The Irrelevance of Delaware Corporate Law

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Delaware corporation law is dominant in America. If the effects of efficient rules are incorporated as information by an efficient capital market, the preferred choice of Delaware could evince the market's deliberate selection of better laws. Superior law as a product of state competition is the central argument for corporate law federalism. Despite the spirited debate on the race to the bottom or the top, a recognition of a "Delaware premium" to firm value is scant. This Article conducts a longitudinal study of valuations. It analyzes the market values and stock prices of public Fortune 500 companies over the five-year period from 2015 to 2019. About one-third of public Fortune 500 companies are chartered in other states, including some of America's largest, most important companies. This Article conclusively shows that Delaware corporations are not valued more than those chartered in other states. There is no actionable Delaware premium.

The conclusion here is counterintuitive, given the dominant orthodoxy and broad commitment to the Delaware brand by academics and elite corporate lawyers. But the conclusion must be inevitable and true. Based on the measuring rod of efficiency, the irrelevance of Delaware law is inescapable for two reasons grounded in basic concepts of economics and finance. First, the real factors of value are in the realm of business and economics. The most intuitive and best explanation for the cause of value is how well a firm executes its business strategy in the economy and the market, i.e., making and selling widgets. Second, if a Delaware trade exists, sophisticated market players—including public companies, lawyers, bankers, activist shareholders, traders, and security analysts—would not have missed the easy law-based financial arbitrage. The prevailing story that states compete for quality in our system of federalism and that Delaware has won the "race to the top" is a false narrative. Empirical confirmation of the absence of a Delaware premium would bring about a Kuhnian moment of a revelation that core ideas in corporate law—i.e., Delaware's efficiency justifies federalism, Congress should not interfere (with Delaware), states are laboratories of innovation and compete in a race to the top, and inter-state differences in corporation law matter to efficiency—do not have empirical

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bases. The dominant orthodoxy is simply an article of faith among its proponents.

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INTRODUCTION

Delaware dominates state corporation law in the American scheme of federalism. States ostensibly compete for charters, but, in truth, if there was a race among states, Delaware long won the competition for quantity. Delaware law has critics and admirers, and the famous debate on whether states compete in a race to the bottom or the top has been long contested in commentary. This conception of competition is for the quality of law, judged through the lens of efficiency. We do not know whether the race is still on or whether Delaware won this race too. We do not have a clear understanding of whether Delaware law is, in fact, "better" from the standpoint of firm value, measurable to the point where investors can expect to pay a premium for, or make real money from, trading on the basis of Delaware law. So long as Delaware dominates in quantity, the issue of quality remains one of the most important issues in corporation law. The stakes are high: Do firms gain market value from Delaware law? Do investors pay a premium or expect a discount? Is there an untapped well of efficiency in one-third of the public equity market? This Article disproves the idea that there is a "race to the top" (or bottom) and that the states, as "laboratories of innovation" in our federalist system, compete for corporate law quality. There was never a race for quality.

It is axiomatic that the policy end of corporation law is efficiency.[1] Efficiency means a tendency to enhance firm value. Efficient laws would reduce a firm's cost of capital or increase free cash flows, either or both of which would increase firm value. If stock price communicates information in an efficient market,[2] and if Delaware law is materially superior based on the criterion of efficiency, we should have long seen the empirical fact of a "Delaware effect"—a market premium to value for Delaware firms (or synonymously a discount for non-Delaware firms). Among legal academics and elite corporate lawyers, a premium is not acknowledged in explicit statements so much as implicitly assumed in analysis, commentary, and narrative. Nor is there in the collective conscience a specific quantum of premium—*a hard number*—instead of argumentation of an abstraction. A purportedly positive theory of Delaware's efficiency masks a shared normative belief of Delaware's superiority. The orthodox view of Delaware's efficiency is an article of faith among many legal academics and elite corporate lawyers, which is odd because the academic understanding of corporate law so heavily depends on empirical and interdisciplinary (financial and economic) analysis. Despite a century of Delaware's dominance—and the spirited academic debate on the directionality of the race, in which most informed persons have an intuition (or opinion or argument)—neither the market nor scholars really talk about a premium much in explicit terms.[3] It is a matter of faith.

If inter-state differences in state corporation law matter to efficiency, they *should* affect firm values. Premiums and discounts should be apparent and not merely an abstraction.[4] Market actors should have executed a "Delaware arbitrage"—a Dover dash

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1. *See* NAF Holdings, L.L.C. v. Li & Fung (Trading) Ltd., 118 A.3d 175, 181 (Del. 2015) ("[O]ur law seeks to promote reliable and efficient corporate laws in order to facilitate commerce."); Haft v. Haft, 671 A.2d 413, 422 (Del. Ch. 1995) (noting "corporation law's underlying efficiency concerns"); William T. Allen, Jack B. Jacobs & Leo E. Strine, Jr., *Function Over Form: A Reassessment of Standards of Review in Delaware Corporation Law*, 56 BUS. LAW. 1287, 1295 (2001) (same); *see also* Aspen Advisors L.L.C. v. United Artists Theatre Co., 843 A.2d 697, 712 (Del. Ch. 2004) (observing "Delaware law's goal of promoting reliable and efficient corporate and commercial laws"), *aff'd*, 861 A.2d 1251 (Del. 2004).

2. *See* RICHARD A. BREALEY, STEWART C. MYERS & FRANKLIN ALLEN, PRINCIPLES OF CORPORATE FINANCE 340 (13th ed. 2020) (stating that in efficient markets "prices incorporate all public information"); *see also* Verition Partners Master Fund Ltd. v. Aruba Networks, Inc., 210 A.3d 128, 138–39 (Del. 2019) (embracing market efficiency); Dell, Inc. v. Magnetar Glob. Event Driven Master Fund Ltd., 177 A.3d 1, 7, 24–25 (Del. 2017) (same).

3. *See infra* Part I.A (discussing the nature and directionality of the competition for charters); *infra* notes 146–147 and accompanying text (citing commentary arguing the efficiency of Delaware law); Robert Anderson IV & Jeffrey Manns, *The Delaware Delusion*, 93 N.C. L. REV. 1049, 1058 (2015) ("Given the stakes (and potential arbitrage opportunities), one would expect that this debate would have been definitively resolved long ago."); *see also infra* note 63 and accompanying text (describing how a market trader can execute an arbitrage trade, thereby profiting, if a Delaware premium actually exists).

4. "Corporate law scholars have long accepted that proof of a Delaware premium would confirm

to reincorporate and extract risk-free economic gain net of transaction cost.[5] The capital market is quite efficient when it comes to taking easy profits. When this arbitrage is exhausted (the fate of any revealed arbitrage), the prices for Delaware firms should have systematically risen and thus given rise to an observable premium.[6] Given such a premium, we should have seen a migration toward a singular, national corporation law—at least for the largest public companies, for they would have the greatest values at stake. If Delaware law is in fact better, the existence of many non-Delaware companies is a continuing mystery.[7] Suppose the idea of a race for quality is a figment of our theoretical imagination. The idea rests on a key assumption—that all rules or sets of rules should affect efficiency and firm value. Suppose this assumption of the race to the top advocates is wrong, and suppose some laws or rules, or perhaps most, are simply neutral to efficiency in the market. Suppose a Delaware valuation premium does not exist.

This Article addresses a basic question: Is Delaware corporation law relevant?[8] Relevance is a relational concept—relevant to what? Relevance is judged against the accepted criterion of firm value, *i.e*., inter-state efficiency of corporation law. There could be other valid criteria for quality,[9] and this Article should not be misconstrued to say that Delaware law is irrelevant or unimportant in some abstract, contextless sense. Delaware law is critical to corporate lawyers in practice; Delaware produces the greatest quantity of law, which is the fodder of legal advice; few would question the well-earned expertise of Delaware judges or the commitment of the Delaware legislature to maintain a statute that seeks to address the needs of its constituents. The criterion for relevance in this Article is efficiency. As much as Delaware is rightly seen as the leading corporate law jurisdiction and espouses efficiency as its stated goal, many prominent public corporations are chartered in other states. Fortune 500 firms are generally the largest, most important firms in America. Delaware companies account for about two-thirds of this group. Non-Delaware companies are not the odd few, but the many and the important.[10] A study of the public

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Delaware's superiority over other states as a corporate domicile." David A. Skeel, Jr., *What's So Bad About Delaware?*, 54 VAND. L. REV. 309, 314 (2001).

5. *See infra* Part IV.A; *infra* notes 128–34 and accompanying text (describing transaction process for reincorporation).

6. *See* BREALEY, MYERS & ALLEN, *supra* note 2, at 59 ("[A]rbitrage opportunities are eliminated almost instantaneously by investors who try to take advantage of them.").

7. *See* Anderson & Manns, *supra* note 3 (discussing the effects of Delaware law on corporate governance).

8. This Article is limited to an inquiry into state corporation law instead of an inquiry into broader corporate governance. It is also not an inquiry into specific matters or items of corporate governance devices. *Cf.* Paul A. Gompers, Joy Ishii & Andrew Metrick, *Corporate Governance and Equity Prices*, 118 Q.J. ECONOMICS 107 (2003) (analyzing governance rules and devices and constructing a corporate "governance index"); *see generally* Roberta Romano, *A Cautionary Note on Drawing Lessons from Comparative Corporate Law*, 102 YALE L.J. 2021 (1993); Bernard Black, *Does Corporate Governance Matter?*, 149 U. PA. L. REV. 2131 (2001).

9. *See infra* Part V (discussing reasons for Delaware's prominence).

10. For example, many household names are chartered in other states: ExxonMobile, Apple, Costco, Cardinal Health, Kroger, General Electric, Microsoft, Comcast, Anthem, Johnson & Johnson, IBM, Target,

Fortune 500 companies provides the greatest magnification of valuations. A valuation study should reveal systemic, material differences in firm values, if any.

This Article provides two sets of empirical data supporting the idea that Delaware law is irrelevant to market valuation. The first set of empirical data is a longitudinal valuation study over the five-year period from 2015 to 2019. The valuation technique is standard multiples analysis, commonly used and generally accepted in the financial markets by security analysts, investment bankers, and investors, and regularly applied in appraisal proceedings by financial experts and Delaware courts.[11] Based on multiple factors of value and aggregate data, this Article shows that chartering in Delaware does not yield a market premium, and conversely, chartering in a non-Delaware state does not yield a market discount. This direct evidence of valuations is conclusive. A company cannot create firm value simply through choice of law; the state of charter does not affect firm value; there is no race for quality in efficiency. Corporation law is irrelevant to efficiency.[12]

The second set of empirical data is less conventionally thought of as "empirical," but the evidence is every bit that and just as important. It is factual evidence (or lack thereof) of market behavior. If Delaware law creates firm value, we would expect to see sophisticated market actors behave consistently with that specific belief. On the one hand, we see the dominant choice of chartering in Delaware, which is certainly strong evidence of a market preference for Delaware. On the other hand, we do not see other expected behaviors, such as mass reincorporation to Delaware by non-Delaware firms for the stated purpose of increasing firm value through choice of law, shareholder activism centering on moving companies to Delaware to extract value, and evidence of trading strategies arbitraging Delaware law. Once the decision to incorporate in a particular state has been made (often many years ago at the company's founding), sophisticated market actors behave in a way that presumes the irrelevance of Delaware law and inter-state differences in state corporate law. Both sets of empirical data, data in the valuation study and observations of market behavior, are equally important and mutually reinforcing.

This Article is organized into five Parts. Part I provides a brief background. It discusses the debate concerning Delaware corporation law, including the famous Cary–Winter exchange on whether Delaware is a race to the bottom or the top. The debate continued in numerous empirical analyses that sought to answer the directionality of the efficiency question. Ultimately, these studies have been inconclusive. This Part also

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Lowe's, Procter & Gamble, Pepsico, Prudential Financial, Lockheed Martin, Cisco System, American Express, Best Buy, Merck, Allstate, Nike, Progressive, Abbott Laboratories, Travelers, Philip Morris, Union Pacific, Dollar General, Starbucks, Eli Lilly, Southwest Airlines, Aflac, PNC Financial, CarMax, Sherwin-Williams, Goodyear Tire & Rubber, Footlocker, and S&P Global.

11. *See infra* Part II.B; *infra* notes 74, 80 and accompanying text (discussing corporate analysis factors utilized).

12. Other scholars have raised the possibility that corporate law is irrelevant to efficiency. *See, e.g.*, Anderson & Manns, *supra* note 3, at 1057–58 (noting that scholars "have largely skirted the more fundamental question of whether corporate law matters at all to financial markets"); Bernard S. Black, *Is Corporate Law Trivial?: A Political and Economic Analysis*, 84 NW. U. L. REV. 542, 544 (1990) (advancing the "triviality hypothesis" that states corporation law is trivial because it "is an empty shell that has form but no content").

discusses the methodological limits of prior studies.

Part II discloses the methodology used to calculate valuations. This Article calculates six valuation multiples. They are multiples of enterprise value to book value of assets, revenue, operating profit, and EBITDA, and multiples of market capitalization to book value of equity and net earnings. Each multiple is a separate measure of value. This Part describes the data collection and computational methods in sufficient detail to enable the exact replication of the results in this Article.

Part III analyzes the results of the valuation study. This Part shows that, across various metrics, Delaware companies do not enjoy a premium. The same is true for stock price performance over the five-year period from 2015 to 2019. When viewed as a whole, the data is clear. There is no evidence of a Delaware premium. The assertion of Delaware's superiority as a matter of efficiency is a false narrative of the race to the top thesis.

Part IV discusses market behavior-based evidence confirming the valuation analysis. Such observations are another form of empirical data. Market actors do not behave as if Delaware law matters to firm value. Companies, lawyers, investment bankers, security analysts, and activist shareholders are not specifically pursuing or arguing a strategy to reincorporate in Delaware. This behavior is sensible. Corporation law is neutral to efficiency because there is unity of essential rules.[13] When there is a common legal architecture, marginal differences in the décor of rules are irrelevant insofar as capital markets are concerned.

Part V explains an important fact of market behavior, which is the dominant choice of Delaware. This choice is rational but unrelated to efficiency. Corporation law generally is relevant, and Delaware law specifically is important. But laws and rules may not always affect efficiency, and their quality may be assessed on other legitimate criteria. Like laws, rational choices of market actors can also be neutral to efficiency. This Part explains why lawyers and managers rationally prefer Delaware law. Preference and utility maximization of managers are not coterminous with efficiency and wealth maximization of firms.[14] So long as the expressed preference is neutral to efficiency, it is irrelevant to markets.

I. BACKGROUND

A. Delaware and the Competition for Charters

The background on Delaware law and state competition is well known. Only a brief sketch is needed. Delaware corporation law is the dominant state law. It wrested the national lead at the turn of the twentieth century and never relinquished it.[15] About two-

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13. *See infra* Part IV.B; *infra* notes 155–67 and accompanying text.

14. *See* J. M. Balkin, *Too Good to be True: The Positive Economic Theory of Law*, 87 COLUM. L. REV. 1147, 1449 (1987) (distinguishing between utility and wealth maximization).

15. *See* William E. Kirk, III, *A Case Study in Legislative Opportunism: How Delaware Used the Federal-State System to Attain Corporate Pre-Eminence*, 10 J. CORP. L. 233, 250–55 (1984) (discussing the development of Delaware corporate law and policy).

thirds of the Fortune 500 companies are chartered in Delaware.[16] Delaware has produced some of the most important decisions and doctrines in American corporate law.[17] It develops a broad body of law dealing with complex legal problems and guides other states to the extent they find its law persuasive.[18] Delaware law is important for developing rules and provides an important public service by being a state leader.

Delaware's dominance has been a focus of a persistent debate on the directionality of state competition. Whether Delaware law is a race to the bottom or the top has been at the fore of academic thinking.[19] In perhaps the most influential article on Delaware law, William Cary argued that Delaware, motivated by revenue, has led a race to the bottom among states, where the policy has been a management-friendly laxity with respect to fiduciary responsibility and fairness to shareholders.[20] To fix the problem, he proposed the federalization of corporation law.[21]

In response, Ralph Winter argued that the race to the bottom hypothesis is implausible.[22] The market would not allow managers to harm shareholders with impunity. Managerial bad decisions or behavior resulting from lax law would reduce profits, increase the cost of capital, and lower stock prices.[23] Competitive forces would take hold. Companies would seek out laws and jurisdictions more attractive to business and capital formation.[24] As Winter put it:

> So far as the capital market is concerned, it is not in the interest of management to seek out a corporate legal system which fails to protect investors, and the competition between states for charters is generally a competition as to which legal system provides an optimal return to both

16. DEL. DIV. CORPS., 2019 ANNUAL REPORT STATISTICS (2019), https://corpfiles.delaware.gov/Annual-Reports/Division-of-Corporations-2019-Annual-Report.pdf [https://perma.cc/4M99-9TP2].

17. *E.g.*, Smith v. Van Gorkom, 488 A.2d 858 (Del. 1985); Moran v. Household Int'l, Inc., 500 A.2d 1346 (Del. 1985); Unocal Corp. v. Mesa Petroleum Co., 493 A.2d 946 (Del. 1985); Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173 (Del. 1986); Paramount Commc'ns, Inc. v. Time Inc., 571 A.2d 1140 (Del. 1989).

18. *See infra* note 207 (citing non-Delaware cases adopting Delaware rules).

19. *Compare* William L. Cary, *Federalism and Corporate Law: Reflections Upon Delaware*, 83 YALE L.J. 663, 665–66 (1974) (stating that most states emulate Delaware corporate law to encourage companies to "remain at home"), *with* Ralph K. Winter, Jr., *State Law, Shareholder Protection, and the Theory of the Corporation*, 6 J. LEGAL STUD. 251, 256–58 (1977) (arguing that corporations are incentivized to incorporate in Delaware).

20. Cary, *supra* note 19, at 668, 671–72, 696.

21. *Id.* at 702, 705. While Cary's call for a general federalization of corporation law has not materialized, we have seen ad hoc creeping federalization when Congress has determined that state law is inadequate or that uniformity is required on specific issues. *E.g.*, Sarbanes-Oxley Act of 2002, 15 U.S.C. § 7262 (requiring management assessment of internal controls). Also, Delaware has subsequently addressed some of Cary's specific complaints. *Compare* Cary, *supra* note 19, at 684 (noting commentary that "a state less hospitable than Delaware might have imposed upon directors the duty of installing an internal control system to prevent repeated antitrust violations"), *with* Stone v. Ritter, 911 A.2d 362, 369–70 (Del. 2006) (adopting a theory of failure of oversight and compliance).

22. Winter, *supra* note 19, at 256.

23. *Id.*

24. *Id.*

interests.[25]

His argument established the evaluative criterion. At least in the past forty years of the neoliberal turn[26] and in the importance of corporate law since the 1980s,[27] the generally accepted evaluative criterion has been efficiency, firm value, and shareholder wealth maximization.[28]

Winter's argument rests explicitly on the hypothesis that a link exists between corporation law and efficiency as measured by firm value.[29] It rests on a fundamental assumption: inter-state *differences* in the rules of corporate law matter for efficiency.[30] If so, there should be a race to the top. What if this assumption is wrong? With this question in mind, there are two versions of Winter's argument. A weak version of the thesis rebuts Cary's argument for a race to the bottom and argues it is implausible. This argument is consistent with the idea that there is no "race" for quality among states. The assumption of a link between inter-state differences in law and efficiency is not needed. The strong version of Cary's argument is that there is a race to the top, the implication being that inter-state differences matter for efficiency. This Article addresses the strong version of Winter's argument. It shows that the core assumption of the relevance of inter-state differences is without basis. Not all rules or sets of rules affect efficiency and firm value.

After Cary and Winter articulated their hypotheses, scholars staked their views. Like any other belief system, consensus ideas in academia may change over time with new evidence or analysis, changing preference, dogma, or ideological frame. While the race to the bottom view may have held sway earlier, it seems that the viewpoint of Delaware's superiority is the orthodoxy today, and there is a broad commitment to the Delaware

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25. *Id.* at 276. "Corporations at a disadvantage in the capital market will be at a disadvantage in the product market and their share price will decline, thereby creating a threat of a takeover which may replace management." *Id.* at 256.

26. *See* GARY GERSTLE, THE RISE AND FALL OF THE NEOLIBERAL ORDER: AMERICA AND THE WORLD IN THE FREE MARKET ERA 107–40 (2022) (identifying the Reagan era as the ascent of neoliberalism as a political order).

27. *See* William T. Allen, *Our Schizophrenic Conception of the Business Corporation*, 14 CARDOZO L. REV. 261, 263 (1992) (referencing the 1980s as "turbulent years for corporation law" and that "earlier it had seemed that every interesting question in corporation law had been completely answered"); *see also supra* note 17 (citing seminal cases from the 1980s).

28. *See generally* Robert J. Rhee, *A Legal Theory of Shareholder Primacy*, 102 MINN. L. REV. 1951 (2018) (discussing the rule of shareholder primacy).

29. Winter, *supra* note 19, at 256, 275–76.

30. Clearly, corporation law matters for efficiency and firm value. Consider the rule of limited liability or the business judgment principle. However, the foundational aspects of corporate law have long been established and uniform across all states with no comparative advantage. *See infra* Part IV.B. (explaining these uniform foundational aspects).

brand.[31] A minority continues to embrace Cary's hypothesis.[32] A much smaller camp, articulated by Bernard Black, argues that corporate law is trivial because of its fundamental nature as an enabling statute, and the few mandatory rules are unimportant for various reasons.[33] This Article's empirical evidence and conclusion align with Black's hypothesis of triviality (or irrelevance).

The debate on competition for corporate charters is not really about who won the race for corporate charters. Delaware has long prevailed in the race for quantity.[34] Since Delaware beat all other states, its real competitive threat has always been Congress.[35] This fact explains why Cary's shade on Delaware and the possibility of federalization strike a nerve among Delaware admirers.[36] Because Congress can always preempt state law and enact federal corporate law, Cary's 1974 argument for federalization remains vital and relevant today.[37] The continuing debate on state competition is about determining the effect, if any, of inter-state competition, or Delaware's fear of it, on the quality of law. For most commentators, the quality of law is judged against the measuring rod of efficiency. Some assert that, under our system of federalism, states are laboratories of legal innovation and thus produce superior laws through competition.[38] In this competitive landscape, Delaware is said to lead the race to the top.

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31. *See* Guhan Subramanian, *The Influence of Antitakeover Statutes on Incorporation Choice: Evidence on the "Race" Debate and Antitakeover Overreaching*, 150 U. PA. L. REV. 1795, 1799–1800 (2002) (noting the changing consensus among scholars in the race-to-the-bottom versus race-to-the-top debate).

32. *E.g.*, William J. Carney & George B. Shepherd, *The Mystery of Delaware Law's Continuing Success*, 2009 U. ILL. L. REV. 1 (2009).

33. *See* Black, *supra* note 12, at 544 (arguing that "state corporate law is trivial"). Black's article is a theoretical inquiry and not an empirical analysis of valuations. *See infra* note 192 (explaining the "triviality hypothesis").

34. Kirk, *supra* note 15, at 235; Black, *supra* note 12, at 551; Michael Klausner, *Fact and Fiction in Corporate Law and Governance*, 65 STAN. L. REV. 1325, 1369 (2013).

35. Mark J. Roe, *Delaware's Competition*, 117 HARV. L. REV. 588, 592 (2003). *See* Joseph A. Grundfest, *The Limits of Delaware Corporate Law: Internal Affairs, Federal Forum Provisions, and* Sciabacucchi, 75 BUS. LAW. 1319, 1387 (Winter 2019–2020) ("Delaware is sensitive to its role in the federal system and seeks to not intrude into matters that are federal or generate conflict between Delaware and federal law."); Mark J. Roe, *Delaware's Politics*, 118 HARV. L. REV. 2491, 2523 (2005) ("Delaware should be especially sensitive to the SEC's preferences, since the SEC can often set a corporate lawmaking agenda in Congress.").

36. *E.g.*, Roberta Romano, *The Sarbanes-Oxley Act and the Making of Quack Corporate Governance*, 114 YALE L.J. 1521 (2005).

37. *E.g.*, Accountable Capitalism Act, S. 3348, 115th Cong. § 4(a)(1)(A) (2018) (bill, sponsored by Senator Elizabeth Warren, requiring that large companies be federally chartered); *see id.* §§ 5(a)(1), (b)(2) (discussing imbuing federally chartered companies with "the purpose of creating a general public benefit," which is defined as "a material positive impact on society").

38. *See* ROBERTA ROMANO, THE GENIUS OF AMERICAN CORPORATE LAW 5 (1993) ("Finally, federalism spurs innovation in public policy because of the incremental experimentation afforded by fifty laboratories of states competing for citizens and firms.").

B. Review of Prior Commentary on the Delaware Effect

The Cary–Winter debate on the directionality of quality raises an empirical question: Does corporation law affect firm value? If law matters, we *should* see it in stock prices and firm values. If we do not see it, how is it relevant in any practical sense? Scholars have attempted to measure a Delaware effect. The most cited, well-known studies are earlier studies, and, generally, they have been inconclusive. Some have purportedly found evidence of a Delaware effect, but others have not.

Robert Daines conducted the most prominent valuation study of comparable companies. He correctly framed the issue: "does Delaware law on balance improve or reduce firm value?"[39] Earlier works by economists conducted event studies[40] on the news of reincorporation, and they showed no clear evidence of a Delaware effect.[41] Noting that event studies "do not tell us about the effect of Delaware law on the vast majority of firms that never reincorporate after going public," Daines conducted a valuation study of 4481 public companies during the period 1981–1996.[42] He used one measure of firm value, Tobin's Q, which he defined as the ratio of the market value of securities to the replacement cost of assets.[43] Based on this method, Delaware companies were found to have a premium. The mean and the median for Tobin's Q were the following: Delaware 1.73x and 1.31x; non-Delaware 1.65x and 1.28x.[44] He argued that "firms subject to Delaware corporate law are worth significantly more than firms incorporated elsewhere" and estimated the premium to range between 1% to 5%.[45] They were more valuable, he hypothesized, because Delaware law facilitates the acquisition of Delaware-chartered companies.[46]

Sanjai Bhagat and Roberta Romano reviewed prior event studies of reincorporations in Delaware.[47] They concluded that state competition for corporate charters benefits investors and that reincorporation does not harm shareholders.[48] But they acknowledged

39. Robert Daines, *Does Delaware Law Improve Firm Value?*, 62 J. FIN. ECON. 525, 527 (2001). He notes that the core question of inter-state efficiency of law is raised by the Cary-Winter debate. *Id.* at 526–27.

40. An event study is a statistical analysis of stock price reaction to disclosed news. STEPHEN A. ROSS ET AL., CORPORATE FINANCE: CORE PRINCIPLES & APPLICATIONS 406 (3d ed. 2011). It examines abnormal returns, which can be defined as actual stock return minus expected stock return. An "abnormal return" is the difference between the market return and the individual stock return for a given period of time: "We [can] write this algebraically as: $AR = R - R_m$." *Id.*; *see* BREALEY, MYERS & ALLEN, *supra* note 2, at 344.

41. Daines, *supra* note 39, at 528–29.

42. *Id.* at 527.

43. *Id.* at 527, 530. Daines calculated the market value by adding the market capitalization of common stock plus preferred stock and debt, where their market values were assumed to equal book values and equated the replacement cost with the book value of assets. *Id.* at 531.

44. *Id.* at 532.

45. Daines, *supra* note 39, at 533, 555.

46. *Id.* at 541–42, 544.

47. Bhagat and Romano note that the core question of Delaware's success and its nexus to federalism is raised by the Cary–Winter debate. *See* Sanjai Bhagat & Roberta Romano, *Event Studies and the Law: Part II: Empirical Studies of Corporate Law*, 4 AM. L. & ECON. REV. 380, 382–83 (2002).

48. *Id.* at 384.

that abnormal returns were only about 1%.[49] Earlier studies in the 1980s suggested that "the significant positive returns upon reincorporation can be attributed to investors' positive assessment of the change in the legal regime, not a confounding of the impact of reincorporating firms' other future projects."[50]

In direct response to Daines' study, Guhan Subramanian applied the same basic methodology of comparable companies analysis to see whether a Delaware effect exists.[51] He too used Tobin's Q as the sole measure of firm value.[52] He studied all publicly traded firms for the period of 1991 to 2002.[53] He found "no consistent statistically significant differences between Delaware and non-Delaware firms."[54] While there was "a stronger Delaware effect than Daines reports during the first half of the 1990s" this effect disappeared by 1996, the last year of Daines' study, and "Delaware firms were no longer worth more than non-Delaware firms after 1996."[55]

The scholarly assessment of past empirical studies is decidedly mixed. While some commentators have accepted the studies purporting to show a Delaware premium,[56] others have concluded that past empirical studies are equivocal at best,[57] and still others have questioned the existence of a Delaware premium.[58] Past studies have not shown definitive

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49. *Id.* (citing earlier manuscript of Lucian Ayre Bebchuk, Alma Cohen & Allen Ferrell, *Does the Evidence Favor State Competition in Corporate Law?*, 90 CALIF. L. REV. 1775 (2002)).

50. *Id.* at 385–87 (citing Roberta Romano, *Law as a Product: Some Pieces of the Incorporation Puzzle*, 1 J.L. ECON. & ORG. 225 (1985)).

51. Guhan Subramanian, *The Disappearing Delaware Effect*, 20 J.L. ECON. & ORG. 32, 34–36 (2004). *But see* Michal Barzuza & David C. Smith, *What Happens in Nevada? Self-Selecting Into Lax Law*, 27 REV. FIN. STUD. 3593 (2014) (suggesting that Delaware's Tobin's Q bounced back after Subramanian's study).

52. Subramanian used a different definition of Tobin's Q, defining it as the market value of securities as a ratio of replacement cost, where the replacement cost of assets was computed as the book value of assets plus the market value of common stock less the sum of the book value of common equity and deferred taxes on the balance sheet. Subramanian, *supra* note 51, at 36; *cf.* Daines, *supra* note 39 (explaining Daines' definition).

53. Subramanian, *supra* note 51, at 37.

54. *Id.*

55. *Id.* at 41–43.

56. *See infra* notes 146–147.

57. *See, e.g.*, Marcel Kahan, *The State of State Competition for Incorporations*, *in* THE OXFORD HANDBOOK OF CORPORATE GOVERNANCE 105, 112 (Jeffrey N. Gordon & Wolf-Georg Ringe eds., 2018) ("[The empirical] evidence is almost necessarily inconclusive."); William J. Carney, George B. Shepherd & Joanna M. Shepherd, *Delaware Corporate Law: Failing Law, Failing Markets*, *in* THE LAW AND ECONOMICS OF CORPORATE GOVERNANCE: CHANGING PERSPECTIVES 23, 27 (Alessio M. Pacces ed., 2010) (concluding that "[t]he results over 25 years of empirical work thus remain inconclusive"); Allen Ferrell, *The Case for Mandatory Disclosure in Securities Regulation Around the World*, 2 BROOK. J. CORP. FIN. & COM. L. 81, 125 (2007) ("The evidence that Delaware improves firm value is actually weak."); Anderson & Manns, *supra* note 3, at 1064–65 ("But taken together with the large number of studies that show no effect or a mixed effect, the studies provide mostly inconclusive results or no large effects of Delaware law."); Roe, *supra* note 35, at 634 ("The [empirical] debate is a stalemate.").

58. *See, e.g.*, Bebchuk, Cohen & Ferrell, *supra* note 49, at 1777 ("[R]eported findings of a positive correlation between incorporation in Delaware and increased shareholder wealth are not robust and, furthermore,

evidence of a Delaware premium to the point of consensus. They are also dated, using data drawn from the 1980s and 1990s, which is the dynamic era of leveraged buyouts, hostile takeovers, restructuring of American corporations and the financial markets, and rapid development of major rules in corporation law, particularly in the takeover context.[59] Importantly, the reliability of the outcomes asserted in past studies suffers from methodology problems.

The use of event studies is problematic. Reincorporations can be "pure" in the sense that a change of law is the intended end, or they can be incidental to a deal with an independent economic rationale. Most reincorporations are the latter,[60] typically the result of a merger of two independent companies with different states of charter. In the latter situation, it is difficult to infer delicate observations of abnormal returns when they are the product of statistical analyses of deals having independent economic rationales.[61] As one would expect, the post-transaction stock price changes would be predominantly (to say the least) affected by the substantive business change. Isolating the effect of reincorporation from the substantive business change would be speculative irrespective of how fine and technically masterful the statistical analysis is purported to be. One wonders whether market efficiency is so perfect and omniscient in confined time windows of event studies that discrete causal segmentation occurs at all and, thus, whether disaggregation of all causal factors is possible in these situations.

Findings of statistical significance may be fine as far as displaying exquisite econometric analysis, the kind of analysis highly prized in academia, but market practice

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do not establish causation."); Anderson & Manns, *supra* note 3, at 1085 ("[O]ur results show that financial markets do not place a positive value on Delaware law. Companies constructively reincorporated into Delaware do not appear to systematically produce more or less value than companies constructively reincorporated out of Delaware, a finding that strongly suggests both the 'race to the top' and 'race to the bottom' views lack an empirical basis."); Robert Anderson IV, *The Delaware Trap: An Empirical Analysis of Incorporation Decisions*, 91 S. CAL. L. REV. 657, 666 (2018) ("[T]here is no definitive evidence that Delaware law increases the value of companies, there is some evidence it does not matter . . . .").

59. These periods saw significant changes in the corporate and business environment, including hostile takeovers and leveraged buyouts, and in response the rapid development of takeover rules. *E.g.*, sources cited *supra* note 17; *see* Allen, *supra* note 27, at 263–64 ("The dynamic forces in corporation law are easy to identify. The evolution of the junk bond market and takeover entrepreneurs, the growth of institutional investors, and the striking emergence of a global economy came together in the 1980s to force massive change in the private sector of our economy. In that process, tensions and antinomies in corporation law theory that had been lying beneath the surface for a very long time, were forced out into the open.").

60. *See infra* note 140 and accompanying text.

61. *See* Bhagat & Romano, *supra* note 47, at 385 (noting that "reincorporations are typically accompanied by changes in business plans"); Anderson & Manns, *supra* note 3, at 1065 ("[T]he decision to reincorporate may be interpreted by the market as positive news for reasons completely unrelated to any value placed on the legal regime."); Daines, *supra* note 39, at 527 ("[M]ajor shifts in firm strategy and governance accompanying reincorporation and may make it difficult to identify the course of any value changes."); Kahan, *supra* note 57, at 112 ("Heterogeneity among settings and firms further complicates the empirical analysis."); Richard L. Revesz, *A Defense of Empirical Legal Scholarship*, 69 U. CHI. L. REV. 169, 179 (2002) ("Because such changes are often accompanied by changes in business strategy, however, it is difficult to determine whether the change in price reflects the reincorporation or the change in business practice.").

is where theory meets money. The focus of this Article is on *actionable* differences. Do traders really bet some of the enormous pools of capital sloshing around in the capital markets to pursue such abnormal returns based on purported findings of inter-state differences deemed to be statistically significant? If traders do not act on purported academic findings, what does it say about the tangibility of such findings of statistical significance? Market traders make enormous bets, often by leveraging a trade, on finely calibrated increments of value, such as a few basis points in the credit markets or pennies in foreign exchange markets, or minuscule changes in asset values in the derivatives markets. Any possibility of abnormal returns, some of which are said to be in the range of 1% to 5%,[62] would be aggressively pursued if such trading possibilities really existed. These increments of purported abnormal returns are not small—in fact, they are quite large in absolute terms and can be magnified when trades are leveraged. A 1% abnormal return would not be a profit opportunity that market traders would leave on the table; such a return is subject to easy arbitrage and large profit.[63] Market prices would adjust to the arbitrage, and the arbitrage disappears when valuations adjust. This trade, based on exploiting inter-state differences in law, does not exist. We would have heard about it and seen it at work

62. *See supra* notes 45, 49 and accompanying text.

63. For example, a hedge fund purchases a stake in the non-Delaware stock with the intent to execute a plain vanilla activist strategy. It pressures the board to reincorporate in Delaware. Suppose the news is disclosed, and the stock price experiences an abnormal return of 1% to 5%. There are two easy trades. One trade could be: (1) long on the stock purchased at $X; (2) short call option with an exercise price of $X; (3) long put option with an exercise price of $X with option premium funded by the short call option. Both options are priced assuming normal returns. This position hedges at $X. Upon announcement of reincorporation to Delaware, the stock price moves to ($X + p), where *p* is the abnormal return (e.g., 1%). The trades lock in profit, *p*, plus any difference in premiums between the call and the put options. Another trade is simply long stock purchased at $X and short an equal amount of stock. Shorting the stock funds the long position. This position also hedges the stock price at $X. The trades lock in profit, *p*, less the cost of borrowing on the short sale. The unlikely trade is a naked long position on the stock. Because this position does not hedge the stock price, it subjects the trader to the movement of the stock price. In other words, despite the expected abnormal return, the stock price could still decline due to market movements or the unique risk of the stock, thus exposing the hedge fund to potential loss. However, this trade is worth analyzing to see how a risk arbitrage would work given an expected abnormal return. Assume the following: purchase of stock with leverage, short-term after-tax annual cost of debt of 5%, annualized expected return on stock of 10%, an announcement of reincorporation three months after purchase, a 1% abnormal return, no taxes on the hedge fund structured as a limited partnership. Without abnormal return, the internal rates of return (IRR) on this trade on the hedge fund's equity investment are 15.9% with 50% leverage and 33.6% with 80% leverage. With an abnormal return of 1%, the IRRs are 18.1% with 50% leverage and 39.9% with 80% leverage. *See* BREALEY, MYERS & ALLEN, *supra* note 2, at 115 (defining IRR as the return rate (*R*) that satisfies the equation: $0 = -PV + (FV \div (1 + R)^T)$ where *PV* is the equity investment and *FV* is the total return on the investment). In this example, a 1% abnormal return produces a 2.2% increase in IRR with 50% leverage and a 6.3% increase in IRR with 80% leverage. The greater the leverage, the greater the abnormal return. When there is the possibility of an abnormal return, market traders will not leave it be. The implication of the existence of a Delaware trade means that market traders have missed a massive opportunity to arbitrage one-third of the entire public equity market. Has one of the largest arbitrage opportunities gone unnoticed after all these years? The more likely explanation is that the Delaware trade does not exist.

in shareholder activism.[64]

An assertion of any substantial abnormal return, such as 1% to 5%, is a big claim. Bhagat and Romano suggested that "even 1% is, in fact, considerable in competitive capital markets," almost as if to note for the uninformed reader that the paltry-sounding abnormal return *is* a big number.[65] In most contexts within financial markets, a 1% difference is very substantial. But the very magnitude of this high return casts much doubt on Delaware law's purported cause and effect on firm value.

The largeness of the purported abnormal return is apparent when one benchmarks it to long-term market returns. A comparison can serve as a market check for common sense. The long-term market risk premium is between 5% and 8%, depending on the specific period selected.[66] Assume a market risk premium of 7% and a long-term risk-free rate of 4%,[67] implying a long-term market return of about 11%. If there is a durable 1% to 5% abnormal return, the long-term return would be augmented by an average value accretion of 9% to 45%. A 1% abnormal return is a stunning figure that surely would have been acted upon by market traders. A 5% abnormal return is so astonishing in magnitude that it is a fantastic claim and simply implausible on its face.

Why? In an efficient long-term market, the average market return has incorporated every bit of information that affects long-term stock prices: e.g., macroeconomic trends, interest rates, currency markets, inflation, money supply, globalization, labor, supply chains, wars, energy supply and demand, sociopolitical trends, technological innovations, tax policy, regulation of industries, deregulation of capital markets, etc. The types of things that affect market returns and trends are innumerable.[68] In this maelstrom of information (and noise) in an efficient market, the event studies performed by economists and some corporate law scholars suggest that a mere change in corporation law, which is principally enabling state law,[69] generates abnormal returns accreting value of 9% to 45% to the long-term market return. When this assertion is placed in context, the race to the top hypothesis is simply not believable. It is farfetched to believe that Delaware corporation law is *that* important, relative to the laws of other states *and* to the innumerable factors of value

64. *See infra* Part IV.A. (discussing market behaviors indirectly evincing the irrelevance of the choice of law for market actors).

65. Bhagat & Romano, *supra* note 47, at 384.

66. BREALEY, MYERS & ALLEN, *supra* note 2, at 174. "Market risk premium" is defined as the long-term return on the market minus the risk-free rate ($R_m - R_f$). *Id.* at 171, 205.

67. *Id.* at 168 (noting the long-term 1900–2017 Treasury bill nominal rate of return was 3.8%); *id.* at 174 (noting that many financial economists rely on the evidence of history to derive 7%); *id.* at 205 (noting that the market risk premium since 1900 was 7.7%). *See* ROSS ET AL., *supra* note 40, at 309 tbl.10.4, 367 (similar data).

68. *See* Bebchuk, Cohen & Ferrell, *supra* note 49, at 1789 ("While Daines's study makes an impressive effort to control for as many parameters as possible, including type of business and firm size, it nonetheless remains true that if in a group of seemingly identical firms, some firms incorporate in Delaware and others do not, there must be omitted variables that produce this differential behavior. This is all the more true if it is supposed that one choice produces a substantial increase in firm value and the other does not.").

69. *See infra* notes 187–92 and accompanying text.

affecting aggregate market prices, to increase market prices by *those* amounts.[70] Given the market process and the benchmark historical returns, the assertion that inter-state differences in enabling laws could constitute an additional 1% to 5% increase in expected values is a big claim. Credulity in the technical wizardry of statistical and econometric modeling should be checked against the implication of the hypothesis and outputs.

There are better methods to ascertain a systemic effect on valuation than an event study. The logic of an event study is a two-step process: (1) an identified factor (e.g., reincorporation to Delaware) positively affects stock price such that it produces returns that are abnormal to ordinary market returns; and if so, (2) the inference must be that firms having that factor should accrete value relative to firms not having it, all else being the same and the market return being the benchmark. A claim of abnormal return implies a durable accretion to value; if not, it is evanescent noise, ephemeral ticks in market prices not worth noting.[71] The ultimate inquiry then is an accretion to value due to the choice of corporation law. A valuation study avoids the indirect inference of an event study and all the complications of controlling for the heterogeneity of the innumerable factors of value in discrete time windows. It directly measures comparable firms sorted into groups that have or lack the factor analyzed. If a factor is, in fact, relevant to value, an event study and a valuation study should produce the same answer, though stated in different forms. Some prior empirical analyses have conducted valuation studies. However, prior valuation studies are problematic as well.

Past valuation studies have relied exclusively on one measure of value, Tobin's Q. This reliance on a single measure is quite puzzling. Tobin's Q is just one multiple that can be calculated under the general technique called comparable companies analysis.[72] There are other more commonly used multiples to measure firm value. For some odd reason, economists and some corporate law scholars apparently believe that Tobin's Q is *the* definitive measure of a firm's value, for it is the only measure they use. But there is no inherent or apparent reason why Tobin's Q merits status as the determinant of firm value.

First, it is not used in the markets as a standard measure of valuation by financial analysts, investment bankers, or market investors.[73] Delaware cases, including appraisal cases that emphasize the incorporation of "all relevant factors" in determining fair value,[74] make no mention of Tobin's Q. This silence strongly suggests that financial expert

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70. At the foundational level of core rules of corporations, all state laws are virtually identical. *See infra* Part IV.B.; *see also infra* notes 157–67 and accompanying text. Thus, these purported advantages in Delaware corporation law resulting in large movements in market prices must be from differences outside of the core rules of corporation law.

71. Noise is "the arbitrary element in expectations," the diverse array of unrelated elements that causes price to deviate from intrinsic value. Fischer Black, *Noise*, 41 J. FINANCE 529, 529 (1986).

72. *See infra* Part II.B.

73. *See* ASWATH DAMODARAN, DAMODARAN ON VALUATION: SECURITY ANALYSIS FOR INVESTMENT AND CORPORATE FINANCE 237 (2d ed. 2006) (discussing Tobin's Q in passing); BREALEY, MYERS & ALLEN, *supra* note 2 (no discussion of Tobin's Q).

74. Weinberger v. UOP, Inc., 457 A.2d 701, 713 (Del. 1983); DEL. CODE ANN. tit. 8, § 262(h).

witnesses in appraisal litigation are not relying on the concept either.[75] Merger proxies, IPO prospectuses, and investment bankers' fairness opinions do not use Tobin's Q. Research reports by security analysts do not generally discuss Tobin's Q. According to some scholars, the ratio is a flawed measure of value, and economists and some corporate law scholars may have been drawn to its "lore" and "sophisticated-sounding name,"[76] and perhaps the Nobel luster of an association with James Tobin. One wonders whether scholars—not satisfied with using ordinary metrics commonly used in the capital markets by ordinary analysts, bankers, and investors—were drawn to a quotient that sounds more academic. In short, albeit relevant, Tobin's Q is an esoteric multiple for a ratio of invested capital to assets, nothing more.

Second, Tobin's Q measures the relationship between market value of securities and assets. This relationship is interesting. But when book value of assets is used as a proxy for their replacement cost, Tobin's Q is not materially different from the more commonly seen price-to-book (P/B) ratio, which is the market capitalization of equity to the book value of

75. A Westlaw search of all state and federal cases for the terms "Tobin! /2 Q" produced no case discussing Tobin's Q. By comparison, as of September 13, 2021, a search of the terms "price to earning!" or "price-to-earning!" or "P/E" resulted in 73 Delaware cases; and a search of the terms "price to book" or "price-to-book" or "P/B" resulted in 166 Delaware cases.

76. *See generally* Robert Bartlett & Frank Partnoy, *The Misuse of Tobin's Q*, 73 VAND. L. REV. 353, 357, 374 (2020). Bartlett and Partnoy persuasively show that, for various reasons, the use of Tobin's Q as a measure of value is flawed. *Id.* at 357. The concept started as a macroeconomic idea. *Id.* at 357, 357 n.8 (citing James Tobin, *A General Equilibrium Approach to Monetary Theory*, 1 J. MONEY CREDIT & BANKING 15, 15, 29 (1969) (laying out "a general framework for monetary analysis" in which the variable *q* represents the "valuation of physical assets relative to their replacement costs")). There are several problems with an exclusive focus on assets. Assets on the books, or even replacement costs, do not include important factors of value, such as certain kinds of intangible assets, the firm's own goodwill, and human capital, which are not identifiable accounting assets. Because of changes in accounting policies since the mid-1980s, "it has been difficult, if not impossible, for researchers to calculate reliable estimates of replacement costs for the assets of publicly traded firms." *Id.* at 375. As a result, researchers have used the book value of assets as a proxy for the replacement cost of assets, which Bartlett and Partnoy term "Simple Q." *Id.* at 373. Book value and replacement cost are not the same. A cursory review of multiples in the financial markets shows that P/B multiples are far greater than 1.0 for many companies, the strong implication being that market prices of assets (which are a better indication of the replacement cost of assets) are substantially higher than the book value of assets. *See* ROBERT J. RHEE, ESSENTIAL CONCEPTS OF BUSINESS FOR LAWYERS 28 (3d ed. 2020) (showing that the P/B multiples of prominent companies are far greater than 1.0). Book value relies on historical cost under accounting principles, whereas replacement cost hinges more on current market prices. Even courts understand the implications of this difference between market price and book value. *E.g.*, Klang v. Smith's Food & Drug Ctrs., Inc., 702 A.2d 150, 154 (Del. 1997) ("We understand that the books of a corporation do not necessarily reflect the current values of its assets and liabilities. Among other factors, unrealized appreciation or depreciation can render book numbers inaccurate. It is unrealistic to hold that a corporation is bound by its balance sheets for purposes of determining compliance with Section 160."). Other commentators have noted the potential difference between book value and replacement cost. DAMODARAN, *supra* note 73, at 237. Other commentators have also suggested that Tobin's Q is a flawed indicator. *See* Jens Dammann, *How Lax Is Nevada Corporate Law? A Response to Professor Barzuza*, 99 VA. L. REV. BRIEF 1, 4 (2013) (raising "the possibility that Tobin's Q is simply not a very reliable indicator").

equity.[77] The financial market focuses on returns, i.e., some form of revenue, cash flow, and pre-tax and post-tax profit. Assets have value only because they produce returns; if not, they have no economic value.[78] That being the case, Tobin's Q is no more significant or better than the ratio of invested capital to some measure of return. If the ultimate outputs of firms are returns, we should measure those things. A review of any merger proxy or related document in an M&A deal would disclose various analyses of more commonly used market multiples.[79] Even Delaware appraisal cases, following market practice, apply various multiples when conducting a comparable companies analysis.[80]

Third, a reliance on one measure to conduct valuations is quite puzzling, for it is a significant limitation on methodology. It certainly is not the best market practice. When market valuations are performed, few professionals rely on a single method to measure value. Such methodology would be suspect per se. Even the DCF analysis, the generally accepted concept of a firm's theoretical value,[81] is supplemented by analysis of market-based valuations, which then relies upon multiple methods to triangulate on a value. This type of holistic valuation study is commonly applied in the market. Most merger proxies containing an investment banker's fairness opinion provide an array of financial analyses and measurements. Such a multi-angled approach is prudent because a precise intrinsic value is unknowable as a matter of epistemology.[82] Valuation is an exercise in viewing the

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77. As applied, the replacement cost of assets is often equated to their book value. *See* Bartlett & Partnoy, *supra* note 76 (discussing "Simple Q"). Scholars have applied the Tobin's Q as the quotient of invested capital to book value of assets. *E.g.*, Daines, *supra* note 43, at 53143. If we assume that the values of debt and preferred stock are less volatile than common stock and their values cluster closely to their face values, "simple Q" approximates the more commonly seen P/B ratio. The book value of equity represents stockholders' proportional claim on the book value of assets, and it is put in a ratio to the market value of common stock. They are not identical calculations but are close cousins. Subramanian attempted to avoid using book value of assets by defining replacement cost of assets as book value of assets plus market value of common stock less the sum of book value of common equity and deferred taxes on the balance sheet. *See* Subramanian, *supra* note 52 (explaining the different definitions). In essence, his definition approximates the replacement cost of assets based on the ratio of P/B because the asset value is bumped up as the difference between market value and book value of stock.

78. "To carry on business, a corporation needs an almost endless variety of real assets. These do not drop free from a blue sky; they need to be paid for. The corporation pays for its real assets by selling claims on them and *on the cash flow that they will generate*." BREALEY, MYERS & ALLEN, *supra* note 2, at 2 (emphasis added).

79. *E.g.*, Burlington Northern Santa Fe Corp., Definitive Proxy Statement Schedule 14A, at 48–52, 60–61 (Dec. 23, 2009) (providing the opinion of BNSF's financial advisor, including analysis of comparable companies using several multiples).

80. Delaware courts also apply comparable companies analysis in appraisal proceedings. *See infra* note 105 (discussing comparable companies analyses using both equity and enterprise value multiples). Comparable companies analysis is commonly used in corporate transactions. *E.g.*, Kahn v. M & F Worldwide Corp., 88 A.3d 635, 652 (Del. 2014); Kahn v. Tremont Corp., 694 A.2d 422, 427 (Del. 1997).

81. *See* Robert J. Rhee, *Corporate Short-Termism and Intertemporal Choice*, 96 WASH. U. L. REV. 495, 508 (2018) ("In securities analysis, the most prominent and generally accepted technique to calculate a firm's theoretical value is the discounted cashflow (DCF) analysis.").

82. In analyzing the degree that the price of a stock may deviate from its intrinsic value,

entire cathedral. A study using one market multiple would be unacceptable in market practice because it would be inherently suspect.

For the above reasons, prior valuations to determine a Delaware effect have several methodological problems. For those studies purporting to show a Delaware effect, there is another deficiency. If an event study or a valuation analysis purports to show an abnormal return or a premium, that should not be the end of the empirical inquiry. There is an issue of causation that has not received as much attention as it should.[83] The generally accepted theory of asset value is based on the capital asset pricing model (CAPM) and the discounted cash flow (DCF) analysis.[84] The theoretical value of any firm depends on two fundamental factors: the free cash flow the firm is expected to generate in perpetuity; and the discount rate, which is the firm's cost of capital calculated under CAPM. Noise aside, then, an observed increase in market value, if durable and real, manifests from these underlying causes. If one were to suggest that chartering in Delaware increases firm value, one should be able to show the underlying cause: (1) an increase in free cash flow compared to non-Delaware peers, or before and after reincorporation; and/or (2) a decrease in volatility of the stock under the CAPM framework compared to non-Delaware peers, or before and after reincorporation. Although a valuation applying the DCF is an analysis of prospective cash flow, a retrospective analysis of post-reincorporation cash flows and volatility of stock price should confirm whether measures of "statistically significant" abnormal returns are, as a factual matter, real or not. Prior studies suggesting a Delaware effect have not delved into the basic causes of the purported findings of abnormal value or valuation premium.

In summary, past empirical studies produced inconclusive results on their own terms. Claims of very substantial abnormal returns are inherently suspect, absent confirmation in market behavior to arbitrage such potential profits. Such claims do not pass the test for common sense when contextualized against the market process and historic returns. The methodologies used are also problematic. Past studies have not shown that Delaware law matters in terms of efficiency and that the race to the top hypothesis is true. A Delaware premium is not a matter of common knowledge because there is no conventional consensus on the exact quantum. Few among commentators will assert a hard number and stand by it. We see only generalized assertions based on past empirical studies and a pattern of self-referential citations.[85] They have not satisfactorily answered the empirical question of whether a Delaware premium exists. Questions remain: Is there a race at all? Who won?

Fischer Black speculated that stocks might vary by a factor of two. Fischer Black, *Noise*, 41 J. FINANCE 529, 533 (1986). This factor of two is "arbitrary" but intuitively "reasonable" in light of the impossibility of empirical testing for intrinsic value. *Id.*

83. Scholars have previously framed the causation inquiry as one of heterogeneity and controlling for various factors. *See supra* note 68 (describing scholars' inquiries).

84. The generally accepted theory of value is that the value of an asset is the sum of a firm's discounted cash flow. DAMODARAN, *supra* note 73, at 25; BREALEY, MYERS & ALLEN, *supra* note 2, at 96; *see generally* TIM KOLLER, MARC GOEDHART & DAVID WESSELS, VALUATION: MEASURING AND MANAGING THE VALUE OF COMPANIES 55–60 (4th ed. 2005) (describing the basic factors of value in the discounted cash flow analysis).

85. *See infra* notes 146–147 and accompanying text.

This Article answers that the debate on state competition has been much ado about nothing. Suppose there was no race at all. That is the implication if the race is for efficiency vis-à-vis charters. This proposition is neither inconsistent with Cary's argument or the weak version of Winter's hypothesis, nor with the idea that corporation law strives toward efficiency. Cary's argument is not based on efficiency, but on the normative prior of strict fiduciary obligations and fairness.[86] The weak version of Winter's thesis does not really rebut Cary's assertion of a race to the bottom on the latter's terms, but instead reframes the debate on the criterion of efficiency, and it asserts the hypothesis that market forces do not permit inferior, inefficient law.[87] The dueling race hypotheses are not binary; the nonexistence of one does not mean the existence of the other. With respect to the strong version of Winter's efficiency argument, the race to the top argument is just an asserted abstraction.

It is perfectly plausible that no race exists at all. Market forces do not always have work to do. Not every rule affects efficiency in any material sense, and it is the conceit of law to believe that every rule in corporation law, even important ones, impacts capital markets at the levels necessary to move aggregate market prices. The rules that advanced the efficiency of the corporate form, such as limited liability and entity personhood, have long been established in American jurisprudence.[88] With the architecture of corporation law firmly established as a uniform set of rules in a national standard, virtually all inter-state differences in corporation law have no basis in comparative advantage in efficiency. If the efficiency of law has reached a steady state for the moment, absent changes in the mix of fundamental rules, the law would be irrelevant to firm value.[89] Corporation law's stated goal of efficiency and its ultimate irrelevance on that measure are not a pair of incoherent, bipolar ideas. Despite the strong orthodoxy of Delaware's superiority, that belief has no empirical basis.

II. METHODOLOGY

A. Method of Analysis

This Article conducts a longitudinal valuation study of a broad sample of comparable companies. The 2019 Fortune 500 public corporations were chosen as a data group.[90] This group was selected for several reasons. Public Fortune 500 companies are comparable peers. They are generally the largest, most important companies in America. They comprise a large data set. While the majority are chartered in Delaware, the minority

86. Cary, *supra* note 19, at 668, 671–72, 696.

87. Winter, *supra* note 19, at 256.

88. *See infra* Part IV.B (explaining how this area of law has been well settled for decades).

89. Most foundational rules have been the same since the turn of the twentieth century and the advent of the industrial capitalism. *See infra* Part IV.B. (explaining the uniform approach to this area of law); *see also infra* notes 155–167.

90. *See Fortune 500*, FORTUNE (2019), https://fortune.com/fortune500/2019/ [https://perma.cc/EBY4-SUEE].

comprise a large group as well. These companies are broadly followed by the public and thoroughly analyzed by the markets. If differences in inter-state law tend to enhance firm value at some level of relevance and materiality, we should see premiums or discounts among a group of healthy, successful, large companies in a market with a high degree of informational efficiency. Virtually all are traded either on the New York Stock Exchange or the Nasdaq. A reliance on market value assumes market efficiency, which is fair for public Fortune 500 companies.[91] Their stock valuations are the product of a liquid, informationally rich, efficient American stock market.[92] Given this level of market efficiency and their large size and high profile generally, if there is any real effect of Delaware corporation law on market valuations, we should see it at this highest level of magnification.

Eighty-seven (87) companies were excluded from the data set because they are privately held,[93] not chartered under state corporation law,[94] or have incomplete financial or stock price data during the selected time period.[95] The remaining 413 firms are state-chartered public corporations with complete financial and stock price data for the five-year

91. *See supra* note 2 (stating that in efficient markets "prices incorporate all public information").

92. *See* Roberta Romano, *Empowering Investors: A Market Approach to Securities Regulation*, 107 YALE L.J. 2359, 2413 n.177 (1998) (noting that the "best available evidence indicates that the U.S. stock market is efficient regarding publicly available information") (citing Eugene F. Fama, *Efficient Capital Markets: II*, 46 J. FINANCE 1575, 1577, 1607 (1991)).

93. These 24 companies are (Fortune 500 ranking in parentheses): State Farm (36), Albertsons (52), New York Life (71), Nationwide (73), Liberty Mutual (75), TIAA (79), Massachusetts Mutual Life (84), Publix Supermarkets (91), CHS (97), USAA (101), Northwestern Mutual (111), Land O'Lakes (212), Guardian Life (244), Farmers Insurance (270), Pacific Life (298), American Family Insurance (306), Calpine (330), Mutual of Omaha (336), Peter Kiewit Sons (340), Thrivent Financial for Lutherans (351), Jones Financial (356), Auto Owners (382), Western & Southern Financial (421), Graybar Electric (423).

94. These 16 companies are (Fortune 500 ranking in parentheses): Fannie Mae (22), Freddie Mac (40), Energy Transfer (59), Enterprise GP (89), Plains GP (94), PBF Energy (113), Icahn Enterprises (166), NGL Energy Partners (179), Global Partners (254), CenterPoint Energy (299), DCP Midstream (320), Westlake Chemical (352), Eversource Energy (358), Anixter International (364), EnLink Midstream (396), TravelCenters of America (433). Most of these companies are limited partnerships or limited liability companies, and two are federally chartered government-sponsored corporations.

95. These exclusions comprise 47 companies. These 29 companies were excluded because they were acquired, restructured, or merged, thus lacking continuity of financial or stock price data (Fortune 500 ranking in parentheses): Dell Technologies (34), Dupont de Nemours (35), United Technologies (46), Tech Data (88), Hewlett Packard Enterprise (102), Twenty-First Century Fox (104), Raytheon (114), US Foods (125), Lumen Technologies (CenturyLink) (132), WellCare Health Plans (155), Performance Food (176), WestRock (190), Supervalu (201), Celgene (207), CBS (217), Arconic (227), Anadarko Petroleum (237), BB&T (246), Viacom (248), Office Depot (285), L3 Technologies (290), SunTrust (304), Chesapeake Energy (309), First Data (332), Rockwell Collins (350), Univar (353), Yum China (362), AK Steel (443), iHeartMedia (466). These 18 companies were excluded because they had incomplete five-year stock price history or otherwise had unreliable or incomplete data, such as when they became public or spun off to public shareholders within the five-year period: Kraft Heinz (115), DXC Technology (122), PayPal (204), BJ's Wholesale (245), J.C. Penney (261), Altice USA (327), Hertz Global (331), Vistra Energy (337), Brighthouse Financial (342), Veritiv (347), Frontier Communications (355), Liberty Media (380), APA (411), Fortive (422), Chemours (454), Windstream (493), Peabody Energy (499), Levi Strauss (500).

period from January 1, 2015, to December 31, 2019. Of these 413 companies, 281 are chartered in Delaware (68%) and 132 in other states (32%).[96]

A possible criticism of the choice of Fortune 500 companies may be that of selection bias. It could be argued that one should not see inter-state valuation differences because these firms are, on the whole, the best capitalized, most successful companies; they may not illuminate the inquiry because, as a group, they are similarly situated with respect to good corporate governance and business success. Far from a problem in the study design, achieving a similar situation is essential in a proper study. The closer to identical exactness, the better a comparative study and results therefrom would be. Consider why geneticists study identical twins. If one were to measure the effect of Delaware corporation law on firm value, the ideal experiment would be to measure two firms identical in every way except for the choice of corporation law: for example, Apple (Cal.) and Apple (Del.) with identical strategy, products, facilities, contracts, properties, and employees including Tim Cook clones as CEOs (i.e., identical human capital). Any difference in value would be attributable to differences in inter-state laws. Unlike the natural world, the business world does not have genetically identical firms to run perfectly controlled experiments. Each company is *sui generis*. Consider Walmart: No company is exactly like it, though there are imperfect comparisons, which are its peer comparables, such as Amazon, Target, Costco, and Dollar General, just one set of peers focused on the national-level retail business (there are other sets of comparable peers for Walmart). A valuation inquiry must analyze comparable firms. In this respect, Fortune 500 companies are comparable peers of the largest and generally most successful companies.

Comparable companies analysis is the most standard, basic staple of valuation studies conducted by analysts in the financial markets.[97] If Delaware law is more efficient, two baskets of Fortune 500 comparable companies sorted into Delaware and non-Delaware portfolios should exhibit valuational differences. Unlike an event study, a comparable companies analysis is a valuation study. It is the most direct approach to studying relative market valuations. Most mergers and acquisitions, initial public offering transactions, and other corporate-level transactions requiring valuations rely on comparative valuation analyses.[98]

The state of charter is public information disclosed in SEC filings. It is the factor of value studied here. Two implications follow: (1) if inter-state differences in law are

96. This split is consistent with the general knowledge that about two-thirds of Fortune 500 companies are chartered in Delaware. *See supra* note 16 (discussing corporate charters in the context of enforcement actions). The 132 non-Delaware companies were chartered in 27 different states: Arkansas (1), California (5), Connecticut (1), Florida (6), Georgia (3), Iowa (1), Illinois (2), Indiana (6), Massachusetts (2), Maryland (5), Michigan (5), Minnesota (5), Missouri (5), North Carolina (3), New Jersey (7), Nevada (6), New York (17), Ohio (12), Oklahoma (1), Oregon (2), Pennsylvania (9), Tennessee (1), Texas (1), Utah (1), Virginia (12), Washington (7), and Wisconsin (6).

97. *See supra* note 80 and accompanying text.

98. *E.g.*, Bank of America Corporation, Definitive Proxy on Bank of America and Merrill Lynch Merger, at 56–68 (Oct. 31, 2008); Uber Technologies, Inc., Registration Statement (Form S-1), at 144 (Apr. 11, 2019).

material, stock price analysis and market valuations should reveal systemic, aggregate differences among companies where information is prolific and trading is highly liquid; (2) if inter-state differences are immaterial, no systemic, aggregate valuational differences should be seen.

B. Data and Valuation Multiples

This study analyzes the financial and stock price data for the five-year period from 2015 to 2019. This period is ideal for study. It is a window of relative economic, social, and market stability sandwiched between the two great economic shocks of the twenty-first century. It is several years after the 2008–2009 financial crisis, the Great Recession, and the unprecedented economic rescue by the federal government and the Federal Reserve.[99] It is a year before the 2020 widespread awareness of Covid-19, the pandemic's global economic impact, and the unprecedented economic rescue by the federal government and the Federal Reserve.[100] Data during these historic market disturbances are unreliable in light of the social, political, and economic responses, and massive policy, fiscal, and monetary interventions by governments and central banks. Subsequently, in 2022, the capital market experienced a sharp "correction" in which the market indices declined by over 20% from late 2021 levels,[101] and the economy experienced inflation at the highest level since the early 1980s.[102] Accordingly, the five-year period from 2015 to 2019 represents a time window of economic and market stability.

For each year, the following financial measures were collected: revenue, operating profit, depreciation and amortization, net earnings, five-year share prices, shares outstanding, long-term debt, preferred stock, and book value of equity.[103] A large majority

99. *See, e.g.*, Emergency Economic Stabilization Act of 2008, 12 U.S.C. §§ 5211–5241 (creating the Troubled Asset Relief Program (TARP)).

100. *See, e.g.*, Coronavirus Aid, Relief and Economic Security (CARES) Act of 2020, Pub. L. 116-136 (Mar. 27, 2020). The World Health Organization declared Covid-19 a global pandemic on March 11, 2020. The global economies and financial markets were profoundly affected by the Covid-19 pandemic. *See generally* Richard H. Clarida, Burcu Duygan-Bump & Chiara Scotti, *The Covid-19 Crisis and the Federal Reserve's Policy Response* (Fed. Rsrv. Bd. Fin. & Econ. Discussion Series, Working Paper No. 2021-035, 2021), https://www.federalreserve.gov/econres/feds/files/2021035pap.pdf [https://perma.cc/TQ92-HHL8].

101. On December 27, 2021, the S&P 500 index closed at 4,766.18, and on June 13, 2022, it closed at 3,674.84, a decline of approximately 23%. Hannah Miao & Tanaya Macheel, *S&P 500 Ends 2021 with a Nearly 27% Gain, But Dips in Final Trading Day*, CNBC (Dec. 30, 2021), https://www.cnbc.com/2021/12/30/stock-market-futures-open-to-close-news.html [https://perma.cc/QE2Z-YTLS]; Samantha Subin & Jesse Pound, *S&P 500 Rises Slightly Friday, But Still Posts Worst Week Since 2020*, CNBC (June 16, 2022), https://www.cnbc.com/2022/06/16/stock-market-news-futures-open-to-close.html [https://perma.cc/P6G4-925R].

102. *See* German Lopez, *Inflation's 40-Year High*, N.Y. TIMES (Apr. 13, 2022), https://www.nytimes.com/2022/04/13/briefing/inflation-forty-year-high-gas-prices.html [https://perma.cc/5D7A-7MS4].

103. The data sets produced in this Article required the collection of over 28,000 individual data points from

of companies have fiscal years matching the calendar year. All financial measures were adjusted to match the calendar year.[104] This adjustment allows comparing the same temporal vis-à-vis fiscal periods.

The market capitalizations and the enterprise values (EV) were calculated for each calendar year. This Article conducts a comparable companies valuation study based on six market multiples. A market multiple is just the calculation of a quotient: the ratio of market value to certain financial indicator of the company, such as revenues or profit.[105]

EV is defined here as the market value of equity and long-term debt securities.[106] It is the value of all securities representing long-term financing. EV multiples are calculated as the ratios of EV to book value of assets, revenue, operating profit, and EBITDA: [107]

$$\frac{EV}{Assets} \qquad \frac{EV}{Revenue} \qquad \frac{EV}{Operating\ Profit} \qquad \frac{EV}{EBITDA}$$

EV multiples for financial returns must be based on financial measures above the tax line because such measures, which are before the deduction of interest expense, constitute financial claims by both creditors and shareholders.

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the Form 10-Ks. Sets of 13 financial variables for five years for 413 companies and calendar year adjustments for 13 variables for six years of fiscal year results for 108 companies were collected: (1) revenue, (2) operating profit, (3) depreciation and amortization (D&A), (4) operating profit plus D&A, (5) net income, (6) assets, (7) long-term debt, (8) preferred stock, (9) book value of equity, (10) shares outstanding, (11) market capitalization, (12) enterprise value, and (13) average stock price. Stock price data includes 1,256 trading days of the five-year period from 2015 to 2019 for the 413 companies, which is over 518,000 individual stock prices.

104. Of the 413 total companies analyzed here, 305 companies (74%) have fiscal years ending in December. A minority (108) have different fiscal year ends. The most common non-December fiscal year ends are January, June, and September. Pro forma calendar year figures were approximated by the proportional combination of two years' fiscal results.

105. *See* DAMODARAN, *supra* note 73, at 231–323 (discussing comparable companies analyses using both equity and enterprise value multiples). Comparable companies analysis is routinely used by Delaware courts in analyses requiring valuation of companies. *E.g.*, Verition Partners Master Fund Ltd. v. Aruba Networks, Inc., 210 A.3d 128, 136 (Del. 2019); DFC Glob. Corp. v. Muirfield Value Partners, L.P., 172 A.3d 346, 351, 387 (Del. 2017); Agranoff v. Miller, 791 A.2d 880, 897–901 (Del. Ch. 2001); Klang v. Smith's Food & Drug Ctrs., Inc., 702 A.2d 150, 155 (Del. 1997).

106. DAMODARAN, *supra* note 73, at 295 (defining "firm value" as market value of equity plus market value of debt); KOLLER, GOEDHART & WESSELS, *supra* note 84, at 104 (defining enterprise value as equity plus debt). Since getting the market values of some preferred stock and debt instruments may be difficult, the book values of preferred stock and long-term debt are assumed to equal market value. *See* Daines, *supra* note 39, at 531 (applying same treatment). The multiple EV/Assets is a version of the Tobin's Q, in its "Simple Q" variant, which is when the replacement value of assets is approximated as the book value of assets. *See supra* notes 76–77.

107. DAMODARAN, *supra* note 73, at 295. Revenue and operating profit are reported in the income statement in the Form 10-K. This Article uses operating profit plus depreciation and amortization as a proxy for EBITDA.

Equity value multiples are based on ratios of market value of common stock to earnings (net income attributable to common stock) (P/E), and to book value of equity (P/B):[108]

$$\frac{Price}{Earnings} \qquad \frac{Price}{Book\ Value}$$

Earnings and book value are the denominators of market capitalization because they represent claims of only stockholders.

A multiple is a measure of value. The higher the multiple, the greater is the firm's value. A multiple indicates the economic relationship between market values and the selected performance metrics. It represents the amount of money that investors are willing to pay, as seen in value of securities, for each dollar of a selected period's revenue, operating profit, EBITDA, net income, or book value. A multiple is the market's synthesis of the present value of the financial claims on a going concern as a ratio of specific financial metrics. EV and equity value multiples are standard valuation techniques, generally accepted and commonly used in the financial markets and judicial appraisal proceedings.[109] For public companies, a comparable companies analysis is the foundation of most credible valuation studies conducted by investment bankers and financial analysts.

C. Adjustments to Raw Outputs

Once financial data is gathered, the calculation of multiples is simply rote mathematics. Unadjusted calculations can yield extremely high or negative value multiples. If a financial measure is very small in any given year relative to the stock price, the resulting multiple can introduce a large distortion. The most extreme example would be an infinite P/E multiple based on the fact that the company has zero earnings but a positive stock price, even if a penny. The multiple on this penny stock would be meaningless. A given multiple may be so extreme that it unduly affects the entire data set. Also, at the level of an individual firm, a negative multiple means that an investor is willing to pay some positive value for a dollar of loss for the particular period. The investment would be illogical unless seen in a broader time horizon. At the firm level, a negative multiple is meaningless, but in the aggregate, it may be relevant to evaluate a large basket of stocks. The more difficult problem is extreme values, either negative or positive. Investment bankers and financial analysts often disregard negative and extreme values.

In financial practice, valuation is not a rote "click-n-drag" exercise. Unadjusted

108. DAMODARAN, *supra* note 73, at 259, 262.

109. *E.g.*, *supra* notes 80, 105 (citing case law discussing comparable companies analysis); *supra* note 98 (showing merger proxy and Form S-1 discussing multiples analysis in valuations). Of the EV multiples, the Tobin's Q (stated here as EV/Assets) is the least commonly used multiple.

calculations are not used because they are unreliable and misleading. Much good faith subjective judgment goes into the process of making the appropriate or correct individualized adjustments.[110] Such judgments include identifying peer companies across different considerations and adjusting or eliminating unrepresentative figures or skewing effects. With these unavoidable considerations in mind, three minimal adjustments were made to produce three sets of adjusted data on Delaware and non-Delaware companies.[111] Importantly, all adjustments were uniformly applied to all 413 companies without individualized adjustments.

Set 1—Elimination of Extreme Values. This adjustment eliminates all extreme values. Extreme value is defined as values not falling in between these ranges: EV/assets [-6x, +6x]; EV/revenue [-10x, +10x]; EV/EBITDA [-50x, +50x]; EV/operating profits [-75x, +75x]; P/B [-20x, +20x]; P/E [-125x, +125x]. These boundaries are not arbitrary. They are about four to five times the average expected range for the specific multiple.[112] They are a high threshold for setting the outer boundary of extreme. They permit a broad range of multiples expected to be seen in a study of 413 companies. The bias is against the exclusion of data.

Set 2—Elimination of Extreme and Negative Values. This adjustment eliminates not only extreme values under the above Set 1 parameters, but also all negative values. Negative values result from negative financial measures, but they tell us little about the value of the entity as a healthy going concern. While occasional losses are ordinary in the life cycle of firms, as a general observation, most mature companies operating as a going concern produce some positive financial results.

Set 3—Standard Deviation Boundaries. This adjustment further narrows the Set 2 data. Standard deviations were calculated. The parameter here narrows the range of values to ±2.0 standard deviation. This range trims the Set 2 data, but still permits a broad range of multiples that are expected to be seen in a study of 413 companies.

The three adjustments produced three sets of valuations. The purpose of the adjustments is to eliminate most unrepresentative or distorting data without individualized selection or subjectivity of choice. In market practice and appraisals, subjective judgment

110. *See* RHEE, *supra* note 76, at 218 ("Valuation requires technical competence and quantitative rigor in analysis. However, it also requires subjective judgment on many variables that materially affect the results.").

111. The data sets are reported *infra* Part III.A.

112. There is some imprecision in the range, as indicated by the "generally four to five times" comment. There is no precise single figure from which a multiple range can be precisely set. Average multiples change over time (e.g., historical P/E ratios), and an average multiple can differ depending on the parameters selected to calculate averages. For example, one expects the normal EV/Revenue and P/E to range between 1x–3x and 10x–20x in most ordinary circumstances. *See, e.g.*, *Site Map*, MULTIPL, www.multpl.com/sitemap [https://perma.cc/3N9M-W5JZ] (providing historical P/E and market capitalization to revenue multiples); *S&P 500 EV/EBITDA Multiple in the United States from 2014 to 2021, By Sector*, STATISTA, www.statista.com/statistics/953641/sandp-500-ev-to-ebitda-multiples/ [https://perma.cc/2BV2-G4NF] (providing historical EV/EBITDA multiples). The purpose of Set 1 is to eliminate extreme values, defined in a broad way, which requires some line drawing. Thus, the ranges were selected as ±6x and ±125x, depending on the multiple, which are generally in the range of four to five times historical or current averages.

and individualized choices are unavoidable. But this aspect of practice is avoided here because it would open up the analysis to criticism of cherry-picking and would hinder replication of the results reported here.

There are pros and cons to applying a minimal subjective touch. The major advantage is that subjectivity is eliminated. A practitioner knows that data can be manipulated to achieve outcomes, per cherry-picking or confirmation bias.[113] The results here cannot be questioned on the ground that undisclosed individualized choices, manipulations, or exceptions skewed results. The adjustments were applied uniformly to all 413 companies with no unstated adjustments or exceptions. The major disadvantage is that subjectivity is eliminated. In practice, market analysts and investment bankers working in good faith in fact individually assess unusual or outlier data. Given these pros and cons, the preference here is to eliminate subjective judgments and to err on the side of the inclusiveness of data. The above parameters eliminated most of the extreme and distorting values. Importantly, by avoiding subjectivity and individualized choices, the analysis here can be replicated by applying the data collection and computational methods described here.[114]

III. Analysis of Results

A. Valuation Results

Three sets of data were produced for Delaware and non-Delaware companies for the years 2015 to 2019.

Set 1—Elimination of Extreme Values. Set 1 is the output that is the most inclusive of all data. The following are the multiples for the years 2015 to 2019 for the groups of Delaware and non-Delaware companies when extreme values were eliminated. The higher multiples are shaded in gray.

113. Subjective judgment is always a part of a valuation study. Rhee, *supra* note 76. Delaware courts understand well that subjectivity in valuation can skew results. *See* Dell, Inc. v. Magnetar Glob. Event Driven Master Fund Ltd., 177 A.3d 1, 24 (Del. 2017) (noting that "the price produced by an efficient market is generally a more reliable assessment of fair value than the view of a single analyst, especially an expert witness who caters her valuation to the litigation imperatives of a well-heeled client."); Cede & Co. v. Technicolor, Inc., No. 7129, 2003 WL 23700218, at *2 (Del. Ch. July 9, 2004) ("[I]t is one of the conceits of our law that we purport to declare something as elusive as *the* fair value of an entity on a given date, especially a date more than two decades ago. Experience in the adversarial battle of the experts' appraisal process under Delaware law teaches one lesson very clearly: valuation decisions are impossible to make with anything approaching complete confidence."), *aff'd in part*, *rev'd in part*, 884 A.2d 26 (Del. 2005).

114. *See supra* Parts II.A, II.B.

	EV / Assets					EV / Revenue				
	2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
Delaware	1.30	1.43	1.36	1.29	1.37	2.38	2.31	2.28	2.16	2.16
Other states	1.38	1.39	1.37	1.37	1.35	2.62	2.37	2.39	2.22	2.10
Difference	6.3%	(3.2%)	0.9%	5.5%	(1.1%)	10.3%	2.5%	4.8%	3.1%	(2.6%)

	EV / EBITDA					EV / Operating profit				
	2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
Delaware	11.54	11.64	11.31	10.85	11.09	15.65	17.16	15.19	12.36	14.49
Other states	12.18	10.94	11.71	10.61	11.07	17.93	15.13	15.92	15.14	15.24
Difference	5.5%	(6.0%)	3.5%	(2.1%)	(0.2%)	14.6%	(11.8%)	4.8%	22.5%	5.2%

	Price / Book					Price / Earnings				
	2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
Delaware	3.07	3.33	3.11	3.05	3.37	14.64	16.50	15.21	12.84	14.35
Other states	3.12	3.29	3.12	3.01	3.20	16.91	14.45	18.15	17.34	15.52
Difference	1.6%	(1.2%)	0.4%	(1.5%)	(4.8%)	15.5%	(12.4%)	19.3%	35.0%	8.1%

The "difference" is calculated as the percent delta between non-Delaware and Delaware companies using the Delaware multiple as the base of comparison. The average difference among the six multiples across five years is +4.1% for all non-Delaware companies. The average differences among balance sheet and profit multiples, respectively, are +0.3% and +6.8% for all non-Delaware companies.[115]

Set 2—Elimination of Extreme and Negative Values. The following are the multiples for the years 2015 to 2019 for the groups of Delaware and non-Delaware companies when extreme values under Set 1 parameters and all negative multiples were eliminated.

115. Balance sheet multiples are EV/assets and P/B. Profit multiples are EV/(operating profit), EV/EBITDA, and P/E.

	EV / Assets					EV / Revenue				
	2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
Delaware	1.30	1.43	1.36	1.29	1.37	2.38	2.31	2.28	2.16	2.16
Other states	1.38	1.39	1.37	1.37	1.35	2.62	2.37	2.39	2.22	2.10
Difference	6.3%	(3.2%)	0.9%	5.5%	(1.1%)	10.3%	2.5%	4.8%	3.1%	(2.6%)

	EV / EBITDA					EV / Operating profit				
	2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
Delaware	12.00	12.07	11.92	11.40	11.76	17.77	18.34	16.95	15.73	16.67
Other states	12.47	11.47	11.71	10.73	11.07	18.56	16.68	16.65	15.29	15.24
Difference	4.0%	(5.0%)	(1.7%)	(5.8%)	(5.9%)	4.5%	(9.1%)	(1.7%)	(2.8%)	(8.6%)

	Price / Book					Price / Earnings				
	2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
Delaware	3.54	3.66	3.42	3.23	3.47	19.05	20.02	19.67	17.88	19.13
Other states	3.60	3.58	3.43	3.30	3.42	20.60	17.26	19.94	17.96	17.85
Difference	1.8%	(2.3%)	0.0%	2.1%	(1.5%)	8.1%	(13.8%)	1.3%	0.4%	(6.7%)

The average difference among the six multiples across five years is negative (0.5%) for all non-Delaware companies. The average differences among balance sheet and profit multiples, respectively, are +0.8% and negative (2.9%) for all non-Delaware companies.

Set 3—Standard Deviation Boundaries. Set 3 is the output that is the most exclusive of all data. The following are the multiples for the years 2015 to 2019 for the groups of Delaware and non-Delaware companies when the extreme range was narrowed to ±2.0 standard deviations of all Set 2 data.

	EV / Assets					EV / Revenue				
	2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
Delaware	1.10	1.21	1.17	1.10	1.15	2.13	1.98	1.96	1.87	1.77
Other states	1.23	1.31	1.23	1.17	1.22	2.33	2.26	2.24	2.12	2.04
Difference	12.0%	8.3%	4.9%	6.3%	5.9%	9.4%	14.0%	14.6%	13.4%	15.0%

	EV / EBITDA					EV / Operating profit				
	2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
Delaware	10.99	11.22	11.23	10.41	10.72	15.55	15.69	14.96	13.66	14.59
Other states	11.86	11.29	11.29	10.59	10.57	17.16	15.78	15.41	14.18	14.06
Difference	7.9%	0.7%	0.5%	1.8%	(1.4%)	10.3%	0.6%	3.0%	3.8%	(3.6%)

	Price / Book					Price / Earnings				
	2019	2018	2017	2016	2015	2019	2018	2017	2016	2015
Delaware	2.63	2.85	2.89	2.66	2.82	17.03	16.81	17.47	15.95	16.98
Other states	3.23	3.30	3.08	2.84	2.75	17.99	17.26	17.74	16.57	16.23
Difference	22.6%	15.9%	6.6%	6.9%	(2.6%)	5.6%	2.7%	1.5%	3.9%	(4.4%)

The average difference among the six multiples across five years is +6.2% for all non-Delaware companies. The average differences among balance sheet and profit multiples, respectively, are +8.7% and +2.2% for all non-Delaware companies.

A proper valuation requires a view of the entire cathedral.[116] Data must be considered holistically, and no single datum or method is dispositive. The totality of the data in Sets 1, 2, and 3 for five years and among six multiples shows no discernable premium to the valuations of Delaware companies. No consistent pattern indicates a systemic premium in favor of Delaware companies.

B. Market Size and Industry Segmentation

One may ask whether material differences in the qualities of the two portfolios could have affected aggregate results. Of course, the two portfolios are not identical. Two variables must always be examined in a comparable companies analysis: market size and industry segmentation.[117]

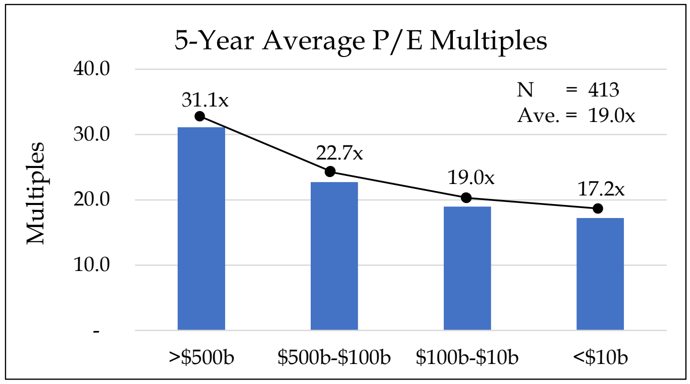
Valuations can differ among strata of market capitalizations. If market values are markedly different in the two portfolios, material differences in value can be attributable to size premia or discounts.[118] For example, when the entire set of 413 companies were categorized into strata of market capitalizations for the five years from 2015 to 2019, and

116. Valuation studies typically produce a range of values. ROBERT J. RHEE, CORPORATE FINANCE 108 (2016) ("Valuations typically produce a range of values."); *e.g.*, RBC Cap. Mkts., L.L.C. v. Jervis, 129 A.3d 816, 842 n.56 (Del. 2015) ("Valuation football fields are used to summarize valuation ranges in connection with business combinations. Typically, they provide the valuation ranges corresponding to each of the valuation methodologies used for a given M & A transaction.").

117. *See* KOLLER, GOEDHART & WESSELS, *supra* note 84, at 145–48 (discussing the effects of firm size and industry segmentation on return on invested capital).

118. *See* DAMODARAN, *supra* note 73, at 118, 123–24 (discussing the effects of firm size on earnings growth and valuation considerations); BREALEY, MYERS & ALLEN, *supra* note 2, at 215 (noting that "stocks of small firms . . . have provided above-average returns . . . and some evidence that these factors are related to company profitability").

average P/E multiples were calculated, we clearly see an apparent size premium.[119]



Ex ante, we should not expect material differences in market size in the two portfolios since all companies are public Fortune 500 companies that are spread in a ratio to 2-to-1 between Delaware and non-Delaware companies. Data confirms this intuition. The following is the average market capitalizations of the two groups for the years from 2015 to 2019.

	Average market capitalization				
$ million	2019	2018	2017	2016	2015
Delaware	48,971	46,909	41,387	34,029	34,276
Other states	54,523	48,201	44,217	37,601	35,983
Difference	11.3%	2.8%	6.8%	10.5%	5.0%

Size differences are typically categorized in orders of magnitude, not minor percent differences. The above differences in the two portfolios are not so different that one would expect a size premium effect.

Further analysis confirms this conclusion. When the two portfolios are examined at a more granular level, they are roughly similar in proportions. The table below breaks out companies in each portfolio by categories of market size, each category as a percentage of the portfolio, and the five-year average P/E multiples for each size category.

119. The limiting range was set at P/E multiples between [125.0x, 0.0x]. This range excluded negative multiples.

$ billion	>$500	$500–$100	$100–$10	<$10	**Tot. & Ave.**
Delaware companies	4	30	146	101	**281**
% of Delaware portfolio	1.4%	10.7%	52.0%	35.9%	**100%**
5-year average P/E	38.8 x	23.1 x	19.3 x	16.9 x	**19.2 x**
Non-Delaware companies	2	13	81	36	**132**
% of Non-Delaware portfolio	1.5%	9.8%	61.4%	27.3%	**100%**
5-year average P/E	18.1 x	21.9 x	18.5 x	18.1 x	**18.7 x**

The relative proportions of companies over $100 billion are about the same. The largest number of companies are below $100 billion. For this group, the differences between the two portfolios are minor. Delaware has a smaller proportion of companies between $100 to $10 billion, but they are valued slightly higher. Delaware has a larger proportion of companies less than $10 billion, but they are valued slightly lower. Overall, a granular analysis of market sizes is consistent with initial expectations. Size premium or discount is not a material factor in aggregate values.

Another possible factor of differences in aggregate values is different mixes of industry composition. The following table breaks down industry composition in the two portfolios of 281 Delaware and 132 non-Delaware companies.[120] For each portfolio, it calculates the number of companies in each industry sector and the percent of the portfolio. The third line calculates the total number of companies in the industry and the percentage based on all 413 public Fortune 500 companies.

120. Despite the division into twelve industry sectors, the categories are still broad. For example, “industrial manufacturing” includes companies that make steel, tractors, missiles, and chemicals; “energy” includes exploration, refineries, servicing firms, and utilities; “financials” includes banks, insurers, financial services, broker-dealers, and asset managers; “health” includes pharmaceuticals, life sciences, healthcare services, and medical devices; “technology” includes manufacturing and technology-focused services; “foods” include restaurants, food makers, and agriculture. Companies within any single industry sector may have a broad range of business models, products, and customers. When financial analysts perform valuation studies, they group comparable companies into the narrowest industry segment: e.g., gaming companies would include Las Vegas Sands, MGM Resorts, Caesars Entertainment, and Wynn Resorts; large retailers would include Amazon, Walmart, Target, and Costco. It is possible to segment industry groups into much finer grades. But the valuation study here is not an analysis of a single company or a small group of companies. It is the valuation of large portfolios of stock. When finer gradations are made, the overall analysis may suffer because the data points within each finer segment may be too few to portray aggregate effects on the broad baskets of stock, if any. There is a balance between seeing the leaves and the forest. The 12 categories identified here are commonly seen in discussions of financial markets. *See*, *e.g*., Conrad de Aenlle, *The Markets Have Prospered. Why Are So Many People Worried?*, N.Y. TIMES (July 9, 2021), https://www.nytimes.com/2021/07/09/business/mutfund/high-markets-worries.html [https://perma.cc/MQY4-4P7E] (in an analysis of the stock market, categorizing industry sectors as “industrials, real estate, technology, communications, natural resources, health, financial, consumer defensive, energy, utilities”). The categories used here distinguish industry segments without atomizing meaningful categories into meaningless comparisons for the purpose of examining the aggregate whole.

	Financials (incl. banks, insurers, services)	**Industrial manufacturing** (incl. chemicals)	**Retail & Consumer Goods**	**Energy** (incl. oil, gas, utility)	**Health** (incl. pharma, life science, devices)	**Technology** (incl. services, manufacturing)
Delaware (281 cos.)	41 (14.6%)	45 (16.0%)	38 (13.5%)	24 (8.5%)	29 (10.3%)	24 (8.5%)
Other states (132 cos.)	20 (15.2%)	16 (12.1%)	22 (16.7%)	19 (14.4%)	11 (8.3%)	9 (6.8%)
Fortune 500 cos. (% of total 413 cos.)	61 (14.8%)	61 (14.8%)	60 (14.5%)	43 (10.4%)	40 (9.7%)	33 (8.0%)

	Services (incl. consulting, engineering)	**Foods** (incl. foods, restaurants, agriculture)	**Logistics & Transportation** (incl. airlines)	**Media & Telecom**	**Real estate** (incl. hotels, builders, casinos)	**Others**
Delaware (281 cos.)	23 (8.2%)	20 (7.1%)	11 (3.9%)	11 (3.9%)	8 (2.8%)	7 (2.5%)
Other states (132 cos.)	8 (6.1%)	9 (6.8%)	8 (6.1%)	2 (1.5%)	5 (3.8%)	3 (2.3%)
Fortune 500 cos. (% of total 413 cos.)	31 (7.5%)	29 (7.0%)	19 (4.6%)	13 (3.1%)	13 (3.1%)	10 (2.4%)

The most impactful industry segments are the largest sectors. Smaller sectors have less impact on aggregate values. The relative differences in the "media and telecom" or "logistics and transportation" categories are substantial, but these sectors are small. The "industrial manufacturing" and "retail and consumer goods" sectors have modest relative differences. Among the largest sectors, the energy sector shows a substantial relative difference.

We should also consider the possibility that substantial differences in average market capitalizations within each industry sector may affect the values of companies therein due to size premium. The following table shows the average market capitalizations of industry segments in 2019.

$ million	**Financials** (incl. banks, insurers, services)	**Industrial manufacturing** (incl. chemicals)	**Retail & Consumer Goods**	**Energy** (incl. oil, gas, utility)	**Health** (incl. pharma, life science, devices)	**Technology** (incl. services, manufacturing)
Delaware	69,462	24,396	54,328	34,365	56,022	88,499
Other states	31,699	23,963	49,629	40,208	86,627	250,310

	Services (incl. consulting, engineering)	**Foods** (incl. foods, restaurants, agriculture)	**Logistics & Transportation** (incl. airlines)	**Media & Telecom**	**Real estate** (incl. hotels, builders, casinos)	**Others**
Delaware	15,849	33,109	21,655	144,316	31,473	10,455
Other states	10,974	47,766	33,395	102,255	16,176	15,957

Among the larger industry segments, substantial differences in market size are seen in the financial and technology sectors.

Based on the differences in proportions of industry compositions and average market values within each industry sector, this Article analyzed the valuations of the energy, financials, and technology sectors in the two portfolios. These sectors account for 32% of Delaware companies (89 out of 281) and 36% of non-Delaware companies (48 out of 132)—thus one-third of the entire data set of 413 companies. The industry compositions within each portfolio are: the number of Delaware companies comprise financials 41 (46.1%), energy 24 (27.0%), and technology 24 (27.0%); the number of non-Delaware companies comprise financials 20 (41.7%), energy 19 (39.6%), and technology 9 (18.8%).

The following table provides the average valuation multiples for the five years 2015 to 2019 for each of the six multiples using the Set 3 multiples (standard deviation boundaries).[121]

	Financials						Energy					
	Assets	Revenue	EBITDA	Op. Profit	Book	Earnings	Assets	Revenue	EBITDA	Op. Profit	Book	Earnings
Delaware	0.42	3.14	11.75	14.44	1.47	12.85	0.97	2.72	11.01	17.11	1.86	17.50
Other States	0.56	2.81	12.00	13.98	1.72	13.52	0.80	3.04	9.77	16.61	1.72	17.92
Difference	34.7%	(10.5%)	2.2%	(3.2%)	17.4%	5.3%	(17.1%)	11.9%	(11.3%)	(2.9%)	(7.5%)	2.4%

	Technology						Weighted Average of Three Sectors					
	Assets	Revenue	EBITDA	Op. Profit	Book	Earnings	Assets	Revenue	EBITDA	Op. Profit	Book	Earnings
Delaware	1.76	2.56	10.96	16.36	3.68	19.61	0.93	2.87	11.34	15.68	2.17	15.93
Other States	1.37	2.38	11.41	16.12	3.89	17.21	0.81	2.82	11.01	15.42	2.13	15.96
Difference	(22.3%)	(6.8%)	4.1%	(1.5%)	5.6%	(12.2%)	(13.0%)	(1.7%)	(2.9%)	(1.6%)	(2.0%)	0.2%

The simple average of six multiples in the three industry sectors is negative (0.7%) for all non-Delaware companies. The average differences among balance sheet and profit multiples, respectively, are +1.8% and negative (1.9%) for all non-Delaware companies. The last table shows the average multiples, weighted for different industry contributions within each of the two portfolios. The average difference among the six multiples based on this weighted average is negative (3.5%) for all non-Delaware companies. The one anomaly is the large difference in the EV/Assets multiple. The average differences among balance sheet and profit multiples, respectively, are negative (7.5%) and negative (1.5%) for all non-Delaware companies. A segregated analysis of differences in the composition of three industry sectors, constituting approximately one-third of the total portfolio, shows that the differences in valuations of industry sectors do not materially affect the aggregate valuation results in Part III.A.

In summary, differences in market sizes and composition of different industries in the

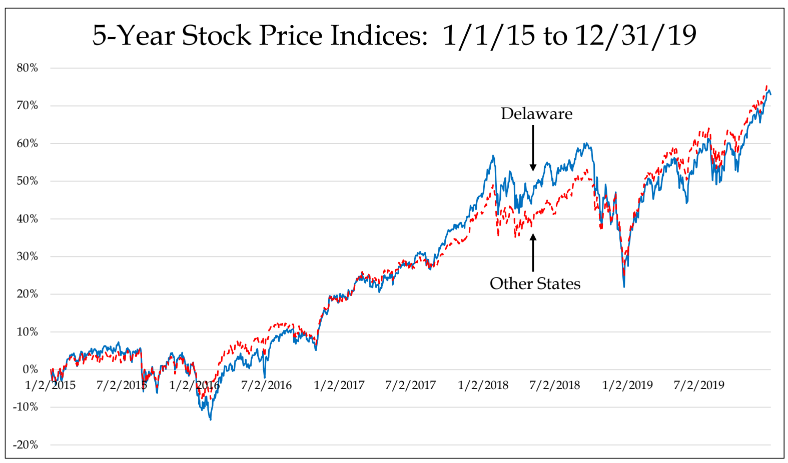
121. *See supra* Parts II.C, III.A (describing the parameters for the standard deviation boundaries).

Delaware and non-Delaware portfolios do not materially affect aggregate values.

C. *Stock Price Analysis*

This Article conducted a stock price analysis. Delaware and non-Delaware stock price indices were created. Each company's stock in the Delaware and non-Delaware portfolios was baselined to a common price at the start of the period and then tracked over the selected three- and five-year periods as percent increases and decreases over time.[122] The indices measure the average stock price movements of the portfolio. They were not weighed by market capitalization. The inquiry here is to discern aggregate effect, i.e., the effect of state corporation laws, which should apply equally to all companies chartered there.

The following chart[123] tracks the five-year stock price movement from January 1, 2015, to December 31, 2019. The solid line (——) is the Delaware index, and the dashed line (– – –) is the non-Delaware index.



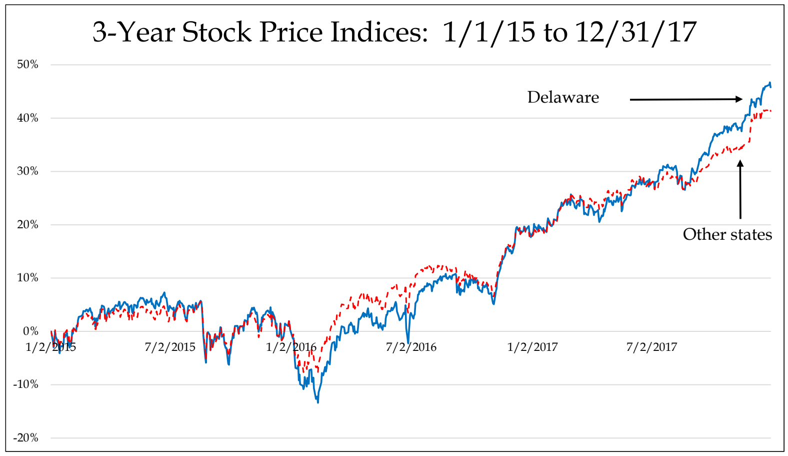
The correlation coefficient of 0.9857 was high, which is expected given the number of companies, the diversification of the industries represented therein, and the relative size of the companies. Non-Delaware companies slightly outperformed Delaware companies in the years 2016 and 2019, while Delaware companies outperformed from the third quarter of 2017 to the third quarter of 2018. When the differences across all five years are calculated, the average daily trading difference was +0.30% for Delaware, most of which is attributable to the substantial overperformance of Delaware companies from 2017 to

122. This technique resets all stock prices to a common baseline irrespective of actual stock prices (e.g., on July 6, 2021, Amazon closed at $3,675.74 and Apple $142.02).

123. For a list of the companies included, *see supra* Part II.A.

2018.[124] Total returns and annualized rates of return were: non-Delaware 75.08% and 11.85%, Delaware 73.01% and 11.59%.[125] Non-Delaware companies performed better.

Shorter-term stock price performances were examined. The following chart tracks the stock price indices for the three-year period from January 1, 2015, to December 31, 2017.

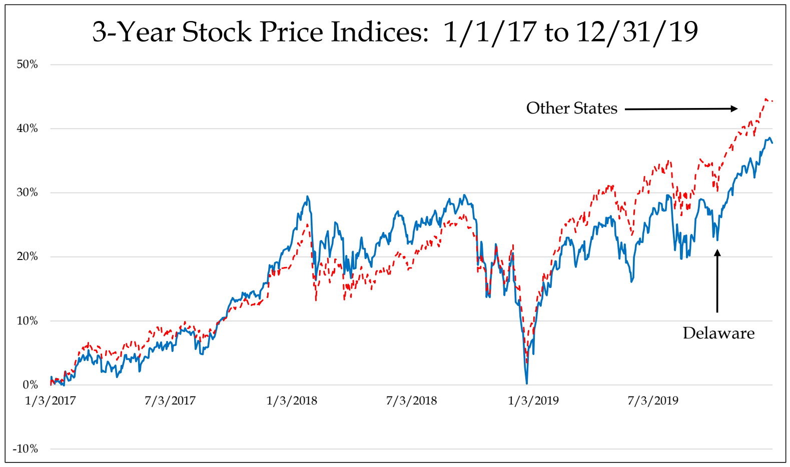


The correlation coefficient of 0.9886 was high. The average daily trading difference was negative (0.39%) for Delaware. Total returns and annualized rates of return were: non-Delaware 41.32% and 12.22%, Delaware 45.78% and 13.39%. Delaware companies performed better.

The following chart tracks the stock price indices for another three-year period, from January 1, 2017, to December 31, 2019.

124. Average daily trading difference is the aggregate of net daily trading differences between two portfolios divided by the number of total trading days.

125. When total return and internal rate return are calculated, interim performance, such as Delaware's overperformance from 2007 to 2018, is irrelevant because the relevant data points are the beginning and ending values.



This period showed greater variance. The correlation coefficient of 0.9251 was high. The average daily trading difference was negative (1.14%) for Delaware. Total returns and annualized rates of return were: non-Delaware 44.30% and 13.00%, Delaware 37.77% and 11.27%. Non-Delaware companies performed better.

The above results are summarized in the following table.

	Ave. Daily Trading	Total Return		Annualized Return	
	Delaware	Delaware	Non-Delaware	Delaware	Non-Delaware
2015-2019	+ 0.30%	73.01%	75.08%	11.59%	11.85%
2015-2017	− 0.39%	45.78%	41.32%	13.39%	12.22%
2017-2019	− 1.14%	37.77%	44.30%	11.27%	13.00%

Clearly, the longer the period, the more reliable the data. The most probative values here are the longer-term values for the five-year period from 2015 to 2019. The two shorter three-year periods show the short-term variability in the two portfolios. They show that, depending on the time period, each portfolio outperformed the other.

The above stock price charts show the expected ups and downs of a large segment of the market over long and intermediate time periods. No two baskets of stock with different compositions would have a perfect correlation. But the correlation among public Fortune 500 companies was very high, which is expected since they are comparable peers.

Like the valuation study seen in Part III.A, this stock price analysis shows no evidence that the stock prices of Delaware companies consistently outperform those of non-Delaware companies. Again, no single data point is dispositive or definitive. In some periods, the Delaware index overperformed slightly, and in other periods it underperformed. Overall, no systemic premium is shown in the stock price performance over the five years from 2015 to 2019.

IV. Market Behavior and Theory of Corporate Law's Irrelevance

A. Absence of Market Behavior as the Holmesian Dog

The analysis in Part III shows that when the many views of the valuation cathedral are considered holistically, there is no evidence of a systemic Delaware premium in valuations or stock prices. The state of charter does not impart a systemic effect on aggregate valuations in favor of Delaware. If the choice of state law mattered, we should have seen evidence of systemic effect in such a large data set of large capitalization companies. There is no actionable Delaware premium: no information sufficient to prompt profitable action by company managers or market actors.

This analysis and evidence are supported by and consistent with empirical observations of market behavior and general commentaries by academics and courts. Despite the din of academic debate and the dominant commitment to Delaware's primacy, empirical evidence of market behavior provides strong indirect evidence that a Delaware premium does not exist.

The most compelling direct evidence of market behavior is the fact that a substantial minority of Fortune 500 companies are not chartered in Delaware. Why do they exist? This fact is the Achilles' heel in the race to the top argument. Some non-Delaware companies are some of the most important companies in America.[126] The existence of numerous non-Delaware companies does not fit the efficiency hypothesis.[127] Why haven't they reincorporated in Delaware? The choice of state is not a path-dependent, irreversible outcome. A corporation can always change the applicable state corporation law.

A pure reincorporation can be accomplished through two common means. Both are paper-shuffling, ministerial transactions. Some modern statutes permit a corporation to convert into a corporation of another state.[128] For example, Delaware law permits a conversion whereby a non-Delaware company can convert into a Delaware corporation, but only if the other state permits an outbound conversion.[129] If a conversion is not possible, the next simplest transaction is a "downstairs merger." A non-Delaware corporation can form a Delaware subsidiary and then merges into the subsidiary, which

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126. *See supra* note 10.

127. *See* J. Robert Brown, Jr. & Sandeep Gopalan, *Opting Only In: Contractarians, Waiver of Liability Provisions, and the Race to the Bottom*, 42 IND. L. REV. 285, 292 n.40 (2009) ("But if it were that clear that incorporating in Delaware improved shares prices, all similarly situated companies would do so, and they do not."); *infra* note 140.

128. *E.g.*, DEL. CODE ANN. tit. 8, § 265(h); TEX. BUS. ORG. § 10.101(a).

129. Jens Dammann, *State Competition for Corporate Headquarters and Corporate Law: An Empirical Analysis*, 80 MD. L. REV. 214, 217 & n.11 (2020).

becomes the surviving Delaware corporation.[130]

Scholars have recognized early in the debate that the possibility of simple reincorporation presents a riddle for the race to the top hypothesis. If there is value on the table, why don't firms just reincorporate? One proffered answer is that reincorporation entails substantial transaction costs.[131] This explanation misses the mark as a cost-benefit analysis and does not hold up to scrutiny.[132] In terms of cost, pure reincorporations are administratively simple and involve minimal cost relative to purported potential value gains. They do not trigger an adverse tax effect.[133] They do not affect the registration status of the securities under federal securities law; thus, the surviving Delaware company remains a public company.[134] They do not alter substantive rights and claims; thus, shareholder voting should default to deference to managerial prerogative, particularly when the transaction is touted as a simple administrative step to increase firm value. They do not change the company's business plan, capital structure, management, contracts, and properties; thus, they do not substantively change the company. They do not involve counterparties; thus, they are not complex or risky transactions. They do not have an independent economic rationale; thus, they pose no post-transaction integration and execution risk. They do not expose the corporation to the risk of novel law since Delaware law is known; thus, there is no legal uncertainty. They require minimum direct transaction costs because transaction costs are generally a function of complexity and risk. They do not need investment bankers, who are typically expensive; there is nothing for them to do. They incur modest fees from advisers such as lawyers because the transaction is simple.

The explanation of transaction cost is even more implausible today as companies have become much larger relative to transaction cost. The largest companies today are enormous in size. The market capitalization of companies may become so large at some point that *any* incremental value extraction would exceed the transaction cost associated with a simple reincorporation, a commodity administrative transaction. In a prior era, transaction costs relative to market size may have been prohibitive, but the top companies today have

130. Kahan, *supra* note 57, at 108; Dammann, *supra* note 129, at 217 n.11.

131. "[B]ecause reincorporation is achieved by merger into a subsidiary shell company incorporated in the new domicile, shareholders can vote against the merger, exercise appraisal rights, and obtain the cash value of their shares when the firm is not traded on a national exchange, draining cash out of the corporation." ROMANO, *supra* note 38, at 34. *See* Roberta Romano, *The State Competition Debate in Corporate Law*, 8 CARDOZO L. REV. 709, 717 (1987) (advancing "a transaction cost explanation of the market for corporate charters").

132. *See* Black, *supra* note 12, at 586–88 (noting that transaction costs to reincorporate are "modest" and "quite small").

133. There would be no tax effect of a conversion or downstairs merger because they simply change the place of organization. *See* 26 I.R.C. §§ 361(a), 368(a)(1)(F).

134. *See* 17 C.F.R. § 240.12g-3(a) ("Where in connection with a succession by merger, consolidation, exchange of securities, acquisition of assets or otherwise, securities of an issuer that are not already registered . . . are issued to the holders of any class of securities of another issuer . . . the class of securities so issued shall be deemed to be registered . . . .").

exceedingly high market capitalizations.[135] Both Apple Inc., a California company, and Microsoft Corp., a Washington company, have market capitalizations today that exceed $2 trillion. Even small increments of value gain would offset the transaction cost of pure reincorporation. A systemic value gain among one-third of the Fortune 500 companies, however small, would result in an enormous increase in market values for companies. Based on 2019 figures, suppose reincorporation to Delaware would increase market value by only 0.25%, 0.5%, 0.75%, or 1.0%. In that case, the respective increases in aggregate market capitalization of Fortune 500 companies would have been $18, $36, $54, and $72 billion.[136] In late 2021, Apple Inc. had a market capitalization of approximately $2.4 trillion, and a mere 0.25% increase in value would see shareholder wealth increase by over $6 billion.

Would profit-seeking firms really leave this kind of money on the table by forgoing a paper-shuffling transaction with a modest transaction cost? It is implausible.[137] The most basic axiom of finance theory would suggest that arbitrage should eliminate a known inefficiency net of transaction cost and would drive market actions toward efficient outcomes.[138] We should expect a Dover dash to reincorporate.[139] To state the matter more concretely, the general counsels of Apple and Microsoft could earn themselves nice bonuses by proposing to reincorporate in Delaware and create billions of dollars of firm value—if such an opportunity really exists.

The continued existence of non-Delaware companies is a riddle only if inter-state differentiation is relevant to efficiency.[140] If not, there is no reason why all companies should incorporate in Delaware because it gives no such advantage in efficiency. Non-Delaware firms are not broadly engaging in pure reincorporations as an independent value-enhancing strategy. Nor are hedge funds and activist shareholders pushing reincorporation

135. Apple, Amazon, Google, and Microsoft have surpassed one trillion dollars in market capitalization. Microsoft is a Washington corporation, and Apple is a California company.

136. *See supra* Part III.C. (indicating that non-Delaware companies had an average market capitalization of $54,523 million). The increase in market capitalization is calculated as: $54,523 million x 1% x 132 companies = $71,970 million.

137. It could be argued that certain local corporation laws present unique benefits that would be lost and thus a part of the cost in a cost-benefit analysis. This argument is implausible. It would imply that the many laws of non-Delaware states all provide unique advantages over Delaware. In 2019, the 132 public non-Delaware Fortune 500 companies studied here were incorporated in 27 different states. *Supra* note 96. Do all 27 states provide such unique advantages? If so, what does it say about Delaware law's purported unique advantages?

138. *See supra* note 6.

139. It is not unusual for public corporations to execute paper transactions to extract value, even modest amounts of gains or savings. *E.g.*, Applebaum v. Avaya, Inc., 812 A.2d 880, 883 (Del. 2002) (engaging in a reverse stock split followed by a stock split for the purpose of cashing out small shareholder, thereby saving approximately $7.4 million in annual expenses related to proxy expenses and administrative fees).

140. *See* Anderson & Manns, *supra* note 3, at 1065 ("[T]he small number of reincorporations is evidence against Delaware adding value. The fact that most non-Delaware corporations do not reincorporate into Delaware and yet continue to compete effectively suggests that Delaware's value is marginal at best in adding value to managers or shareholders.").

to Delaware as an easy strategy to enhance value.[141] Nor are shareholders submitting proposals to reincorporate in Delaware.[142] Nor are market institutions, such as proxy advisers, pushing the idea of reincorporation. Nor are there known trading strategies revolving around the idea of arbitraging differences in state law. Nor are investment bankers and lawyers proposing such transactions in regular "pitches" for transactional business to management.

The lack of affirmative indications is compelling evidence of market behavior. If a Delaware arbitrage existed, such low-hanging fruit would have been picked long ago.[143] Successful initial transactions would have triggered a cascade of copycat reincorporations. The arbitrage would have eliminated easy inefficiencies leaving Delaware as the sole, truly national corporation law, or non-Delaware companies explaining to the financial market and shareholders why a cost-benefit analysis does not support reincorporation. The convergence to a truly national corporation law has not occurred. Although Delaware dominates, the hypothesis of Delaware's efficiency would state that there exists today a large pocket of market inefficiency among some of the largest, most important companies today. That state cannot be.

Although some scholars have pointedly asserted that Delaware law is more efficient,[144] and many more have casually or generally stated it as a matter of course, there is general silence regarding the *specific* proposition that Delaware law enhances firm value. This is odd, particularly since the academic understanding of corporate law depends much on empirical analysis. If most scholars believe that Delaware law is more efficient, and if efficiency is measurable as a matter of firm value, we should have a consensus on quantum. The debate is among a handful of corporate law scholars and economists who have argued over empirical analyses. There is no shortage of advocates of Delaware's qualities, but we do not see a concrete consensus on the specific point of quantum of efficiency. Delaware

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141. *See* Robert J. Rhee, *Corporate Short-Termism and Intertemporal Choice*, 96 WASH. U. L. REV. 495, 499–500 (2018) (describing typical activist shareholder proposals as substantive business changes or strategies); Ronald J. Gilson & Jeffrey N. Gordon, *The Agency Costs of Agency Capitalism: Activist Investors and the Revaluation of Governance Rights*, 113 COLUM. L. REV. 863, 901 (2013) (same).

142. A review of five years of shareholder proposals in 660 proxy statements by the 132 non-Delaware companies shows no shareholder proposal for reincorporation to Delaware. Such proposals, if couched as a recommendation, would not be subject to exclusion by management. 17 C.F.R. § 240.14a-8(h)(3)(i). Some of the 132 non-Delaware companies are the largest companies in America: e.g., ExxonMobil, Apple, Costco, Cardinal Health, Microsoft, Kroger, Comcast, Anthem, General Electric, Johnson & Johnson, Target, IBM, Lowe's, Procter & Gamble. If there was a Delaware premium, one would expect that, over a five-year period, at least one shareholder among the many millions of shareholders, thousands of sophisticated institutional shareholders, and 660 proxies would have proposed a reincorporation to Delaware.

143. *See supra* note 6. The business model of an entire hedge fund could be solely devoted to chasing the Delaware arbitrage. The approximately one-third of 4,000–5,000 non-Delaware public companies listed on national exchanges would be a target-rich environment for shareholder activism.

144. *See, e.g.*, Jonathan R. Macey & Geoffrey P. Miller, *Toward an Interest-Group Theory of Delaware Corporate Law*, 65 TEX. L. REV. 469, 473 (1987) ("Judges Frank Easterbrook and Ralph Winter, and Professors Daniel Fischel, Roberta Romano, and other market-oriented legal scholars posit that Delaware corporate law rules are efficient, that is, they systematically advance shareholder welfare.").

law has been prominent for over a century, yet we do not see a general acknowledgment or understanding of a *specific* Delaware premium. The lack of clear confirmation is not for want of effort either.[145]

Despite the long-running debate on the directionality of state law, on which every informed corporate law scholar has an intuition or an opinion, academic acknowledgment of a "Delaware premium" today is actually quite scant. Such assertions cite earlier works discussed in Part I.B and tend to be self-referential.[146] The number of articles that actually assert a cause-and-effect relationship between Delaware law and firm-value augmentation is likewise scant.[147] If there was a Delaware premium proven to a consensus satisfaction,

145. *See supra* Part I.B.

146. A search of Westlaw for a reference to a Delaware "premium," used in the sense of a valuation premium, resulted in eight articles that have at least addressed the subject, and they generally refer to earlier works reviewed in *supra* Part I.B of this Article. *See* Edward Fox, *Is There a Delaware Effect for Controlled Firms?*, 23 U. PA. J. Bus. L. 1, 30–33 (2020) (discussing prior empirical literature including Daines, *supra* note 39); Dain C. Donelson & Christopher G. Yust, *Litigation Risk and Agency Costs: Evidence from Nevada Corporate Law*, 57 J.L. & ECON. 747, 751 n.4 (2014) (noting that Subramanian, *supra* note 51, found that the Delaware premium disappeared); Samir D. Parikh, *Modern Forum Shopping in Bankruptcy*, 46 CONN. L. REV. 159, 174 n.62 (2013) (quoting Skeel, *supra* note 4, at 314, which cites Daines, *supra* note 39); Dammann, *supra* note 76, at 4 n.12 & 9 (noting "Delaware premium" in reference to Michal Barzuza, *Market Segmentation: The Rise of Nevada as a Liability-Free Jurisdiction*, 98 VA. L. REV. 935, 992 (2012)); Michal Barzuza, *Market Segmentation: The Rise of Nevada as a Liability-Free Jurisdiction*, 98 VA. L. REV. 935, 974 (2012) (citing Daines, *supra* note 39, for the proposition that "incorporating in Delaware results in a significant premium above market price"); Marcus Cole, *'Delaware Is Not a State': Are We Witnessing Jurisdictional Competition in Bankruptcy?*, 55 VAND. L. REV. 1845, 1878 (2002) (referencing "Delaware premium" and citing Daines, *supra* note 39); Skeel, *supra* note 4, at 314–15 (referencing "Delaware premium" and citing Daines, *supra* note 39); Lynn M. LoPucki, *Can the Market Evaluate Legal Regimes? A Response to Professors Rasmussen, Thomas, and Skeel*, 54 VAND. L. REV. 331 (2001) (referencing Skeel's assertion of a "Delaware premium" in Skeel, *supra* note 4, at 315, which cites Daines, *supra* note 39).

147. Some commentary assumes the efficiency of Delaware law and explicitly states the proposition. *See, e.g.*, Skeel, *supra* note 4, at 315 ("The Delaware premium is powerful evidence of Delaware's superiority in corporate law.") (relying on Daines, *supra* note 39); Robert K. Rasmussen & Randall S. Thomas, *Timing Matters: Promoting Forum Shopping by Insolvent Corporations*, 94 NW. U. L. REV. 1357, 1384–85 (2000) ("Delaware's corporate law appears to be more efficient than that of its competitors.") (relying on Daines, *supra* note 39). A search of Westlaw for the term "Delaware /6 enhanc! or augment! or increase! /6 valu!" produced few articles where authors have asserted their view that Delaware law increases firm value. This search term is not meant to be comprehensive and probably missed articles where other commentators have so stated, but it should have also captured many generalized assertions of Delaware's propensity to enhance firm value. A review of these articles shows that such assertions have thin support in terms of citations and generally refer to earlier works reviewed in *supra* Part I.B. *E.g.*, William J. Moon, *Delaware's Global Competitiveness*, 106 IOWA L. REV. 1683, 1688 (2021) ("Delaware maintains a firm-value-enhancing set of corporate governance rules.") (citing Romano, *supra* note 50, at 279; Daines, *supra* note 39, at 525); Ofer Eldar, *Can Lax Corporate Law Increase Shareholder Value? Evidence from Nevada*, 61 J.L. & ECON. 555–59 (2018) ("[T]he view that Delaware law enhances shareholder value is not inconsistent with the view that Nevada law benefits shareholders of firms that self-select into Nevada.") (citing Daines, *supra* note 39); Alicia J. Davis, *The Institutional Appetite for "Quack Corporate Governance,"* 2015 COLUM. BUS. L. REV. 1, 47 (2015) ("There is evidence that suggests Delaware law is value enhancing.") (citing Daines, *supra* note 39, at 527); Klausner, *supra* note 34, at 1342 n.61, 1345

one would expect most articles to start with an obligatory nod as a matter of course, something like: "It is well known that Delaware law [enhances or increases or augments or maximizes] firm value." But such prefatory acknowledgment is not generally made. The Cary–Winter debate was had at the level of argumentation and legal and economic analysis. For proponents of Delaware's efficiency, this orthodox idea is not grounded in a positive theory as commonly claimed, but as an article of faith masking a normative political conception of American corporate law and federalism in which states ostensibly compete for quality and innovation and Congress should not interfere (with Delaware).[148] For such an important subject—and a matter that could have empirically settled a longstanding contention of inter-state superiority or inferiority in a field of law that depends much on empirical and interdisciplinary analysis—the muted academic acknowledgment of a Delaware premium is another factoid evincing the nonexistence of a Delaware premium.

If anyone has an interest in suggesting the existence of a premium, it would be the state of Delaware itself. The state asserts that its law enhances firm value, but its supporting evidence is a few older studies discussed in Part I.B., and its assertion is equivocal.[149] Delaware courts have not discussed the concept of a state law-based premium or discount at all, including in appraisal cases.[150] The silence in appraisal cases would be quite curious

("Delaware incorporation is value enhancing . . . . The value of Delaware incorporation may come from the substance of its legal rules.") (citing Daines, *supra* note 39); David G. Yosifon, *Corporate Aid of Government Authority History and Analysis of an Obscure Power in Delaware Corporate Law*, 10 U. ST. THOMAS L.J. 1086, 1088 n.3 (2013) ("Delaware prevails because it enhances shareholder value."); John Armour & David A. Skeel, Jr., *Who Writes the Rules for Hostile Takeovers, and Why?—The Peculiar Divergence of U.S. and U.K. Takeover Regulations*, 95 GEO. L.J. 1727, 1766 (2007) ("There is also strong empirical evidence that reincorporating in Delaware increases a company's value, rather than undermining it.") (citing Daines, *supra* note 39); Macey & Miller, *supra* note 144, at 484–85 ("[T]he structure of the Delaware Corporation Code encourages arrangements that enhance the value of the firm and, therefore, increase shareholder wealth.").

148. *E.g.*, Romano, *supra* note 36; *supra* note 35 and accompanying text. The masking of a normative framework as a positive theory has been in other contexts of the law and economics movement. *E.g.*, D. Daniel Sokol, *Rethinking the Efficiency of Common Law*, 95 NOTRE DAME L. REV. 795, 795–96 (2019) (arguing that in the 1970s, efficiency of common law hypothesis took hold and made the claim that it was merely descriptive but was in fact normative); *see also* Jules L. Coleman, *The Structure of Tort Law*, 97 YALE L.J. 1233, 1236 (1988) (discussing how law and economics scholars advance positive and normative theories of tort law and often blending the two).

149. The state of Delaware follows the academic literature. *Facts and Myths*, DEL. DIV. OF CORPS., https://corplaw.delaware.gov/facts-and-myths/ [https://perma.cc/ZH3H-PSFK] (discussing the "race to the bottom" debate among academics). The state argues that its laws make "Delaware corporations more effective creators of value." *Id.* (citing Daines, *supra* note 39, at 531–35, and Romano, *supra* note 50, at 265–73, but noting a "but see" citation to Subramanian, *supra* note 51, at 33). In answering the question "why Delaware?", the state provides five reasons (including the expertise of its courts), but an increase in firm value is not one of them. *Why Businesses Choose Delaware*, DEL. DIV. OF CORPS., https://corplaw.delaware.gov/why-businesses-choose-delaware [https://perma.cc/3RSN-PQ4L].

150. The Delaware Supreme Court has quoted and cited academic studies that suggest Delaware law is efficient. *E.g.*, Sternberg v. O'Neil, 550 A.2d 1105, 1121 n.34 (Del. 1988) ("'Judges Frank Easterbrook and Ralph Winter and Professors Daniel Fischel, Roberta Romano, and other market-oriented legal scholars posit that

if substantial evidence *did* exist for a Delaware premium because such cases involve dueling financial experts;[151] courts would have been required to address the conflicting testimonies and would have certainly addressed the issue in their opinions. In the course of decades of appraisal cases, valuation studies and testimonies should have identified a general acceptance of state law-based premiums or discounts because knowledge of the financial market would have percolated through the legal system. If premiums and discounts existed, one would have seen the following: (1) comparable company analyses segregating Delaware and non-Delaware companies as an important viewpoint of the valuation cathedral; (2) cost of capital adjustments based on state of chartering; and (3) cash flow and profitability adjusted for differences in state corporation law. Yet no appraisal case has suggested that segregation of Delaware companies and valuation multiples is proper; no case has reasoned that the state of chartering affects free cash flows, discount rates, or valuation multiples. A judicial discussion of a Delaware premium would be most surprising because there is no evidence of a general market practice of valuing differences in enabling laws.

Not surprisingly, finance textbooks on valuations do not recognize Delaware law as being a factor of value.[152] Nor do financial market practices incorporate state of charter as a factor of value in conducting valuation studies, as far as evidence of market practice is gleaned in case law or publicly available documents and filings such as Form 10-Ks, merger proxies, and Form S-1s for security issuances. Public filings do not show investment bankers and financial analysts applying a premium or discount based on the state of charter when they conduct valuation studies. If the Delaware premium exists, such information would be material under federal securities law and thus disclosed.[153] The negative inference is that the issue is not discussed in the boardroom.

There is silence among the market, most academics, and courts on whether inter-state

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Delaware corporate law rules are efficient, that is, they systematically advance shareholder welfare.' [Jonathan] Macey & [Geoffrey] Miller, *Toward an Interest–Group Theory of Delaware Corporate Law*, 65 TEX. L. REV. 469, 473 (1987) (citing at n.7, RALPH K. WINTER, GOVERNMENT AND THE CORPORATION 69–73 (1978)); [Frank H.] Easterbrook, *Antitrust and the Economics of Federalism*, 26 J.L. & ECON. 23, 33–35 (1983); [Daniel R.] Fischel, *The "Race to the Bottom" Revisited: Reflections on Recent Developments in Delaware's Corporation Law*, 76 NW. U. L. REV. 913, 919–20 (1982); [Roberta] Romano, *Law as a Product: Some Pieces of the Incorporation Puzzle*, 1 J.L. ECON. & ORG. 225, 265–73 (1985).").

151. *See supra* note 113; Dell, Inc. v. Magnetar Glob. Event Driven Master Fund Ltd., 177 A.3d 1, 24 (Del. 2017) (noting that an "expert witness [] caters her valuation to the litigation imperatives of a well-heeled client"); Cede & Co. v. Technicolor, Inc., No. Civ.A. 7129, 2003 WL 23700218, at *2 (Del. Ch. 2003) (noting that "adversarial, battle of the experts' appraisal process" valuation "is a difficult intellectual exercise, especially when business and financial experts are able to organize data in support of wildly divergent valuations for the same entity"); Kleinwort Benson Ltd. v. Silgan Corp., No. Civ.A. 11107, 1995 WL 376911, at *5 (Del. Ch. 1995) (noting the need to scrutinize analyses "to remove the adversarial hyperbole that inevitably influences an expert's opinion in valuation proceedings").

152. *See* DAMODARAN, *supra* note 73 (not discussing Delaware corporation law as a factor of valuation); SHANNON P. PRATT, BUSINESS VALUATION: DISCOUNTS AND PREMIUMS (2d ed. 2009) (same).

153. *See* TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 449 (1976) (defining the materiality standard); Rosenblatt v. Getty Oil Co., 493 A.2d 929, 944 (Del. 1985) (quoting and adopting the *TSC* materiality standard).

differences in laws affect firm value. My contention here is simple: If a Delaware premium really exists and academic work has clearly shown it to some degree of tangible quantitative range, that fact would have been acted upon in the market, and evidence of those actions would be apparent first in the market in various forms (trading, shareholder activism, and corporate transactions), and then in the academic and professional commentaries as these market manifestations are observed and reported. The absence of expected tell-tale signs is the Holmesian dog that did not bark.[154] That is a curious thing.

B. Corporation Law and the Theory of Value

This Article does not espouse corporation law nihilism. Corporation law is not irrelevant, and Delaware law is not unimportant. If relevance and importance are based on the law's relation to lawyers and the practice of law, Delaware law cannot be irrelevant or unimportant because it is critical to the practice of corporate law as the most prominent corporation law in the nation. Relevance and importance are relational concepts. Also, while inter-state differences in law are irrelevant to efficiency and firm value, corporation law per se affects firm value. But the fundamental features having real effects on firm value have long been settled.[155] All state laws provide the same legal structure that is critical to the modern corporation and the legal potential to maximize firm value. There is a unity in American corporation law, and Delaware is just one state among fifty.[156]

The core features of the corporation's legal architecture are limited liability,[157]

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154. The dog that did not bark is the idea that silence is evidence. Scholars have used the concept in various contexts. *E.g.*, Lawrence Lessig & Cass R. Sunstein, *The President and the Administration*, 94 COLUM. L. REV. 1, 49 n.204 (1994) ("This argument rests, of course, on the much disputed Doyle canon of construction—Sherlock Holmes's inference that the visitor was familiar because 'the dog did not bark.'"). *See* Arthur C. Doyle, *Silver Blaze*, *in* 2 THE ANNOTATED SHERLOCK HOLMES 261 (William S. Baring-Gould ed., 1967) (detective commented that "the dog did nothing in the night-time" during the commission of a crime, to which Sherlock Holmes observed "that was the curious incident").

155. *E.g.*, 2 JOHN P. DAVIS, CORPORATIONS 221 (1905) (noting that the rule of limited liability originates from the concept that the corporation is separate and distinct from its owners, a concept that traces back to the civil law of the fifteenth century); ADOLF A. BERLE & GARDINER C. MEANS, THE MODERN CORPORATION & PRIVATE PROPERTY 5 (1932) (noting the "separation of ownership and control" in large companies with many owners).

156. Even in the development of the law of shareholder primacy (the duty to maximize shareholder profit), the most important rule developed in the neoliberal turn of the 1980s, Delaware was not a leader but simply a state. *See* Rhee, *supra* note 28, at 1989 ("Although Delaware is the leading corporate law jurisdiction, it cannot be said, as deduced from the above, that it led the rise of shareholder primacy. The trend is seen across all jurisdictions, and Delaware, though prominent, is a part of the pack.").

157. *E.g.*, DEL. CODE ANN., tit. 8, § 102(b)(6); N.J. STAT. ANN. § 14A:5-30(2).

perpetual existence,[158] legal personhood,[159] separation of ownership and control,[160] centralized authority in a board,[161] managerial discretion,[162] fiduciary duties of managers,[163] fundamental rights of shareholders,[164] free alienability of stock,[165]

158. *E.g.*, DEL. CODE ANN., tit. 8, § 102(b)(5); CAL. CORP. CODE § 200(c) (West).

159. *E.g.*, Bird v. Wilmington Soc. of Fine Arts, 43 A.2d 476, 483 (Del. 1945) ("Few principles of corporation law are clearer than that, as a general rule, a corporation is an entity distinct from its stockholders."); Billy v. Consol. Mach. Tool Corp., 412 N.E.2d 934, 941 (N.Y. 1980) ("As a general rule, the law treats corporations as having an existence separate and distinct from that of their shareholders . . . .").

160. *E.g.*, Sciabacucchi v. Liberty Broadband Corp., No. CV 11418, 2017 WL 2352152, at *16 (Del. Ch. 2017) ("Such [stockholder] independence is fundamental to the separation of ownership and control that makes the corporate form a viable way to organize a business entity."); Hoagland *ex rel.* Midwest Transit, Inc. v. Sandberg, Phoenix & von Gontard, P.C., 385 F.3d 737, 747 (7th Cir. 2004) (Easterbrook, J., concurring) ("A principal economic function of corporate organization is separation of ownership from control . . . ."); Ramirez de Arellano v. Weinberger, 745 F.2d 1500, 1558 (D.C. Cir. 1984) ("That would *pro tanto* eliminate the efficiencies generated by the separation of ownership and control which account for much of the success and popularity of the corporate form."); Citizens United v. F.E.C., 558 U.S. 310, 465 (2010) (Stevens, J., concurring in part and dissenting in part) ("[C]orporations have 'limited liability' for their owners and managers, 'perpetual life,' separation of ownership and control . . . .").

161. *E.g.*, DEL. CODE ANN., tit. 8, § 141(a); CAL. CORP. CODE § 300(a) (West).

162. *E.g.*, Aronson v. Lewis, 473 A.2d 805, 812 (Del. 1984) ("[The business judgment rule] is a presumption that in making a business decision the directors of a corporation acted on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the company."); *In re* Kenneth Cole Prods., Inc., 52 N.E.3d 214, 218 (N.Y. 2016) ("[W]e have long adhered to the business judgment rule, which provides that, where corporate officers or directors exercise unbiased judgment in determining that certain actions will promote the corporation's interests, courts will defer to those determinations if they were made in good faith."). The business judgment rule encapsulates the idea of judicial deference to managerial decision-making and is one of the most fundamental rules in corporation law. Some of the most iconic cases are from non-Delaware states. *E.g.*, Kamin v. Am. Express Co., 86 Misc.2d 809 (N.Y. Sup. 1976); Shlensky v. Wrigley, 237 N.E.2d 776 (Ill. App. 1968). *See* Jonathan Macey, *Judicial Review of Corporate Decisions:* Kamin v. American Express Company, *in* THE ICONIC CASES IN CORPORATE LAW 120–38 (Jonathan R. Macey ed., 2008); Stephen M. Bainbridge, *The Business Judgment Rule as Abstention Doctrine*, 57 VAND. L. REV. 83, 95–102 (2004) (discussing *Kamin v. American Express Co*. and *Shlensky v. Wrigley* as illustrative cases for the business judgment rule); ROBERT J. RHEE, LLCS, PARTNERSHIPS, AND CORPORATIONS 640–46 (2021) (excerpting *Kamin v. American Express Co*. and *Shlensky v. Wrigley*).

163. *E.g.*, Arnold v. Soc'y for Sav. Bancorp., Inc., 678 A.2d 533, 539 (Del. 1996) ("Fiduciary duties are owed by the directors and officers to the corporation and its stockholders."); Richie v. Rupe, 443 S.W.3d 856, 874 n.27 (Tex. 2014) ("This Court has recognized a fiduciary duty owed by corporate officers and directors to the corporation . . . .").

164. *E.g.*, DEL. CODE ANN., tit. 8, § 211(b) (requiring annual election of directors), § 251(c) (requiring shareholder approval in a merger); FLA. BUS. CORP. ACT § 607.0701(1) (requiring annual election of directors), § 607.11035(1) (requiring shareholder approval in a merger).

165. *E.g.*, DEL. CODE ANN., tit. 8, § 159 (providing that stock is "personal property and transferable"); MOD. BUS. CORP. ACT § 6.27(c) (2016) (providing that restriction on transfer is authorized only for "reasonable purpose"); Landreth Timber Co. v. Landreth, 471 U.S. 681, 686 (1985) (identifying a common characteristic of stock as "negotiability").

permissive contracting for capital structure,[166] and privateness of internal affairs.[167] These features are so fundamental and inherent in the laws of all states that they constitute a truly national legal standard. No state can be said to be better than another because they are cemented in the minds of all legislatures, judges, and corporate lawyers.

Once all states have settled on the same fundamental rules and unity continues, the choice of law becomes irrelevant. The core architecture of corporate law has been the same across all states for quite some time. While the choice of décor around this basic architecture reflects local preferences, it does not change the fundamental structure that would materially affect a firm's cash flow, risk, and discount rate—the determinants of firm value.[168]

Some have argued that, given a range of choices, efficiency, as measured by the tendency to enhance market value, should be the criterion for determining the rule of law.[169] But it is questionable whether marginal differences in inter-state rules really matter from the perspective of affecting aggregate market values, i.e., the minds of innumerable investors who are thinking about the drivers of value and sending price signals in the market. The empirical evidence presented in Part III demonstrates that markets do not care about minor matters of legal décor so long as the foundational structure remains intact.

Consider a controlling shareholder buyout of minority shareholders. Markets are not concerned with whether a transaction is reviewed under the entire fairness standard or the business judgment rule after satisfying certain prophylactic conditions.[170] Most investors and traders are not lawyers who have a refined appreciation of the legal standards of review in corporate litigation. The essential matter is that controlling shareholder buyouts are legally permitted. Perhaps there is a nuisance value or disvalue of litigation and modest differences in transaction cost of litigation. Still, both standards will likely achieve the same result of protecting minority shareholders and allowing a majority shareholder to buy out the company. Variations in the standard of review based on the nature of the prophylactic

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166. *E.g.*, DEL. CODE ANN., tit. 8, § 151(a); N.Y. MCKINNEY'S BUS. CORP. L. § 501(a).

167. *E.g.*, Shintom Co., Ltd. V. Audiovox Corp., 888 A.2d 225, 227 (Del. 2005) ("The Delaware General Corporation Law is an enabling statute that provides great flexibility for creating the capital structure of a Delaware corporation."); Zampogna v. L. Enf't Health Benefits, Inc., 151 A.3d 1003, 1011 (Pa. 2016) ("[A]round the end of the 19th century and the beginning of the 20th century, states began to replace the restrictive set-pattern acts of the 1880s with the liberal and flexible enabling corporation statutes that characterized the twentieth century.") (internal quotation marks omitted).

168. *See supra* Part IV.B.

169. *See supra* note 1 (citing Delaware cases espousing efficiency as corporation law's goal); *In re* Pure Res., Inc., S'holders Litig., 808 A.2d 421, 434 (Del. Ch. 2002) (Strine, V.C.) (commenting that courts should not "stifle useful transactions that could increase the shareholder and societal wealth generated by the corporate form"); Gantler v. Stephens, 965 A.2d 695, 706 (Del. 2009) (commenting that "enhancing the corporation's long term share value" is a part of "distinctive[] corporate concerns").

170. *Compare* Kahn v. Lynch Commc'n Sys., Inc., 638 A.2d 1110, 1117 (Del. 1994) (holding that the "entire fairness" standard of review applies but that certain prophylactic measures can shift the burden of proof), *with* Kahn v. M & F Worldwide Corp., 88 A.3d 635, 644 (Del. 2014) (holding that the business judgment standard applies upon the installation of certain prophylactic measures).

deal structure present insignificant, indeterminate cost calculations.[171] An entire fairness standard may save transaction cost of prophylactic measures at the front end, but the business judgment rule may curtail litigation cost at the back end. Which is more cost-effective? That is an abstract argument. Of course, the choice for managers is clear: they prefer a deferential standard, which explains Delaware law's permissiveness in doctrinal development.[172] But these sorts of one-off differential costs are not the kind of factors that move market prices based on inter-state differences. The decision may be relevant at the level of companies and individuals, but the rule of law is irrelevant at the level of the market.

Consider *Revlon* as another example.[173] It is the paradigmatic case of shareholder primacy.[174] The Delaware Supreme Court held that when the company commits to a sale in an auction, the target board has a duty to maximize the purchase price for shareholders.[175] Whereas in most matters, the business judgment rule precludes judicial review of whether the board actually maximized shareholder profit (thus, making unenforceable through legal action the rule of shareholder primacy), *Revlon* is notable because it states a limited rule that, when companies enter the *Revlon* zone, courts will review a board's decision affecting profit maximization.[176] Despite an enforceable mandate to maximize profit, the paradigmatic rule of profit maximization, *Revlon* does not have an efficiency rationale. It most likely works as a zero-sum transaction. A target shareholder's gain is an acquirer's loss, and vice versa. Gains and losses are incurred at the level of individual shareholders, but the market (and diversified shareholders) would be unaffected in zero-sum transactions.

A more nuanced view of *Revlon* might say that, by incentivizing the target board to maximize the purchase price, the rule nudges sales toward buyers who would pay the most because, presumably, they would most likely extract the most value from the asset. Even if this theoretical argument has some merit, these kinds of economic arguments are abstractly indeterminate because counter-considerations tend to exist. In the case of auctions, for example, the benefit of steering an asset to the "best-use" winner may be offset by the well-known phenomenon of the "winner's curse" and the attendant cost of a

171. *E.g.*, *In re* Pure Res., Inc., S'holders Litig., 808 A.2d 421, 434–35 (Del. Ch. 2002) (Strine, V.C.) (ruminating on the effect of the ruling on the capital markets, including balancing factors such as "the development of strong capital markets," "more stockholder wealth," and "liquidity-generating tender offers").

172. *See supra* note 170.

173. *See generally* Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173 (Del. 1986) (holding that concern for corporate constituencies is appropriate when addressing takeover threats).

174. *See* Leo E. Strine, Jr., *Can We Do Better by Ordinary Investors? A Pragmatic Reaction to Dueling Ideological Mythologists of Corporate Law*, 114 COLUM. L. REV. 449, 454 n.16 (2014) ("Although some scholars disagree, *Revlon* settled the question as a practical matter in Delaware, by making clear that other corporate constituencies may only be considered instrumentally in terms of their relationship to creating profits for stockholders.").

175. *Revlon, Inc.*, 506 A.2d at 182.

176. *See* Rhee, *supra* note 28, at 1975–76 (noting that, unlike the general rule of profit maximization, the *Revlon* rule is an "enforceable rule" under a "rule-sanction framework").

fool's folly in auctions.[177] In reality, one wonders whether the market can somehow: (1) discern the benefit of the rule relative to the baseline assumption of a zero-sum transaction; (2) value the rule relative to all other factors of value (information) in the market about the firm's value; and (3) distinguish the states that have and have not adopted *Revlon*. It is doubtful whether a particular state's embrace of the paradigmatic rule of profit maximization would make any discernable difference in aggregate market values. Such economic analysis of esoteric costs and benefits is academic and speculative, the better argument being in the eye of the beholder.

Significant studies have focused on whether differences in takeover laws affect firm value. The literature is voluminous, and a survey is unnecessary to note a few anodyne points. Delaware law permits devices that effectively combat hostile takeovers.[178] If the management of a Delaware company wishes to remain independent, Delaware law permits it to the broadest latitude, so long as it meets its fiduciary obligations—the minimum standard in all states.[179] The poison pill basically equalizes the effects of the most powerful antitakeover provisions.[180] Most acquisitions, measured by the number of transactions and deal volume, are friendly deals, and differences in takeover law related to the ease or difficulty of hostile takeovers do not come into play. A state could enact laws that deny the major tools to fend off hostile takeovers, such as the elimination of the poison pill or an affirmative fiduciary duty to pass along all offers to shareholders as passive boards. Such rules would likely affect the market values of all companies chartered in that state; all companies would have "for sale" signs placed on the front lawns of their corporate headquarters. Such rules would fundamentally alter the legal architecture of corporate law,

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177. *See* PAUL MILGROM, PUTTING AUCTION THEORY TO WORK 188 (2004) ("The winner's curse is a form of adverse selection. A bidder who wins in competition against well-informed bidders must be cognizant that the others' unwillingness to bid higher is unfavorable information about the value of the item."); Jeffrey N. Gordon, *Corporations, Markets, and Courts*, 91 COLUM. L. REV. 1931, 1955 n.86 (1991) (describing the possibility of a "winner's curse" in auctions for companies).

178. The successful defense by Airgas from the hostile offer by Air Products and Chemicals demonstrates this point. *See* Air Prods. & Chems., Inc. v. Airgas, Inc., 16 A.3d 48, 113 (Del. Ch. 2011) (noting that "no bidder to [the Court's] knowledge has ever successfully stuck around for two years and waged two successful proxy contests to gain control of a classified board in order to remove a pill").

179. *E.g.*, *id.* (stating that corporate directors must abide by the fiduciary duties reviewed under the *Unocal* standard when it implements defensive measures to thwart a hostile takeover); Paramount Commc'ns, Inc. v. Time Inc., 571 A.2d 1140 (Del. 1989) (holding that the corporation's board did not breach its fiduciary duty when it sought to remain independent).

180. *See* Kahan, *supra* note 57, at 21 ("However, most anti-takeover statutes are rendered redundant by poison pills, so it is unclear why these statutes should matter at all."); Lucian A. Bebchuk & Robert J. Jackson, Jr., *Toward a Constitutional Review of the Poison Pill*, 114 COLUM. L. REV. 1549, 1573 (2014) ("Moreover, today state-law poison-pill rules present more powerful impediments to outside offers than those imposed by the state laws that have been the subject of Williams Act preemption challenges in the Supreme Court."); Strine, *supra* note 174, at 497 (noting that "it risks bordering on malpractice for it not to have a standard form of poison pill"); *e.g.*, Air Prods. & Chems., Inc. v. Airgas, Inc., 16 A.3d 48, 54–55 (Del. Ch. 2011) (upholding the use of the poison pill despite preference of a majority of shareholders who were fully informed as to the target board's views of the inadequacy of the offer but nevertheless favored the tender offer).

specifically the rules of corporate control, the separation of ownership and control, and the general scheme of corporate takeovers. A fundamental change of this sort could systemically increase market values due to the incorporation of an expected acquisition premium. Companies in those states would be defenseless and easy targets. However, that is not the legal architecture of law today.[181]

Once all states agree on the basic features of the corporation, the legal architecture of the corporate form is a unity. At this point, the rules of internal affairs are irrelevant insofar as capital markets are concerned. The basic drivers of value are the factors of business, economy, and external laws. The fundamental factor of value is how well a firm makes and sells widgets in the economic and market environment. Endogenous factors are the firm's business strategy, operational efficacy, assets, and human capital.

Modern finance theory supports this view. Asset value hinges on two factors: the free cash flow a firm is expected to generate in perpetuity and the firm's discount rate that reflects the risk to investors.[182] When investment bankers and security analysts conduct theoretical valuation, they do not make inter-state adjustments to the projection of free cash flows or the discount rate.[183] A practice of factoring in state corporation law in valuation studies is unheard of—not referenced in textbooks, trade publications, or even Delaware appraisal cases. Publicly disclosed valuation studies (seen in merger proxies, registration statements in initial public offerings, and investment banker fairness opinions) do not reveal inter-state adjustments in valuation due to the state of charter. If inter-state adjustments were material, they would have been disclosed under the materiality standard of securities law.[184]

To the extent that *law* affects the making and selling of widgets, external laws

181. In light of this reality, some scholars have argued for rules that strip takeover defenses. *See* Frank H. Easterbrook & Daniel R. Fischel, *The Proper Role of a Target's Management in Responding to a Tender Offer*, 94 HARV. L. REV. 1161, 1194 (1981) ("Our thesis that managers of target companies should acquiesce when confronted with a tender offer has not been adopted by courts and state legislatures."). Others have argued that state law governing poison pills, the most substantial impediment to a hostile takeover, may be preempted by the federal Williams Act. *See* Bebchuk & Jackson, *supra* note 180, at 1552.

182. *See supra* note 84 and accompanying text.

183. *See* KOLLER, GOEDHART & WESSELS, *supra* note 84, at 55–60 (no discussion of making an adjustment in a discounted cash flow analysis for Delaware companies).

184. *See supra* note 153 and accompanying text. For example, if lawyers and bankers believed that chartering a non-Delaware state may materially affect the firm's value, they would be required to disclose this risk in an IPO prospectus and Form S-1: something like, "we are not a Delaware company, and this may adversely affect our firm value." *See* DEL. DIV. CORPS., *supra* note 16 (noting that approximately 20% of IPOs are for non-Delaware companies). For the minority of non-Delaware companies that undergo an IPO, do such disclosures exist? Reincorporation would require disclosure to shareholders. What would that disclosure say? To comply with the duty of disclosure and candor, the company would have to say that management believes reincorporating in Delaware would create shareholder value. What would be the bases for such a representation? Lastly, is there any federal disclosure made under the materiality standard stating that Delaware law was chosen because it enhanced shareholder value? On this last question, I have not seen such a disclosure in my professional experience as an investment banker or in my academic research, but I have not conducted a comprehensive review of all federal disclosures.

regulating a firm's industry can greatly affect firm value. They are much more significant than corporate law. The following are just some areas of law that would directly affect cash flows, profitability, and risk: the laws of taxation, intellectual property, labor and employment, trade regulation, competition, and laws regulating specific industries such as banking, insurance, financial markets, energy, pharmaceuticals, and technology, just to name a few.[185] These laws assign property rights, impose costs on industries, configure the landscape of competition, regulate price, and affect supply and demand. Consider Delaware: its corporation law is irrelevant, but interest rates in general, even in minute increments, and the state's usury law, more specifically, may be a highly relevant factor of value for Delaware financing companies.[186] Major exogenous factors affecting future cash flows and risk therein include the broader economy, the credit markets, the money supply, and economic policies, including interest rates and, relatedly, the discount rate. Each of these factors would have a far greater impact on cash flows and cost of capital. Marginal differences in inter-state corporation law are de minimis error terms; they are a single chaff in the hurricane winds of the market process that absorbs an inordinate amount of materially relevant public information into market prices. Once the legal architecture of corporations has been standardized, the idea that marginal differences augment or diminish value is not intuitively obvious, and it does not logically flow from the theory of asset value.

Lastly, the argument that state corporation law matters for efficiency is internally incoherent. The relevance of corporation law to value is belied by the axiomatic assertion that corporation law, specifically Delaware's, is broadly enabling.[187] It permits contracting

185. *E.g.*, Adam Satariano & Jack Nicas, *E.U. Fines Google $5.1 Billion in Android Antitrust Case*, N.Y. TIMES (July 18, 2018) (indicating European Union fining Google $5.1 billion for violations of its laws); Alphabet Inc., Annual Report (Form 10-K) 51 (Dec. 31, 2019) (showing fines as expenses on the income statement of $2.7 billion, $5.0 billion, and $1.7 billion in 2017–2019, which substantially reduced the company's profitability in these years).

186. *E.g.*, Marquette Nat'l Bank of Minneapolis v. First of Omaha Serv. Corp., 439 U.S. 299, 313–17 (1978) (holding that, under the National Bank Act, banks are held to the state law regulating interest rates "where the bank is located" as stated in its charter, thus permitting banks and credit card companies to be "located" in states with lax usury laws); *see generally* Adam J. Levitin, *Rent-A-Bank: Bank Partnerships and the Evasion of Usury Laws*, 71 DUKE L.J. 329, 340 (2021) ("Because banks have substantial ability to choose their home state, by picking a favorable home state that allows bank loans to be at the contractually agreed upon rate (like Delaware, Nevada, South Dakota, or Utah), a bank can functionally be exempt from usury laws, no matter where it operates."). For Delaware banks and credit card companies, chartering in Delaware is important for profitability, not because of corporation law, but because of Delaware's lax usury laws. *See* DEL. CODE ANN. tit. 5, ch. 9, § 943, § 953, § 963, § 965, § 973 (West 2022); *see also* Change Cap. Partners Fund I, L.L.C. v. Volt Elec. Sys., L.L.C., No. N17C-05-290, 2018 WL 1635006, at *8 (Del. Super. Ct. Apr. 3, 2018) ("Delaware usury laws, on the other hand, place no cap on interest."); Madden v. Midland Funding, LLC, 237 F. Supp. 3d 130, 140 (S.D.N.Y. 2017) ("Delaware usury law provides no cap on interest rates, but instead allows interest to be charged in an amount pursuant to the agreement governing the debt.").

187. *See supra* note 166–167 and accompanying text; Salzberg v. Sciabacucchi, 227 A.3d 102, 115–16 (Del. 2020) (noting that Delaware corporation law is "broadly enabling"); Shintom Co., Ltd. v. Audiovox Corp., 888

for the structure of boards, management, capital structure, and governance procedures. This contractual aspect of the corporation was recognized long before the rise of Delaware.[188] If one accepts the contractual theory of the corporation,[189] the enabling characteristics would suggest that most rules of internal affairs would have the effect of an actual contract, which is to say, an arrangement benefitting ex-ante contracting parties.[190] If, at its core, corporation law is a license to contract for internal affairs, then aside from the enabling authority, the law should be largely irrelevant due to a lack of substantive mandates. Terms are the outgrowth of private ordering. With respect to the mandatory terms of corporation law, they have either converged to a unity[191] or are insubstantial as far as the markets are concerned relative to all factors. Thus, the argument that corporation law is enabling—a standard fare in the legal and theoretical commentary—belies any coherent theory for why Delaware law should be superior in terms of efficiency,[192] unless we believe that somehow constituents in Delaware companies are consistently striking superior contractual terms than those in non-Delaware firms, which seems farfetched in light of the many prominent non-Delaware companies.

A.2d 225, 229 (Del. 2005) (same); Williams v. Geier, 671 A.2d 1368, 1381 (Del. 1996) (same); McDermott Inc. v. Lewis, 531 A.2d 206, 216 (Del. 1987) (same); *see also* Jill E. Fisch, *Governance by Contract: The Implications for Corporate Bylaws*, 106 CALIF. L. REV. 373, 379 (2018) ("By virtue of its largely enabling structure, Delaware corporate law is consistent with the private ordering approach."); Lawrence A. Hamermesh, *The Policy Foundations of Delaware Corporate Law*, 106 COLUM. L. REV. 1749, 1783 (2006) ("There has been a strong tendency in Delaware corporate policymaking to broaden that room for private ordering."); Leo E. Strine, Jr., *Delaware's Corporate-Law System: Is Corporate America Buying an Exquisite Jewel or a Diamond in the Rough? A Response to Kahan & Kamar's Price Discrimination in the Market for Corporate Law*, 86 CORNELL L. REV. 1257, 1260 (2001) (noting Delaware's policy "largely enabling and provides a wide realm for private ordering").

188. *See* Trs. of Dartmouth Coll. v. Woodward, 17 U.S. 518, 611, 615, 623, 625 (1819) (noting that while a corporate charter is not a true contract, it is nevertheless a form of a contract "between the government and the members of the corporation created by it" because "it is a grant of valuable rights and privileges," and accordingly a corporate charter is protected under the contract clause of Article I, Section 10 of the Constitution, which prohibits the state from "impairing the Obligation of Contracts").

189. *See generally* FRANK H. EASTERBROOK & DANIEL R. FISCHEL, THE ECONOMIC STRUCTURE OF CORPORATE LAW 1–39 (1991) (advancing the idea of the "corporate contract").

190. *See In re* Appraisal of Ford Holdings, Inc. Preferred Stock, 698 A.2d 973, 976 (Del. Ch. 1997) (Allen, C.) (stating that Delaware corporation law is enabling and permits by contract "establishing management and governance terms that appear advantageous to those designing the organization").

191. *See supra* notes 155–167.

192. Bernard Black has made the same essential point to assert a "triviality hypothesis." Black, *supra* note 12. His basic argument is that due to the enabling nature of the corporation law and the unimportance of mandatory rules, corporation law "is an empty shell that has form but no content." *Id.* at 544. Other scholars have also observed the essential point. *See* Anderson & Manns, *supra* note 3, at 1091 ("Other jurisdictions have either converged with Delaware, or the distinctive aspects of Delaware have no impact on enhancing (or reducing) the value of corporations."); *see id.* at 1091 n.120 ("One possibility is that all states have converged to the same rules as Delaware and that the areas where they differ are not important to financial markets. It could be that corporate law is trivial.").

V. THE RELEVANCE AND IMPORTANCE OF DELAWARE CORPORATE LAW

If inter-state differences are irrelevant, there remains the empirical fact of Delaware's dominance. The preferred choice of Delaware law is also evidence of market behavior. Is this revealed preference grounded in the selection of efficient rules and the pursuit of firm value? Scholars have proffered various explanations that are not based on the race to the top hypothesis. Their explanations intersect and show common themes.

Black argues that, while corporation law is "trivial" to market value, Delaware has gained its prominence due to its superior judiciary.[193] Delaware judges are expert corporate lawyers, and the courts issue quick decisions.[194] Other commentators have also noted the competency of Delaware judges.[195] The credible commitments of Delaware judges and legislature to maintaining its corporation law are also well known.[196] Most would agree on the high level of expertise of Delaware judges and the state's commitment to its corporate law.

Broughman, Fried, and Ibrahim argue that Delaware law provides a "lingua franca" among lawyers and investors.[197] It provides a common language to understand deals and expectations, which then facilitates dealmaking. This is a variation of the hypothesis that Delaware law creates network benefits.[198] The familiarity of Delaware law among many sophisticated lawyers and investors minimizes the frictions inherent in communication, acquisition of understanding, and creation of expectations.

Carney, Shepherd, and Shepherd-Bailey (Carney et al.) argue that lawyers suffer from bounded rationality.[199] Their conclusion is informed by observation of market practice. Based on responses to a survey of lawyers and the factors considered in their decisions on chartering, they argue that lawyers default to Delaware law, which is familiar to most informed corporate lawyers, and the law of their home state.[200] Lawyers are generally

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193. Black, *supra* note 12, at 589–90.

194. *Id.*

195. *See* Jill E. Fisch, *The Peculiar Role* of the *Delaware Courts in the Competition for Corporate Charters*, 68 U. CIN. L. REV. 1061, 1078 (2000) (noting that "Delaware chancery judges are known for their expertise in business matters, and the court has developed a reputation for its sophistication in corporate law"); Randy J. Holland, *Delaware's Business Courts: Litigation Leadership*, 34 J. CORP. L. 771, 777 (2009) (stating that the experience of Delaware judges "gives them an unmatched expertise in the field of corporate law").

196. *See* Peter Molk, *Delaware's Dominance and the Future of Organization Law*, 55 GA. L. REV. 1111, 1124 (2020) (stating that Delaware judge's docket is overwhelmingly filled with business law cases, which keeps them current on most business and corporate law issues); Randy J. Holland, *Delaware Corporation Law: Judiciary, Executive, Legislature, Practitioners*, 72 BUS. LAW. 943, 947 (2017) (describing how the legislature is dedicated to maintaining its corporation law by receiving recommendations from it).

197. *See generally* Brian Broughman, Jesse M. Fried & Darian Ibrahim, *Delaware Law as Lingua Franca: Theory and Evidence*, 57 J.L. & ECON. 865 (2014).

198. Michael Klausner, *Corporations, Corporate Law, and Networks of Contracts*, 81 VA. L. REV. 757, 842–47 (1995) (discussing the draw of Delaware corporate law to top corporate lawyers).

199. William J. Carney, George B. Shepherd & Joanna Shepherd Bailey, *Lawyers, Ignorance, and the Dominance of Delaware Corporate Law*, 2 HARV. BUS. L. REV. 123, 129 (2012).

200. *Id.*

ignorant of other laws unless the attorney has had a need to know in a prior transaction.

Anderson and Mann similarly argue that lawyers are influenced by a "herd mentality" and that Delaware is a "safe choice" because it is the path of least resistance and effort.[201] They also present the possibility of an interesting dynamic. The Delaware preference among lawyers could be based on a belief in efficiency.[202] Investors may believe that the choice of law is in the province of lawyers and thus rely on their advice.[203] Based on these understandings, lawyers and investors are like ships passing in the night, neither of whom is aware that the fundamental issue has not been vetted.[204]

The above commentaries present intersecting ideas. They collectively go a long way to explaining the preferred choice of Delaware. Delaware's prominence creates its own feedback loop. The old adages that "success breeds success" or "money makes money" are apropos to describe Delaware's circumstances. Delaware's prominence ensures that lawyers will be taught its law in law school and often see it in practice.[205] Mimicking is a foundation of learning. Because some states are not major commercial jurisdictions, they may lack judicial rulings.[206] Delaware's consistent dealings in the area and the resulting production of law allow it to guide the laws of other states.[207] The lawyer's advice is a part of this feedback loop. The absence of controlling law in a jurisdiction would be a point of legal uncertainty. Delaware gives lawyers cases they can read, analyze, and recite to clients.[208] Many states do not have a large volume of cases that builds out from the core legal architecture. The décor of the structure may be missing. Familiarity makes the lawyer's work more efficient.

A lawyer in New York may already be familiar with Delaware and New York law but

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201. Anderson & Manns, *supra* note 3, at 1088.

202. *Id.* at 1086–87.

203. *Id.* at 1087.

204. "The question of the valuation of legal regime is one that both sides appear to have assumed the other is responsible for." *Id.* Anderson and Manns's observation addresses the issue of competency to opine. No corporate lawyer can advise a client that chartering in Delaware will enhance firm value. No investment banker can advise chartering in Delaware for its legal qualities. The assumption of each relies on the other. From the investment banker's perspective, the choice of law is not about the quality of law, but about its effect on deal execution and investor sentiments, which may depend on preference and expectation. In these situations, core competencies are not integrating. Fortunately, this less-than-ideal situation is harmless because the choice of law does not affect firm value.

205. *See* Cary, *supra* note 19, at 671 ("Every corporation law casebook for students is filled with Delaware decisions because it is the state where great companies are organized and where there is the most corporate experience to draw upon.").

206. *See* Expansion Cap. Grp., L.L.C. v. Patterson, 514 F. Supp. 3d 1095, 1111 (D.S.D. 2021) (noting that South Dakota law is consistent with Delaware's regarding fiduciary duty and the business judgment rule, "albeit Delaware law is more developed in those realms").

207. *See, e.g.*, *In re* ITT Derivative Litig., 932 N.E.2d 664, 668 (Ind. 2010) (finding guidance in Delaware law); Williams v. Stanford, 977 So. 2d 722, 727 (Fla. Dist. Ct. App. 2008) (same); *In re* Abbott Lab'ys Derivative S'holders Litig., 325 F.3d 795, 803 (7th Cir. 2003) (same); Int'l Ins. Co. v. Johns, 874 F.2d 1447, 1459 n.22 (11th Cir. 1989) (same); Shenker v. Laureate Educ., Inc., 983 A.2d 408, 427 (Md. 2009) (same).

208. Another adage applies here: "if you build it, they will come." FIELD OF DREAMS (Universal Pictures 1989). Delaware has built its corporation law, and it attracts lawyers and managers.

unfamiliar with Ohio or Virginia law.[209] Indeed, when Carney et al.'s insight into lawyer defaults in choice of law is tested against the 132 non-Delaware Fortune 500 companies, the hypothesis holds. Of the 132 companies, at least 80% were incorporated in the same state of their founding or created through a merger where one of the merging corporations was founded in the state of incorporation.[210] This data on Fortune 500 companies is robust confirmation that the choice of incorporation is really a default choice of either Delaware or the loci of business activity or founding.[211]

The lawyer's preference is grounded in several rational considerations: prior familiarity and efficient learning; a large body of law to rely upon when advising clients; risk aversion that favors the non-faultable choice of Delaware; and the crowd impression of Delaware's reputation for quality and service. Among lawyers, bankers, and investors, the question of "why Delaware?" comes down to a preference where there is safety in numbers. The well-trodden path is the lawyer's prosaic end. No lawyer will be criticized or fired for recommending Delaware, even if the client ultimately charters in another state. This explanation lacks the shiny appeal of high theory and the supposed fine honing of corporation law through competition among states. The choice of law is grounded in the pragmatism of lawyerly work and advice, a setting in which attorneys have preconceived notions and institutional biases, which are harmless in terms of efficiency. The rational pull of default choices is strong. For a company situated in New York—unless there is a unique reason to do so—why would New York lawyers bother considering Ohio or Virginia laws when New York or Delaware laws are just as good?[212] All these factors are rational, anodyne reasons for why lawyers would systematically advise the choice of Delaware. They must surely be a part of why Delaware law is important and continues to dominate.

In addition to preference by lawyers, the dominant choice of Delaware expresses a strong preference by managers. This preference does not maximize shareholder wealth but may maximize manager utility. Delaware has a strong stated policy of supporting

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209. Ohio and Virginia are prominent corporation law states, more so than New Jersey, Nevada, California, and Pennsylvania. Each is the home state of 12 public Fortune 500 companies as of 2019, and only New York with 17 companies has more public Fortune 500 companies. *See supra* note 96 (specifying the number of non-Delaware Fortune 500 companies in different states).

210. The count is 105 companies (80%), including: ExxonMobile, Apple, Costco, Cardinal Health, Kroger, General Electric, Anthem, Johnson & Johnson, IMB, Target, Lowe's, Procter & Gamble, PepsiCo, Prudential Financial, Lockheed Martin, Cisco Systems, American Express, BestBuy, and Nike, Progressive, Abbott Laboratories, Travelers, Philip Morris, Starbucks, Southwest Airlines, Aflac, PNC Financial. Only 24 companies (18%) were incorporated in states that were not the loci of their founding. These companies include Microsoft, which was originally founded in New Mexico before moving to Washington several years later. The histories of 3 companies (2%) could not be determined.

211. Other scholars have earlier noted the same phenomenon. *See* Klausner, *supra* note 34, at 1343 ("Whereas commentators on both sides of the race debate had assumed that all fifty states compete with one another in a national market, these studies found that no such market exists. Instead, nearly all firms incorporate either in their home state (the state in which they are headquartered) or in Delaware.") (relying on Robert Daines, *The Incorporation Choices of IPO Firms*, 77 N.Y.U. L. REV. 1559 (2002)).

212. *See supra* note 96.

managerial discretion and decision-making.[213] This is the essence of Cary's race for the bottom argument.[214] A manager's concern is shareholder intrusion into decision-making and litigation risk. The most meaningful aspect of this risk exposure is potential personal liability. Within the framework of the business judgment rule, the exposure to litigation risk does not affect aggregate firm values in the market,[215] but clearly litigation risk and intrusion into management affect managers. They prefer laws that enhance their authority. This facet of Delaware law has long been acknowledged by Ernest Folk, a learned commentator of Delaware law:[216]

> The short of the matter is that we do not in fact balance interests. We do not seek to protect shareholders or creditors or others; rather we limit their rights and remedies. We constantly enlarge the rights and freedom of management. Representing primarily management interests, we operate from a position of impregnable strength and prestige, and we produce a statute we think is best suited to running a corporation as management sees fit. This is not an unworthy purpose or result, but it is not an interest-balancing procedure. . . .
>
> Given the fact that state corporation statutes are now almost exclusively enabling-type enactments granting management maximum "flexibility," the next question is whether, indeed, *any state* today can effectively implement interests other than those of management, let alone those opposed by management. My considered conclusion is that this is not possible, even though many will be grieved at the thought that state power to regulate internal affairs of corporations is so drastically circumscribed.

It is true that, as discussed in Part IV.B, all states recognize the rules of business judgment,[217] director exculpation,[218] and separation of ownership and control.[219] But managers may find Delaware attractive because its commitment, as aptly described by Folk

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213. *E.g.*, Paramount Commc'ns, Inc. v. Time Inc., 571 A.2d 1140, 1154 (Del. 1989) ("Delaware law confers the management of the corporate enterprise to the stockholders' duly elected board representatives. The fiduciary duty to manage a corporate enterprise includes the selection of a time frame for achievement of corporate goals. That duty may not be delegated to the stockholders.") (citation omitted); Air Prods. & Chems., Inc. v. Airgas, Inc., 16 A.3d 48, 129 (Del. Ch. 2011) ("[T]his case does not endorse 'just say never.' What it does endorse is Delaware's long-understood respect for reasonably exercised managerial discretion, so long as boards are found to be acting in good faith and in accordance with their fiduciary duties (after rigorous judicial fact-finding and enhanced scrutiny of their defensive actions).").

214. *See* Cary, *supra* note 19, at 664, 672, 699 (noting a leaning toward the status quo, laxity, and managerial freedom).

215. *See* DEL. CODE ANN. tit. 8, § 102(b)(7); Faith Stevelman & Sarah C. Haan, *Boards in Information Governance*, 23 U. PA. J. BUS. L. 179, 197 (2020) (noting "the nearly universal adoption of charter exculpation provisions by public companies").

216. Ernest L. Folk, III, *Some Reflections of a Corporation Law Draftsman*, 42 CONN. BAR J. 409 (1968).

217. *See supra* note 162.

218. *See, e.g.*, DEL. CODE ANN. tit. 8, § 102(b)(7); CAL. CORP. CODE § 204(a)(10); N.Y. BUS. CORP. L. § 402(b). *See also* MODEL BUS. CORP. ACT § 2.02(b)(4) (2016).

219. *See supra* note 160.

many years ago, is explicitly and frequently expressed,[220] and thus reassuring. Commitment and communication are best practices for managing any client relationship, and Delaware has honed its client management skills over a century of lawmaking and catering to corporate constituents. Delaware corporation law is attractive to lawyers and managers, who together are the key customers of corporation law. There may be a real difference in utility among clients. They perceive a difference in service and rules affecting them, and this utility difference is based on perceptions of differentiation and quality.[221] As long as there is not a "Delaware discount" wherein shareholders are economically injured by a material level of managerial agency cost, the kind that can move market prices—i.e., the weak version of Winter's argument explaining why a race to the bottom cannot exist—shareholders should be indifferent to the lawyer's and manager's preference for choice of law.[222] Their preference and institutional bias in favor of Delaware are neutral to efficiency. Neutrality explains why the market considers inter-state differences in corporation law, and thus state corporation law generally, to be irrelevant and why no shareholder activism on this specific matter exists.

Although inter-state differences in corporation law are irrelevant to efficiency, Delaware law is relevant and important. This Article should not be misconstrued as criticizing the quality of Delaware law. Factors of quality of law do not always reduce to the criterion of efficiency. Markets do not always have work to do. They work when there is information. Delaware provides high-quality law for certain constituents who are, in effect, its most important customers. Delaware should not be hoisted onto the podium as the winner who ran the most efficiently;[223] nor should it be diminished, as some would have it, as the pacesetter for the production of bad laws.[224] By virtue of its prominence and high-quality production by its legislature and its expert judiciary, Delaware provides a

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220. *See supra* note 196 and accompanying text.

221. For example, consider the daily workings of the production of corporation law. Corporate lawyers and managers may care greatly about the precise legal standard of demand futility. Delaware has continued to tinker with these rules. *Compare* Aronson v. Lewis, 473 A.2d 805, 814 (Del. 1984), *and* Rales v. Blasband, 634 A.2d 927, 933–34 (Del. 1993), *with* United Food v. Zuckerberg, 262 A.3d 1034, 1058 (Del. 2021) (reformulating *Aronson* and *Rales* in a new standard). Corporate lawyers, managers, and controlling shareholders may care greatly about whether a claim arising from a particular transaction of a controlling shareholder gives rise to a direct or derivative action. *Compare* Gentile v. Rossette, 906 A.2d 91, 93 (Del. 2006) (holding that a dilution claim by a minority shareholder can be direct action), *with* Brookfield Asset Mgmt., Inc. v. Rosson, 261 A.3d 1251, 1276 (Del. 2021) (overruling *Gentile v. Rossette*). While these issues may be important to corporate constituents, these kinds of rules constituting the great bulk of the machinery of corporation law would be irrelevant to capital markets as factors of value.

222. Shareholders do not consider the choice of law relevant. *See supra* note 142.

223. *But see, e.g.*, ROMANO, *supra* note 38, at 1, 9 (noting the "genius of American corporate law is in its federalist organization" and the "extraordinary success of tiny Delaware"); *supra* note 147 (citing articles asserting Delaware's value-enhancing property).

224. *But see, e.g.*, Cary, *supra* note 19, at 705 (concluding the "absurdity of this race for the bottom, with Delaware in the lead").

service to its companies and guidance for other states,[225] for which it is handsomely rewarded in reputation and revenue.

CONCLUSION

The evidence presented in this Article is conclusive. There is no Delaware premium, and Delaware law is not more efficient. A fundamental idea in corporation law is a false narrative. It is not true that the scheme of federalism has spurred competition for supposedly superior laws as evaluated by efficiency. It is not true that Delaware won the race to the top as a matter of empirical evidence, both based on measurements of value and observations of market behavior. If efficiency was the prize, there was never a race at all. Inter-state differences in law are irrelevant, and thus state corporation law is not a factor of firm value. Law is important, but its fundamental rules affecting firm value have long been settled and have converged to a unity. Utility maximization of clients of state law and wealth maximization in the markets are different things. While marginal differences in rules can be consequential to managers or shareholders at the individual level, they are irrelevant at the market level. The choice of New York, California, Texas, Ohio, Virginia, or Florida laws, among others, are just as fine; and this proposition is entirely consistent with the view that Delaware is the leading jurisdiction for corporation law in terms of quantity of charters, production of law, leadership in lawmaking, and quality based on other evaluative criteria. The irrelevance of Delaware law is logical and intuitive. The factors of value that move market prices are on the business side; they affect in a real way free cash flows and the discount rate. These conclusions are confirmed by two mutually reinforcing sets of empirical evidence. The empirical data from this Article's longitudinal valuation study is consistent with empirical observations of market behavior—both constituting a dual set of consistent, reinforcing empirical evidence. A recognition of a Delaware premium is absent among financial analysts, activist shareholders, other shareholders, traders and arbitrageurs, market institutions, and even Delaware courts. The Holmesian dog did not bark, and as Holmes would surely note, that is a curious thing.

Critics may disagree. The idea of Delaware's irrelevance is challenging. Any challenge to an article of faith or an important common narrative may be met with skepticism or hostility by those embracing it. The admirers and advocates of Delaware law are many, and academics and elite corporate lawyers share a broad commitment to the Delaware brand and believe that corporate enterprise at the national level is best served by Delaware law. The dominant orthodoxy in corporate law scholarship accepts the relevance of the directionality debate and the belief in Delaware's superiority. The theoretical arguments have already been had; recycling old arguments in new garb would have marginal returns on advancing understanding. The most useful critique would answer pointed questions of an empirical nature. By now, the nature of Delaware law and the long-

225. *See supra* note 207 (citing cases from other states adopting Delaware law); *supra* notes 206 (explaining similar principles); *see also* ROMANO, *supra* note 38, at 37–44 (explaining the reasons for Delaware's preeminence as commitment to the quality of its corporation law and responsiveness).

running debate on its quality are public information and broadly known. Thus, the conversation should be based on the fair assumption of market efficiency.

To keep the faith in Delaware's efficiency, one should answer simple but perplexing questions. If the market *has not* priced in "better" law, why not? What is the specific arbitrage trade from mispriced Delaware companies? Why hasn't the smart money in the market figured out this trade? Should an investor short all non-Delaware stocks and go long on all Delaware stocks to extract an abnormal return? If the market *has* priced in better law, what is the specific quantum of premium? How much untapped value can non-Delaware companies realize from a change in law? Why is a systemic premium not readily apparent upon application of standard valuation methods despite scholarly efforts dating back several decades? If such a systemic premium exists, why do non-Delaware firms exist?

The answers to these questions would go a long way to refuting the idea of irrelevance and clearly establishing Delaware's efficiency and the argument of a "race to the top" among states. They would do more than tilt an academic debate. They would incentivize investment bankers and security analysts to revise valuation practices, lawyers and bankers to advise reincorporation to Delaware for the specific purpose of value accretion, investors to arbitrage superior state law, and standard finance textbooks to recognize a Delaware premium. In short, the weight of empirical evidence and market logic shows that the idea of Delaware's efficiency is a false narrative. To restore that article of faith, the burden is on Delaware advocates to answer the above questions.