that must be asked with respect to this newer wave of supercharged IPOs is this: does the purchase price reflect the true value of the company, along with its tax assets, at the time of the IPO, or are investors refusing to pay for these assets? Finding the answer to this question is important because it will settle a debate among scholars and commentators with respect to the underlying motivation of the second generation of supercharged IPOs. *See supra* notes 11–20 and accompanying text.

67. *See supra* notes 50–61 and accompanying text.

68. *See supra* notes 11–20 and accompanying text.

69. *See infra* notes 126–59 and accompanying text.

### C. Company Disclosures and Risk Projections

While supercharged IPOs are controversial and subject to widespread debate, a company that goes public must disclose the details of the TRA in the prospectus and attach a copy of the TRA to its SEC filings.<sup>70</sup> Not only are the terms of the TRA and the cash payments disclosed to investors at the time of the IPO,<sup>71</sup> the potential risks of entering into this agreement are also outlined. Payments under the TRA are contingent on Public Co.'s income; that is to say, absent taxable income, the amortization deductions are worthless to Public Co., so the new company *must* operate at a profit to gain advantage of the tax deductions. This reality poses a risk that neither Public Co. nor the owner-founders will actually receive benefits identified in the TRA.<sup>72</sup> Moreover, the IRS could scrutinize the tax

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70. The Securities Act of 1933 requires issuers to disclose material information to investors, and section 11 of the Act allows investors to sue with respect to material misstatements or omissions in the prospectus or registration statement. 15 U.S.C. § 77(f), (j), (k) (2012). This law explains why the IPO innovators cannot keep the details of the deal secret in order to profit from the idea. For a discussion of patented tax advice, see Anish Parikh, Comment, *The Proliferation of Tax Strategy Patents: Has Patenting Gone Too Far?*, 7 J. MARSHALL REV. INTELL. PROP. L. 202 (2007).

71. To give just one example, Evercore Partners (the owner-founders of the firm) filed documents with the SEC containing language describing the terms of their TRA along with the relevant tax-code provisions and the advantages to Evercore, Inc. (Public Co. in our discussion above) associated with the structure of the deal and, by implication, its shareholders in the following language:

The exchanges may result in increases in the tax basis of the tangible and intangible assets of Evercore LP [the owner-founders] that otherwise would not have been available. These increases in tax basis would increase (for tax purposes) amortization and, therefore, reduce the amount of tax that we would otherwise be required to pay in the future. . . . We [i.e. Public Co.] have entered into a tax receivable agreement . . . that provides for the payment by us to an exchanging Evercore partner [i.e. an owner-founder] of 85% of the amount of cash savings, if any, in U.S. federal, state and local income tax that we actually realize as a result of these increases in tax basis. We expect to benefit from the remaining 15% of cash savings, if any, in income tax that we realize.

Evercore Inv. Grp. LLC, Registration Statement (Form S-1) (Apr. 20, 2007), *available at* <http://www.sec.gov/Archives/edgar/data/1360901/000119312507086555/ds1.htm>.

72. These risks, and others, were identified by Fortress Investment Group at the time of their supercharged IPO, and outlined in the SEC filings:

Although we [i.e. Public Co.] are not aware of any issue that would cause the IRS to challenge a tax basis increase, our principals [i.e. the owner-founders] will not reimburse the corporate taxpayers for any payments that have been previously made under the tax receivable agreement. . . . The corporate taxpayers' ability to achieve benefits from any tax basis increase, and the payments to be made under this agreement, will depend upon a number of factors, including the timing and amount of our [i.e. Public Co.'s] future income.

Fortress Inv. Grp. LLC, Registration Statement (Form S-1) (Feb. 2, 2007), *available at* <http://www.sec.gov/Archives/edgar/data/1380393/000095013607000635/file1.htm>.

components of the supercharged IPO, jeopardizing the value of the tax assets and the TRA to both Public Co. and the owner-founders.

Because of the amount of money at stake and the negative view that many experts and commentators have of TRAs (e.g., describing them as “underhanded,” and “one-sided”<sup>73</sup>), Public Co.’s obligation could also theoretically be challenged down the road by angry shareholders who feel cheated.<sup>74</sup>

In the next Section, we explore competing explanations for why the parties would agree to a supercharged IPO notwithstanding the deals’ complexity, bad press, and risks. As our discussion illustrates, some explanations suggest that supercharged IPOs are a very good way for the parties to reduce tax costs, while others imply opportunism on the part of the owner-founders.

### III. COMPETING THEORIES OF FINANCIAL INNOVATION: DISCOVERY AND DIFFUSION

Innovation in the financial context is not new; historians have documented creative solutions to financial problems for centuries.<sup>75</sup> For the most part, scholars and policymakers have applauded these efforts as important means for making markets complete and efficient. When it comes to policymaking choices, Federal Reserve Chairman Ben Bernanke noted in 2007, “We should also always keep in view the enormous economic benefits that flow from a healthy and innovative

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73. See *supra* notes 11–20 and accompanying text.

74. We have not identified any litigation involving supercharged IPOs. In other contexts, however, TRAs have been the subject of litigation. See, e.g., *Third Nat'l Bank in Nashville v. Wedge Grp. Inc.*, 882 F.2d 1087 (6th Cir. 1989) (defendant denies liability under the TRA). Shareholders have also sued in the IPO context, although not with respect to the existence of the TRAs that were involved. See, e.g., Peter Lattman, *Court Revives Suit over Blackstone I.P.O.*, <http://perma.cc/WLU3-LSFQ> (dealbook.nytimes.com, archived Feb. 3, 2014).

75. Political and religious organizations, for example, have long barred or extensively limited bankers’ ability to charge interest, but these restrictions have never eliminated the active market for credit. Instead, lenders have found novel ways to obtain interest payments, sometimes at usury rates, with the help of third parties, unusual contracts, and a variety of other means. See Michael Knoll, *The Ancient Roots of Modern Financial Innovation: The Early History of Regulatory Arbitrage*, 87 OR. L. REV. 93 (2008) (tracing the roots of put-call parity to its ancient origins); see also KRISTEN STILT, *ISLAMIC LAW IN ACTION* (2011) (looking at the interaction between Islamic law and society); Jonathon Barron Baskin, *The Development of Corporate Financial Markets in Britain and the United States, 1600–1914: Overcoming Asymmetric Information*, 62 BUS. HIST. REV. 199 (1988) (tracing the “evolution of corporate finance” from its beginning in British trading companies to its modern use in the United States); Knoll, *supra*, at 101–13 (looking at the history of put-call parity through Islamic, Jewish, and Christian history); Larry Neal, *Trust Companies and Financial Innovation, 1897–1914*, 45 BUS. HIST. REV. 35 (1971) (assessing the “innovative role” of the trust company in the United States in the period after the depression of the 1890s until World War I).

financial sector. The increasing sophistication and depth of financial markets promote economic growth by allocating capital where it can be most productive.”<sup>76</sup> Two years after making this statement, and in the wake of the 2008 financial collapse, Chairman Bernanke acknowledged that financial innovation also has its drawbacks: “Indeed, innovation, once held up as the solution, is now more often than not perceived as the problem . . . we have seen only too clearly during the past two years, innovation that is inappropriately implemented can be positively harmful.”<sup>77</sup>

Good or bad, financial innovators are part of the economic landscape, and for this reason, it is useful to understand the environment that fosters creative financing, the factors that enable its diffusion, and the chosen allocation of costs and benefits between and among the parties. Scholars have set forth a range of theories that address these issues,<sup>78</sup> and the goal in this Section is to provide a brief outline of the extant literature as it applies to supercharged IPOs. We then offer hypotheses with respect to why supercharged IPOs emerged and why they spread across geographic zones and industries.

#### *A. Innovation and Discovery: Five Competing Models*

In a perfectly efficient world, free of taxes, regulations, and transaction costs, financial innovation would provide little or no benefit and would likely play an insignificant role in the economy.<sup>79</sup> Markets, however, are neither perfectly efficient nor free from regulation, and as we know, financial innovation is pervasive. The extant theoretical literature has converged on a range of factors, often

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76. Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys., Speech to the Federal Reserve of Atlanta’s 2007 Financial Markets Conference, Sea Island, Georgia (May 15, 2007) (transcript available at <http://perma.cc/D6YP-WXRA>); see also Maxwell Watson et al., *International Capital Markets: Developments and Prospects* 15 (Int’l Monetary Fund, Paper No. 43, 1986) (on balance, the innovations have been almost certainly beneficial for the system as a whole).

77. Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys., Speech Given at the Federal Reserve System’s Sixth Biennial Community Affairs Research Conference, Washington, D.C. (Apr. 17, 2009) (transcript available at <http://perma.cc/N9FP-72FB>).

78. See, e.g., Peter Tufano, *Financial Innovation*, in HANDBOOK OF ECONOMICS OF FINANCE (George Constantinides et al. eds., 2002) (outlining theories of financial innovation); W. Scott Frame & Lawrence J. White, *Empirical Studies of Financial Innovation: Lots of Talk, Little Action?*, 42 J. ECON. LIT. 116 (2004) (same); Robert C. Merton & Zvi Bodie, *The Design of Financial Systems: Towards a Synthesis of Functions and Structure* (Nat’l Bureau of Econ. Research, Working Paper No. 10,620, 2004) (discussing financial innovation, neoclassical finance, frictions, and behavioral economics).

79. Tufano, *supra* note 78, at 5 (suggesting financial innovation in a world free of “imperfections” would benefit no one).

believed to operate simultaneously, that motivate financial experts to innovate.<sup>80</sup> While the mainstream account often assumes that investor demand primarily drives financial innovation,<sup>81</sup> we will see that questionable and self-serving motives can also inspire financial ingenuity to the detriment of shareholders and investors.

## 1. Taxes, Regulations, and Accounting Standards

Taxes, regulations, and formal industry standards are widely viewed as an impediment to market activities, but they also operate as a major incentive to innovate.<sup>82</sup> Merton Miller, along with many other scholars in a wide range of fields, have discussed and debated financial creativity.<sup>83</sup> All agree that financial engineers spend significant time and energy avoiding taxes,<sup>84</sup> maneuvering around regulations,<sup>85</sup> and devising creative accounting and reporting strategies.<sup>86</sup>

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80. Bruno Rossignoli & Francesca Arnaboldi, *Financial Innovation: Theoretical Issues and Empirical Evidence in Italy and in the UK*, 56 J. INT. REV. ECON. 275, 280–81 (2009) (stating that various drivers of innovation exist and tend to work simultaneously); Tufano, *supra* note 78, at 10 (noting how all the stimuli operate together to promote innovation).

81. FRANKLIN ALLEN & DOUGLAS GALE, *FINANCIAL INNOVATION AND RISK SHARING* 5–10 (1994) (stating that demand drives innovation); Nicola Gennaioli et al., *Neglected Risks, Financial Innovation, and Financial Fragility*, 104 J. FIN. ECON. 452, 452 (2012) (discussing how episodes of financial innovation share a common narrative and it begins with investor demand); Josh Lerner & Peter Tufano, *The Consequences of Financial Innovation: A Counterfactual Research Agenda* 10 (Nat'l Bureau of Econ. Research, Working Paper No. 16,780, 2011) (same).

82. Darrell Duffie & Rohit Rahi, *Financial Market Innovation and Security Design: An Introduction*, 65 J. ECON. THEORY 1, 2 (1995) (“New securities are often designed in response to accounting standards, regulations and tax codes.”).

83. Michael Carter, *Financial Innovation and Financial Fragility*, 23 J. ECON. ISSUES 779, 783 (1989) (discussing how tax and regulation drive innovation); Merton Miller, *Financial Innovation: The Last Twenty Years and the Next*, 21 J. FIN. & QUANT. ANALYSIS 459, 459 (1986) (“The major impulses to successful financial innovations [over the last twenty years] have come from regulations and taxes.”).

84. See generally Edward D. Kleinbard, *Equity Derivative Products: Financial Innovation's Newest Challenge to the Tax System*, 69 TEX. L. REV. 1319 (1991) (discussing time and energy devoted to innovation in financial context); Charles R.P. Pouncy, *Contemporary Financial Innovation: Orthodoxy and Alternative*, 51 SMU L. REV. 505 (1998) (same); Alvin C. Warren, Jr., *Financial Contract Innovation and Income Tax Policy*, 107 HARV. L. REV. 460 (1993) (same).

85. Scholars have noted that innovators often create means to avoid regulation by designing investment opportunities in unregulated or minimally regulated industries. Banking policy, for example, long limited banks’ ability to pay interest on savings accounts, and this led nonbank intermediaries who operated outside the jurisdiction of the banking regulators to devise money market and mutual fund accounts that mimicked the attributes of savings deposits but could pay interest. Carter, *supra* note 83, at 782–84; Henry T.C. Hu, *Swaps, the Modern Process of Financial Innovation and the Vulnerability of a Regulatory Paradigm*, 138 U. PA. L. REV. 333 (1989); Pouncy, *supra* note 84, at 546–48; Joseph C. Shenker & Anthony J. Colletta, *Asset Securitization: Evolution, Current Issues and New Frontiers*, 69 TEX. L. REV. 1369 (1991); James

Tax rules addressing goodwill may have played an important role in the rise of the supercharged IPO. Prior to 1993, the cost of creating or acquiring goodwill could not always be amortized, but with the adoption of Internal Revenue Code § 197, goodwill acquirers are now able to amortize the cost of this asset ratably over a fifteen-year period.<sup>87</sup> Because goodwill is often the most valuable asset sold in an IPO, this legal change effectively enabled investors to “recover” (through tax deductions obtained by the company) a portion of their investment if the deal was structured as a “sale” to give Public Co. the ability to amortize its assets. In short, due to § 197, the true cost of buying shares of stock in an IPO would be substantially less than the nominal or “headline” price in light of the later cash savings associated with the tax deductions for goodwill.

The 1993 tax reform was followed by a major change in accounting standards, making goodwill even more valuable to the company. Prior to 2001, companies were required to charge a portion of the amortized goodwill to their income statement—signaling the depletion of an asset and having the effect of reducing earnings and showing smaller company profits. In 2001, the Financial Accounting Standards Board issued Financial Accounting Standard (“FAS”) 142,<sup>88</sup>

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Tobin, *Financial Innovation and Deregulation in Perspective*, 3 MONETARY & ECON. STUD. 19 (1985).

86. Many have argued that accounting firms are uniquely positioned to engage in financial innovation given the background expertise in accounting, taxation, and regulations, and numerous firms now market themselves as experts not only in accounting services, but also in the design of “structured investment vehicles” that enable firms to creatively avoid the limits of accounting standards and tax rules. Patricia J. Arnold, *Global Financial Crisis: The Challenge to Accounting Research*, 34 ACCT. ORG. & SOC’Y 803, 804 (2009); Eric R. Hake, *Financial Illusion: Accounting for Profits in an Enron World*, 39 J. ECON. ISSUES 595, 603 (2005); Norio Sawabe, *Co-Evolution of Accounting Rules and Creative Accounting Instruments—The Case of a Rules-Based Approach to Accounting Standard Setting*, 1 EVOLUTIONARY & INST. ECON. REV. 177 (2005); Atul K. Shah, *Creative Compliance in Financial Reporting*, 21 ACCT. ORG. & SOC’Y 23 (1996) [hereinafter Shah, *Creative Compliance*]; Atul K. Shah, *Exploring the Influences and Constraints on Creative Accounting in the United Kingdom*, 7 EUR. ACCT. REV. 83 (1998) [hereinafter Shah, *Exploring*]; Atul K. Shah, *Regulatory Arbitrage Through Financial Innovation*, 10 ACCT. AUDITING & ACCOUNTABILITY 85 (1996) [hereinafter Shah, *Regulatory Arbitrage*]; see also D. MACBARNET & C. WHELAN, *CREATIVE ACCOUNTING AND THE CROSS-EYED JAVELIN THROWER* (1999).

87. I.R.C. § 197 (2012). For a good discussion of how and why the change in the tax rules associated with goodwill has led to the proliferation of IPOs, see Romina Weiss, *Fifteen Years of Antichurning: It’s Time to Make Butter*, TAX NOTES, Jan. 12, 2009, at 227, 234–36 (tax and accounting rules motivate innovative deals); see generally Robert Willens, *Depreciating (Not Deprecating) Matt Kemp*, WILLENS REP., May 31, 2012, same).

88. Goodwill and intangible assets are not presumed to be wasting assets; instead, they are presumed to have indefinite useful lives and are tested periodically for impairment. See GOODWILL AND OTHER INTANGIBLE ASSETS, Summary of Statement No. 142 (Fin. Accounting Standards Bd. 2001), available at <http://perma.cc/4UH9-KAVG>.

eliminating this mandate. The importance of this reform should not be underestimated: it led to a vast increase in many companies' annual reported profits, often by billions of dollars.<sup>89</sup> In short, the current tax and accounting rules together permit companies to reduce their *taxable* income through amortization deductions while at the same time keeping their *reported* income to investors high. A company that is able to take advantage of both § 197 and FAS 142, in effect, straddles the best of both worlds. Because the supercharged IPO enables Public Co. to do just this (it gives the company the ability to deduct the cost of goodwill, but these deductions do not offset earnings reported to investors), the reforms create a powerful incentive to undertake this type of deal when substantial goodwill exists inside Founders Co.

The opportunity for tax arbitrage provides a second reason for the supercharged IPO. Recall that the deal generates new tax assets for Public Co., but at a tax cost to Founders Co. If the costs and benefits are exactly equal—say Public Co. amortizes an asset at a 35% tax rate and Founders Co. pays tax at a 35% rate on the TRA payments—it would not make sense to supercharge the IPO. If, however, Public Co. is able to take tax deductions at a higher tax rate than that imposed on the taxable income received by Founders Co., then a supercharged IPO is tax efficient. A tax-rate differential, if it exists, is a second possible explanation for the emergence of the supercharged IPO.<sup>90</sup> Table A1 (presented in the Appendix) provides numbers confirming that tax-arbitrage opportunities are an essential component to the supercharged IPO.

The tax and accounting theories of financial innovation generate two testable hypotheses: the parties will supercharge the IPO if (1) Founders Co. has substantial goodwill or (2) an opportunity to engage in tax arbitrage exists. In Part IV below, we investigate these two hypotheses with empirical data and find that tax arbitrage plays a much stronger role in the parties' choice to supercharge the IPO than the presence of goodwill.<sup>91</sup>

## 2. Information Asymmetry

A second theory of financial innovation relates to information asymmetry: circumstances in which one party has more or better

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89. Ronald J. Huefner & James A. Largay III, *The Effects of the New Goodwill Accounting Rules on Financial Statements*, <http://perma.cc/EV6M-9BVV> (nysscpa.org, archived Feb. 3, 2014).

90. Willens, *supra* note 60, at 1.

91. See *infra* notes 136–59 and accompanying text.

information than the other, creating an imbalance of power and setting the stage for opportunistic behavior. This situation often motivates the less informed party to find creative solutions to limit unfair advantages or equalize available information.<sup>92</sup> The less informed parties in the IPO context, of course, are the public investors. A company's owner-founders have better information with respect to the value of the underlying assets, especially the tax assets.<sup>93</sup>

To understand why information asymmetry works to the disadvantage of the company and its investors, recall that in many supercharged IPOs, Public Co. is able to amortize goodwill. The amortization deductions are linked to the fair market value of the goodwill; overstating the value of goodwill would lead to high tax deductions but could also attract unwanted IRS scrutiny and a possible deficiency notice. Public Co. and the shareholders, therefore, have an incentive to link the payments to the actual tax deductions obtained, thereby assuring that the owner-founders have a stake in the deductions as well as the accuracy of the underlying fair market value reported to the IRS at the time of the sale. An up-front payment by Public Co., untethered to the tax savings actually received down the road, would incentivize the owner-founders to overstate the value of the tax assets in an effort to convince the company to overpay for the tax assets obtained in the IPO. The TRA simultaneously operates to assure that relevant information is shared between the parties, and to restrict opportunism.

The information asymmetry, however, may also work to the disadvantage of the owner-founders. Investors, as discussed above in the context of the second wave of supercharged IPOs, may suffer an information deficit with respect to the company's tax assets, whether they are newly created by the deal or preexisting and transferred in the deal. If investors simply do not account for the value of these assets at the time they purchase the stock, then owner-founders' decision to supercharge the IPO with a TRA is rational because it assures they are compensated for all the assets transferred. In short, if investors refuse to pay for a portion of the company's assets due to the lack of information, owner-founders sensibly extract payment for those assets down the road with the help of the TRA.

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92. Paul Healy & Krishna G. Palepu, *Information Asymmetry, Corporate Disclosure, and the Capital Markets: A Review of the Empirical Disclosure Literature*, 31 J. ACCT. & ECON. 405 (2001) (discussing solutions to information asymmetry).

93. See, e.g., Lattman, *supra* note 74 (discussing shareholders suing Blackstone because company allegedly withheld information from public investors at the time of the IPO).

Under this theory of the deal, absent the TRA, owner-founders would not be able to obtain a fair price for the company as it goes public.

The supercharged IPO theoretically cures the problem of information asymmetry in both the contexts just noted, but there is also a third possibility: the innovation may *create* informational problems. Commentators and critics have argued that supercharged IPOs are “underhanded,” “one-sided,” and “bizarre,” on the grounds that they are complicated and virtually incomprehensible.<sup>94</sup> Indeed, one commentator notes that, in analyzing a recent IPO, he “missed the major thrust of The Carlyle Group’s byzantine ‘cash tax savings’” plan associated with the TRA. This commentator noted that he “mistakenly thought Carlyle’s co-founders were being indemnified against any future tax increase on carried interest. Instead it’s a co-founder cash bleeding of affiliates.”<sup>95</sup> The allegation is that owner-founders deceptively add complex provisions into the IPO, enabling the owner to steal from unsuspecting and confused public investors through large TRA payments.<sup>96</sup> In short, it is argued, the supercharged IPO is not a means to compensate founders for the tax costs they incur for creating and transferring valuable tax assets or for assets left unvalued by the investors—it is mere theft.

Some leading practitioners share this dark view of supercharged IPOs and TRAs. As one explained, “I view TRAs as much less about tax innovation and much more about improper accounting and investor unsophistication.” He elaborated, “The main feature of TRAs is that selling shareholders have convinced the public that they are indeed transferring a benefit to the IPO company and have obfuscated the potential cost to the IPO company.” The sellers explain the supercharged IPO in published documents, but investors may not account for the future TRA payments in the stock pricing. “In my experience,” he explained, “except in extraordinarily unusual situations, there is no real negotiation because, at the end of the day, despite extensive disclosure, the TRA doesn’t affect the IPO price.”<sup>97</sup>

The critics may have a point: if the experts fail to detect and understand the TRA, the investing public will surely fail to comprehend the nature of the agreement, making it a perfect vehicle for owners to quietly and unfairly extract money from the company.

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94. See *supra* notes 11–20 and accompanying text.

95. Carlyle’s “Cash Tax Savings” Won’t Go to Unit Holders, *supra* note 14.

96. Nigel Jenkinson et al., *Financial Innovation: What Have We Learnt*, 2008 Q. BULL. 330 (noting that financial engineering can improve options for households and companies, but can also create market imperfections and unexpected information asymmetries).

97. See Interview with NYC Practitioner (on file with the authors).

Owners have long rationalized supercharged IPOs on the ground that they incur costs in creating tax assets for Public Co, or, alternatively, that investors refuse to pay for preexisting tax assets—but if these justifications do not hold up empirically, then the owners may have adopted an underhanded scheme, as critics suggest.

The information-asymmetry theory of innovation leads to two distinct hypotheses associated with information deficits and founders' opportunism. Specifically, this theory suggests that (1) investors' information deficits vis-à-vis existing tax assets will lead owner-founders to include the TRA in the IPO documents to assure they receive compensation for assets transferred, and (2) even in the absence of investors' information deficit, owner-founders may opportunistically slip the TRA into the IPO documents on the theory that investors will not focus on the minor details of the deal. In the empirical component of our paper, we find surprising results with respect to information asymmetry and opportunism.<sup>98</sup>

### 3. Risk Aversion

Students of financial innovation argue that risk is a key motivator for creativity.<sup>99</sup> Financial risk is often associated with market fluctuation, but the threat of political, social, and legal change may also pose unwanted and undesirable risks.<sup>100</sup> Inventions enabling individuals and entities to manage these risks are ubiquitous and often involve complex products, instruments, and processes.<sup>101</sup>

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98. See *infra* notes 136–59 and accompanying text.

99. C. SMITH ET AL., MANAGING FINANCIAL BUSINESS 20 (1990) (stating that risk is a key factor in motivating innovations); VOLKER SCHMID, FINANCIAL INNOVATION WITH A PARTICULAR VIEW ON THE ROLE OF BANKS 4–6 (2004) (same); Frame & White, *supra* note 78, at 8 (same); Tufano, *supra* note 78, at 20 (same); see also MILIKEN INST., FINANCIAL INNOVATIONS FOR CATASTROPHIC RISK (2008), available at <http://perma.cc/V2EU-S275> (discussing mechanism to insure against earthquakes, hurricanes, terrorism, and so forth).

100. In fact, the regulators' response is often an expected feature of innovation. See Zachary J. Gubler, *The Financial Innovation Process: Theory and Application*, 36 DEL. J. CORP. L. 55, 55–61 (2011) (exploring various ways to regulate financial innovation with the help of new institutional economics); Samuel M. Kidder, *What's Your Position? Amending the Bankruptcy Disclosure Rules to Keep Pace with Financial Innovation*, 58 UCLA L. REV. 803, 804–07 (2011) (exploring the problem of “empty creditors” and appropriate policy reform); Robert C. Merton, *A Functional Perspective of Financial Intermediation*, 24 FIN. MGMT. 23, 30 (1995) (discussing the innovation-regulation dialectic); Frank Partnoy, *Financial Innovation in Corporate Law*, 31 J. CORP. L. 799, 819–20 (2006) (exploring how corporate law might address the problem of hybrid financial instruments); see also Dionisis Th. Philippas & Costas Siriopoulos, *Influence of Financial Innovation to the Validation of Operational Risk*, 35 MANAGERIAL FIN. 940, 941 (2009) (stating risk can be associated with failed processes, people, systems, or external events).

101. Scholars have noted that foreign exchange futures, swaps, options, interest rate futures, and so forth all emerged due to perceived uncertainty in the markets and the desire to eliminate

At first cut, it may appear that the supercharged IPOs pose greater risks than a traditional IPO. First, if tax arbitrage motivates the supercharged deal, the parties risk legal reform that removes the tax-rate disparity. Indeed, various members of Congress have critiqued the current rate differentials as unfair and inappropriate, and have proposed legislation that would force recognition of income by owner-founders at a higher tax rate, eliminating the arbitrage opportunity.<sup>102</sup> This risk—that tax costs will exceed benefits down the road—provides an incentive for the owner-founders to negotiate an *immediate* payout (through an increased stock price at the time of the IPO or a lump-sum payment simultaneous with the IPO). A TRA tied to the company's amortization deductions over the course of fifteen years, by contrast, subjects the owners to potential and unwanted tax increases.

Second, as noted above, commentators are widely critical of supercharged IPOs, and many have noted that bad press alone may make them a bad idea. If the extensive condemnation and disapproval emerging in the media ultimately has an effect on the value of the company, the TRAs' benefits may not be worth the costs. In short, the number of companies that theoretically could supercharge their IPO but choose not to may be linked to the risk associated with the bad press.

There are, however, strong competing reasons for Public Co. to prefer the TRA over an up-front payment. The tax benefits to Public Co. are associated with the so-called basis step-up that occurs with the purchase of goodwill and other assets, but it is possible that the IRS will disallow or limit that increase in basis in the context of an audit, as discussed above. Moreover, and perhaps more importantly, because tax assets are linked to a reduction in a company's tax burden

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it. A widely admired and relatively new form of catastrophic insurance, often labeled “cat bonds,” for example, is an innovation that enables individuals to protect against hurricanes, earthquakes, and even terrorism. See J. David Cummins, *CAT Bonds and Other Risk-Link Securities: State of the Market and Recent Developments*, 11 RISK MGMT. & INS. REV. 23, 25–31 (2008) (discussing the many types of CAT bonds available); Neil A. Doherty, *Financial Innovation in the Management of Catastrophe Risk*, 10 J. APPLIED CORP. FIN. 84, 87–92 (1997) (discussing various design issues associated with successful innovation in this area of insurance); Tufano, *supra* note 78, at 20–21 (same). Of course, financial innovation can also create risk for investors. See Susanne Trimbath, *Financial Innovation: Wall Street’s False Utopia*, 5 J. ACCT. & ORGANIZATIONAL CHANGE 108, 108–11 (2009) (explaining that collateral mortgage obligations were created to spread risk and reduce agency costs but had the opposite effect).

102. See H.R. REP. NO. 110-431, at 6–7 (2007) (explaining a provision related to increased rates that was not part of the final legislation enacted into law); see also GINSBURG ET AL., *supra* note 56, at 10 (noting Congress may unwind benefits of the TRA sometime down the road); Johnston, *supra* note 10 (critiquing TRAs as fundamentally unfair to taxpayers).

associated with its taxable income, the company *must* earn sufficient income to take advantage of the tax assets. Absent sufficient income, the tax asset (be it a deduction or credit) could become partially or fully useless. These risks make it sensible for Public Co. to agree to make payments contingent on the actual rather than forecasted value of the tax assets, insuring that Public Co. and its investors pay for what they actually receive.

If the deal is supercharged not because the owner-founders created new tax assets, but because they transferred preexisting assets that investors do not adequately value, then the TRA is sensible from both Founders Co.'s and the investors' viewpoint. The TRA ensures that the owner-founders will get paid for the assets and that, at the same time, the investors need not incur the risk of paying for assets they do not understand.

The idea that risk aversion plays an important role in the choice to innovate is widely accepted, and our analysis implies it has indeed played a role in the use of TRAs. This is a qualitative viewpoint that our data cannot confirm because companies going public through a traditional IPO do not announce the reasons for their chosen deal structures.

Ideally, we would like to compare deals that involved large, up-front compensation to the owner-founders versus future payments pursuant to a TRA to assess which party is more risk averse. Empirically, however, we are unable to examine the parties' level of risk because *every* supercharged IPO contains a TRA with virtually identical terminology, and no alternative payout plans exist. Thus, we cannot use statistics and data to investigate whether the parties' aversion to risk plays a role in the design of supercharged IPOs. Given that 100% of the deal structures include post-IPO payouts and that the parties explicitly refer to the risks and hazards associated with TRAs in the SEC filings, it is reasonable to infer that Public Co.'s and the shareholders' distaste for risk more strongly motivates the design of supercharged IPOs.

#### 4. Information Costs

A fourth theory of financial innovation relates to information costs (as distinct from information asymmetry as discussed above). Here we focus on the costs of searching for, understanding, and negotiating the terms of an investment. Quite a few scholars have argued that the presence of these costs provides a critical motivation

for financial innovation,<sup>103</sup> and empirical studies have found that transaction costs are the causal mechanism for many innovations.<sup>104</sup> In the IPO context, experts argue that TRAs are an excellent means to simplify the sale of a company, thereby limiting information costs.<sup>105</sup> In traditional transactions, the share price must account for the value of tax assets, and valuing these assets requires parties to make numerous assumptions associated with a potential IRS audit, the company's future profitability, future legal reform, and the use of other types of tax-planning strategies, in order to identify the true value of the tax asset to Public Co. Negotiation and bargaining leads to delays and may kill the deal altogether.<sup>106</sup> TRAs eliminate these hurdles, making the transaction considerably more straightforward and simple to execute.<sup>107</sup>

While many legal and accounting experts believe that TRAs simplify IPOs, critics have argued that TRAs *create* complexity and confusion for investors who are unable to decipher the agreement's purpose or meaning.<sup>108</sup> A complicated deal may, in turn, lead IPO investors to discount the price they are willing to pay, given the extra time and energy spent analyzing documents. Or, alternatively, if they simply do not understand fully the agreement, they may forego the purchase altogether. These transaction costs raise the question of why owner-founders would risk market punishment in the form of a lower price paid for the IPO shares. At the same time, IPOs tend to be

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103. See Tufano, *supra* note 78, at 4–16 (explaining that information costs play a key role in innovation); Robert C. Merton, *On the Application of the Continuous-Time Theory of Finance to Financial Intermediation and Insurance*, 14 GENEVA PAPERS ON RISK & INS. 225, 228–29 (1989) (same).

104. See John J. McConnell & Eduardo S. Schwartz, *The Origin of LYONs: A Case Study in Financial Innovation*, 4 J. APPLIED CORP. FIN. 40, 40–47 (1992) (describing a case study on transaction costs). A good example of innovation in this context is related to credit scoring, or the process of assigning a single quantitative measure to a potential borrower representing an estimate of the borrower's future loan performance. This innovation allows creditors to lend and monitor loans without meeting the borrower and provides creditors with cheaper, better information that will make it more likely that the lender will price loans based on expected risk rather than refusing to loan monies. See Akhavein et al., *supra* note 28, at 579–80 (finding credit-scoring innovation decreased transaction costs); Tufano, *supra* note 78, at 16 (explaining ATMs, smart cards, and other examples demonstrate importance of innovation to eliminate transaction costs).

105. Glenn E. Dance, *The Monetization of Tax Benefits Through Tax Receivable Agreements*, 10 J. PASTTHROUGH ENTITIES 5, 7 (2007).

106. See generally Robert Willens, *HGSIs "Financial Assets" Are Valuable*, WILLENS REP., July 9, 2012 (describing a deal killed due to parties' inability to agree on value of tax assets).

107. *Id.*; Rosen & Furci, *supra* note 17, at 9.

108. Carlyle's "Cash Tax Savings" Won't Go to Unit Holders, *supra* note 14 (finding deals with TRAs too complex to understand fully).

complex deals by nature. If the investors have already taken a leap of faith despite this complexity, or have already discounted the price as a form of market punishment for the complexity, then adding additional nuance in the form of a TRA may still be rational, on the theory that the owner-founders are not likely to suffer further penalty by way of an additional purchase-price reduction. Embedding a TRA into the deal, in short, may be rational for no purpose other than to extract easy money in the post-IPO period—support for the critics’ view that the plan is “underhanded.” Stated more directly, the owner-founders may be motivated by the desire to capture the benefits of newly created tax assets or preexisting tax assets left undervalued by investors, or they may simply want to extort money from unsuspecting investors by inserting a TRA into the documents on the theory that investors will not take notice.

The information-cost theory of financial innovation leads to three hypotheses, only two of which can be investigated with our data. First, we cannot test the idea that, due to the cost advantages of a TRA, owner-founders will utilize supercharged IPOs in lieu of up-front payments, because every supercharged IPO includes a TRA. Accordingly, we cannot compare different forms of payment schemes. The second hypothesis—that the parties will agree to supercharge their IPO because the benefits of such a deal will exceed its costs—can be tested by examining the hypotheses outlined above. And the third hypothesis—that owner-founders will slip a TRA into the IPO documents for underhanded purposes—can also be tested by investigating whether complex deals are more likely to include a TRA. We outline in detail below the empirical strategy for testing these hypotheses and the others outlined above.<sup>109</sup>

## 5. The Macroeconomy

Up to this point, our analyses have focused on factors that operate in unique ways on the specific parties involved in the transaction, but macrolevel variables beyond the parties’ control may also affect the choice to supercharge an IPO. Scholars have argued that market factors are important stimuli to financial innovation. Some have argued that a growing economy generates high profit levels along with high levels of *expected* profits, which then impel creative financing, new instruments, and an overall bubble of financial

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109. See *infra* notes 136–59 and accompanying text.

innovation to achieve those profits.<sup>110</sup> Other scholars take the position that, whether or not the business cycle is expanding or contracting, market participants will innovate in order to improve performance and maintain a competitive edge—an edge that is maintained only if companies ceaselessly innovate and improve their products and processes.<sup>111</sup>

In short, the macroeconomic theory of financial innovation posits two hypotheses: (1) a growing economy generates new and creative deals, such as supercharged IPOs, or, in the alternative, (2) the economy has no effect because financial experts will innovate in all economic contexts to maintain their competitive edge. Our empirical investigation suggests that the business cycle does affect the IPO markets, but in unexpected ways.<sup>112</sup>

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110. Recently, theorists have argued that an economic expansion and the desire for continually increasing profits led individuals and firms to innovate in the banking industry, causing the well-known savings-and-loans crisis in the 1970s and subprime-mortgage crisis in 2007 and 2008. Janet L. Yellen, President & CEO, Fed. Reserve Bank of S.F. Presentation to the 18th Annual Hyman P. Minsky Conference on the State of the U.S. and World Economies: A Minsky Meltdown: Lessons for Central Bankers (Apr. 16, 2009), available at <http://perma.cc/4RCP-2MR7>. Some theorists suggest a feedback loop may exist: financial innovation responds to volatile markets, which then become less volatile because of the innovation. Karen E. Dynan et al., *Can Financial Innovation Help to Explain the Reduced Volatility of Economic Activity?*, 53 J. MONETARY ECON. 123, 124–25 (2006).

111. See HYMAN MINSKY, STABILIZING AN UNSTABLE ECONOMY (1986) (arguing innovation is necessary for competitive advantage); MICHAEL E. PORTER, COMPETITIVE STRATEGY 10 (2004) (arguing innovation is necessary for competitive advantage); David A. Zalewski & Charles J. Whalen, *Towards a More Rapid Recovery: Incorporating Subsidiarity into Macroeconomic Policy*, in FINANCIAL INSTABILITY AND ECONOMIC SECURITY AFTER THE GREAT RECESSION 93, 100–07 (Charles J. Whalen, ed., 2011) (discussing rediscovery of early theorists and the view that innovation is necessary for competitive advantage); Abir & Chokri, *supra* note 28, at 17, 18 (arguing innovation is necessary for competitive advantage); Irving Fisher, *The Debt Deflation Theory of Great Depressions*, 1 ECONOMETRICA 337, 337–40 (1933) (arguing innovation is necessary for competitive advantage); Hyman Minsky, *The Evolution of Financial Institutions and the Performance of the Economy*, 20 J. ECON. ISSUES 345, 345–52 (1986) (same); Peter W. Roberts & Raphael Amit, *The Dynamics of Innovative Activity and Competitive Advantage: The Case of Australian Retail Banking, 1981 to 1995*, 14 ORGANIZATIONAL SCI. 107, 113–20 (2003) (arguing innovation is key for competitive advantage). See generally WESLEY C. MITCHELL, BUSINESS CYCLES (1913) (discussing the theories of business cycles). For useful summaries and extensions of Minsky's work, see Michael Carter, *Financial Innovation and Financial Fragility*, 23 J. ECON. ISSUES 779 (1989); Marc Jarsulic, *Financial Instability and Income Distribution*, 22 J. ECON. ISSUES 545 (1988). See also Richard Bookstaber, *Fighting Demons: Addressing the Perils of Financial Innovation*, 29 MULTINATIONAL MONITOR 55, 57 (2008) (discussing hedge fund managers faced with the choice of increasing leverage to meet target returns or see business diminish); Michael D. Bordo, *An Historical Perspective on the Crisis of 2007–2008*, at 6–8 (Nat'l Bureau of Econ. Research, Working Paper No. 14,569, 2008), available at <http://perma.cc/RT94-MRSR> (arguing that scholars as early as Wesley Mitchell in 1913 argued that business-cycle upswings lead to financial innovation).

112. See *infra* notes 136–59 and accompanying text.

### B. Use and Diffusion: Four Competing Models

We now turn from the drivers of financial engineering to the parties who use and diffuse the innovation. Scholars have noted that successful innovations quickly spread and have offered theories for how and why this diffusion process takes place. Indeed, notwithstanding the drawbacks associated with their complexity and the criticisms they generate, one prominent commentator has noted that supercharged IPOs, along with the attendant TRAs, are becoming “almost standard procedure.”<sup>113</sup> In this Section, we discuss the mechanisms by which the supercharged IPOs may have spread across geographic areas and industries since the first such deal emerged in 1993.

#### 1. Elite Lawyers and Accountants

TRAs are legal and accounting inventions, coming into widespread use in 2007 after the tax and accounting reforms were firmly in place. The quality of the lawyers and accountants working on the deal may be a strong predictor for the presence of innovative deal structuring, on the theory that this group closely tracks any and all reforms that could affect deals and deal structures. More specifically, students of innovation have found that creative, sophisticated, and experienced individuals and firms are apt to understand and promote the use of the most advanced deal structures. Over time, of course, useful innovations will diffuse more widely and become standard among both elite and nonelite professionals, as with poison pills and other takeover defenses. The early adopters, however, are likely to be elite lawyers and accountants who spend time and energy engineering the best deal possible for their clients.<sup>114</sup> We test this theory of diffusion in the empirical component of our study by investigating the types of lawyers and accountants involved in supercharged IPOs.<sup>115</sup>

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113. Willens, *supra* note 60, at 1.

114. Many have argued that law and accounting firms are uniquely positioned to engage in financial innovation given the background expertise in accounting, taxation, and regulations, and numerous firms now market themselves as experts not only in accounting services, but in the design of “structured investment vehicles” that enable firms to creatively avoid the limits of accounting standards and tax rules. Patricia Arnold, *Global Financial Crisis: The Challenge to Accounting Research*, 34 ACCT. ORGS. & SOC'Y 803, 804 (2009); see Hake, *supra* note 86, at 603; Sawabe, *supra* note 86, at 177–78; Shah, *Creative Compliance*, *supra* note 86, at 23–39; Shah, *Exploring*, *supra* note 86, at 83–104; Shah, *Regulatory Arbitrage*, *supra* note 86, at 85–104; see also MCBARNET & WHELAN, *supra* note 86, at 4–12, 269–72.

115. See *infra* notes 136–59 and accompanying text.

## 2. Professional Networks and Geographic Clusters

Innovations often spread because individuals and firms located in geographic clusters share information about exciting new innovations with clients, friends, and colleagues. The legal and accounting professionals involved with supercharged IPOs are especially apt to operate as agents helping to spread ideas across geographic areas, industries, and firm types.<sup>116</sup> Indeed, various scholars have found that network ties operate as an especially important diffusion mechanism when the innovators are located in close geographic proximity.<sup>117</sup> We explore the network theory of diffusion by examining the use of supercharged IPOs in the major professional networks around the country, including New York, Chicago, Boston, and Los Angeles. We uncover data that imply one specific professional network is largely responsible for the bulk of supercharged IPOs, thereby providing support for the network theory of diffusion.<sup>118</sup>

## 3. Industry Culture

The architects of the supercharged IPO are lawyers and accountants, but it is possible that certain types of clients will be more likely than others to utilize innovative financial discoveries in an effort to retain a competitive edge in their respective industries.<sup>119</sup> Private equity and asset management firms, for example, are widely viewed to be aggressive planners in both the tax and accounting spheres. Indeed, qualitative data suggest that the innovation spiral that occurred on the IPO landscape was engineered with the help of

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116. See Jennifer Brown, *The Spread of Aggressive Corporate Tax Reporting: A Detailed Examination of the Corporate-Owned Life Insurance Shelter*, 86 ACCT. REV. 23, 33 (2011) (discussing diffusion of tax shelter activity).

117. *Id.*

118. See *infra* notes 136–59 and accompanying text.

119. Institutional and cultural constraints in general may also help explain why some companies adopt innovative tax structures and some do not. While measuring the precise impact of these factors is challenging, seasoned practitioners often point to variation in corporate culture or managerial sophistication to explain how different clients react to new tax ideas. Some academic research backs this common observation. When the Sarbanes-Oxley legislation changed internal auditing controls—and reined in Enron-style corporate culture—the use of corporate tax shelters declined significantly. Victor Fleischer, *Options Backdating, Tax Shelters, and Corporate Culture*, 26 VA. TAX REV. 1031 (2006). Managerial sophistication matters, too: private equity-backed companies tend to be more aggressive in their tax planning. See Sharon P. Katz et al., *The Impact of Private Equity Ownership on Portfolio Firms' Corporate Tax Planning* 1–5 (Harvard Bus. Sch., Working Paper No. 10-004, 2009), available at <http://perma.cc/L7TW-P3PJ>.

private equity firms seeking to enhance the benefits of the early supercharged IPO.<sup>120</sup> The principals of these firms often have substantial experience structuring deals and for this reason have a deep understanding of the stakes involved in the deal. Because of their chosen line of work, private equity and hedge fund managers exhibit a high level of tax sophistication. Thus, the theory of industry culture as a diffusion mechanism leads to the hypothesis that, irrespective of geography, private equity and asset management firms will be early adopters of good innovations in the IPO context.<sup>121</sup> We find that these groups do affect the likelihood of supercharging an IPO, but not in the positive way anticipated by the theory.<sup>122</sup>

#### 4. Media Attention

Supercharged IPOs have received substantial attention in popular journals, including the *New York Times*, the *Wall Street Journal*, *Forbes*, and many others.<sup>123</sup> At the same time, extensive commentary on this innovative deal has appeared in specialized legal, tax, and accounting outlets.<sup>124</sup> This widespread attention and interest, both positive and negative, educates firms, lawyers, and financial intermediaries about the latest, most innovative deal structures and raises awareness of an alternative to the traditional approach to going public.<sup>125</sup> Irrespective of whether the innovation is advantageous to all the parties or solely to the company's owner-founders, the media theory of diffusion leads to the hypothesis that as media attention increases, so too does the use of the supercharged IPO, along with the complex TRAs. We do not find empirical support for this hypothesis.

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120. See, e.g., Johnston, *supra* note 10 (New York Times)

121. This prediction is analogous to predicting that when a cutting-edge oncologist is a patient herself, she will tend to choose a more aggressive form of cancer treatment than the average patient would choose. Melinda Beck, *Checking Up on the Doctor: What Patients Can Learn from the Ways Physicians Take Care of Themselves*, <http://perma.cc/GL2E-M89R> (wsj.com, archived Feb. 3, 2014).

122. See *infra* notes 136–59 and accompanying text.

123. See, e.g., Johnston, *supra* note 10 (New York Times); REUTERS, *supra* note 9 (Reuters); Sloan, *supra* note 18 (Washington Post); Stammers, *supra* note 43 (Forbes).

124. Dance, *supra* note 105 (publication devoted to pass-through entities); Rosen & Furci, *supra* note 17 (law firm publication); Elliot, *supra* note, at 8 (Tax Notes).

125. See Nancy C. Staudt, *Taxpayers in Court: A Systematic Study of a (Misunderstood) Standing Doctrine*, 52 EMORY L.J. 771, 838–40 (2003) (arguing public attention to a legal issue prompts lawyers and clients to follow suit).

#### IV. THE EMPIRICAL INVESTIGATION

Supercharged IPOs have emerged amidst controversy, but they have also spread quickly across the financial landscape. In this Section, we turn from the theoretical literature to empirical data in an effort to understand and explain why some parties choose to supercharge their IPOs while others pursue conventional deal structures. We begin in Part IV.A by describing our data and explaining our models. In Part IV.B, we present our empirical results. Part V investigates the implications of our findings both for the parties involved in IPOs and for legal reformers.

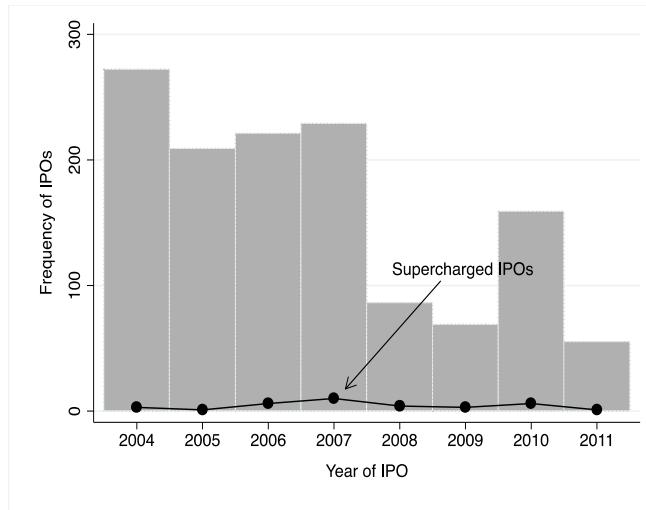
##### *A. The Data and the Models*

This study investigates IPOs that took place between January 1, 2004, and May 1, 2011. We selected this time period because supercharged IPOs were rare prior to 2007 but began to flourish after that time. By including time periods both before and after 2007, we are able to identify the factors that help to explain the supercharged IPO's rise and diffusion. To identify the population of interest, we obtained the registration statements under the Securities and Exchange Act of 1933, also known as SEC Form S-1, for each new securities offering.<sup>126</sup> This process generated 1,326 IPOs between the years 2004 and 2011. Only a small portion of these IPOs—just 2%—were supercharged with a TRA. Figure 3 below depicts this distribution. The gray bars indicate conventional IPOs, and the black line at the bottom of the graphs depicts supercharged IPOs. Every year between 2004 and 2011, owner-founders supercharged between one and six IPOs, with the exception of 2007, when ten IPOs were supercharged.

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126. We identified all S-1s from the Knowledge Mosaic database, <http://perma.cc/F9HU-PURK> ([knowledge-mosaic.com](http://knowledge-mosaic.com), archived Feb. 3, 2014). Because we are interested in initial public offerings of equity securities where the investors implicitly price the assets and liabilities of the issuer (including tax assets and liabilities), we excluded all debt offerings, secondary offerings, SPACs, offerings that would trade on OTCBB, Pink Sheets, penny stock offerings (\$1 or under), 401k plan offerings, and offerings of nonoperating companies (mutual funds, ETFs, commodity pools). We are not interested in secondary offerings, private or PORTAL offerings, and do not care whether the IPO was successful or not.

We searched each form S-1 for the specific terms: *tax receivable agreement*. This approach excluded similar economic arrangements styled “tax matters agreements” or “tax sharing agreements.” This approach also excluded one observation in which the issuer was a payee (AMC).

**Figure 3: IPOs: Traditional and Supercharged**

Note: Grey bars indicate the total number of traditional IPOs per year, and the black trend line depicts the supercharged IPO adoption curve. Between 2004 and 2011, companies supercharged between one and ten IPOs per year.

### 1. Model 1

For purposes of investigating and comparing traditional and supercharged IPOs, we devised three statistical models. The first model explores the theories outlined above with respect to the rise of the supercharged IPO, including tax and accounting regulations, information asymmetry, transaction costs, and the business cycle. To understand how we put our theory and hypotheses to work, consider the following model:

$$(1) \quad \Pr(SuperIPO_i = 1) = b_0 + b_1 TaxArbitrage_i + b_2 Goodwill_i + b_3 ExistingTaxAssets_i + b_4 NeedlesslyComplex_i + b_5 Macroeconomy_i + \Sigma b_j C_{ij} + e$$

where  $SuperIPO_i$  in Equation 1 is the parties' decision to supercharge the IPO with a TRA and is coded equal to one if the deal is supercharged and equal to zero otherwise.<sup>127</sup> As discussed above, our first hypothesis relates to the parties' ability to take advantage of tax and accounting rules. Because the tax rates imposed on many of the

127. We included all the IPOs with a TRA but took a random sample of all other IPOs. See JEFFREY M. WOOLDRIDGE, INTRODUCTORY ECONOMETRICS 327–28 (2006) (discussing stratified sampling techniques).

relevant parties were constant and unvarying between 2004 and 2011,<sup>128</sup> we used a proxy to test our arbitrage theory. We know that many IPOs involve individuals who sell partnership shares to Public Co. and that this sale generates a 15% capital gains rate on subsequent TRA payments but a 35% deduction rate for Public Co.<sup>129</sup> Accordingly, we created *TaxArbitrage<sub>i</sub>*, a variable that is equal to one if Founders Co. is a partnership and equal to zero otherwise. Our second hypothesis relates to the extent of the parties' ability to utilize the advantageous tax and accounting rules vis-à-vis goodwill. This ability will vary depending on the underlying value of the goodwill asset at the time of the IPO, a number that we cannot directly observe. As a proxy, we created the variable *Goodwill<sub>i</sub>*, which is a continuous measure of Public Co.'s market value (based on post-IPO trading) less the net book value of Founders Co. immediately prior to the IPO, in \$1 billion increments.<sup>130</sup> If the IPO is structured as a taxable deal, this amount will correlate closely with the amount of the potential basis step-up attributable to goodwill, often the most valuable asset in an IPO.

To test our information-asymmetry theory and the idea that investors do not value tax assets due to an information deficit, we created the variable *ExistingTaxAssets<sub>i</sub>*, a continuous variable that captures the value of Founders Co.'s net tax assets in \$10 million increments listed at the time of the IPO on the company's balance sheets. A positive correlation between existing tax assets and the decision to supercharge an IPO would lend support to the theory that investors disregard tax assets when purchasing shares. Thus, owner-founders would be right to extract this value with the help of a TRA. In an effort to dig deeper into our theory of information asymmetry and, specifically, owner-founders' misconduct, we created the variable *NeedlesslyComplex<sub>i</sub>*, which is continuous and measures the number of pages in ten-page increments in the IPO public filings. The hypothesis is that as the number of pages increases, the temptation to include a TRA will increase, on the theory that public investors will neither observe nor understand the additional material imbedded in the deal.

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128. See *U.S. Federal Individual Income Tax Rates History, 1913–2013 (Nominal and Inflation-Adjusted Brackets)*, <http://perma.cc/6BN9-ULZS> (taxfoundation.org, archived Feb. 3, 2013) (presenting data on rates over the course of time).

129. *Id.*

130. We gathered data from the CRSP database (Daily Stock File) where possible, <http://perma.cc/7RV8-XH7B> (crsp.com, archived Feb. 3, 2014) and from the website YCharts for firms where CRSP data was missing. See <http://perma.cc/RF8S-T9EB> (ycharts.com, archived Feb. 3, 2014). Some firms in the sample withdrew their IPO offerings because of market conditions or other reasons, so no measure of market value is available.

We expect a preexisting complicated deal structure to enable owner-founders to add a TRA without incurring market sanctions associated with a decrease in the price paid for Public Co.'s shares.

Finally, one group of theorists argues that economic growth will inspire financial innovation, but another argues that market factors will have no effect at all. We test these theories with the help of *Macroeconomy<sub>i</sub>*, a dichotomous variable that measures whether the economy is growing or shrinking, as measured by the National Bureau of Economic Research ("NBER").<sup>131</sup> Finding a positive correlation between upswings in the economy and the supercharged IPOs would support the first group of theorists, while a null finding would support the second group.

Our hypotheses forecast a positive correlation between the first three variables (*TaxArbitrage<sub>i</sub>*, *Goodwill<sub>i</sub>*, and *ExistingTaxAssets<sub>i</sub>*) of Model 1 and the use of supercharged IPOs; thus, we expect that the coefficients on those variables will be positive ( $b_1$ ,  $b_2$ , and  $b_3 > 0$ ). If the coefficients on these variables are not positive, then these factors do not play the expected role in the parties' decision to adopt this deal structure. Indeed, if these coefficients are equal to zero or negative ( $b_1$ ,  $b_2$ , and  $b_3 \leq 0$ ), the evidence favors the critics' interpretation of these deals: owner-founders are not motivated by a desire to reduce taxes and save investors' money, but perhaps by the desire to extract large sums from Public Co. irrespective of the effect on investors. If bad behavior is present, we expect the coefficient on *NeedlesslyComplex<sub>i</sub>* to be positive ( $b_4 > 0$ ). If that coefficient is negative ( $b_4 < 0$ ), then complex deals discourage the use of the TRAs, perhaps out of fear of market punishment or perceived improprieties—a finding that would undermine the claim that owner-founders are acting in an underhanded fashion. We expect the coefficient on *Macroeconomy<sub>i</sub>* to be positive ( $b_5 > 0$ ) if, as theories have argued, a growing economy generates financial innovation. If the coefficient on *Macroeconomy<sub>i</sub>* is negative ( $b_5 < 0$ ), a contracting economy generates innovation, and if it is equal to zero ( $b_5 = 0$ ), macroeconomic factors have no effect on the parties' behavior.

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131. The NBER business-cycle dating committee publishes information with respect the macroeconomy and identifies whether the nation is in a period of growth or contractions. The data is widely available on the internet. See *U.S. Business Cycle Expansions and Contractions*, <http://perma.cc/8KHZ-QV6Y> (nber.org, archived Feb. 3, 2014).

**Table 1: Model 1**

Variable	Expected Correlation
<i>TaxArbitrage</i>	+
<i>Goodwill</i>	+
<i>ExistingTaxAssets</i>	+
<i>NeedlesslyComplex</i>	+
<i>Macroeconomy</i>	+

## 2. Model 2

Model 1 identifies our strategy for understanding the general incentives for supercharging an IPO. Extant theory, however, also provides an intuition for how and why successful innovations diffuse across industries and geographic zones. Notwithstanding the drawbacks associated with complexity and bad press, Robert Willens has noted that supercharged IPOs, along with the attendant TRAs, have become “almost standard procedure in these types of incorporations.”<sup>132</sup> To investigate this diffusion process, we rely on two additional models. Model 2 is specified as follows:

$$(2) \quad \Pr(SuperIPO_i = 1) \\ = b_0 + b_1 EliteLawyers_i + b_2 EliteAccountants_i + b_3 NetworkBoston_i \\ + b_4 NetworkNYC + b_5 NetworkChicago_i + b_6 NetworkBayArea_i \\ + b_7 NetworkLA_i + b_8 PrivateEquity_i + b_9 Media_i + \Sigma b_j C_{ij} + e$$

where  $SuperIPO_i$  in Equation 2 is the parties’ decision to supercharge the IPO with a TRA and is coded equal to one if the deal is supercharged and equal to zero otherwise. Our first theory of diffusion relates to the use of elite lawyers and accountants, individuals who are likely to create, track, and use the most up-to-date and innovative deal structures. To test this theory, we rely on  $EliteLawyer_i$  and  $EliteAccountant_i$ , dichotomous variables coded equal to one if the lawyer or accountant on the deal is from an elite firm and equal to zero otherwise.<sup>133</sup> Our second theory relates to legal networks: we

132. Willens, *supra* note 60, at 1.

133. We used the firm Chambers and Partners’ methodology to identify the law firms in the first tier: Cleary Gottlieb Steen & Hamilton, Davis Polk & Wardwell, Skadden, Arps, Slate, Meagher & Flom, Sullivan & Cromwell, and Wachtell, Lipton, Rosen & Katz. See <http://perma.cc/H2JT-E4QW> ([chambersandpartners.com](http://chambersandpartners.com), archived Feb. 3, 2014). The top law firms in the second tier, using this same methodology, include: Cravath, Swaine & Moore, Debevoise & Plimpton, Kirkland & Ellis, Latham & Watkins, Simpson Thacher & Bartlett, and Weil, Gotshal & Manges. *Id.*

expect corporations that hire lawyers and consultants from shared professional networks to be more likely to discover innovative ideas and to put those ideas to work. We test this theory with the help of a group of variables indicating whether the lawyers on the deal were located in Boston, New York City, Chicago, the Bay Area, or Los Angeles—the five most popular metropolitan areas for firms doing IPO work. The variables  $NetworkBoston_i$ ,  $NetworkNYC_i$ ,  $NetworkChicago_i$ ,  $NetworkBayArea_i$ , and  $NetworkLA_i$  are all coded equal to one if the firm is from that city and equal to zero otherwise.

Our third theory of diffusion posits that industry culture fosters the dissemination of innovative financial strategies. Private equity firms and hedge funds are widely believed to be particularly innovative and likely to be early adopters of creative financing plans. We test this theory with  $PrivateEquity_i$ , a dichotomous variable that is equal to one if the firm is a private equity firm (not including venture capital firms) or if the issuer was backed by a private equity firm, and equal to zero otherwise.

Finally, we investigate our fourth theory, which posits that media attention will promote the use and diffusion of supercharged IPOs. We test this hypothesis with the variable  $Media_i$ , a continuous variable that measures the extent of media coverage in national journals (both popular and those geared to tax, accounting, and banking audiences) with respect to supercharged IPOs. In sum, we expect a positive correlation between supercharged IPOs and all the variables in Model 2 ( $b_1$  through  $b_9 > 0$ ).

**Table 2: Model 2**

Variable	Expected Correlation
<i>EliteLawyer</i>	+
<i>EliteAccountant</i>	+
<i>NetworkBoston</i>	+
<i>NetworkNYC</i>	+
<i>NetworkChicago</i>	+
<i>NetworkBayArea</i>	+
<i>NetworkLA</i>	+
<i>PrivateEquity</i>	+
<i>Media</i>	+

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The Big Four Accounting Firms include: (1) Deloitte, (2) KPMG, (3) Ernst & Young, and (4) PricewaterhouseCoopers. See *The Big Four Accounting Firms*, <http://perma.cc/manage/create/big4accountingfirms.org>, archived Feb. 3, 2014.

### 3. Model 3

Model 3 also investigates the diffusion process but seeks to identify the “first movers.”

$$(3) \quad Date\_SuperIPO_i = b_0 + b_1 EliteLawyers_i + b_2 EliteAccountants_i + b_3 NetworkBoston_i \\ + b_4 NetworkNYC + b_5 NetworkChicago_i + b_6 NetworkBayArea_i \\ + b_7 NetworkLA_i + b_8 PrivateEquity_i + \Sigma b_j C_{ij} + e$$

Our dependent variable in Model 3 is the date on which a company filed an S-1 statement with the SEC.<sup>134</sup> The eight independent variables are identical to those outlined in Model 2,<sup>135</sup> and we expect a positive correlation between the date of the supercharged IPO and all the variables in model ( $b_1$  through  $b_8 > 0$ ). In short, we hypothesize that early movers will be firms that (1) use elite lawyers and accountants, (2) are in key professional networks, and (3) have ambitious firm cultures and organizations.

In addition to the explanatory variables just described in Models 1, 2, and 3, we have a control set in each model, which includes whether Founders Co. was incorporated in Delaware (*StateIncorp\_Del*), Founders Co.’s market capitalization in \$1 billion increments (*MarketCap*), and a time trend indicating, when relevant, the filing date of the first S-1. These variables ensure that our models account for unexpected or unobservable factors associated with the choice to incorporate domestically or in a tax haven (*StateIncorp\_Haven*), the company’s value at the time of the IPO, and the time period of the filing. Finally, we weighted our data to account for the fact that we used a unique sampling frame for purposes of collecting data. We included every supercharged IPO that took place on the market into our dataset but took a random sample of the traditional IPOs. By weighting the data to account for the different probabilities of selection, we improve our chances of producing unbiased estimates.

134. We coded the variable “date” as the day, month, and year that the S-1 Form was filed. Because STATA stores dates as integers, early dates in the data base have a lower number than later dates. In order to easily interpret our linear regression model, we converted the positive integers into negative integers. Accordingly, we will interpret the regression coefficients in Model 3 in the following way: a positive coefficient indicates the lawyer, firm, network, etc. is associated with an early adoption of the TRA.

135. We excluded media coverage in our third model on the grounds that this coverage would not be expected to explain the first-mover status. The media coverage began three years after the early movers began supercharging their IPOs.

**Table 3: Model 3**

Variable	Expected Correlation
<i>EliteLawyer</i>	+
<i>EliteAccountant</i>	+
<i>NetworkBoston</i>	+
<i>NetworkNYC</i>	+
<i>NetworkChicago</i>	+
<i>NetworkBayArea</i>	+
<i>NetworkLA</i>	+
<i>PrivateEquity</i>	+
<i>Media</i>	+

### B. Competing Theories of Supercharged IPOs: The Empirical Results

We now turn to our empirical findings. Our dependent variable in Models 1 and 2 is the presence of a supercharged IPO. As explained above, this is a binary variable, and thus, we use probit models for purposes of estimation.<sup>136</sup> Probit coefficients are difficult to interpret,<sup>137</sup> so we present our results with respect to Models 1 and 2 in an alternative and easy to comprehend form: the tables below depict the likelihood that the parties will supercharge their IPO given a unit increase in the independent variable.<sup>138</sup> Recall that we explained our coding protocols for each variable above—this is

136. Probit models are necessary because the dependent variable is binary. A large literature discusses the advantages of using a probit (or a logit) model over a linear probability model with a binary dependent variable. See, e.g., PETER KENNEDY, A GUIDE TO ECONOMETRICS 259–61 (5th ed. 2003) (using a linear probability model and producing estimated probabilities outside the zero to one range); J. SCOTT LONG, REGRESSION MODELS FOR CATEGORICAL AND LIMITED DEPENDENT VARIABLES 34–84 (1997) (using a linear probability model with a binary dependent variable necessarily violates many of the underlying assumptions of the former, including those associated with heteroskedasticity, normality, and functional form). See generally DAVID COLLETT, MODELING BINARY DATA 54–55, 92–93 (2d ed. 2003).

137. See WOOLDRIDGE, *supra* note 126, at 588 (“[F]rom a practical perspective the most difficult aspect of logit or probit models is presenting and interpreting the results.”); see also JACK JOHNSTON & JOHN DINARDO, ECONOMETRIC METHODS 422 (1997) (noting that probit coefficients are difficult to interpret and arguing that “it is not generally useful merely to report the coefficients from a probit [as it is for a linear probability model] unless only the sign and significance are of interest”); LONG, *supra* note 135, at 61–83 (discussing four interpretive approaches).

138. We generated these probability estimates by transforming the probit coefficients with the “dprobit” command in STATA. See 2 STATA CORP., STATA BASE REFERENCE MANUAL, at 475–77 (2005) (discussing dprobit as a useful means for transforming probit coefficients into easily interpreted probabilities). The marginal effects are calculated for each variable, holding all other variables at their mean. The original probit models have an intercept, but we use “dprobit” and thus do not report marginal effects for the intercept on the theory that this would make no sense given all the variables are held at the mean with the “dprobit” command.

important information if our results are to be interpreted correctly.<sup>139</sup> For example, a positive sign on a coefficient presented in the tables below would indicate that as the independent variable increases (moves from zero to one if it is binary),<sup>140</sup> the parties are more likely to supercharge the IPO; a negative sign indicates that the parties are less likely to supercharge the deal as the independent variable increases. In Model 3, we use a continuous dependent variable—the date a company files an S-1 indicating a supercharged IPO is planned—and consequently, we use a linear regression model.<sup>141</sup> These coefficients are directly interpretable: a positive coefficient indicates that as the independent variable increases, the earlier the date of an S-1 filing with a TRA; a negative coefficient indicates that as the independent variable increases, the later the date of an early S-1 filing.

### 1. The Rise of the Supercharged IPO

To begin our investigation, we focus on Model 1, which presents the competing models for the rise of the supercharged IPO outlined above. Recall that Model 1 seeks to identify the factors that theorists have identified for innovation generally—tax and accounting rules, information asymmetry, transaction costs, and the macroeconomy. We investigate these factors in an effort to identify how they affect IPOs and the choice to supercharge the deal. Table 4 immediately below presents our results; the third and fourth columns indicate different specifications of Model 1.

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139. See *supra* notes 127–35 and accompanying text.

140. For example, we coded the variable *TaxArbitrage* equal to one if the parties are subject to differential tax rates, and zero otherwise. If the coefficient on the *TaxArbitrage* variable is positive (negative) then the possibility of tax arbitrage makes it more (less) likely that the deal will be supercharged with a TRA. See *supra* notes 127–31.

141. See WOOLDRIDGE, *supra* note 126, at 400.

**Table 4: Competing Theories of Innovation**

Theories	Variables	Model 1 (Specification A)	Model 1 (Specification B)
Regulatory Arbitrage	<i>TaxArbitrage</i> <i>Goodwill</i> <i>TaxArbitrage × Goodwill</i>	.10 (.03)*** -.0009 (.007)*	.10 (.03)*** .007 (.002) -.002 (.002)
Information Asymmetry: Investor Info Deficit	<i>ExistingTaxAssets</i>	.00006 (.00005)	.00005 (.00006)
Information Asymmetry: Founders' Opportunism	<i>NeedlesslyComplex</i>	.0001 (.0002)	.0002 (.0002)
Macroeconomy	<i>Macroeconomy</i>	-.015 (.01)**	-.016 (.011)**
Control Set	<i>MarketCap</i> <i>StateIncorp_Del</i> <i>StateIncorp_Haven</i> Time Trend	.002 (.001)** .004 (.003)** .006 (.01) .001 (.0007)	.0009 (.002) .004 (.003)** .006 (.01) .001 (.0007)
Observations		315	315
Pseudo r <sup>2</sup>		.40	.40

Note: The results depict the likelihood of a supercharged IPO given one unit increase in the independent variable. We used dprobit to generate the findings presented in Table 1 in STATA. \*\*\* indicates the findings are statistically significant at the .01 level, \*\* indicates statistical significance at the .05 level, and \* indicates significance at the .10 level.<sup>142</sup>

Our first theory posits that tax and accounting regulations will affect the choice to innovate in the IPO context. To test this theory, we focus first on tax-arbitrage opportunities; this emerges when the owner-founders are taxed at a 15% rate and Public Co. is taxed at a 35% percent rate.<sup>143</sup> As presented in Table 4, Specification A, we find that when the parties have tax-arbitrage opportunities, they are ten percentage points more likely to adopt a supercharged IPO. This finding is highly statistically significant, suggesting that when partnerships are present and tax-arbitrage opportunities exist, the

142. To replicate our findings in STATA, contact us for the dataset (our contact information is in the acknowledgment footnotes on the Article's first page) and use the following code for Model 1, Column A: *probit TRA partnership Goodwill\_Bill net\_taxass\_tenmill pages\_10 cycle MarketCap\_bill StateIncorp\_Del StateIncorp\_Haven y [pweight=weight]*.

For Model 1, Column B, use the following STATA code: *xi: dprobit TRA i.partnership\*Goodwill\_Bill net\_taxass\_tenmill pages\_10 cycle MarketCap\_bill StateIncorp\_Del StateIncorp\_Haven y [pweight=weight]*.

143. See *supra* notes 127–31 and accompanying text for a discussion regarding tax rates and coding protocols.

parties have a strong motivation to supercharge their IPO.<sup>144</sup> This empirical finding is consistent with our theoretical discussion above, which suggested that the parties would agree to a supercharged IPO in the context of differential rates but not when the parties were taxed at the same rate, in light of the expected overall net loss in the latter deals.<sup>145</sup> We discuss the details of why this is true in the Appendix.

We also examined the presence of goodwill, which, as discussed above, allows the parties to take advantage of the variance in the tax and accounting rules.<sup>146</sup> Our findings surprisingly show a negative correlation: as Founders Co.'s goodwill increases, the likelihood of supercharging the IPO decreases. More specifically, for every \$1 billion increase in goodwill, the parties are 0.09% less likely to adopt the innovative IPO structure at statistically significant levels. The size of this coefficient, however, is minuscule, implying that goodwill is having close to zero effect on deal structures.<sup>147</sup>

To investigate in more detail the twin findings with respect to tax and accounting, we created an interaction term: a term that identifies how two variables interact together in affecting the parties' choices. Models with interaction terms are more complex to interpret.<sup>148</sup> The variable *TaxArbitrage* in Table 4, Specification B now indicates how tax rates affect the parties when Founders Co. has no goodwill, and the variable *Goodwill* indicates the role of goodwill in the absence of tax-arbitrage opportunities. The interaction term, *TaxArbitrage* × *Goodwill*, reflects the marginal impact of goodwill on the likelihood of supercharging an IPO when the opportunity for tax arbitrage is present. The finding with respect to tax arbitrage in Table 4, Specification B indicates that the parties continue to be

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144. For a useful discussion of statistical significance and its interpretation for empirical results, see WOOLDRIDGE, *supra* note 126, at 133–38.

145. See *supra* notes 82–91 and accompanying text.

146. See *supra* notes 82–91 and accompanying text.

147. For example, People's United Financial, Inc. went public in late 2006 with over \$6 billion in goodwill, meaning the probability that the company would supercharge the IPO decreased by 0.6%—less than 1%. People's United Fin., Inc., Registration Statement (Form S-1) (Nov. 2, 2006), available at <http://www.nasdaq.com/markets/spos/filing.ashx?filngid=4480665>. We also created an indicator variable with goodwill coded equal to one for companies with goodwill over \$500 million and equal to zero otherwise. The sign of the coefficient in this model changed from negative to positive, but still did not achieve statistical significance.

148. See Edward C. Norton, Hua Wang & Chunrong Ai, *Computing Interaction Effects and Standard Errors in Logit and Probit Models*, 4 STATA J. 154, 154–67 (2004) (arguing that most applied researchers misinterpret the coefficients on interaction terms and proposing useful interpretive procedures); see also William Greene, *Testing Hypotheses About Interaction Terms in Nonlinear Models*, 107 ECON. LETTERS 291, 291, 295 (2010) (arguing that graphical presentations are the most effective means for presenting the results).

ten percentage points more likely to supercharge their IPO even when they have no goodwill. The consistency of the results with respect to tax arbitrage across models strongly suggests that they are robust and that tax motives are playing a major role in the choice to innovate. With respect to goodwill alone, we find the coefficient changes from negative to positive but is not statistically significant, suggesting that goodwill alone is not playing a strong role in the parties' IPO planning—a result that is also robust across different model specifications.<sup>149</sup> Now consider how tax arbitrage and goodwill interact when simultaneously present. Table 4, Specification B indicates that the parties are less likely to supercharge the deal in these circumstances, but not at statistically significant levels. In short, our models suggest that tax arbitrage, and not the book-tax differences associated with goodwill, is the primary motivator for supercharging an IPO. Our theoretical and quantitative analyses suggest this conclusion, and the raw data supports it: 44% of all the parties capable of engaging in tax arbitrage executed a TRA, while only 1% of the parties who had no arbitrage opportunities but had goodwill present adopted a TRA.

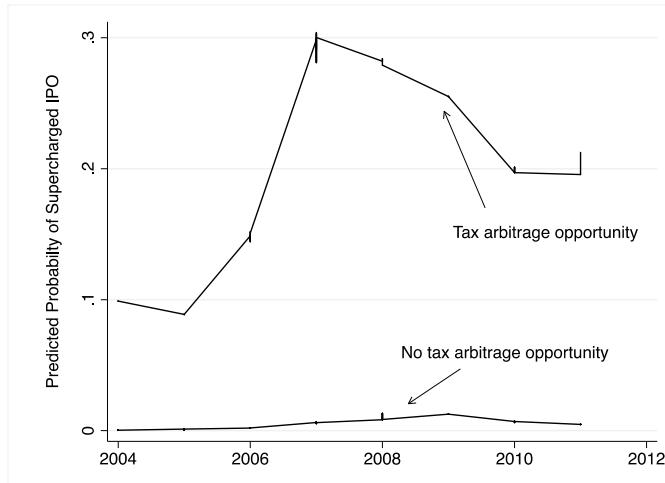
Figure 4 below presents our findings with respect to tax arbitrage in visual form. Our model predicts that, holding all other variables constant, firms with tax-arbitrage opportunities have, on average, a 25% likelihood of supercharging their IPO, whereas firms without this capability have a 0.04% likelihood of adopting this innovative deal structure. Figure 4 below depicts the firms' probabilities of supercharging their IPO over the course of years. It is easy to see that those with tax-arbitrage opportunities are more likely to supercharge in every year of our data.<sup>150</sup>

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149. See *supra* note 147 exploring the effects of goodwill using an indicator variable.

150. We generated these graphs with the help of the “graph twoway lowess” syntax in STATA. See STATA, GRAPHICS REFERENCE MANUAL 217–19 (9th ed. 2005).

**Figure 4: Predicted Probability that Firms With and Without Tax-Arbitrage Opportunities Will Supercharge Their IPO**



Note: The figure depicts the probability of a supercharged IPO on the y-axis and the year of the IPO on the x-axis. The graph presents the predicted probability of a supercharged IPO using a locally weighted scatterplot-smoothing (Lowess) curve.

We now consider the information-asymmetry theory of innovation. Our model, presented in Table 4, Specifications A and B above, indicates that this theory has no role in the choice to supercharge an IPO. First, we find that for every \$1 million of tax assets, the parties are 0.006% more likely to execute a TRA. Not only is this size of the coefficient virtually zero, but the finding is not statistically significant.<sup>151</sup> This suggests that owner-founders do not use tax assets as a justification for extracting funds in the post-IPO period on the grounds that investors naively ignore the value of these assets. Moreover, our results indicate that owner-founders are not slipping TRAs into complex IPO documents for opportunistic reasons, as suggested by our finding on the variable *NeedlesslyComplex*. Table 4, Specifications A and B indicate that as the S-1 filing increases by ten pages, the parties have a 0.01% increase in the likelihood of supercharging the IPO, a finding that is both very small substantively and not statistically significant. The null findings that emerge in both specifications of the models with respect to information asymmetry imply that this factor does not affect IPOs, as we theorized above.

151. For a useful discussion of statistical significance and its interpretation for empirical results, see WOOLDRIDGE, *supra* note 126, at 133–38.

The transaction-cost theory of IPOs can be assessed indirectly with the series of findings just discussed vis-à-vis tax and accounting regulations and information asymmetry. As we noted above, theorists have argued that TRAs eliminate transaction costs in certain circumstances—they remove the need to negotiate the value of tax assets and enable the parties to reach an agreed-upon up-front price. Our models suggest that this is only true when tax arbitrage is present; goodwill standing alone is not sufficient reason to supercharge an IPO and will not produce benefits that exceed costs.

Moreover, our models suggest that Founders Co. is not using the supercharged IPO as a means to ensure investors pay for tax assets, nor is it slipping TRAs into the IPO in order to surreptitiously extract money from Public Co. Owner-founders, therefore, are not acting opportunistically, contrary to what many have argued.<sup>152</sup> This finding implies that the costs of adopting these strategies exceed their benefits when tax arbitrage is not a possibility. Our models, in short, support the idea that TRAs may eliminate transaction costs when tax arbitrage exists but are likely to exacerbate costs in other contexts and thus are not worth the effort or the bad press.<sup>153</sup>

Finally, the macroeconomic theory of innovation posits two hypotheses: financial experts will innovate with a growing economy, or, alternatively, experts will innovate in all periods as a means to maintain a competitive edge. Our findings challenge the extant theoretical literature. We find that as the economy becomes stronger, the parties are less likely to supercharge their IPOs. Both Specifications A and B in Table 4 indicate that, in a growing economy, the probability of a supercharged IPO decreases by sixteen percentage points, and this finding is statistically significant. Although the finding challenges existing theory, it is not altogether surprising in this context. The value of tax assets are linked to the companies' future profits, which are less certain in periods of economic decline. For this reason, a new Public Co. (and its investors) would be less willing to pay for those assets up front and would prefer to execute a TRA. Figure 5 depicts the likelihood of a supercharged IPO in periods of economic growth and decline. The gray areas represent growth, and the white area represents the "Great Recession" that took place from late 2007 to early 2009.<sup>154</sup> The black trend line indicates the

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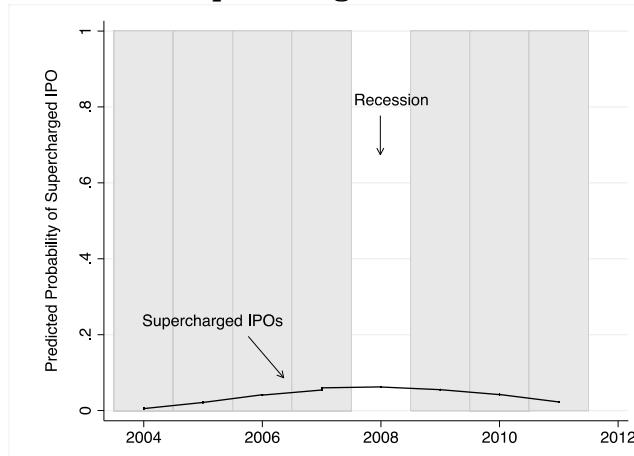
152. See *supra* notes 11–20 and accompanying text.

153. See *supra* notes 82–91 and accompanying text.

154. The precise start and stop dates of U.S. economic growth and decline is published by the National Bureau of Economic Research. NAT'L BUREAU OF ECON. RESEARCH, BUSINESS CYCLE EXPANSIONS AND CONTRACTIONS, <http://perma.cc/4HQ2-R7XC> (nber.org, archived Feb. 3, 2014).

probability of a supercharged IPO. It is easy to see that the probabilities increase in the recessionary period and decrease in periods of economic growth, though the differential is substantively small. At statistically significant levels, the parties have a 4% likelihood of supercharging their IPO in periods of economic growth and a 7% likelihood of supercharging in periods of economic decline.

**Figure 5: The Effects of the Macroeconomy on the Choice to Supercharge an IPO**



Note: The gray and white areas indicate periods of economic growth and stagnation, respectively, as determined by the NBER dating committee. The graph presents the predicted probability of a supercharged IPO using a locally weighted scatterplot-smoothing (Lowess) curve. As indicated in the figure, supercharged IPOs are 3% more likely to occur in periods of recession.

At last, we turn to our control set. We find that companies organized in Delaware are more likely to innovate than those organized elsewhere, including in tax havens. Because Delaware is widely viewed as an agreeable place for companies to incorporate for legal reasons, it is not surprising that sophisticated companies choose this state over others.<sup>155</sup> Notably, TRAs are not associated with tax havens, implying that owner-founders are willing to push the boundaries of their tax planning, but only so far. As we will see below, however, firms organized in tax havens appear to be the early movers

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155. Lucian Bebchuk & Alma Cohen, *Firms' Decisions Where to Incorporate*, 46 J.L. & ECON. 383 (2003) (investigating why and where firms incorporate and arguing that Delaware's dominance can be expected to increase in the future).

when it comes to adopting the supercharged IPO deal structure.<sup>156</sup> A firm's market capitalization has no effect on the choice to supercharge, and our time trend suggests that TRAs have gotten more popular in recent periods, but not at statistically significant levels.

## 2. The Early Adopters and the Proliferation of the Supercharged IPO

We now turn to the factors that explain the use and proliferation of supercharged IPOs. We begin first with Model 2, which identifies the parties most likely to adopt the innovative IPO, and then turn to Model 3, which explores the "first movers." Table 5 presents our findings. The coefficients should all be interpreted as above: a positive coefficient indicates that as the independent variables increase, the likelihood of a supercharged IPO increases (Model 2) or the date on which an entity in the dataset files an S-1 Form with a TRA provision is relatively early (Model 3); a negative coefficient indicates that as the independent variables increase, these probabilities decrease or the company's S-1 filing date becomes relatively later.<sup>157</sup>

With respect to Model 2 and general innovation trends, we present our findings in Table 5. Our first theory posits that lawyers will have an impact on deal structures, and we find that elite lawyers increase the likelihood of supercharging an IPO at statistically significant levels, but only by 1.4 percentage points. Accountants at the Big Four firms have an even smaller effect; they increase the likelihood of a supercharged IPO by 0.5 percentage points, and this finding is not statistically significant. Our second theory posits that, irrespective of the elite nature of the legal or accounting advice, professional networks will have the strongest role to play. Our findings support this theory, although again, the effect is small: we find that IPO-utilizing firms that hire New York lawyers are two percentage points more likely to supercharge their deals than firms anywhere else. Our models indicate that the firm networks located in Los Angeles, Chicago, and the Bay Area have little to no effect on deal structure. It is worthwhile to note that the raw data, which must always be taken with a grain of salt given the lack of controls, supports this finding: New York City law firms were involved in 74% of the supercharged IPOs. The remaining supercharged deals were

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156. See *infra* note 158 and accompanying text.

157. See *supra* notes 132–35 and accompanying text (explaining interpretation of the variables in the models).

sprinkled across various markets, with no market coming in as a close competitor to New York City.

We also theorized that the type of investors sponsoring the IPO would affect the choice to supercharge. Our model indicates that private equity-backed firms are two percentage points less likely to supercharge their IPOs, at statistically significant levels. We expected the opposite result given the ambitious and aggressive nature of these types of sponsors, but we were wrong. Finally, we expected that the media frenzy would have a positive effect on the parties' choice to supercharge the deal. While we do uncover a positive coefficient, it is very small, and the finding is not statistically significant. Our results indicate that elite law firms and firms located in New York City have the greatest effect on deal structure, not the firm's culture or media coverage of the deal's innovative nature.

With respect to the control set, we find that firms with large market capitalizations and those organized in tax havens have little or no effect on the choice to supercharge the IPO. Firms organized in Delaware, however, have an increased likelihood of innovating in the IPO context by one percentage point at statistically significant levels.

**Table 5: Competing Theories of Use and Diffusion**

Theories	Variables	Model 2: Adoption Any Time	Model 3: Speed of Adoption, Conditional on Adoption
Elite Firms	<i>EliteLawyer</i> <i>EliteAccountant</i>	.014 (.009)** .005 (.003)	.91 (.71) 1.14 (.96)
Profl Networks	<i>NetworkBoston</i> <i>NetworkNYC</i> <i>NetworkChicago</i> <i>NetworkLA</i> <i>NetworkBayArea</i>	No supercharged IPOs .02 (.1)*** -.0006 (.01) No supercharged IPOs .0001 (.008)	No supercharged IPOs -.31 (.87) -2.01 (.74)*** No supercharged IPOs -3.32 (1.85)***
Firm Culture	<i>PrivateEquity</i>	-.02 (.008)***	-.56 (.73)
Media Frenzy	<i>Media</i>	-.006 (.00)	
Control Set	<i>MarketCap</i> <i>StateIncorp_Del</i> <i>StateIncorp_Haven</i> Time Trend	.00004 (.0003) .01 (.005)** .02 (.03) .004 (.003)**	-.00004 (.0002) 2.42 (.99)** 4.49 (1.50)***
Observations		324	33
Pseudo r <sup>2</sup>		.24	.48

Note: The results depict the likelihood of a supercharged IPO given one unit increase in the independent variable. We used dprobit in STATA to generate the findings presented in Table 2, Column 3. \*\*\* indicates the findings are statistically significant at the .01 level, \*\* indicates statistical significance at the .05 level, and \* indicates significance at the .10 level.<sup>158</sup>

We now turn to Model 3 and seek to identify the first movers in the supercharged-IPO context. The extant literature argues that first movers tend to be aggressive firm owners who do not shirk from risk and who enjoy the prestige and attention of first-mover status.<sup>159</sup> This would suggest that private equity-backed firms would be early adopters of the supercharged IPO. Those organized in tax havens may

158. To replicate our models, contact us for the data (our contact information is in the acknowledgment footnotes on the Article's first page) and use the following code for Model 2: *dprobit TRA elite\_issue\_counsel Accounting\_Big4 City\_IssuerLaw\_NYC City\_IssuerLaw\_Chicago City\_IssuerLaw\_BayArea sponsor\_VCPE Media\_2007 MarketCap StateIncorp\_Del StateIncorp\_Haven y [pweight=weight]*.

For Model 3 use the following code: *reg neg\_month\_year elite\_issue\_counsel Accounting\_Big4 City\_IssuerLaw\_NYC City\_IssuerLaw\_Chicago City\_IssuerLaw\_BayArea sponsor\_VCPE MarketCap StateIncorp\_Del StateIncorp\_Haven [pweight=weight] if TRA==1*.

159. Andrew Metrick & Ayako Yasuda, *Venture Capital and Other Private Equity: A Survey*, 17 EUR. FIN. MGMT. 619 (2011) (discussing how venture capitalists invest in innovative firms and push for first-mover status); Ravi Ramamurti, *New Players in FDI: Sovereign Wealth Funds, Private Equity, and Emerging-Market Multinationals*, in THE FUTURE OF SOVEREIGN DIRECT INVESTMENT AND THE MULTINATIONAL ENTERPRISE 137 (Ravi Ramamurti & Niron Hashai eds., 2011) (stating that hedge funds and private equity firms are aggressive first movers on the global stage).

also be early adopters. As presented in Table 5, we find that private equity-backed firms were not the early movers. These firms adopted the supercharged deal structure, but only after other firms tried and tested it. Moreover, elite lawyers and accountants did not take the lead in supercharging IPOs, nor did the professional networks that we identified in Boston, Chicago, Los Angeles, New York, and the Bay Area. Indeed, these firms were all less likely to supercharge a deal early.

The variables that have the strongest ability to predict early mover status are found in our control set. Firms organized in Delaware have an increased likelihood of supercharging their IPO early, but it is the firms located in a tax haven that are the most likely to be the first movers. This latter finding is consistent with the extant literature in the sense that it predicts that aggressive and risk-taking firms will be the most likely to adopt a new—and untested—innovative financial plan. Once tested by the market, other firms will follow.

### *C. Summary*

We specified three models for purposes of understanding the rise, use, and diffusion of supercharged IPOs. With respect to the underlying justification for adopting the supercharged deal structure, we found that the primary motivator was the ability to engage in tax arbitrage and that a shrinking economy was a secondary motivator. Our data suggest that owner-founders do not supercharge their deals out of a belief that investors do not understand the value of tax assets or in an effort to opportunistically squeeze profits out of the new public company. Perhaps these last two justifications, widely discussed in the literature, are simply not worth the cost associated with the more complex deal and the bad press.

Our findings with respect to the use and diffusion of supercharged IPOs indicate that owner-founders going public are likely to be organized in Delaware and, at the same time, are likely to hire elite lawyers, most likely from the New York City region. We also investigated the identity of the first movers and found that the variable exerting the largest effect is the location where the firm going public is organized. Firms organized in tax havens are the most likely to use aggressive IPO structures before the broader market tests the financial innovation.

## V. IMPLICATIONS OF EMPIRICAL FINDINGS FOR PARTIES AND LEGAL REFORMERS

Our study has a number of important implications for transactional lawyers, policy reformers, and scholars interested in financial innovation more generally. We begin by reminding readers that the transactional lawyers involved in supercharging IPOs do so in an effort to reduce the parties' overall tax costs—a result that causes harm to the federal fisc and has prompted legal reformers to propose new legislation. In short, the success of the former group makes the work of the latter group more challenging. After discussing the implications of our findings for lawyers and policy analysts, we turn to the scholarly literature and note that our project builds upon and extends a large body of work focused on financial innovation.

### *A. Implications for Transactional Lawyers*

#### 1. Dividing the Costs and Benefits of the Supercharged IPO

We have investigated the differences between traditional and supercharged IPOs, the myriad reasons for why supercharged IPOs entered the market, and the explanations for why they diffused across geographic areas and industries. We have not yet addressed a key pending question, however: who wins and who loses in these innovative deals? Shedding light on this issue will enable owner-founders and public investors to enter deals that most advance their respective economic interests and, perhaps more importantly, avoid deal structures that undermine their welfare.

The parties jointly profit from the deals if and only if (1) new “tax assets”<sup>160</sup> are created in the deal, (2) the operating company is organized as a partnership pre-IPO,<sup>161</sup> and (3) IPO pricing does not perfectly adjust to the presence or absence of tax assets. New tax assets are critical because the transaction costs associated with a TRA are higher than a deal without a TRA—slicing a pie with a fancy and innovative knife does not make more pie! So there must be some new value that makes a supercharged IPO efficient. Second, there must be some opportunity for tax arbitrage; most commonly, this means that the operating company must be organized as a partnership pre-IPO.<sup>162</sup>

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160. See *supra* notes 34–43 and accompanying text.

161. See *supra* notes 61–63, 82–91, 143–45, and accompanying text.

162. See *supra* notes 61–63 and accompanying text. If the company is organized as a corporation, then it must have an net operating loss (“NOL”) or some other tax attribute that

Finally, the sharing of tax benefits via the TRA must be necessary to capture the value of the new structure; if IPO pricing were perfect, and the new investors agreed to pay for all the underlying tax assets, the founders could simply supercharge the deal and accept a higher purchase price in lieu of a TRA, leaving the full value of the tax assets with the newly public company. We note in the Appendix that the supercharged IPO's benefits, when they exist, are nearly equally divided between the parties (the investors and Public Co. obtain slightly more than the owner-founders).

## 2. Regulatory Costs, Not Transaction Costs, Drive Innovation

Traditionally, deal lawyers have been perceived as transaction-cost engineers: adding value by reducing information costs, reining in agency costs, and aligning incentives between the parties.<sup>163</sup> But our empirical findings, along with the explanation of profit sharing, together suggest that tax lawyers may be driving the innovation in deal structure. More interestingly, perhaps, is the implication that you get what you pay for: our data show that firms were more likely to engage in tax arbitrage when they employed elite New York tax counsel.<sup>164</sup> Theoretically, of course, it is also possible that the clients were behind the supercharged IPO and that more aggressive clients engaged elite tax counsel to execute more aggressive transactions. Our empirical findings regarding elite counsel, however, remain significant after controlling for private equity-backed issuers and other types of aggressive financial engineers.<sup>165</sup> The supercharged IPO is best understood, therefore, as a method of moving tax dollars from the government to the selling owners' pockets. The accompanying TRAs appear to be a mostly benign means of delivering this arbitrage-driven benefit (i.e., one that may not harm shareholders).

## 3. Why Corporations?

Our empirical results show that tax arbitrage is the key means by which firms are able to achieve large tax savings in the IPO context. Firms that are going public and are organized as partnerships

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allows it to avoid entity-level gains on the transfer of assets to the new company. See Willens, *supra* note 60, at 1.

163. See SCHNEIDER ET AL., *supra* note 34, at 20 (explaining the purpose of deal lawyers); SCHULTHEIS ET AL., *supra* note 34, at 10 (same).

164. See *supra* notes 158–59 and accompanying text.

165. See *supra* notes 158–59 and accompanying text.

position themselves to take advantage of this opportunity and, indeed, are vastly more likely to use a supercharged IPO than firms organized as corporations. The tax arbitrage created when founders sell equity at capital gains rates while generating a tax asset that can be amortized at ordinary rates is, according to our study, the key driver of this innovation.<sup>166</sup> This finding adds to the puzzle of why so many firms organize as corporations rather than partnerships.<sup>167</sup> Organizing a start-up as a corporation often leaves literally millions of dollars on the table. Savvy tax counsel continue to advise more firms to organize as partnerships, and the availability of exiting by way of a supercharged IPO may entice more founders to choose the partnership form. At the same time, the possibility of a supercharged IPO does not change the frictions that steer many founders toward incorporation in the first place,<sup>168</sup> and it is unclear whether unsophisticated founders will be willing to further complicate the organization of their start-ups.

### B. Policy Implications

Our study demonstrates that with the help of a supercharged IPO, companies, their founders, and investors all stand to save millions of dollars in taxes. This suggests that while these innovative deals are rational from a planning perspective, they are also enormously costly to the public fisc. Put differently, a small group of private and public investors have found a means to avoid tax costs to the detriment of the larger tax-paying public. Policymakers who worry about the tax base as well as the progressive rate structure have not overlooked this reality. Indeed, in 2009, in the wake of the highly controversial Blackstone supercharged IPO that involved millions of dollars of post-IPO payments pursuant to a TRA,<sup>169</sup> Congress

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166. See *supra* notes 61–63, 82–91, 143–45 and accompanying text.

167. CARL WARREN, SURVEY OF ACCOUNTING 3–4 (2010) (stating that roughly 20% of businesses continue to organize as corporations).

168. For a discussion of frictions in the tax context, see generally Schizer, *supra* note 25.

169. When Blackstone, a well-known private equity firm, went public in 2007 in a high-profile IPO, Congress focused for the first time on the controversial tax treatment of the profits Blackstone earns for managing its funds, which is known as “carried interest.” Media attention increased when Stephen Schwarzman, Blackstone’s cofounder and CEO, threw himself a lavish birthday party; Schwarzman’s largesse invited questions about the favorable tax treatment of not only carried interest, but also about the aggressive structure of Blackstone’s IPO, which allows the firm to avoid paying corporate-level income taxes. Blackstone’s tax creativity went even further. Blackstone’s founders entered into a contract, called a “Tax Receivable Agreement,” with the public holding company they created. See Johnston, *supra* note 10; see also Patrick

introduced legislation that targeted the tax arbitrage driving these types of supercharged deals.<sup>170</sup> The goal of the legislation was to eliminate the rate disparity that currently exists between partnerships and corporations, thereby eliminating the arbitrage opportunities in supercharged IPOs.<sup>171</sup> More specifically, under current law, gain on the sale of property is generally taxed at ordinary-income rates if the transferred property is subject to depreciation or amortization in the hands of the purchaser.<sup>172</sup> In this circumstance, there is no arbitrage opportunity. Gain on the sale of a partnership interest, however, is taxed at capital gains rates except to the extent that the value is attributed to so-called hot assets, like inventory and unrealized receivables—the types of assets that are not often at issue in the supercharged IPOs.<sup>173</sup> The proposed legislation would have extended ordinary-income treatment to the sale of partnership interests if the gain was attributable to a depreciable or amortizable asset (such as goodwill, which is often in play in the supercharged IPO), and if the parties executed a TRA in the context of a supercharged IPO.<sup>174</sup>

The legislation would have effectively targeted the perceived problem associated with supercharged IPOs and the TRAs that accompany them, but it is unclear why legislators should worry about tax arbitrage only in this narrow context. If the legislative approach is restricted to deals with TRAs, it would change the tax treatment associated with the tax benefits of amortization shared through a TRA but would not address deals that accomplished exactly the same outcome with a higher purchase price or an up-front lump-sum payment, two alternatives to the TRA. Recall that the TRA is a means by which Public Co. and its investors pay only for what they actually obtain in the form of a future tax savings. The proposed reform would essentially penalize selling partners only if they, rather than the

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Martin, *The Blackstone IPO: \$4 Billion Payday for Private Equity Bosses*, <http://perma.cc/4RGM-U9UT> (wsws.org, archived Feb. 3, 2014).

170. See *supra* note 102 and accompanying text.

171. The potential effects of the bill were widely discussed among lawyers and deal watchers. See ‘Blackstone Bill’ Could Chill Buyout of Firm I.P.O.’s, <http://perma.cc/7DN-4YA3> (dealbook.nytimes.com, archived Feb. 3, 2014).

172. I.R.C. §§ 1, 1245 (2012); Dechert LLP, *Proposed Legislation Could Affect Blackstone IPO*, 1 DECHERT ON POINT, June 2007, at 1–2, available at <http://perma.cc/Q9CE-CZCY>.

173. For a detailed discussion of taxation of partnership shares and “hot assets,” see *Partnership - Audit Technique Guide - Ch. 7 – Disposition of Partnership Interest*, <http://perma.cc/H8FW-PHTU> (irs.gov, archived Feb. 3, 2014) (discussing disposition of partnership interests).

174. See Dechert LLP, *supra* note 171, at 1–2; see also *supra* note 100 and accompanying text.

investors, assumed most of the risk that the expected tax benefits may not be realized. The proposed reform, in short, is underinclusive.

It may be more fruitful for policymakers to reconsider the tax treatment of the sale of a partnership interest more generally and not only in the context of supercharged IPOs. This alternative approach has recently been in the news in the context of the so-called enterprise-value tax, which would tax the selling partners of investment-services partnerships at ordinary-income rates.<sup>175</sup> Such tax treatment would represent an expansion of the hot-asset rules and is, in the opinion of at least one author, fully justified.<sup>176</sup> If the sale of a partnership interest gave rise to ordinary income, the arbitrage disappears altogether and in all contexts, and policymakers need not concern themselves with whether or not the tax benefits of amortization are shared.

### C. Implications for the Literature on Financial Innovation

Finally, we turn to the implications of our study for the extant literature on financial innovation. We find that our study builds upon and extends the literature in important ways.

#### 1. Mixed-Motive Innovation: Moving from Theory to Empirics

Scholars have long studied financial innovations and have put forth strong theoretical arguments for why and when they come into the marketplace.<sup>177</sup> Scholars often set forth a range of views on a single innovation, thereby suggesting that multiple motives are present in the context of financial creativity. Some have argued that mortgage derivatives, for example, were designed to better allocate risk,<sup>178</sup> while others have argued that they were designed to exploit naive investors.<sup>179</sup> Some argue that hybrid financial instruments

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175. PRIVATE EQUITY GROWTH CAPITAL COUNCIL, BACKGROUND ON THE ENTERPRISE VALUE TAX (2011), <http://perma.cc/59AZ-4F3V> (pegcc.org, archived Feb. 3, 2014); Matt Glans, *Research and Commentary: Enterprise Value Tax*, <http://perma.cc/XM2E-EDG6> (heartland.org, archived Feb. 3, 2014); Peter Lattman, *White House Rankles Wall Street with Enterprise Value Tax*, <http://perma.cc/644H-87JM> (dealbook.nytimes.com, archived Feb. 3, 2014).

176. See generally Victor Fleischer, *Two and Twenty: Taxing Partnership Profits in Private Equity Funds*, 83 N.Y.U. L. REV. 1 (2008) (arguing status quo is untenable and Congress should consider adopting a new baseline rule that would treat carried interest distributions as ordinary income).

177. See extensive discussion found in Part III, *supra* notes 75–125 and accompanying text.

178. See *supra* notes 99–101.

179. See GREG FARRELL, CRASH OF THE TITANS (2010) (exploring causes of the 2008 crash). See generally RICHARD BOOKSTABER, A DEMON OF OUR OWN DESIGN (2007) (discussing how

provide an efficient allocation of risk to bank investors,<sup>180</sup> while others argue that these innovations are designed to avoid the corporate tax and manipulate bank regulatory requirements.<sup>181</sup> Scholars interested in financial innovation tend to offer a range of plausible competing theories but rarely subject them to empirical testing.<sup>182</sup>

Our study contributes to this theoretical literature by providing an empirical method for rooting out multiple drivers—or the key driver—of a particular financial innovation. By investigating the various theoretical explanations for the supercharged IPO and then subjecting each of the theories to empirical testing, we were able to locate the primary impetus for the supercharged IPO. And just as importantly, we were able to eliminate theories that did not hold up under our empirical investigation. Many scholars and commentators have argued that supercharged IPOs are nothing more than a means by which owner-founders steal from naive investors<sup>183</sup>—our study does not support this claim. Instead, our empirical findings show that the financial innovation of the supercharged IPO was engineered to reduce tax costs. It does so by taking advantage of a tax arbitrage between the founders of firms organized as partnerships and selling equity at a 15% tax rate, with Public Co. and its investors taking amortization deductions at up to a 35% rate.<sup>184</sup> Of course, this finding does not eliminate the suspicion that supercharged IPOs are nonetheless inherently unfair and problematic. Unlike innovations that reduce nontax transaction costs, it is less clear that this tax-driven financial innovation increases overall social welfare.<sup>185</sup> While one can hypothesize that TRAs reduce information costs by allocating the value of tax assets to the parties in the best position to value the information (the founders),<sup>186</sup> our data suggest that parties actually

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financial innovations are often opportunistic mechanisms to take advantage of information asymmetries).

180. SVEN-ERIC BÄRSCH, TAXATION OF HYBRID FINANCIAL INSTRUMENTS AND THE REMUNERATION DERIVED THEREFROM IN AN INTERNATIONAL CROSS-BORDER CONTEXT 13, 15 (2012) (discussing innovation as a means to efficiently share risk).

181. *Id.* at 21–41.

182. See Abir & Chokri, *supra* note 28, at 17–18 (“[I]n spite of extensive descriptive literature on financial innovation, there is a paucity of empirical studies.”); Akhavein et al., *supra* note 28, at 578 (discussing seven quantitative studies investigating the process by which innovation diffuses); Lerner, *supra* note 28, at 224 (stating that despite the importance of financial innovation, only thirty-nine empirical studies exist on the topic).

183. See *supra* notes 11–20 and accompanying text.

184. See *supra* notes 61–63, 82–91, 143–45, and accompanying text.

185. Many critics and legislators believe the innovation decreases social welfare. See discussion of proposed legislative reforms *supra* note 102 and accompanying text.

186. Rosen & Furci, *supra* note 17, at 9.

use TRAs in the IPO context only when the founders can also benefit from a tax arbitrage.

The value of our study is this: it enables scholars and policymakers to identify the true motive underlying an innovation of interest, to reject empirically unsupported claims, and to shed light on underlying reform issues that are hidden in the controversy but are nonetheless important to policymakers. In short, we believe that it is useful to know what drives financial innovation, and while our study focuses on but one example of financial innovation, our methodology of looking at the characteristics of firms that actually adopt new innovations can help researchers distinguish between the various types of financial innovation, both positive and negative.

## 2. Diffusion Through Professional Networks

Our findings suggest that diffusion of financial innovation takes place much like other forms of innovation: through professional networks. In the same way that tacit knowledge and know-how is transferred across technology firms in Silicon Valley,<sup>187</sup> knowledge of financial innovation spreads through the New York tax bar, private equity and asset management professionals, and elite accountants. Spreading technical information related to complex innovations, whether implicitly or explicitly, is substantially easier and faster when individuals work in close proximity, share meals, and attend the same conferences.

## 3. Inefficient Market Pricing of Tax Assets

Our study also suggests a larger puzzle: are IPO markets inefficient at pricing tax assets? The mere existence of a TRA suggests that something is amiss, as markets should adjust the price efficiently whether the tax benefits are assigned to the buyer or the seller. It seems that markets do not do this efficiently, but our data cannot explain whether IPO investors are simply indifferent to tax and tax assets (which many people say, but seems implausible), whether there is some incomplete price adjustment to the presence of tax assets, or whether accounting myopia over current earnings (which are unaffected by a TRA) dominates.<sup>188</sup> Our discussion of transaction costs

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187. ALAN HYDE, WORKING IN SILICON VALLEY 27–91 (2003) (exploring sharing of information and various spillovers associated with working in close proximity).

188. Robert Willens, *How IPO Founders Keep Their Taxes Low*, <http://perma.cc/K73B-BQQA> (cfo.com, archived Feb. 3, 2014) (“TRAs may be fully legal; however, the entire import of these

and risk assessment, however, suggests that IPO markets do efficiently price tax assets. First, as noted above, the share price in traditional transactions must account for the value of tax assets, and valuing the assets requires parties to make numerous assumptions associated with a potential IRS audit, the company's future profitability, future legal reform, and the use of other types of tax-planning strategies in order to identify the true value of the tax asset to Public Co.<sup>189</sup> Negotiation and bargaining leads to delays and may kill the deal altogether, and thus, a more rational approach is to supercharge the IPO with a TRA, thereby eliminating these risks, delays, and costs.<sup>190</sup>

## VI. CONCLUSION

A new innovation on the IPO landscape has emerged in the last two decades, allowing owner-founders to extract millions of dollars from newly public companies. These IPOs—labeled supercharged IPOs—have been subject to widespread debate and controversy.<sup>191</sup> In this Article, we have explored the supercharged IPO and explained how and why this new deal structure differs from the more traditional IPO and how it developed and spread over time. We then outlined the various theories of innovation and noted that the extant theoretical literature provides support for both legitimate and opportunistic uses of the supercharged IPO. With the help of a large-*N* quantitative study, we have found that owner-founders are employing supercharged IPOs not for underhanded reasons, but primarily for tax-planning purposes.

The future of the supercharged IPO is unclear. The deal structure is most attractive for companies that operate as partnerships or LLCs before going public, as these firms can take full advantage of the tax-arbitrage opportunity when they go public. The primary friction that keeps the supercharged IPO from becoming more widespread, then, is a weak one that is fully within the parties' control: the organization of the start-up company. While venture capital-backed start-ups continue to prefer organizing as corporations, not partnerships or LLCs, there is some evidence that

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agreements in the price of an IPO might not be fully appreciated by all investors. To the extent the TRAs are not taken into account by such shareholders, they may lead to market inefficiencies.”).

189. *See supra* notes 44–49, 106–07, and accompanying text.

190. *See supra* notes 106–07 and accompanying text.

191. *See supra* notes 11–20 and accompanying text.

LLCs are becoming more common.<sup>192</sup> And to an even greater extent, there is evidence that private equity targets are more frequently reorganized as LLCs. We expect that if this shift toward pass-through operating entities continues, the rise of the supercharged IPO structure will continue as well. If that happens, the loss in tax revenue may prompt Congress to act.

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192. See generally J. William Callison, *Venture Capital and Corporate Governance: Evolving the Limited Liability Company to Finance the Entrepreneurial Business*, 26 J. CORP. L. 97 (2001) (arguing that LLCs combine the advantage of corporate risk protection with the advantages of partnership control and rewards); Victor Fleischer, *The Rational Exuberance of Structuring Venture Capital Start-Ups*, 57 TAX L. REV. 137 (2004) (arguing that dot-com companies left money on the table by organizing startups as corporations instead of partnerships).

## VII. APPENDIX: SHARING THE COSTS AND BENEFITS OF THE SUPERCHARGED IPO

Commentators have divergent views on the question of whether supercharged IPOs work to advantage all the parties in the deal or are simply a means for owner-founders to sneak money away from public investors and public companies.<sup>193</sup> Our empirical findings indicate that the founders are not taking advantage of naive public investors but are using this complex and innovative deal structure to produce benefits for all the parties involved (although to the detriment of the public fisc).<sup>194</sup> We now investigate, with the help of a concrete example, how these added benefits—the new tax assets—are divided between the parties.

To illustrate the costs and benefits of supercharged IPOs, as well as their allocation across parties, we assume many of the factors discussed above. First, because the most valuable asset in many IPOs is goodwill, we assume that Founders Co. has exactly one asset with a fair market value of \$10 million. We further assume that the asset is self-created, so it does not generate tax deductions in Founders Co.'s hands.<sup>195</sup> Second, we assume that the parties can pursue either a traditional IPO or a supercharged IPO. If the parties pursue the traditional IPO, no tax costs or benefits arise, but if they pursue a supercharged IPO, Founders Co. will be subject to tax costs, and Public Co. will obtain tax benefits.<sup>196</sup> Third, with regard to potential *tax benefits*, we assume that Public Co. has profits subject to a 35% tax rate and thus will be able to amortize the asset it receives from Founders Co. ratably over fifteen years with a supercharged IPO.<sup>197</sup> Fourth, with regard to *tax costs*, we assume that Founders Co. and its owners will be subject either to a 15% or 35% tax rate, meaning they will pay either fifteen or thirty-five cents on each dollar of declared income.<sup>198</sup> Finally, recall from above that if the owner-founders are subject to a lower rate than that imposed on Public Co., tax-arbitrage opportunities are present. These assumptions reflect real-world deals and demonstrate the circumstances in which we can expect supercharged IPOs to emerge.

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193. See *supra* notes 11–20 and accompanying text.

194. This new value is created through the generation of new “tax assets.” See *supra* notes 136–56 and accompanying text.

195. See *supra* notes 44–45 and accompanying text.

196. See *supra* notes 50–69 and accompanying text.

197. See *supra* notes 44, 50–69, and accompanying text.

198. See *supra* notes 59–61 and accompanying text.

If the parties pursue a supercharged IPO, Founders Co. will be viewed as having sold the company to Public Co. for \$10 million (the value of the asset) and thus will pay an immediate up-front tax of \$1.5 million (a 15% rate) or \$3.5 million (a 35% rate). Public Co., in turn, will get two assets in the deal: (1) goodwill and (2) the ability to amortize goodwill. Because the goodwill has a fair market value of \$10 million, Public Co. will be able ratably amortize it over fifteen years at a 35% rate, producing a tax savings of \$3,049,750 (this number and all the numbers in the Appendix are presented in present value terms and account for the so-called stacking effect of the payments).<sup>199</sup>

The supercharged IPO, of course, also involves a TRA,<sup>200</sup> requiring Public Co. to transfer 85% of the tax savings obtained through the amortization tax deductions, or \$2,592,290 in present value terms, back to the owner-founders. The founders, in turn, must pay taxes on this amount at either a 15% or 35% tax rate.

Table A1 presents the details. The rows in the table identify each component of the deal, and the columns indicate the effects on the parties given that the IPO is structured as either a traditional or supercharged deal. In the first row, we consider the value of the tax assets associated with the amortization tax deduction in the hands of the owner-founders and the new Public Co. If the parties engage in a traditional IPO, there are no new tax assets created or tax liabilities generated—the goodwill is of no value to any party.

Now consider the value of the newly created tax asset in the hands of the parties with a supercharged IPO. The first row of table A1 illustrates the value of the tax asset *in the absence of a TRA*. All of the value—\$3,049,750—resides with Public Co. (and indirectly with the investors). But *with* a TRA requiring Public Co. to transfer 85% of this tax benefit to the founders, the numbers change. Row 2 depicts the effects of the TRA. The bulk of the tax asset's value now rests with the owner-founders—\$2,592,290—and the remaining \$457,460 belong to Public Co. These numbers account for tax benefits, and the deal looks very one-sided in favor of the owner-founders.

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199. For purposes of calculating the present value numbers, we assumed a 5% interest rate. We also assumed that every TRA payment made by the company would then add to the “cost of the goodwill,” thereby increasing the amortization deductions well beyond fifteen years. For a discussion of this stacking effect, see Rosen & Furci, *supra* note 17, at 9.

200. See *supra* notes 50–69 and accompanying text.

**Table A1: The Costs and Benefits to Owner-Founders and Public Co. of a TRA in Traditional and Supercharged IPOs (Present Value Dollars)**

<b>Nature of Costs and Benefits</b>	<b>Traditional IPO</b>	<b>Supercharged IPO</b>	
		<i>Tax Arbitrage</i>	<i>No Tax Arbitrage</i>
1. Value of Tax Assets w/o TRA To Owner-Founders To Public Co.	\$0 0	\$0 3,049,750	\$0 3,049,750
2. Value of Tax Assets w/ TRA To Owner-Founders To Public Co.	0 0	2,592,290 457,460	2,592,290 457,460
3. Tax Costs in Deal w/ TRA To Owner-Founders To Public Co.	0 0	(1,888,840) 0	(4,407,300) 0
4. Net Value of Deal w/ TRA To Owner-Founders To Public Co.	0 0	703,450 457,460	(1,815,010) 457,460
5. Division of Surplus (Owner-Founders : Public Co.)		61:39	Net Loss

\* Supercharged IPOs with a tax-arbitrage opportunity entail a 15% tax rate on owner-founders and a 35% tax rate on Public Co.; if all the parties are taxed at a 35% tax rate, the parties have no arbitrage opportunity.

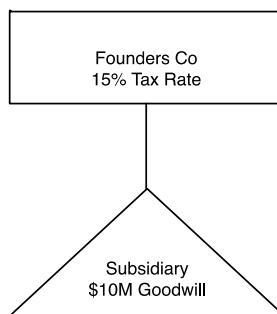
So far the table reflects only the benefits to the parties. Now consider the effects of the tax liabilities in the deal. The third row of the table assumes that the founders must pay tax on any and all payments received. Because the owner-founders will receive \$10 million up front for the goodwill along with \$2,592,290 in TRA payments over the course of years, they will pay substantial taxes. At a 15% rate, they will pay \$1,888,840, and at a 35% rate, they will pay \$4,407,300, as depicted in Row 3 of Table A1.

Putting the tax benefits and liabilities together in Row 4 of the Table, we see that in a supercharged IPO, there is a net surplus if the parties are subject to differential tax rates (\$703,450 + \$457,460) but a net loss if both parties are subject to the same rate (−\$1,815,010 + \$457,460). This result confirms our empirical finding above suggesting that tax arbitrage is a strong motivator for using

this financial innovation, and when arbitrage is not possible, the parties are unlikely to pursue a supercharged IPO given the net losses that they face.

Finally, and perhaps most importantly, Row 5 demonstrates that, after all the benefits and burdens of the deal are accounted for, the parties divide the net surplus in a manner that advantages the owner-founders (61% of the surplus goes to the founders and 39% goes to Public Co.). This division indicates that the supercharged IPO advantages Public Co. and that it is thus rational to pursue such a deal, even though these advantages are not as great as the benefits that inure to the owner-founders. Our analyses also show, contrary to the critiques of the supercharged IPO, that it is not the public investors that stand to lose in these complicated deals—rather, it is the federal fisc. Figures A1 and A2 depict the details of the supercharged IPO, highlighting the transfer of the goodwill along with the net benefits to each party.

**Figure A1: Founders Co. Pre-IPO**



**Figure A2: Founders Co. and Public Co. After Undertaking a Supercharged IPO**

