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GETTING STUCK BETWEEN BOTTOM AND TOP: STATE COMPETITION FOR CORPORATE CHARTERS IN THE PRESENCE OF NETWORK EFFECTS

Brett H. McDonnell*

ABSTRACT

For decades, American legal scholars have debated over the implications of allowing corporations to choose in which state they will incorporate, irrespective of where they do business. Until recently the debate has centered almost exclusively on whether the managers who choose where to incorporate have incentive to choose a state whose laws favor managers to the disadvantage of shareholders (the “race to the bottom” thesis) or whether their incentives are to choose states whose laws treat shareholders properly (the “race to the top” thesis). Recently, some scholars have questioned whether the state charter competition process will necessarily lead to an optimal choice from the point of view of corporate decision makers, whatever the incentives of those decision makers might be. The presence of a variety of network effects may cause corporations to incorporate in a state which already has taken the lead in the charter race, even if some other states might offer better substantive law. For instance, corporations may prefer a state which has a well-developed, and hence more predictable, body of corporate law, or they may prefer to appear before judges who, from much experience, are familiar with corporate law matters. These effects may cause the whole system to get stuck with sub-optimal laws dominating.

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This Article takes the presence of significant network effects in corporate charter competition as a given. It then asks whether allowing competition between states is an attractive option, and how much competition is best. Even if network effects create the possibility of getting stuck with a sub-optimal dominant state, allowing competition may improve the odds of reaching a good corporate legal system. This Article presents a very simple model of charter competition as a way to start thinking about the issues involved. Within that model, some competition tends to lead to better results than no competition at all. However, more competition is not necessarily better than less, and a very large amount of competition may be as bad as no competition at all.

This Article considers many questions that remain quite open in this area. It concludes by posing the question of how to make empirical recommendations where theory and empirical evidence suggest no clear answers. It suggests that little change from the present structure is likely, and that critics have yet to make a persuasive case for such change.

I. INTRODUCTION

For decades, corporate law scholars have been arguing about Delaware. Roughly half of the largest corporations in the U.S. choose to incorporate in Delaware.¹ No other state comes even remotely close to this figure—Delaware dominates the competition among states in attracting businesses to incorporate. Delaware began its domination early in the twentieth century after New Jersey, the first leader in this competition, faltered.² Delaware has never faltered.

This Article advances two main arguments in the debate over Delaware. First, it gives reasons why it may make sense to encourage state competition for corporate charters even in the presence of network effects and similar factors. Others have argued that these factors may hinder state competition by allowing a state with inferior laws which has gained a lead in the competition to maintain that lead. I respond that competition cannot eliminate the possibility of inferior laws winning out, but it can reduce the chances of that happening, as opposed to a system where the national government imposes one set of laws on all

¹. More than half of all public firms are incorporated in Delaware. See Robert Daines, Does Delaware Law Improve Firm Value?, 62 J. FIN. ECON. 525, 526 (2001). Almost half of all New York Stock Exchange-listed companies are incorporated in Delaware, and nearly 60% of all Fortune 500 companies are incorporated there. See Jill E. Fisch, The Peculiar Role of the Delaware Courts in the Competition for Corporate Charters, 68 U. CIN. L. REV. 1061, 1061 (2000).

corporations. Even if inferior laws come to dominate, competition can increase the chances that better laws may still be adopted in the future. This provides a new twist on the old claim that the states are the laboratories of democracy.

Second, this Article argues that in light of our ignorance as to the best set of corporate laws and the best relationship between the national and state governments in making those laws, and considering the relatively decent comparative performance of our system of corporate governance, there is no good reason to radically change our current system of corporate law. Some reform in response to recent scandals may be called for, but the basic system ain’t broke—or if it is, we have no alternative system to offer which we can trust will not make things even worse. The present American system does appear to help meet major goals for constructing a system of corporate lawmaking. State competition allows for the capture of network benefits while still creating a filter likely to lead to good laws coming to the fore, while the national government’s intervention through securities law helps guard against concerns about the misbehavior of corporate decision makers. The system has problems, as has become quite clear over the last year or two, but no one has come up with a better one yet. Both major points, and the spirit underlying them, can be summed up by appropriating that hoary but vital old quote by Churchill on democracy: the American system of corporate lawmaking is the worst possible system, except all of the others that have been tried.  

William Cary started the modern scholarly debate over Delaware in 1974.  

He argued that Delaware had taken a lead in a “races for the bottom” among the states. Cary’s basic logic was simple: having many corporations incorporated in a jurisdiction can bring much money to the state through incorporation and other fees. It can also benefit potentially powerful interest groups within the state, particularly corporate lawyers. States therefore will want to shape their statutory and decisional corporate law in a way that attracts businesses to incorporate in them. Corporate officers and directors have most of the power to decide where their corporations will incorporate. Therefore, states want to make their

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5. See id. at 664-66.
6. See id. at 668-69, 697-98.
7. See id. at 668.
8. See id. at 669.
laws attractive to these officers and directors, rather than to shareholders. Laws which favor incumbent managers over shareholders are the result.

The attack on Cary began quickly. An early, eloquent, and still influential statement of this response came in a 1977 article by Ralph Winter. Winter accepted Cary's logic that corporate charter competition will induce states to shape their laws in ways that corporate decision makers favor. He disagreed, though, that officers and directors will prefer laws that inefficiently favor their interests over shareholders. Winter argued that a variety of market mechanisms will tend to align the interests of managers and shareholders. If managers choose to incorporate in a state with laws that hurt shareholders, those market mechanisms will punish the managers. The race, he said, is to the top, not the bottom.

Most of the debate since then has focused on the mechanisms which may align the interests of managers and shareholders. That is, most participants have assumed that competition between the states will indeed tend to push state law strongly towards the optimum from the perspective of directors and executive officers, who dominate the choice of where to incorporate. The debate has been over the incentives of those decision makers. The discussion has been wide-ranging, informative, and completely indeterminate. Good theoretical reasons exist to believe that the interests of managers and shareholders are well aligned, and good theoretical reasons exist to believe that they are not. Empirical evidence and testing is equivocal. Section II reviews this traditional literature.

For a long time, both sides in this debate faced a nagging problem: Whether the race is to the bottom or to the top, why does Delaware's lead seem so lasting and insurmountable? Both theories suggest that all, or at least many, states will tend to mimic the successful elements of the leading state's laws and try to improve upon any drawbacks in that law.

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9. See id. at 698-99.
10. See id.
12. See id. at 253.
13. See id. at 256-57.
14. See id. at 256.
15. See id. at 256-57.
16. See id. at 254-58.
17. See id. at 252 (noting that, in almost all cases, the decision as to which state to incorporate in is a managerial decision).
The corporate laws of the various states will thereby come to resemble each other more and more closely, as states learn what works and what does not in attracting incorporation. This, indeed, has happened. Why should the leading state be able to retain and even enhance its market share in this process? That, too, has happened. Neither of the basic theories had a particularly good explanation for why this is so.

Recently, several scholars have developed some answers. Roberta Romano made some of the original arguments.\(^{18}\) In the mid-nineties Michael Klausner, alone and with Marcel Kahan, took some of Romano’s points, added some important new ones, and put them into the broader theoretical context of recent work in economics on network effects.\(^{19}\) Success may beget further success in a variety of ways which can become self-reinforcing. For instance, states with more corporations have more judicial precedents in corporate laws, which can lead to greater predictability.\(^{20}\) States which derive strong benefits from having many businesses incorporated there may become committed to keeping the law favorable to corporate decision makers. More corporate cases may lead to a more experienced and expert judiciary. Corporate lawyers and service companies know more about the leading state than other states. All of these gains from having many corporations incorporated in a state, in turn, make that state more favorable to future new incorporations or reincorporations. Section III reviews these arguments.

The presence of such network effects, however, gives rise to several new obstacles which may prevent state corporate laws from being optimal. Consider two states, both of which are striving to get companies to incorporate under their laws. State A is the traditional leader, and has attracted many more corporations than state B. The lawmakers in state B come up with what looks like some great new innovations, which may well make the law in state B superior to state A. Will new businesses now choose to incorporate in B rather than A, and will corporations which have already chosen A now reincorporate in state B? Not necessarily, even if you agree with Judge Winter that managerial incentives and shareholder interests are well-aligned. Network effects favoring state A such as those mentioned in the previous paragraph may outweigh the greater efficiency of the law in state B. When this happens,

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economists say that the market between states for corporate charters has become locked-in to an inefficient equilibrium. Section III provides more details on the potential inefficiencies due to network effects.

Thus, as conceptualized so far, corporate law scholars have seen the presence of network effects as providing further reasons why state competition for corporate charters may provide sub-optimal results. Thus, even if one accepts the Winter position that managers and shareholders have their incentives aligned, network effects may imply that the race is not necessarily to the top. States may get stuck on their way to the top, even if market forces are pushing in that direction. The presence of network effects therefore has had the effect of giving further reasons to be skeptical about the benefits of state competition, although Klausner and others are actually careful about drawing inferences about the benefits of state competition as opposed to federal provision of corporate law.

I take Klausner's point about possible lock-in to an inefficient equilibrium as my starting point. However, I strike out in a different direction by asking a different question. Let us take as given the possibility that fairly strong network effects exist in this area. Lock-in to an inefficient equilibrium is thus a real possibility too. Given this, is any competition between states desirable, or would we be better off with just one provider of corporate law, presumably the federal government? And, if some competition is desirable, how much is most desirable? Between two states? Three states? Ten states? Fifty states? The presence of network effects poses at least two problems for state charter competition. First, the system may lock-in to a state with a bad law. Second, even if the dominant state starts with a good law, once it has achieved dominance, competition may no longer give the state reason to continue to adapt and improve its law. In this Article, I focus on the first problem. At first glance that problem may seem of merely historical interest—U.S. corporations locked-in to Delaware nearly a century ago, after all. However, how likely it is that we locked-in to an initially attractive law affects our evaluation of how attractive that law is likely to be today, and hence our evaluation of how much reason we may have to want to change that law.

The answers as to the desirability of competition in the presence of network effects are more subtle and favorable to at least some degree of state competition than one might imagine—that is the first major point of this Article, as mentioned above. If one assumes that the federal government has privileged access to knowledge about what corporate law is best, then competition does not look attractive. But there is no
reason to believe the federal government, or anyone else, has special access to such knowledge. If one assumes that all potential providers of corporate law are equal in their knowledge as to the best law, then a basic trade-off appears. On the one hand, if network effects are strong, we would actually like for one jurisdiction to eventually become dominant. That is because we want companies to enjoy the benefits from network effects, and that can happen only if they all incorporate within the same jurisdiction. On the other hand, we want this dominant jurisdiction to choose a law that is as close to the optimum as possible.

Paul David, an economic historian who has been a leader in developing arguments about network effects and related concepts, suggests that one sensible policy response is to slow down, but not completely stop, the move to market dominance and encourage a fairly thorough exploration of a variety of alternatives before settling on one.21 I suggest that state competition for corporate charters may be a mechanism for doing precisely that. In the early days of competition between states, several different states may present several different models of corporate laws. If there is some uncertainty as to which model is best, corporations may experiment, some choosing one state, some choosing another. Over time, as experience accumulates, one state pulls into a lead. New corporations increasingly choose that state, and companies incorporated elsewhere reincorporate into the leading state. Eventually that state becomes overwhelmingly dominant, like Delaware today. It is possible that the leading state's law is not the best possible, nor even the best among the laws that were once in competition. However, if there was initially fairly vigorous competition among a variety of states, then the chances that the winner's law is pretty close to an optimum are pretty good.

On the other hand, competition between too many differing state laws may be too much of a good thing. In an overcrowded field, a state that happens to be preferred by some outlier corporations may come to take the lead, and network effects may then induce other corporations to choose that state. As the number of competing states increases, who wins the competition may become increasingly random, with little bias.

in favor of those states offering the best laws. The best situation, then, may be competition among just a few alternative legal regimes.\textsuperscript{22}

Section IV, the heart of this Article, develops this argument in more detail, first conceptually and then using a simple mathematical model of state competition. I intend this not simply as a contribution to the literature on the competition for corporate charters. It also contributes to the literature on network effects, path dependence, and lock-in to inefficient equilibria. Appropriate policy interventions in the face of network effects is an important but still not well-understood problem for this literature. I mentioned above Paul David's suggestions as to appropriate policy. Conceiving of competition between states as a way of implementing his approach gives a new way of thinking about the old argument of states as the laboratories of democracy.

I should also mention that, for purposes of Sections III and IV, I assume the truth of Winter's position, that managers' incentives are aligned with shareholders. I do so in order to focus on the problems created by network effects. I do not do so because I believe the assumption is true. Relaxing that assumption has major policy implications. I return to that point later in this Article. Another way of taking these Sections is to assume that when I refer to a state law as being "good," "better," or "best," I mean good, etc., from the perspective of the officers and directors who choose where to incorporate, putting aside whether their incentives are properly aligned with the interests of shareholders. The first main point of this Article can then be phrased as a contingent conclusion: some degree of competition between states can help to increase the chances that the dominant state's law is good, as good is understood by corporate decision makers. If those corporate decision makers have proper incentives, great. If not, then that may provide arguments against state competition. However, those arguments are the traditional Cary points, not the new set of arguments based on network effects and increasing returns on which this Article is focused.

If my argument has merit, then an important empirical question becomes the early history of the competition among states for corporate

\textsuperscript{22} This argument deals with locking in to an attractive set of laws in the first place. A separate issue is whether state competition helps prod the dominant state to improve its laws after achieving dominance. I touch on that issue briefly in this Article, but I do not analyze it in any detail. I turn to that issue in a work in progress. See Brett H. McDonnell, The Ambiguous Virtues of Our Mixed Federal System of Corporate Law. That paper builds on recent contributions by Bebchuk and Hamdani and Kahan and Kamar. See generally Lucian Arye Bebchuk & Assaf Hamdani, Vigorous Race or Leisurely Walk: Reconsidering the Competition Over Corporate Charters, 112 YALE L. J. 553 (2002); Marcel Kahan & Ehud Kamar, The Myth of State Competition in Corporate Law, 55 STAN. L. REV. 679 (2002).
charters. How many states tried to compete seriously with Delaware and New Jersey? How different were the alternatives offered? Did the competition remain in doubt for very long before Delaware's dominance became too great? Section V takes a look at these questions. It finds that there was some significant competition, though not necessarily all that much. The model of Section IV suggests that may have been a good set-up, although we are a long way from understanding what process of competition among states is really best. Section V also reminds us that current American corporate law is not a fully federalized, state-based, competitive system. Some important corporate law is set at the national level, under national securities laws.

Finally, in Section VI, I consider what my arguments may imply for some recent policy proposals concerning federalism in corporate and securities law. Here, I must revisit the question about the extent to which the Winter position on managerial incentives is correct. I am doubtful how correct it is. Thus, the original Cary position still has much force. But, its force is as yet far from decisive. I conclude that to date neither side has been able to marshal adequately persuasive theoretical arguments or empirical evidence. There is no strong reason to opt for either side in the debate. What are the policy implications? Right now, American law opts for state competition in corporate law but a mainly national, unified approach to securities law. Some people would like to federalize securities law, pushing Winter's position even further. Some, including Cary, want to nationalize corporate law. I argue that given our current knowledge, there is no good reason for making any big changes from the status quo—that is the second main thesis of this Article. Setting the framework for making corporate law requires a complex balancing of several goals. We want to achieve the benefits of increasing returns while still achieving some gains from competition in terms of reaching a good law and improving on it. We also need to protect against possible race to the bottom effects due to managerial misincentives. We face pervasive uncertainty and lack of knowledge in deciding how best to balance those goals. Our current mix of national and state law seems to do a pretty good job, and proponents of different systems have not yet given an adequately strong reason for discarding that system. That is not to say that we want no change at all. The conclusion considers one or two proposals of moderate change that make a good deal of sense. These reforms, though, work within the base current system of competing state laws bordered by national securities law.
II. TO THE BOTTOM OR THE TOP? THE TRADITIONAL LITERATURE

Under the internal affairs doctrine, a corporation's internal governance is legally regulated by the corporate law of the state in which the corporation is incorporated. A corporation may incorporate in any state, even if it does no business in that state. There is no general federal incorporation. States, thus, may compete with each other in attracting businesses to incorporate in their state. This raises the question of whether such competition is likely to result in good or harmful corporate law. Delaware has won the race for large corporations—nearly sixty percent of the largest 500 corporations in the U.S. are incorporated in Delaware, and Delaware has maintained, even widened, this lead for about a century. Thus, the question as to the result of the state competition for corporate charters becomes largely a question as to why Delaware has been so dominant, and whether that is a good thing.

A. Origins of the Debate

The modern debate over Delaware begins with William Cary's 1974 article. Cary noted that the top management of a corporation, along with its dominant shareholders, is generally able to determine in what state a corporation is incorporated at the time it goes public. Thus, corporations are likely to choose to incorporate in states whose laws those actors find favorable. A key point of corporate law is that sometimes the interests of incumbent managers and ordinary shareholders may diverge. In a large public corporation with many dispersed small shareholders, the shareholders may have a hard time detecting and punishing managerial opportunism. Thus, an important function of corporate law is to help police such opportunism. State laws

23. See Daines, supra note 1, at 526.
24. See Winter, supra note 11, at 252.
25. As mentioned above, this is not so for matters governed by federal securities law. See infra notes 226-33 and accompanying text.
26. See Fisch, supra note 1, at 1061.
28. See generally Cary, supra note 4. Cary simply began the modern debate. The origins of debate over the race to the bottom go back to the early days of the race, when New Jersey was the leading state. See, e.g., Lincoln Steffens, New Jersey: A Traitor State, McClure's Magazine, May 1905, at 42; U.S. INDUS. COMM'N, FINAL REPORT 642-43 (1902).
may vary as to how they perform this policing function, and as to how strong and rigid their rules against managerial opportunism are.\textsuperscript{30}

Cary's core point is simple: top managers choose where to incorporate, and insofar as they prefer a state with more lax corporate laws, they will choose to incorporate in states with more lax laws.\textsuperscript{31} This goes against the interests of shareholders. States which try to provide stricter laws will see corporations incorporating elsewhere.\textsuperscript{32} Hence the race to the bottom: those states which offer the most lax corporate laws will attract the most corporations, inducing other states to either copy those lax laws or else drop out of the competition and resign themselves to having few domestically incorporated large businesses. After setting out this simple logic, Cary attempts to demonstrate his point by looking at a variety of areas of corporate law and arguing that Delaware has adopted lax rules in each of those areas.\textsuperscript{33}

Cary's article immediately attracted much attention, and many argued against it. The most prominent early attack came from Ralph Winter in 1977.\textsuperscript{34} Winter agreed with Cary that the state competition for charters will cause states to shape their laws to suit the preferences of corporate management.\textsuperscript{35} He disagreed with Cary over what management will tend to prefer.\textsuperscript{36} It is true that at the point where managers have actually engaged in opportunistic acts, or plan to do so soon, they would like to have only weak laws against such acts.\textsuperscript{37} However, when managers choose \textit{ex ante} what corporate law to be governed by, their incentives look different. A variety of market mechanisms may punish them if they choose a state with lax laws.\textsuperscript{38} Winter argues that, for the most part, these market mechanisms are effective enough that they will induce corporate decision makers to adopt that state whose laws are most efficient.\textsuperscript{39} That does not necessarily mean they will adopt the laws which most strenuously guard against managerial opportunism. There may be a trade-off between strict safeguards and providing corporations and their managers enough flexibility and discretion that they can

\begin{itemize}
\item \textsuperscript{30} See 18 AM. JUR. 2D Corporations § 26 (1985 & Supp. 2002).
\item \textsuperscript{31} See Cary, supra note 4, at 663-66.
\item \textsuperscript{32} See id. at 666.
\item \textsuperscript{33} See id. at 670-84.
\item \textsuperscript{34} See generally Winter, supra note 11.
\item \textsuperscript{35} See id. at 253.
\item \textsuperscript{36} See id. at 256.
\item \textsuperscript{37} See id.
\item \textsuperscript{38} See id. at 256-57; cf. Cary, supra note 4, at 663-68 (discussing the powerful incentives for corporations to incorporate in jurisdictions that provide greater protection and freedom from restrictions).
\item \textsuperscript{39} See Winter, supra note 11, at 275.
\end{itemize}
respond well to ever-changing market conditions. Winter argues that at the time of incorporation or going public corporate managers will have the incentive to choose to be governed by laws that make this trade-off optimally given the circumstances of their business.

B. Managerial Incentives

Much discussion since has focused on whether markets do indeed give managers incentive to take into account the interests of shareholders. Supporters of Winter's race to the top thesis have advanced a variety of market mechanisms. A core point is that shareholders can easily tell in which state a business is incorporated and what the corporate laws of that state are like. If a corporation incorporates in a lax state whose laws hurt shareholders, the shareholders should realize that and pay less for stock in that corporation than if it were incorporated in a state with better laws. Thus, at the time a company goes public, when generally a small group owns most of the company's shares, that group has incentive to see to it that the company incorporates in a state with good laws. Any expected loss to shareholders from bad laws should be reflected in the price the company will get for its shares upon going public, and so the existing dominant shareholders will internalize the harm a bad state's laws will cause future small shareholders, and therefore be induced to optimally balance that harm against whatever private benefits may exist to them from being governed by lax laws.

The market for corporate control provides another brake on managerial opportunism. Managers in states with lax laws who are not treating their shareholders well should see a stock price that is well below what it could be if that same company were well-managed in a state with better laws. This gap creates a potential for hostile takeovers. After a takeover, the bad management is removed. The mere threat of this may prevent much managerial opportunism.

40. See id. at 260.
41. See id. at 262-66.
43. See Daines, supra note 1, at 526.
45. See Winter, supra note 11, at 264-66.
Managerial compensation is another important market mechanism. Much of the compensation of top corporate executives is often tied to the company’s stock price, through stock ownership, options, bonuses tied to stock price, and so on. Thus, any decision which reduces the value of the company’s stock will hurt its executives. This too helps make managers internalize the interests of shareholders.46

A few other limits on managers are also worth mentioning. For those who would like to move on to another job elsewhere, managerial labor markets constrain their behavior.47 If the stock of their current company falls, their chances of moving on to a better job are diminished. Corporate boards dominated by independent outside directors may help represent the interests of shareholders.48 Large institutional investors have in the last decade or two become somewhat more active in monitoring corporate governance.49 In what state a company is incorporated is a particularly simple item to monitor.

Some commentators, though, have been skeptical about the helpfulness of these market constraints on managers.50 Markets may not be as good at valuing corporate shares as those in the Winter tradition assume. For some time the semi-strong version of the efficient market hypothesis was assumed by most corporate law scholars to be largely correct. Under this hypothesis, all publicly available information about a company is quickly and accurately reflected in that company’s price.51 Since state of incorporation is certainly publicly available information, the semi-strong efficient market hypothesis supports the Winter argument.

However, more recently many corporate finance and law scholars have begun to call into question the semi-strong version of the efficient market hypothesis. Advances in both behavioral finance theory and in

46. See Fischel, supra note 42, at 919.
47. See id.
empirical testing have suggested that securities markets may be more flawed than previously believed. Investors may be subject to systematic biases, which lead them to make predictable mistakes. Arbitrage may be risky and costly enough that sophisticated investors do not bid away the price effect of those systematic mistakes. Stock prices are likely to be particularly suspect for smaller companies that have fewer analysts covering them and in general less attention paid to them. Moreover, the effect of state corporate law on the future welfare of shareholders, considered from the time of the initial public offering, may be relatively distant and speculative. If setting stock prices is more of a crap shoot than traditional law and economic analysis would have it, then it is quite possible that the chaos of trying to price a new company’s stock accurately, taking into account hundreds of idiosyncratic factors, will completely swamp out any effect the state of incorporation may have on the price.

The market for corporate control also looks today like more of a bust in disciplining managers than it did in the mid-eighties. Entrenched managers have figured out a variety of ways to effectively prevent unwanted takeovers, most notoriously the poison pill. Hostile takeover attempts are nowadays a relatively rare event, and successful ones are rarer still. Moreover, even Winter acknowledged that in choosing among state laws specifically affecting takeovers, managers may not have the proper incentives, as if they choose a state which allows them to block against takeovers, one of the strongest mechanisms guaranteeing managerial accountability will cease to work.

The other mechanisms discussed above have major question marks as well. Managerial compensation tied to stock price does not work well if the stock price does not reflect information well. Moreover, it appears that top managers are often pretty good at guarding themselves against the effects of stock price drops. Indeed, many now believe that the strong use of equity-based compensation is not a major limit on managerial opportunism, but rather itself an effect of such opportunism—a way to make top corporate executives fabulously wealthy.

53. See Bebchuk & Ferrell, supra note 50, at 117-40 (discussing the variety of obstacles to hostile takeover bids and the effectiveness of defensive measures against such bids).
54. See Winter, supra note 11, at 287-89.
Imperfections in stock prices also affect the ability of managerial labor markets to discipline managers. Furthermore, the tie between an individual manager’s performance and the company’s performance is often quite obscure, limited, and hard for an outsider to discern, making this a highly imperfect form of monitoring. Independent boards have surprisingly little proven ability to improve corporate performance. Institutional investors are still for the most part usually reluctant to become heavily involved in corporate governance.

Thus, the long debate over the extent to which market mechanisms induce managers to choose the optimal state of incorporation is inconclusive. There are good theoretical arguments both for and against each mechanism. We shall consider shortly attempts to address the question in a systematic empirical way. We shall find those attempts wanting.

From early on in this debate, going right back to Winter, many advocates of the race to the top position have admitted that laws affecting hostile turnovers may be at least a partial exception to their position. Since the hostile takeover mechanism is one of the main market constraints on managers, if managers can take advantage of laws which allow them to avoid takeovers, then much of the market discipline on managers will go away. There are several points to make about this exception to the supposed general rule.

First of all, it is an awfully big exception. Takeover law is one of the most important and heatedly debated areas of corporate law. As just noted, hostile takeovers and the threat thereof are one of the main alleged restraints on managerial misbehavior. If the corporate charter competition does indeed lead to a race to the bottom in this one area, that in itself is a very big lapse.

Second, if state takeover law does indeed allow managers to avoid the threat of takeovers, that calls the entire story underlying the race to the top thesis into question. After all, one of the main market mechanisms that is supposed to give managers an incentive to incorporate in states with the most efficient laws is the threat of takeovers: if managers choose to incorporate in a state with bad laws, it

58. See Winter, supra note 11, at 287-89; EASTERBROOK & FISCHEL, supra note 42, at 218-23.
59. See supra note 45 and accompanying text.
will be reflected in their stock price, which will make the company
vulnerable to a takeover. If incumbent managers can prevent such
takeovers, part of the pain they face from low stock prices is eliminated.
Unless other market mechanisms work to align the interests of managers
and shareholders, the whole story collapses. Of course, as mentioned
above, there are potentially other mechanisms to correct managerial
misbehavior. Still, the loss of the takeover mechanism does call the
whole theory into question.

Lucian Bebchuk and Allen Ferrell have noted this defect in the race
to the top thesis. In response, they have suggested giving companies the
option of choosing to be governed by a set of federal rules regarding
takeovers. The federal rules would make it harder for incumbent
managers to adopt anti-takeover defenses. Bebchuk and Ferrell would
also give shareholders the power to opt in to this federal regime without
the approval of the board of directors. I will discuss this proposal in
Section VI.

C. Public Choice

Another area into which the race to the top/bottom discussion has
ventured is public choice questions as to the differential presence of
interest groups at the state and federal level and the incentives facing
state and federal governmental decision makers. This debate too has
been inconclusive.

Macey and Miller have presented an interest group theory of the
development of Delaware corporate law. The benefits from being the
leading state in corporate law can be captured and distributed in a variety
of ways. The state can capture the benefits itself through corporate
charter and other fees. Indeed, this is a major part of the income for the
state of Delaware. However, interest groups may also capture much of
the benefit. Most significantly, the Delaware corporate bar benefits
tremendously from Delaware’s dominance. Lobbying by corporate
lawyers may help push the law in ways that help them—for instance, by
rules that encourage suits (e.g., the lack of a security for expenses

60. See supra notes 42-49 and accompanying text.
61. See Bebchuk & Ferrell, supra note 50, at 113.
62. See id.
63. See id.
64. See Jonathan R. Macey & Geoffrey P. Miller, Toward an Interest-Group Theory of
65. See id. at 491.
66. See id. at 490.
requirement) or by indeterminate rules which encourage suits because the outcomes are unclear. Also notable is the role of corporate service companies such as the Corporation Trust Company and the Corporation Service Company.67

Others, most notably Roberta Romano, point out that the political economy of Delaware may be healthier for the creation of corporate law than that of other states.68 For instance, corporations incorporated in Delaware include both potential takeover targets and potential acquirors, thereby creating some lobbying pressure both for weaker and for strong anti-takeover laws.69 In other states, potential targets tend to predominate, creating strong incentives for state legislatures to pass laws which help incumbent managers defend against hostile takeovers.70 Indeed, many state takeover laws outside of Delaware seem to have been passed when a major local corporation became the target of a takeover threat.71

However, this response has its limits. Consider a proposed law in Delaware which would make defense against takeovers harder. Now consider the response of Aggressive Corp, which has been on an acquisition binge, and Timid Corp, which is the subject of takeover rumors. The management of Timid Corp clearly opposes the bill, and they may threaten to reincorporate elsewhere if it passes. The threat may be credible. Aggressive Corp may like the bill and lobby in favor of it. However, the incentives of Aggressive’s management are mixed—after all, Aggressive itself may become a takeover target at some point, and since many of the companies which it wants to acquire may not be governed by Delaware law, that makes the effect of Delaware’s law in enabling takeovers less crucial to it. Most importantly, Aggressive’s management cannot credibly threaten to reincorporate elsewhere if it does not get its way on the bill—since the law of the target’s state governs the ease of takeovers, reincorporation to a more takeover-friendly state does the acquiror no good.

What would be the incentives of the federal Congress and administrators should the U.S. opt for a national corporate law? On the one hand, the federal jurisdiction would mean that there would be a fully representative sample of affected companies, and very little threat by

67. See id. at 491.
69. See id. at 141.
70. See id.
71. See id.
target management to reincorporate elsewhere, avoiding the problem just analyzed. The federal government may also have some incentive to choose the most efficient set of corporate law rules insofar as such rules would maximize tax revenues. On the other hand, the lack of competition for the corporate charter business would probably make the federal government less responsive to changes in the business environment. A federal regime would probably as a result be less innovative. Bad corporate laws would be more likely to stay in place. 72

Moreover, shareholder and other non-managerial interests might not be represented well at the federal level due to familiar free riding problems in political lobbying. Of course, the same problem occurs at the state level.

Furthermore, consider the federal bureaucracy which would administer a federal system of laws, and probably write rules implementing those laws. The Securities and Exchange Commission ("SEC") gives a good example, and might very well be the agency which would be entrusted with this responsibility. Many public choice theorists think that agencies tend to write overly broad and often vague rules as a way of enhancing their own power. 73 The SEC shows at least some signs of this. 74

D. The Traditional Debate Summarized

Overall, the discussion of the incentives facing corporate, state, and federal decision makers suggests something like the following, illustrated in Figure 1. Suppose potential corporate law regimes are arrayed on a continuum from unrestrictive to restrictive, with an optimal point somewhere in between the extremes. Consider the probability distribution over this continuum induced by a regime of state competition versus a federal regime. It might be that the state law regime is somewhat biased to an overly unrestrictive result, but that competition reduces the variation in the likely result—that is, competition will push the system pretty close to an area somewhat less restrictive than optimal. In contrast, the federal regime may be more likely to reach a more restrictive outcome—indeed, the most likely outcome could even be more restrictive than optimal. However, there is greater variance in the

73. See William A. Niskanen, Jr., Bureaucracy and Representative Government (1971).
possible result in the federal system, because in the absence of
competition there is less pressure pushing the system toward any
particular outcome. Which system is better? That depends both on how
far the two means are from the optimum, and how different the variances
are.

Thus, the theoretical debate to date leaves it quite open as to
whether state competition or a federal system of corporate law is better.
Does empirical evidence on the effect of corporate law in Delaware
versus other states help us figure out which side is right? I don’t think
so, at least not so far, and probably not ever. To fully understand the
empirical evidence, though, we need to consider the effects of network
and learning effects in state corporate law. I therefore defer discussion of
the empirical literature until the end of the next Section, which analyzes
those effects. 75

One other point on the discussion so far: it assumes that
maximizing shareholder value is the goal which corporations and
corporate law should be pursuing. Thus, the focus is on the possible
misalignment of the incentives of managers and shareholders. Some
argue that other stakeholder groups should be weighed in the balance as
well. 76 I am one of those people; in particular, I think the interests of
employees should be a significant part of the calculus. It would be
interesting to reconsider the whole debate in the light of other
stakeholder groups. Since the market mechanisms emphasized by those
arguing for a race to the top appear to work only to align the interests of
managers and shareholders, to the extent that shareholders’ interests are
at odds with those of other stakeholders, then even if advocates are right
about those mechanisms, one might still be skeptical as to whether the
race is really to the top. Does this mean that if those mechanisms do not
actually work at all well, then the result might actually be better from the
perspective of other stakeholders? 77 That would appear to depend on
whether the interests of other stakeholders are better aligned with those
of managers as opposed to shareholders. That is not an easy question.
Would other stakeholders be more likely to have a voice in a system of
federal law rather than state law? Perhaps, but the political economy
considerations underlying that question are also complicated. The

75. See infra notes 137-45 and accompanying text.
76. See, e.g., Kent Greenfield, The Place of Workers in Corporate Law, 39 B.C. L. REV. 283,
287 (1998); Marleen A. O’Connor, The Human Capital Era: Reconceptualizing Corporate Law to
77. See LAWRENCE E. MITCHELL, CORPORATE IRRESPONSIBILITY: AMERICA’S NEWEST
EXPORT 185 (2001).
questions raised here are very interesting, but they go beyond the scope of this Article. Hence I will not consider them further here, although I will briefly return to the point at the end of Section VI on policy implications.

III. NETWORK AND LEARNING EFFECTS IN STATE CORPORATE LAW

Both the race to the bottom and the race to the top hypotheses lead to the following puzzle. Both theories suggest that other states will come to emulate the state which has gained the lead in garnering company incorporations. They both thus suggest that differences in state corporate law will tend to shrink over time. If that is so, then it would seem that the state in the lead should gradually lose its advantage over time, and other states should gain some market share at its expense.

That has not happened. Be the race to the bottom or to the top, Delaware took the lead early in the twentieth century. Since then, its lead has if anything widened, and there are no signs of slippage. How can we explain this, and what are the practical consequences of that explanation? In this Section, we explore an important recent explanation based on network and learning effects in corporate law. The rest of this Article explores some potential consequences if this explanation is right.

A few years ago Michael Klausner, in papers both on his own and with Marcel Kahan, began to apply notions of network and learning effects to corporate law.8 Network and learning effects refer to mechanisms whereby a leading company, technology, standard, or, in our case, state, becomes more attractive to new adopters of the item in question simply by virtue of being the leader.9 New adopters therefore tend to adopt the leader, which increases its lead, making it yet more attractive to newer adopters, and so on in a self-reinforcing cycle.80 A classic example is telephone networks—a network becomes more attractive to new users as more people connect to that network. In the last several decades, economists have explored the logic of such effects in much detail, and that work has begun to percolate into legal research.81 Klausner’s work is an important instance of the spread of those ideas.82

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8. See supra note 19 and accompanying text.
80. See generally id., for a general overview of network effects.
Network effects and learning effects are similar, but slightly different. Network effects refer to instances where adopters want to follow the dominant technique because they expect many people to follow it in the future.\textsuperscript{83} Learning effects occur where adopters want to adopt a technique because it has already been widely adopted.\textsuperscript{84}

In this Section I will first describe several forms of network and learning effects which Klausner and others have analyzed in corporate law. I then turn to a consideration of some of the general principles which we can learn from situations where these effects exist. This Section concludes by considering what has so far been argued about the application of these effects to corporate law.

A. Sources of Network and Learning Effects in Corporate Law

Why might companies prefer to incorporate in a state which has many large companies incorporated in it? One reason may be the greater predictability associated with more legal precedents.\textsuperscript{85} More predictable law allows companies to plan better. Even if a corporate code is clearly written, inevitably the application of that code will be unclear in many instances. Other parts of corporate law are not codified at all and develop from the general, often vague, principles of the common law. In corporate law, this is particularly true in the important area of fiduciary duties, where the general principle is broad and vague, and greater clarity comes mainly from seeing how courts actually apply that principle in specific instances. A state with many corporations is likely to have more court cases applying its corporate law to those corporations. That expanding case law hopefully leads to greater predictability.

Note that there is both a learning and a network effect here. The learning effect comes from the expansive case law that may already exist at the time a company chooses where to incorporate. The network effect comes from the future case law which the company expects will develop

\textsuperscript{82} The spread of new ideas may itself exhibit network effects. When a new idea is first described, it may be hard for other people to understand, especially if the idea is quite novel. Others may be reluctant to consider, adopt, and use the idea because it is so hard to follow. However, if some people gradually find the idea useful and use it, the idea may eventually become more comprehensible to more people. New users of the idea will find more people able to follow them, and will have to spend less and less time explaining the basics of the idea. The logic underlying network and learning effects seems to have gone through such a process in economics, and is doing so now in law.

\textsuperscript{83} See Klausner, supra note 19, at 774-75.

\textsuperscript{84} See id. at 788.

\textsuperscript{85} See id. at 843-44.
in a state with many domestic corporations. For our purposes the network effect is more important. That is because lagging states can match the learning effects gained by a leading state's case law by adopting wholesale the existing case law of that state. Delaware did that to New Jersey at the turn of the twentieth century. Thus, this particular learning effect does not help protect a state's lead very well. However, the network effect is harder to duplicate. A state can say now that it will follow existing Delaware case law. However, it is harder to credibly commit to following all future Delaware case law. Future cases may become inconsistent with future Delaware cases, either because the state's courts decide an issue and then a later Delaware case goes in a different direction or because future judges decide they are unwilling to follow some Delaware precedents. In part the difficulty of committing to following future Delaware precedent is due to commitment problems considered as the next source of network effects. But in part the problem is due to the nature of judicial decision-making itself. A state competing with Delaware may want to imitate Delaware, but may find that as its courts deal with new issues that vary from those presented in Delaware courts, its courts come up with doctrines that may become hard to reconcile with future Delaware decisions. Moreover, different judges will inevitably come to different conclusions about how the law should be developed and applied in new circumstances, even if they are politically committed to the same goal of serving corporate constituencies.

I should note that not all observers think that predictability is a particularly obvious quality of Delaware case law. There is a fairly widespread complaint that that law has become somewhat arbitrary, complex, and hard to predict. There is now an argument that Delaware courts have used their leading position, explainable by other factors, to make their case law overly indeterminate, which may help the Delaware bar. I will briefly examine that argument later in this Section.

Another phenomenon which can be conceptualized as a network effect is commitment to future responsiveness, first analyzed by Roberta

86. See Grandy, supra note 2, at 685.
87. However, such a learning effect may help protect the dominance of that state's approach to corporate law, even if it does not protect the state itself. See infra notes 180-82 and accompanying text.
88. See Klausner, supra note 19, at 845 n.267.
89. See Fisch, supra note 1, at 1071.
Revenue from charter fees is an important part of the income of the state of Delaware, and its corporate bar is a powerful interest group whose business depends on companies continuing to incorporate in Delaware. Thus, Delaware has strong incentives to continue to provide a corporate law environment in the future which corporations find inviting. The more the state has gained from serving as a base of incorporation, the more it has to lose if it allows its laws to become hostile—hence the network effect nature of this phenomenon. Corporate decision makers may take this commitment to providing good law in the future into account in deciding where to incorporate. Although they could always reincorporate if the state they choose becomes too hostile in the future, reincorporation is a somewhat costly process, and managers may not be able to convince future shareholders to go along. This effect helps explain why a small state became dominant—the gains from being the state of choice for corporation incorporation are likely to be relatively more important to a small state like Delaware than they would be to a large state. Note, though, that it is not inevitable that a state leading this race will always remain committed to providing a favorable climate—New Jersey’s failure to do so under Governor Woodrow Wilson created Delaware’s opportunity to take the lead. We will discuss that history in Section V.

Another factor is an experienced judiciary. Delaware, with its many corporations and resulting large number of cases, has judges who spend much of their time with corporate law cases. They know that law very well, and they are familiar with the concerns businesspeople bring in those cases. They are able to decide cases quickly and in a well-considered way. This is both a learning and a network effect. At the time a company chooses to incorporate in Delaware, the judiciary is already experienced—a learning effect. Moreover, the company can rest assured
that future judges will likely also be experienced, as Delaware continues to hear many corporate law cases—a network effect.

A final factor concerns corporate lawyers and service companies.96 Corporate lawyers across the country tend to be familiar with Delaware law because of the state's prominence. They can thus provide advice on Delaware law more cheaply, having to do less research. Also, service companies such as CSC and CTC know how to deal with Delaware corporate procedures very easily and quickly.

Not everyone is convinced that all or even any of these factors are persuasive explanations of Delaware’s dominance.97 I find the arguments in favor of these factors pretty persuasive, but my point in this Article is not to enter that particular fray. Instead, I shall assume that these or other sorts of network and learning effects do exist and are of considerable importance in explaining Delaware’s persistence as the state of choice in which large American corporations incorporate. From here on, my object is to analyze some possible implications of these sorts of effects.

B. Consequences of Network and Learning Effects

Network and learning effects are specific instances of a general phenomenon that economists often call increasing returns to scale: as the market for a product gets larger, the per unit costs of producing it get smaller or the per unit benefits from its use get larger.98 Products with increasing returns often have multiple equilibria, that is, multiple possible equilibrium outcomes which the market may achieve.99

Let us take a classic example, typewriter keyboards.100 The dominant keyboard used today is called QWERTY. It is, of course, not the only possible keyboard configuration by any means. One of its few competitors today, for instance, is called Dvorak. Keyboard patterns may exhibit increasing returns via network effects. Consider someone deciding what keyboard pattern to learn. They are likely to want to learn whatever pattern is dominant, as it will be easier to find keyboards which have that system, and offices in which they work will likely use that system. The makers of keyboards, in turn, will want to make keyboards which most users are familiar with, as those keyboards will be in most demand. Once one particular system, like QWERTY, becomes

96. See id.
97. See, e.g., Fisch, supra note 1, at 1069-70; Lemley & McGowan, supra note 79, at 585.
98. See Kamar, supra note 90, at 1923.
99. See id, at 1931.
100. See Paul A. David, Clio and the Economics of QWERTY, 75 AM. ECON. REV. 332, 335 (1985).
dominant, then both users and makers will go to that system; in the extreme, it will be the only system used. Many possible systems could have won out; each such system represents a possible equilibrium. Once an equilibrium is reached, it may be quite difficult to move to a different equilibrium; this feature is known as lock-in.\textsuperscript{101}

Which equilibrium will actually occur? It may depend on small historical chances early on in the adoption of the systems. If by accident one system gets a noticeable lead, users and makers may start to adopt it more and more, increasing its lead and crowding out other systems. This feature of increasing return environments is called path dependence,\textsuperscript{102} sometimes referred to by the slogan “history matters.” Part of the reason that QWERTY has become a powerful metaphor for path-dependent systems is Paul David’s story\textsuperscript{103} that QWERTY became the dominant keyboard pattern in part because early typewriter makers needed to slow down the typing process somewhat in order to avoid jamming, and QWERTY was slower than some of its competitors.

This story leads to another interesting feature of path-dependent systems. The multiple equilibria can often be ranked by their efficiency.\textsuperscript{104} There is no assurance that the most efficient equilibrium need necessarily be the one actually realized. Thus, if David is right, QWERTY may be less efficient than other keyboard configurations; indeed, it may have won out in part because of its very inefficiency, since after all, jamming of typewriters is no longer a major problem. Another possible feature of product markets with increasing returns is natural monopoly—Ma Bell and the old telephone system is a classic example.\textsuperscript{105} Thus, to the extent that increasing returns are a pervasive part of many environments, markets may not be as likely to lead to efficient outcomes as economists often like to believe. Beyond QWERTY, economists have argued that increasing returns may be important in a variety of other markets, including Beta versus VHS,\textsuperscript{106} nuclear energy plants,\textsuperscript{107} and computer operating systems.\textsuperscript{108}

\textsuperscript{101} See Arthur, supra note 81, at 10.
\textsuperscript{102} See id. at 11.
\textsuperscript{103} See David, supra note 100, at 333.
\textsuperscript{104} See Arthur, supra note 81, at 10.
\textsuperscript{105} See Kenneth H. Ryesky, Ma Bell’s Legacy: Artifacts in Decedents’ Estates from the Forced Divestiture of American Telephone & Telegraph, 8 J. SUFFOLK ACAD. L. 1, 18 (1992).
\textsuperscript{108} See Arthur, supra note 106, at 93.
Many parts of this general story are controversial. Leading critics of the increasing returns story include Stan Liebowitz and Stephen Margolis. In part, their criticism is purely empirical: they claim that many alleged instances of lock-in to an inferior equilibrium have not been proven true, including QWERTY itself. Moreover, they have a number of good practical observations as to how entrepreneurs and consumers may find strategies to avoid locking-in to inefficient outcomes.

Liebowitz and Margolis also raise some important theoretical points as well. They note that lock-in to an inefficient equilibrium may denote several different possibilities. These possibilities differ depending on the costs of switching from an achieved equilibrium. One product may be more efficient *ex ante* than another, but it could be that once the market locks in to the less efficient product, then the costs of switching to the better product exceed the gains from switching. They call this second degree path dependence. They believe that second degree path dependence has little practical significance, because by definition it is not worth pursuing policy options to try to move from an equilibrium that is inefficient only in this sense.

Liebowitz and Margolis think the only interesting form of lock-in to an inefficient equilibrium is what they call third degree path dependence. In this case, the switching costs of moving from an inefficient equilibrium are less than the benefits to be gained from the switch. Producers and consumers do not switch, however, because no one person can capture enough of the gains from the switch to have incentive to induce it, and collective action problems make it hard to band together. Liebowitz and Margolis think actual cases of third degree path dependence leading to inefficient outcomes are likely to be

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110. *See S.J. Liebowitz & Stephen E. Margolis, The Fable of the Keys, 33 J.L. & ECON. 1, 2-3 (1990).*
111. *See generally id.*
112. *See Liebowitz & Margolis, supra note 109, at 206.*
113. *See id. at 207.*
114. *What they call first degree path dependence is uninteresting. I shall not discuss it here.*
115. *See Liebowitz & Margolis, supra note 109, at 207.*
116. *See id. at 214.*
117. *See id.*
118. *See id. at 215-16.*
There are some significant counter-arguments to Liebowitz and Margolis. For one, the strategies that are alleged to help out superior products will often of necessity depend on producers, consumers, and/or capital providers being able to do a good job of predicting which product will prove to be superior. In the crucial early stages of competition, though, those predictions may well be quite difficult and unreliable. If market participants often guess incorrectly, there is no reason to believe that the potentially superior product will be able to win out. It is a matter of debate whether there are any well-established cases of an inferior technology becoming dominant in the market. Supporters of increasing returns notions think so; Liebowitz and Margolis disagree. The empirical question is quite hard for at least two reasons. First, the question requires comparison of reality with a counterfactual situation: how would an alternative technology or regime have done had it managed to become dominant? Measuring a counterfactual situation is not easy, to say the least. Sometimes one can try to compare differing outcomes in differing regions or countries, but then there are typically intervening factors which make pure comparisons quite hard. Second, there is often room for debate about what counts as a superior outcome. Are Macs better than PCs? What about Windows and its competitors? VHS and Beta? In our case, we have already seen how heated the debate is over what counts as a good set of corporate law rules. Liebowitz and Margolis think the burden of proof is on their opponents to clearly demonstrate instances of sub-optimal lock-in, but it is unclear to me why that should be so.

Second, there is some ambiguity in the concept of switching costs, which is crucial to distinguishing second and third degree path dependence. Switching costs may be purely technical, or they could refer to the costs of organizing collective action, or they could even include the costs due to humans being boundedly rational. If the definition of costs is made broad enough, then third degree path dependence becomes definitionally impossible—if people do not choose

119. By the way, this argument is really only a difference in degree from proponents of the path dependence idea. Leading dynamic models of lock-in, for instance those of Brian Arthur, typically find that the efficient equilibria are more likely to occur. The difference with Liebowitz and Margolis at a theoretical level, then, may simply be how much more likely the efficient equilibria are.

120. See id. at 215-16.

121. See id. at 207.
to switch from a successful alternative, it must be because the cost of doing so, broadly construed, outweighs the benefit. Liebowitz and Margolis do not say they are defining switching costs this way, but one needs to beware of this tendency among defenders of the free market faith.\footnote{122. See generally Guido Calabresi, The Pointlessness of Pareto: Carrying Coase Further, 100 YALE L.J. 1211 (1991).}

Finally, Paul David has argued that Liebowitz and Margolis are wrong to find second degree path dependence uninteresting, with few policy implications.\footnote{123. See Economic Processes, supra note 21.} David thinks that we may want to think of \textit{ex ante} ways to respond to the possibility of this sort of inefficient equilibrium.\footnote{124. See \textit{id.}} How might one do so? David suggests more subtle policies than government trying to pick and impose a winner.\footnote{125. See \textit{id.}} Rather, we might want policies which find ways to delay the onset of lock-in. That will give market participants more time to explore available options. It will not guarantee that the market eventually locks in to the best alternative, but it will increase the chances of doing so.

I will focus on this final counter-argument suggested by David. One of my two main arguments in this Article is that competition among states for corporate charters may be one way of slowing down the process of locking in to a particular corporate law regime. The next Section will explore that argument in detail. Before getting there, though, I shall briefly examine how others have applied the idea of path dependence, and its policy implications, in the area of corporate law.

\section*{C. Previous Work on Increasing Returns and Corporate Law}

To date, to my knowledge, there have been two main explorations of possible policy and welfare implications for increasing returns in corporate law. The first came with Klausner's original contribution to this topic.\footnote{126. See Klausner, supra note 19, at 849-51.} Klausner noted that the network effect mechanisms in the choice of corporate law may create a path-dependent system with the potential to lock-in to an inefficient outcome.\footnote{127. See \textit{id.} at 849-50.} Thus, we may by accident have stumbled upon Delaware as the dominant state.\footnote{128. See \textit{id.} at 850.} An alternative corporate law regime may be superior, but is now unable to gain market share given the network effect advantages which Delaware

has achieved. We may have reached an inefficient outcome not because managers are venal, but by sheer bad luck.\textsuperscript{129}

Of course, the possibility that we may lock-in to an inefficient corporate law regime does not mean that we have actually done so. We may have locked-in to Delaware law, but that law may be superior to the alternatives on offer. Klausner expresses no opinion on this point. Moreover, if Delaware law is inefficient, Klausner is also agnostic on the question of whether we have experienced second or third degree path dependence; that is, he points out that the costs of switching to a different system may exceed the benefits of doing so.\textsuperscript{130} Still, despite these caveats, Klausner’s argument has been taken as a serious critique of the prevailing orthodoxy that the corporate charter competition is a race to the top. Klausner does not discuss, though, whether his argument justifies some sort of federal intervention in the area. In the next Section I will be exploring the possible policy implications of Klausner’s ideas.

The second leading story about possible welfare implications of increasing returns in corporate law comes from Ehud Kamar, sometimes writing with Marcel Kahan.\textsuperscript{131} Kamar notes that increasing returns may give Delaware a significant degree of market power vis-
\textsc{a}-vis other states.\textsuperscript{132} Corporations will be reluctant to switch to other states because of the network and learning effect advantages of being in Delaware, and so Delaware will be able to impose significant costs on those companies.\textsuperscript{133} In part those costs will take the form of higher incorporation fees, a significant part of Delaware’s revenue. In larger part, though, Kamar thinks the state uses its market power to manipulate the law to benefit the Delaware corporate bar, a powerful interest group. In particular, he thinks the state makes its corporate law sub-optimally vague and indeterminate.\textsuperscript{134} This indeterminacy leads to greater litigation, which benefits the corporate bar.\textsuperscript{135} In this Article, I will not explore this argument further, although I will note that to the extent that the increasing returns to Delaware are due to greater predictability caused by more precedents, it would seem that there is a pretty strong constraint as to how far the state would want to go in increasing indeterminacy—too much vagueness would then risk killing the goose.

\textsuperscript{129} See id. at 849-51.
\textsuperscript{130} See id. at 851.
\textsuperscript{131} See Kamar, supra note 90, at 1947; Kahan & Kamar, supra note 90, at 1250.
\textsuperscript{132} See Kamar, supra note 90, at 1923.
\textsuperscript{133} See id. at 1924, 1928.
\textsuperscript{134} See id. at 1910.
\textsuperscript{135} See id. at 1912-13.
that laid the golden egg.\textsuperscript{136} The indeterminacy thesis is a very hard one to test, as both the degree of indeterminacy which actually exists is hard to measure, and it is hard to tell what level of indeterminacy is optimal. Some would argue, for instance, that fiduciary duty law is naturally rather broad and fact-specific, as a major part of its point is to allow courts to respond to the varied factual patterns which can arise and for which it is hard to fully anticipate rules in advance. On the other hand, to the extent that Kamar and others are right about the ambiguity of Delaware law, that would seem to seriously limit the plausibility of precedential clarity as a source of increasing returns.

\textbf{D. Increasing Returns and Empirical Studies}

The presence of increasing returns also makes it harder to test the competing race to the bottom and race to the top stories. The main difference between those stories is whether the state corporation laws chosen by companies tend to benefit or harm their shareholders. A variety of empirical studies have tried to measure this.\textsuperscript{137} The results to date have been mixed, although they tend to favor the race to the top story. The evidence, already equivocal, becomes even more indeterminate in light of possible increasing returns.

Even putting increasing returns aside, the relatively problematic nature of existing empirical studies is already fairly well understood. First, there is the difficulty of defining and measuring benefits to shareholders. The leading approach to empirical studies, event studies, identifies this with changes in share prices. Even putting aside the contentious issue of how well share prices actually reflect the underlying value of companies, there are well-known difficulties in pinning down the effects of one given change in circumstances on a company's share prices. It can be hard to determine when information about a switch in state of incorporation becomes known to the market, and hence when the market price changes to reflect that information.\textsuperscript{138} It can also be hard to

\textsuperscript{136} Although Kamar's point is that reducing certainty below the optimum may help Delaware to the extent that the reduction hurts other states more than Delaware by making it harder for them to imitate the leader. \textit{See id. at 1930.}


\textsuperscript{138} \textit{See} Romano, \textit{supra} note 18, at 268.
disentangle the effect of a change in the state of incorporation on the share price from the effect of other factors. This is particularly so since changes in the state of incorporation typically occur at times when other major changes in a company's strategy are occurring, e.g., as a company plans to go public or to pursue an acquisition strategy. All existing empirical studies are subject to extensive debate as to whether or not they adequately control for these sorts of problems.

The possibility of increasing returns adds a whole new set of problems for empirical studies. Consider the race to the bottom story with increasing returns added in. The basic race to the bottom story suggests that many, if not most, states will choose to mimic the leading destination state for corporations. Thus, even the basic story does not necessarily predict that shareholders will see negative returns from incorporation in Delaware, because Delaware should not be much, if any, worse than most other states. Add in increasing returns, and all of a sudden it becomes quite possible, even accepting the race to the bottom story, that shareholders will actually see positive returns from a decision to incorporate in Delaware. If most states offer pretty much the same bad substantive law, but Delaware offers more experienced judges, greater predictability, and future responsiveness, then shareholders may be better off with a devil they know and can count on, rather than the less experienced and less competent devils of other states. Thus, positive returns to shareholders from incorporation in Delaware is quite consistent with the race to the bottom thesis combined with the presence of increasing returns.

How, then, can one test between the competing theories if increasing returns are indeed present? That is not an easy question. Perhaps the answer is to focus on returns to incorporating in states other than Delaware. There are a variety of states that vie with Delaware to attract corporations to their states but which have not been as successful, Nevada and Maryland, for instance. Some other states, on the other hand, do not seem to have joined the race, whatever direction it is headed in—California is a leading example. If the race is indeed to the bottom, then one might expect to see negative shareholder returns to

139. See id. at 279 (describing how firms typically reincorporate when they are engaged in a major change in their business).
141. See Kahan & Kamar, supra note 22, at 716-22.
142. See Bebchuk et al., supra note 137, at 1783.
incorporation in the failed Delaware, as compared with the states which lag in the race. Even this prediction is subject to some question—to the extent that states like Nevada and Maryland attempt to mimic Delaware closely, including following Delaware precedent, they may be able to share some of the increasing returns Delaware creates. However, presumably that effect must be limited, or else the increasing return story does not work—if Nevada can capture all or most of Delaware’s increasing returns, then those returns really are not state-specific at all.

Complicating matters even further, there is a difference between the behavior of large and small corporations. Large public corporations tend to incorporate in Delaware, but small corporations tend to choose their home state. In part this may be because there is a large fixed cost, partly due to a higher tax burden, from choosing to incorporate in Delaware, and this cost is worth paying only for companies with large revenues. It may also be that lawyers in smaller firms servicing smaller businesses are less familiar with Delaware and more familiar with local law. It may be that the benefits of Delaware’s corporate law are much stronger for large companies. Delaware law is particularly adapted to dealing with conflicts between the interests of managers and a large number of dispersed shareholders. Small companies don’t face this problem, but instead face potential conflict between minority and controlling shareholders. Delaware’s large body of cases dealing with takeovers and acquisitions, for instance, is irrelevant to closely held corporations. These differences also make the increasing returns issue more complicated. Every state has a significant number of corporations incorporated in it, and thus some opportunity to gain from increasing returns. However, very few states have many large corporations incorporated in them, and so only Delaware, and perhaps a few others, are able to put in place benefits particular to the interests of those large companies.

To my knowledge, no one has done a detailed comparison of returns to shareholders in states outside of Delaware yet. In a recent paper, Lucian Bebchuk and Alma Cohen find that states whose laws favor anti-takeover defenses tend to do well in attracting corporations. However, they do not systematically ask about returns to shareholders, although they do find that Tobin’s Q has no statistically significant effect on the incorporation decision.

Thus, one effect of increasing returns in corporate law is to make

143. See Bebchuk & Cohen, supra note 27, at 11, 16.
144. See id. at 27.
145. See id. at 16.
empirical studies testing between the two leading theories in this area even more difficult. That problem deserves attention. However, from here on I focus on a different question, namely the policy implications which follow if we conclude that increasing returns exist and are relatively strong.

IV. A MODEL OF CHARTER COMPETITION WITH INCREASING RETURNS

This Section examines how state charter competition may work as a response to the presence of increasing returns in the choice of corporate law. This Section first presents the logic informally, then lays out a model which represents some of the arguments formally.

A. Policy Implications of Increasing Returns

Both supporters and critics of increasing returns often assume that a leading policy implication of increasing returns may be that the potential exists for the central government to step in and correct a market failure. There are at least two problems for charter competition in the presence of increasing returns. The first is that a state with poor laws may become dominant. The second is that even if a state with good laws becomes dominant, once it has a strong enough lead competition may give it little reason to continue to improve its laws. This Article concentrates on the first problem, although it touches on the second at several points. In ongoing work I consider the second problem. Either problem may provide some justification for intervention from the central government. To some extent, Klausner’s initial work on network effects and corporate law repeats this point that increasing returns may help justify central government intervention. Klausner did recognize, though, a point often made in the literature, that transition costs may make it too costly to move from an inefficient equilibrium once that equilibrium has been reached. He leaves that as an open empirical question.

Another important limit on the ability of a central authority such as the federal government to step in and try to create a better equilibrium is that the federal government may not know what a better equilibrium would look like. For instance, many scholars suspect that current law in

146. See Klausner, supra note 19, at 850-51; Liebowitz & Margolis, supra note 109, at 207.
147. See McDonnell, supra note 22.
148. See Klausner, supra note 19, at 849-50.
149. See id. at 850.
150. See id. at 851.
most U.S. states, including Delaware, is overly receptive to anti-takeover defenses. Would federal rules limiting such defenses, say along the lines of the much-praised City Code in England, improve American corporate law? Possibly they would, but there are some arguments that hostile takeovers may sometimes be less than most corporate law scholars believe, and that defenses against takeovers may rightly help either target company shareholders or other constituencies. Are we confident enough in our knowledge of the effects of takeovers that we are willing to impose one law on all U.S. corporations?

For these reasons, among others, the presence of increasing returns does not give a strong argument for imposing a federal corporations law on all U.S. corporations. Pace Liebowitz and Margolis, though, that does not exhaust the potential policy implications of increasing returns. As mentioned in the previous Section, Paul David has suggested policies which slow down the adoption of new technologies and help encourage the market to explore more options. This Section develops the argument that charter competition between states may do that for corporate law. Furthermore, this Section focuses on the effect of increases in the number of differing corporate law systems offered.

Consider the differences in charter competition where two states offer different corporation laws versus the case where ten states offer different laws. If increasing returns of the sort described in the previous Section are significant, we might expect that in both cases competition between the states will eventually lead to lock-in to one alternative. Moreover, it is possible that lock-in will not be to the best alternative.

One would expect some differences between the two-state and the ten-state cases. Lock-in might take longer to occur in the ten-state case, as during the early stages of competition different corporations explore the different options. It would likely take longer for one particular state to become dominant enough that corporations will start to flock to that state. There would thus be more time in the ten-state case to determine how well the different available corporation laws work. This is one important reason why we may not want a national corporate law.

The ten-state case also is able to explore a greater variety of

154. See supra note 21 and accompanying text.
alternative approaches to corporation law. It is likely that at least one or two of the alternatives offered in the ten-state case will be closer to the optimal law than either alternative offered in the two-state case, although some alternatives will likely also be worse than either in the two-state case. As a combination of this and the greater time before lock-in, one might expect that the state which prevails in the ten-state case is likely to offer a better law than the state which prevails in the two-state case. Such, at least, was my expectation when I set up the model explored later in this Section. It turns out, though, that there are some countervailing tendencies, which will be easier to understand once I have set out the model.

The above speaks of "the" optimal law. Of course, different laws may be better for different companies. Indeed, the model set out in the next subsection assumes that is so. Another potential advantage of having more states in the competition is that it will allow corporations to pick and choose among a greater variety of options so that they can find one closer to their own particular needs. However, the presence of increasing returns may keep that from happening. If the advantages of having a law chosen by many other corporations exceed the advantages of being governed by a law particularly well-designed to benefit one's own corporation, then one state will eventually come to dominate even though other states may offer laws that are better for some corporations. That is the case for the model presented in the next subsection. Or, it may be that where increasing returns are significant but cease beyond a certain number of incorporations, then it might be possible for two or more states to each have enough incorporations to sustain the maximum level of network and learning effects. On the other hand, if one state becomes dominant early on, it may prevent any other from achieving those effects. Thus, the number of dominant states may itself be path-dependent. I present such a case in a variant of the model in the next subsection.

Although my main focus for this Article is the initial choice of the dominant jurisdiction, we obviously also care whether competition has any effects once one state wins the race. Even after lock-in has occurred, having a greater variety of alternative jurisdictions out there may still be valuable. In the real world (unlike the model in the next subsection), not all corporations choose the dominant jurisdiction. Thus, experience still

155. Remember the caveat as to the meaning of "optimal" here. See supra note 93 and accompanying text.
accrues even for non-dominant laws. As that experience continues, and as the business environment changes, it could be that system participants some day discover that one of the non-dominant alternatives has actually become superior to the dominant law. It may take a much superior law to induce corporations to shift from the dominant law which enjoys the advantages of increasing returns, but if a non-dominant jurisdiction can demonstrate that it has enough of an advantage, corporations may shift. Or, the dominant jurisdiction may modify its law to copy innovations that have proved their worth in non-dominant states. The model of the next subsection is not complex enough to take account of these effects, but they are potentially important.157

The ten-state case does present some disadvantages relative to the two-state case. Perhaps most obviously, there may be costs to investors and corporate lawyers, among others, from having to become familiar with a greater variety of alternative laws. Corporate law courses would be a lot easier to teach and take if there were just one body of law one needed to learn, and corporate law practice would also be easier, and the services provided correspondingly cheaper to clients.

More subtly, in the presence of increasing returns a greater time lapse before lock-in occurs is actually costly. With significantly increasing returns, each corporation saves on costs by choosing a body of law widely used by other corporations. In the extreme, it is best that all choose the same law—even if that law is not the best possible, the benefits from uniformity may outweigh the costs of waiting to try to determine the very best law. The longer it takes for the system to lock-in to one alternative, the longer it takes to fully enjoy the benefits from increasing returns.158 Moreover, more corporations will be left orphaned (or have to engage in costly reincorporations) under laws which wind up losing out in the competition. Furthermore, competition between many states creates the following possible problem. With many states, one outlier state may early on be attractive to a fair number of corporations, even though its law is further from the optimum than those of many other states. Nevertheless, that state’s early adoption by many corporations may cause network and learning effects to kick in, leading the state to become dominant. The chances of success for such outlier states may increase as the number of states increases.

Thus, there may be a trade-off. A greater number of jurisdictions in the competition may increase the expected quality of the corporation law

157. See McDonnell, supra note 22, for work on this question.
158. See Historical Economics, supra note 21, at 31.
offered by the jurisdiction which emerges as the winner of the competition. However, more jurisdictions delays the benefits to be received from increasing returns. It may well be that there is an intermediate level of competition which maximizes this trade-off. With fewer states than that level, the chances of winding up with a quite suboptimal body of law are too great. With more states than that level, the expected final body of law is not much better (and may even be worse), and the delays required to achieve that better law are not worth it. The following subsection formalizes some of these ideas.

B. A Model of Charter Competition

Consider the following highly simplified model of charter competition between jurisdictions. Suppose that in choosing between jurisdictions, the expected returns of corporations are affected by two factors. The first is how close the law offered by a jurisdiction is to the ideal law for that corporation. To simplify matters as much as possible, I measure this factor as the square of the distance between the law offered by jurisdiction j, \( L_j \), and the ideal value of the law for corporation i, \( v_i \), where both \( L \) and \( v_i \) can take on any value between 0 and 1. You can think of the law as varying on a continuum from more accommodating to directors and officers to less accommodating, for instance. The second factor is how many corporations have chosen to incorporate in jurisdiction j—let \( N_j \) measure this number. The expected return \( \Pi_i \) to corporation i from incorporating in jurisdiction j is

\[
\Pi_i = 1 - (v_i - L_j)^2 + eN_j
\]

where \( e \) is a parameter which reflects the relative strength of the increasing returns which accrue to having many corporations in one jurisdiction.

Now imagine the following dynamic process. First, consider the process with only two states competing. Each state chooses at random a value of \( L_j \) between 0 and 1, and keeps that value through the entire competition.\(^{159} \) Then, one by one new corporations enter the market, with

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\(^{159}\) This assumption of unchanging values for jurisdictions is a serious limitation of the model—it would clearly be of interest to extend the model by allowing jurisdictions to change their values along the way. The assumption that states choose at random, rather than adopting an optimal strategy, is another limitation, although recent work by Marcel Kahan and Ehud Kamar suggests that this may actually be an appropriate assumption. See Kahan & Kamar, supra note 22, at 724-34. Kahan and Kamar see this as suggesting that states do not really compete for corporations at all. See id. The model presented here shows that, even so, there may be something to gain from having a
the optimum law \( v_i \) for each new corporation chosen at random between 0 and 1. Each corporation compares \( \Pi_1 \) and \( \Pi_2 \) and chooses that jurisdiction which offers it the higher \( \Pi \). For the very first corporation, where \( N_1 = N_2 = 0 \), this simply comes down to a choice as to which jurisdiction offers a law closest to its ideal point. For future adopters, however, the choice depends on both closeness to the corporation’s ideal point and also which state has been adopted by more corporations.

What can we say about what is likely to happen if we let this process go on indefinitely? First, the process has two “absorbing states.” In one of these states, for all possible values of \( v_i \), corporation \( i \) prefers jurisdiction 1 to jurisdiction 2, because \( N_1 \) is enough greater than \( N_2 \). Once this state is reached, all corporations after that point will choose jurisdiction 1, as with each choice its advantage over jurisdiction 2 increases. The other state is the mirror image of this one, where all possible corporations prefer jurisdiction 2 to jurisdiction 1. Given these two absorbing states, we can say that with probability 1 the process will eventually enter one of the absorbing states and remain in that state thereafter. In other words, the system will eventually lock-in to one of the two alternative jurisdictions. Thereafter, all new corporations will choose the victorious jurisdiction.

Second, for each absorbing state there is a positive probability that the system will lock-in to that state. To see this most simply, note that in the first period there is a cutoff point of \( v_1 \)—for lower values than that, the first corporation will choose jurisdiction 1, and for higher values it will choose jurisdiction 2. There is a positive probability that the first \( v_1 \) will be below this point, and hence jurisdiction 1 will be chosen, and similarly that the first \( v_1 \) will be above this point. Moreover, there is a positive probability that for any given number of periods, each time the variety of states offering a variety of corporate laws.

160. The assumption that a corporation chooses the jurisdiction which offers it the highest \( \Pi \) is also a simplifying one which could be interestingly relaxed in future work. For learning effects, the assumption is unproblematic—with learning effects, it is past adoptions of the jurisdiction by other corporations which increases the value to a new adopter. However, with network effects, it is how many corporations that will use the corporation in the future which matters. For network effects, basing one’s choice on the current number of users, rather than expected future users, is defensible if one assumes that current use is the best available predictor of future use. This may well often be a pretty good assumption, but a more sophisticated model would allow states to try to persuade corporations that, although they have few users at present, they are likely to have many in the future. For some work on strategic interaction in the presence of increasing returns, see W. Brian Arthur & Andrzej Ruszczynski, Strategic Pricing in Markets with Increasing Returns, in INCREASING RETURNS AND PATH DEPENDENCE IN THE ECONOMY 159.

161. This state is reached where \( e(N_1 - N_2) > (2 - L_1 - L_2)(L_2 - L_1) \).

162. This state is reached where \( e(N_1 - N_2) < L_1^* - L_2^* \).
value of \( v \) chosen will be below (alternatively above) that cutoff point. If this occurs for enough periods, then jurisdiction 1 (alternatively jurisdiction 2) will be reached as a lock-in point.\(^{163}\)

Third, consider the relative optimality of the two absorbing states. If all corporations, beyond a certain point in time, are going to choose the same jurisdiction, we would prefer that they choose the jurisdiction which offers law \( L \) which is closest to 1/2, as 1/2 minimizes the average distance from the ideal points of all possible corporations.\(^{164}\) However, we have just seen that each of the jurisdictions may become dominant with a positive probability. Thus, we can now see that there is a positive probability that the competition will result in lock-in to an inefficient equilibrium.

Finally, for the two-jurisdiction version of the model, it is of some interest to ask how the dynamics vary as \( \varepsilon \) varies. Intuitively, one would expect that as \( \varepsilon \), which measures the relative importance of increasing returns, grows larger, the process will tend to lock-in more quickly to one of the absorbing states. Moreover, as the process gets quicker, one expects that lock-in to the wrong equilibrium becomes more likely, and hence the system will on average wind up further from the optimal \( L \) of 1/2 as \( \varepsilon \) increases.

Proving these intuitive points analytically is quite difficult, and beyond my ken. However, it is easier to run a number of simulations of the model on a computer, and I have done so.\(^{165}\) For each simulation I assigned random choices of \( L_1 \) and \( L_2 \), then chose corporation values \( v \), at random, assigned the corporation to its preferred jurisdiction \( j \), adjusted \( N_j \) accordingly, and let the simulation run until a lock-in point was reached. For each such simulation I calculated the distance between the winning \( L_j \) and 1/2 and the number of periods elapsed before lock-in. I ran 200 such simulations for each of ten values of \( \varepsilon \).

The results are presented in the first rows of Tables 1 and 2. Table 1 presents the average time to lock-in for each of the ten values of \( \varepsilon \) (and for each of ten different number of states—for the moment, concentrate

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163. There are many other ways to reach either absorbing states, of course—the way noted in the text is just one.

164. Recall that the ideal points for firms in this model, that is, the law that a firm would most like to operate under, vary uniformly from 0 to 1. Since over time one would expect the actual distribution of ideal points to come to resemble this distribution from which the firms are drawn, if there is only going to be one state law offered in the end, one would like that law to minimize the average distance from the ideal points of the firm population. Given a uniform distribution of firm ideal points over 0 to 1, a state law of 1/2 is the value which minimizes the average distance.

165. Or rather, my research assistant John Hutchins has done so. I extend many thanks to John.
on the case of two states, the first row. The pattern is as predicted—for higher values of $e$, lock-in tends to occur more quickly. Table 2 presents the average distance from $1/2$ of the winning $L_i$ for each of the ten values of $e$. The results are roughly as predicted, with the distance from $1/2$ tending to increase as $e$ increases.

The next step is to expand the number of jurisdictions from 2 to 3 or more. Now, there is one absorbing state (i.e., a possible lock-in equilibrium) for each jurisdiction. As before, there is a positive probability for each jurisdiction that the process will lock-in to it.

The more interesting question is, for a given $e$, what happens to the average time to lock-in and the average distance of the winning $L_i$ from $1/2$ as the number of jurisdictions increases? As argued in the previous Section, I expected that as the number of jurisdictions increased the average time to lock-in would increase and the average distance from $1/2$ would decrease. Again, it is quite hard to prove this analytically, but we can test out the argument with computer simulations.

The results are presented in the remaining rows of Tables 1 and 2. These tables show the results for two to ten state versions of the model, and for fifty states (the latter to give a sense of what happens as the number of states gets pretty big, and, of course, because it is the number of states in the U.S.). Each cell represents the average value from 200 simulations. The results for time to lock-in are as predicted—see Table 1. As the number of states grows, the average time to lock-in clearly tends to increase.

Next, consider Table 2, which presents the results for average distance of the winning laws from the optimal law of $1/2$. First, note one major point. If we just had one state law, and chose that law at random between 0 and 1, the expected distance of that state law from $1/2$ would be 0.25. Every cell in Table 2 has a value lower than 0.25. Thus, in every set of simulations with more than one state, the average performance is better than for just choosing one law at random. Some competition is better than none at all.

But is more competition better than less? The results in Table 2 as the number of states increases are less clear and more random than those in Table 1. However, there seems to be a modest tendency for the average distance from $1/2$ to increase as the number of states increases. That is, the process tends to become less accurate as the degree of competition increases.

166. See infra Table 1.
167. See infra Table 2.
Why might this be? Consider the results in one of the simulations with ten states. The state values chosen at random were 0.14694, 0.356031, 0.36532, 0.484745, 0.490486, 0.629745, 0.634263, 0.71964, 0.748907, and 0.87056. The value closest to 1/2 is therefore 0.484745. But the state which actually won out was that with a value of 0.14694—the lowest state value. Before lock-in, 35 corporations adopted that state, 17 adopted the state at the other extreme, with value 0.87056, and only one corporation adopted the state with the optimal law. Why did this happen? Note that the winning state is further from its nearest competitors than the optimal state. Thus, there is a greater chance that early corporations will choose it—it has a bigger basin of attraction in which it is the most preferred corporation than any other state at the beginning. What is rewarded is not offering a law closest to the optimum, but rather having a good niche where many early adopting corporations will prefer your law.

If that is so, then why aren’t the results simply random, with an expected distance from 1/2 of 0.25? There seems to be at least some reward for being close to the center. Suppose a state is deciding where to locate its law, \(^6\) and it is choosing between 0.95 and 0.90. If there are only a few competing states, then choosing an extreme point like 0.95 does not make much sense. At such an extreme point, the state automatically limits how many corporations will prefer it—there are only a few possible corporations with values even higher than 0.95. By choosing 0.90 rather than 0.95, the state will gain some corporations with lower values of \(v\), and will probably still be the most preferred state of the corporations with high values. However, if there are many competitors—say 1000—then the move from 0.95 to 0.90 is unlikely to help much—the state will pick up some corporations with lower \(v\) values, but it will likely lose corporations with higher values because, with so many competing states, at least one of them is likely to offer an even higher value. Thus, as the number of competing states increases, the penalty to states with extreme values tends to decrease. This suggests that as the number of states gets quite large, the expected distance from 1/2 may actually tend to approach 0.25—the same value as with no competition at all.

The logic just sketched out resembles a result from a different area of economics, but with a similar formal model. There is a fairly well-developed literature on the optimal location of shops. \(^6\) This literature

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168. But remember, in this simple model states do not choose where to locate; their values are simply assigned.
assumes a uniform distribution of consumers along a straight line. In
the simplest version, prices are fixed, and so, given positive
transportation costs, consumers will go to the closest shop. If each shop
owner chooses where to locate simultaneously, how will they choose?
The results are somewhat varied based on particular assumptions and the
number of shops. However, if one focuses on symmetric mixed
strategies with three or more shops, it turns out that the owners will
choose a spot at random within a set distance from the center. As the
number of shops expands, the distance from the center within which
owners will locate also expands. In the limit, with an infinite number of
shops, owners will choose randomly along the entire line. The intuition
is the same as the previous paragraph: more extreme choices become
more attractive as the number of competitors increases. This literature,
by the way, provides a possible basis for modifying this Article’s model
to allow for states choosing optimally how to set their laws, rather than
having those laws set at random. At any rate, the results in Table 2
suggest that some competition is better than none, but much competition
may be worse than a little, and perhaps in the extreme an infinite amount
of competition (an infinite number of states) may be no better than no
competition at all.

One possible complaint about this model is that it assumes that
network or learning effects increase constantly with the number of
corporations choosing a state. One might instead think that these effects
tail off beyond a certain point. A variant of the model making such an
assumption yields a few interesting results. Suppose that for each state
the expected return to incorporating in that state is as given in (1) above,
except that the network effect term is capped at some level N*. That is,
the expected return $\Pi_j$ to corporation $i$ from incorporating in jurisdiction
j is now

$$\Pi_j = I - (v_i - L_j)^2 + e*\min(N_j, N^*).$$

What will happen to the dynamic process sketched out above given
this change in payoffs? It depends on how large $N^*$ is. Consider for
simplicity the two-state case. One possibility is that $N^*$ is small enough
so that even if $N^*$ corporations are incorporated in one state and 0 in the
other state, some potential corporations would still prefer to incorporate

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170. See Osborne & Pitchik, supra note 169, at 223.

171. See id. at 224-25.
COMPETITION FOR CORPORATE CHARTERS
in the state that currently has no corporations.\textsuperscript{172} In that case, given enough time more than $N^*$ corporations will choose both states, since even if one state were to get the first $N^*$ corporations, there is still an interval of potential corporations which would choose the other state, and given enough time a new entrant corporation will be chosen from that interval at least $N^*$ times. Once each state has at least $N^*$ corporations, the network term no longer affects a corporation's choice of jurisdiction, since each state then has the same network term. From thereon, each new corporation will simply choose the jurisdiction which offers the law closest to its ideal point.

The other main possibility is that $N^*$ is larger, so that either state could achieve lock-in.\textsuperscript{173} In that case, several possible outcomes may occur. One possibility is that state 1 (alternatively, state 2) could achieve enough of an early lead that all possible corporations prefer it before it has reached $N^*$. Then lock-in to state 1 (alternatively, state 2) occurs. The other possibility is that both states remain close enough in number of early incorporations that both states reaches $N^*$ corporations without achieving lock-in. Then neither state will achieve lock-in, and the long-run equilibrium will have corporations choosing between the two states based only on the difference of the states' laws from the corporations' ideal points. Thus, the number of states which continue to attract corporations is itself path-dependent in this variant of the model.

Moreover, we can say which of these two possible outcomes is socially preferable, at least in the long run. Compare the case where state 1 achieves lock-in to that where both states have more than $N^*$ corporations. All corporations who choose state 1 (after lock-in has occurred) in the two-states-remain case are as well off as corporations with the same ideal point in the one-state-dominates case, since they are governed by the same law and have the same network effect $N^*$. Corporations who choose state 2 in the two-states-remain case, though, are better off than corporations with the same ideal point in the one-state-dominates case, since the state in which they have incorporated is closer to their ideal point and they have the same network effect $N^*$. Thus, the case which offers more variety is socially preferred, yet it may not occur if one state manages to achieve lock-in and block the other state from ever reaching $N^*$.\textsuperscript{174}

\textsuperscript{172} Considering the expression in note 161, state 1 will not be able achieve lock-in if $eN^* < (2 - L_1 - L_2)(L_2 - L_1)$. The comparable expression for state 2, given note 162, is $eN^* > L_1^2 - L_2^2$.

\textsuperscript{173} That is, both inequalities in note 172 are reversed. Actually, there are two intermediate cases where one of those inequalities is reversed but not the other.

\textsuperscript{174} This welfare analysis requires two caveats. First, without reincorporation, some
This formal model, with or without the cap on $N$, is of course quite simple and misses out on a number of important issues. Future modifications would be desirable to deal with some of those issues. Some of these have already been mentioned. For instance, the model assumes that each jurisdiction sticks with the same law once it is chosen at the beginning of the process. In fact, jurisdictions regularly tinker with their laws, and sometimes engage in major reforms. Most importantly, they seem to copy what other states are doing. How would allowing for periodic innovation and imitation by the jurisdictions change the results? Would it delay or speed up lock-in? Would it make the expected resulting laws better or worse? The answers to these questions are not obvious, although, as we shall see in the next Section, in the history of American corporate law, imitation by states seems to have speeded up the process of lock-in and to have led to a less full exploration of alternative legal approaches.

Another limitation is that, in choosing between states, corporations take account of increasing returns simply by comparing how many corporations have currently chosen each jurisdiction. A richer model would allow corporations to predict the future distribution of incorporations between states, and in turn allow jurisdictions to pursue strategies which try to affect those predictions. This would allow for a richer analysis of the strategy of competition between states.

The model also assumes away switching by corporations which have already chosen to incorporate in a state. How high switching costs are may be an important factor in determining the strength of network effects and other sources of increasing returns. High switching costs make companies more likely to stick with their initial pick, thus possibly increasing the strength of increasing returns. On the other hand, low switching costs make companies more prone to switch to a state even if it offers only a small advantage over its competitors. That might increase the market share of a leading state even if the gains from increasing returns are only modest. More formal modeling of switching costs might help to sort out such competing possible effects.

corporations which chose their state before both states reached $N^*$ may be stuck with their less preferred state. Second, one disadvantage of the two-states-remain case may be that it could take longer for both states to reach $N^*$ than for just one state to achieve lock-in and reach $N^*$. Thus, for some period of time the one-state-dominates case may achieve greater network benefits than the two-states-remain case. If one discounts the future highly enough, it is possible that this effect could dominate the long-run benefits to the two-states-remain case analyzed in the main text.

175. See supra notes 172-74 and accompanying text.
176. See infra note 200 and accompanying text.
177. See infra notes 200-17 and accompanying text.
Furthermore, the model may understate the case for increased competition in the following way. In the model, as the number of states increases, there is less and less advantage to states located near 1/2. In part, this is because each new corporation comes in with a preferred value \( v \), chosen randomly between 0 and 1. That may be fine if we assume that corporations simply differ in underlying characteristics, and hence in what law is best for them. However, part of the differences between corporations may be differences in what they perceive is the best law. Early on, guesses as to the best law may be random. As corporations gain more experience, though, they may find that some laws work better and some worse. If 1/2 is really better in a fundamental way, then such learning may make later corporations more inclined to prefer to be close to 1/2. Thus, collective learning over time may tend to push later-adopting corporations to prefer values closer to 1/2. A more complicated model would try to capture that effect.

Finally, and perhaps most importantly, the model is overly static and lopsided in that once a jurisdiction has locked-in to dominance, every corporation thereafter will choose that jurisdiction. No further development occurs thereafter. Thus, it only addresses the first major problem facing charter competition with increasing returns, namely choosing the state with the best law in the first place. It does not address the second problem, namely that increasing returns may reduce the effectiveness of competition in inducing continuing legal innovation and improvement. In reality, all fifty states continue to have some corporations incorporate under their laws—a fact not explained by the over-simplified model presented here. In particular, smaller corporations which do most of their business in one state tend to incorporate in that state. Thus, each state continues to extend and adapt its corporate law. It is possible at any point either that one state could come up with a major innovation that is substantively much more attractive than Delaware, or that the business environment could suddenly change in a way that makes another state’s law much more attractive than Delaware. Thus, a real advantage of charter competition not captured by this model is that it maintains some incentives for legal innovation even after a form of lock-in has occurred. Of course, Delaware could always respond to such change by adapting its own law

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178. See supra note 147 and accompanying text.
179. See Bar-Gill, supra note 140, at 24-25 for some explanations of this pattern.
180. However, as noted above, the needs of small and large corporations vary significantly. The fact that states other than Delaware still have plenty of small, non-public corporations using their law may be of little help in developing their law to attract large corporations.
and thereby retaining its market share, but in that case the legal change has still occurred. Evolutionary models may help to model such effects. In such a model states could periodically change the laws they offer, or the external environment could periodically change. One state would be dominant, but other states would continue to be chosen by some corporations—perhaps, e.g., because there are advantages to incorporating in the state in which the company’s main business is conducted. If either non-dominant states change enough, or if the business environment changes enough, the dominant state could lose its lead. How much change is “enough” to cause a switch would depend, in part, on the strength of network effects—the stronger those effects, the more change it would take to cause a switch.

The ease of change may also depend on the source of lock-in. Consider, for instance, lock-in due to precedent and predictability. To the extent that this is a network effect, due to the expectation that Delaware will remain the dominant state, it may be possible to coordinate a shift in expectation and shift to a different state, perhaps with a quite different law. To the extent that there is instead a learning effect based on learning how the Delaware approach works in specific instances, it may be easier for another state to beat Delaware by following its precedent, but harder for another state to beat Delaware by offering a quite different law.

All these limitations (and, I’m sure, more I have not thought of) show that there is much more interesting work to be done on the dynamics of state charter competition in the presence of increasing returns. We have just started to scratch the surface. Even the simple model presented here, though, suggests an interesting picture. Some competition may be better than none in pushing to the best possible law. Too much competition, though, may be worse than a little competition. This pattern may or may not hold as other effects are added in, but it does show the need to exercise care in thinking through these questions.

182. See supra notes 85-90 and accompanying text.
183. See Arthur, supra note 81, at 16-17.
184. See McDonnell, supra note 22, for further thought on state competition after lock-in has occurred.
V. THE HISTORY OF DELAWARE'S DOMINANCE

The argument of the previous Section suggests that we should be quite interested in how Delaware came to its position of dominance. Did it have a number of active competitors? How different were the alternatives its competitors offered? How long did it take for Delaware to achieve a position of clear dominance? Does Delaware seem to be maintaining or increasing its lead? Have other states continued to offer alternatives since Delaware became dominant, and how have corporations responded to those alternatives?

This Section briefly explores some of those questions by looking at the history of Delaware's position in corporate law. It divides that history into three Sections. The first Section considers the beginning of modern corporate law, when New Jersey rather than Delaware was the early innovator and market leader. The second Section considers how Delaware stole the lead from New Jersey and became the leading destination for incorporation by large companies. The third Section considers developments since Delaware became the dominant state. These are followed by a sub-Section on the nationalist element in U.S. corporate governance, namely federal securities law. This Section concludes with some reflections on lessons we can learn from the history.

A. New Jersey and the Early Years

New Jersey, not Delaware, took the early lead in the corporate charter competition. In a series of revisions from 1888 to 1896, New Jersey offered perhaps the first modern corporation law. It was the first or an early pioneer in offering features such as the following:

- it set no minimum or maximum amount for paid-in capital;
- corporations could hold shares of other corporations;
- corporations could merge;
- where corporations issued shares in exchange for property, the

185. See Grandy, supra note 2, at 677-78.
186. See id. at 681.
188. See id. at 266.
189. See id. at 265.
judgment of the directors was taken as conclusive as to the value of that property, allowing for the creation of watered shares;\textsuperscript{190}
corporations were given much scope to issues shares with varied voting rights and powers;\textsuperscript{191}
the corporate charter could provide for perpetual existence, with no need for renewal;\textsuperscript{192}
the corporation could state that it existed to pursue any lawful purpose;\textsuperscript{193} and

New Jersey corporations were allowed to operate outside the state without explicit permission.\textsuperscript{194}

These innovations, grouped together, helped lead to a huge leap of incorporation in New Jersey. From 1880 to 1896, 15 corporations with authorized capital exceeding $20 million incorporated in New Jersey.\textsuperscript{195} From 1897 to 1904, 104 corporations that size incorporated in New Jersey.\textsuperscript{196} The filing fees and franchise tax gathered as a result were a big boon to the state government’s finances. Revenue from these two sources was more than 60 percent of the state’s receipts.\textsuperscript{197} By 1902, New Jersey had eliminated both its debt and the state property tax.\textsuperscript{198}

New Jersey’s laws helped support the great merger wave which swept the U.S. at the turn of the century.\textsuperscript{199} In industry after industry, many companies merged to create large national corporations which dominated their industries. The modern American economy took shape at that time.

Other states saw New Jersey’s success and decided to try to horn in on a piece of the action. Those states passed laws similar to those of New Jersey, and tried to compete by offering lower tax rates than New Jersey. States following such a strategy included West Virginia,
Maryland, Maine, New York, and—ultimately the most successful—Delaware. Still, New Jersey had the early lead.\textsuperscript{200}

National opposition to the merger wave, and to New Jersey's new role in corporate law, grew. Many citizens and politicians were worried about both the threat of monopoly and the sheer size of some of the new corporations. A movement grew for antitrust laws to limit the ability of the new corporations to monopolize industry.\textsuperscript{201} At the national level, this led to the Sherman Antitrust Act in 1890\textsuperscript{202} and to the Clayton Act in 1914.\textsuperscript{203} Such activism also sought action at the state level—and changed the face of the corporate charter race.\textsuperscript{204}

\section*{B. Delaware Takes the Lead}

Shortly before Woodrow Wilson became President in 1912, New Jersey faltered in the race. Wilson made his reputation as a trustbuster, and he was embarrassed nationally by his failure to take on the trusts which had made New Jersey their home. Thus, near the end of his term as governor of New Jersey, he proposed major changes to New Jersey law to rein in the perceived abuses encouraged by New Jersey's permissive corporate law. The resulting legislation was known as the Seven Sisters.\textsuperscript{205} Among other things, the new laws prohibited corporations from buying stock in other corporations with a view towards controlling them, and they required that if a corporation issued stock for property then the property must be fully equivalent to the money value of the stock. The laws put in place a variety of other measures to limit monopolization by New Jersey corporations.\textsuperscript{206}

The Seven Sisters lived a short life. By 1917, New Jersey had repealed most of them.\textsuperscript{207} But five years was long enough to forever change the landscape of American corporate law. Corporate managers hated the Seven Sisters, and they looked to reincorporate elsewhere. Delaware, with its law resembling pre-Seven Sisters New Jersey, turned out to be the state to which more moved than any other. Delaware had now taken the lead in the charter competition race.\textsuperscript{208} Even after New

\textsuperscript{200} See Grandy, supra note 2, at 685; Seligman, supra note 187, at 269.
\textsuperscript{201} See Grandy, supra note 2, at 686-87.
\textsuperscript{203} Clayton Act, 15 U.S.C. §§ 12-27 (2001); see also Seligman, supra note 187, at 263-64.
\textsuperscript{204} See Grandy, supra note 2, at 686-87.
\textsuperscript{205} See id. at 687-89.
\textsuperscript{206} See id. at 689.
\textsuperscript{207} See id.
\textsuperscript{208} See id. at 685, 689; Seligman, supra note 187, at 272.
Jersey had repealed its reforms, corporations no longer trusted the political environment in that state. Delaware appears to have learned from New Jersey's mistake—it has not repeated it, and retained its lead.209

C. Subsequent Developments

The situation did not simply freeze once Delaware took the lead. Other competitors have emerged over the years. Most states gradually developed enabling-type statutes which generally resemble that of Delaware.210 Most important, perhaps, is not any particular state, but rather the development of the Model Business Corporation Act ("MBCA"). The MBCA was drafted by a committee of the American Bar Association. A tentative first version was released in 1946, and a more final one in 1950.211 Revisions continued thereafter, with a major re-writing in 1984. The MBCA was modeled on the Illinois Business Corporation Act more than any other, with many of the drafters of the Illinois Act involved in writing the MBCA.212 The MBCA has actually been more successful than Delaware in terms of adoption by states: at least thirty-one states have substantially adopted a version of the MBCA, while only four other states largely follow Delaware.213 This is probably because the MBCA has a clearer logical structure and language. Delaware's advantage today comes largely through its courts, not the Delaware law itself.214 However, large corporations still choose Delaware over the MBCA.215 This also fits with the pattern, described earlier, of different behavior in incorporation for small versus large companies.

Although in structure and exact language Delaware and the MBCA are quite different, in actual substance they are pretty close. There are some differences of note. The MBCA has much different rules governing legal capital; the MBCA has a universal demand requirement before instituting a derivative suit; major changes such as mergers may be approved by fewer shareholders under the MBCA than under

209. See Grandy, supra note 2, at 685, 689; Cary, supra note 4, at 664.
212. See id. at 100-02.
214. See id. at 764-65.
215. See supra note 1.
Delaware law; and there are a variety of other differences as well. The similarities generally swamp the differences, however, and many of the differences can be explained as the MBCA attempting to codify common law approaches followed in Delaware but also provide clearer legislative guidance. This responds to the fact that most states adopting the MBCA will have relatively few corporate law cases, and thus must rely primarily on statutory language rather than case law.

The MBCA makes it easier for states with limited resources and few corporations to update their corporate laws, a hard technical task. It thereby puts some more pressure on Delaware to improve its laws, as other states look more attractive than they would without the MBCA. On the other hand, the MBCA also probably decreases the variety in corporate law experiments, reducing the chances of finding good new mutations. Its effects on continuing competition and legal evolution are thus quite complicated.

A few individual states have also remained or emerged as competitors with Delaware, with some limited success. Nevada has attempted to become the Delaware of the west. In some ways it offers laws that are even more pro-management than those of Delaware. Should Delaware stumble in the way New Jersey did, it is quite possible that Nevada would become the new leader. However, to date Delaware has not stumbled.

Despite this competition, Delaware has maintained and even increased its lead. The pattern has not been completely steady. In the sixties, Delaware seemed to be slipping somewhat. In response, the legislature initiated a thorough overhaul, resulting in the new Delaware General Corporation Law of 1967. The preamble to the law creating the commission which led to the new law is quite explicit about the goals and perceived pressure Delaware faced:

WHEREAS, the State of Delaware has a long and beneficial history as the domicile of nationally known corporations; and

WHEREAS, the favorable climate which the State of Delaware has traditionally provided for corporations has been a leading source of revenue for the State; and

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216. See Dooley & Goldman, supra note 213, at 739-56.
217. See id. at 765.
218. For further elaboration, see McDonnell, supra note 22.
220. See Seligman, supra note 187, at 279.
WHEREAS, many States have enacted new corporation laws in recent years in an effort to compete with Delaware for corporate business; and

WHEREAS, there has been no comprehensive revision of the Delaware Corporation Law since its enactment in 1898 [sic]; and

WHEREAS, the General Assembly of the State of Delaware declares it to be the public policy of the State to maintain a favorable business climate and to encourage corporations to make Delaware their domicile.  

Since then, Delaware has made continual revisions to its law. These are mostly small and technical, with an occasional major innovation, such as the addition of a provision allowing corporations to protect directors from personal liability for certain fiduciary violations in 1986. During this time Delaware has retained its lead.

D. The Nationalist Element: Securities Law

Not all American corporate law is set through a decentralized federalist process. Much of securities law works as an important complement to state corporate law. Disclosure to shareholders is mainly governed by federal securities law. Disclosure often has important governance implications—breaches of fiduciary duty, for instance, are less likely the more visible they are to investors. The Williams Act constrains corporate takeover attempts. Federal proxy rules structure shareholder voting in public companies. Misbehavior by corporate executives is at least as likely to be the subject of securities class actions as of state shareholder derivative suits—witness the response to the Enron debacle, for instance. The Sarbanes-Oxley Act of 2002 has furthered the nationalization of corporate law. For instance, the Act bans

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222. See id. at 283.
224. See James J. Hanks, Jr., Evaluating Recent State Legislation on Director and Officer Liability Limitation and Indemnification, 43 BUS. LAW. 1207, 1210 (1987).
225. See Cary, supra note 4, at 664; Grabdy, supra note 2, at 689.
228. For example, see the suit filed by the leading securities plaintiffs' law firm, Milberg Weiss Bershad Hynes & Lerach LLP, at their web site, http://securities.milberg.com.
most loans to corporate officers and directors, a matter formally decided at the state level.

Once, securities law was also a matter of state regulation. Indeed, most states still do have their own blue sky securities laws. However, with the passage of the Securities Act of 1933\footnote{15 U.S.C. § 77a (2000).} and the Securities Exchange Act of 1934\footnote{15 U.S.C. § 78a (2000).} the weight of securities regulation shifted decisively to the federal government. With the passage of the National Securities Market Improvement Act in 1996\footnote{Pub. L. 104-290, 110 Stat. 3416 (1996).}, federal law preempted state securities law in many transactions, making state blue sky laws even more marginal. Today, American securities law is essentially set by Congress and the SEC. Regulatory competition may still exist, but it is competition between nations, not among American states. As a result, American corporate law is a complex tangle of national and state rules. National law is important not only for what it does, but also for what it could do. Some argue that Delaware is sometimes prodded to protect shareholders more than it otherwise might for fear that otherwise the federal government will step in.\footnote{See Louis Loss & Joel Seligman, Fundamentals of Securities Regulation 19-22 (4th ed. 2001).} Making the tangle even more complex, important elements of corporate governance are also set by the national securities exchanges, especially the New York Stock Exchange and the NASDAQ National Market. For instance, one important part of the reaction to recent corporate scandals has been proposals to strengthen the various rules for tested companies. Elements of competition are important in how the competing exchanges set those standards, but the SEC also plays a strong role in approving exchange rules and pressuring for changes in them.

E. Some Lessons

We can draw a few tentative lessons from this history. First, there was a fair amount of competition for dominance in corporate law in the late nineteenth and early twentieth centuries. In terms of the model of Section IV, perhaps there was too much competition, since more than two states may be too much. However, Section IV presented many reasons outside the formal model why more competition may be
Moreover, while there was much competition in terms of number of states, there was much less competition in terms of legal variations. Most states which wanted to attract corporations followed the New Jersey model quite closely. There were variations, in part due to lags in adopting the different elements of the New Jersey approach, but these variations were relatively small.

Also, the time to lock-in seems to have been pretty quick. New Jersey emerged as the clear leader very quickly after it started following a chartermongering strategy. After New Jersey left the race, Delaware emerged very quickly as the new leader. From Section IV, we see that the effects of this speed are ambiguous. On the one hand, quick lock-in allows corporations to realize the gains from learning and network effects quickly. On the other hand, quick lock-in reduces the amount of social learning which occurs, as we learned little about how possible models much different from that of New Jersey might fare.

Finally, even after lock-in occurred, competition does seem to have put some pressure on the leader to continue to offer laws which corporations want. Most dramatically, when New Jersey passed the Seven Sisters it utterly lost its lead, never to regain it. More subtly, Delaware has pretty explicitly felt pressure to continue to adapt its law to changing circumstances or else face the loss of its market position. Thus, even in the presence of network and learning effects, lock-in is not necessarily a one-time, permanent occurrence. Even with a dominant state, competition continues, and that competition constrains how the dominant state can behave.

VI. CONCLUSION

What can we conclude, given our present state of knowledge of the state charter competition process? Do we know enough to make any helpful policy suggestions? In this Section, I conclude that we know very little, but that this very lack of knowledge may provide some reasons for a course of action—or, rather, inaction.

Even on the long-debated matter of the incentives facing corporate decision makers, we have very little resolution of the debate. The

234. See supra notes 175-84 and accompanying text.
235. See supra notes 199-200 and accompanying text.
236. See supra note 209 and accompanying text.
237. See id.
238. See supra notes 220-25 and accompanying text.
239. See McDonnell, supra note 22.
theoretical arguments for both the race to the bottom and the race to the top are strong; theory gives us no basis for choosing between the alternative stories. The empirical evidence, too, is inconclusive. Indeed, as I argued in Section III, given the presence of significant network effects, it is very hard to see how any empirical evidence could adequately distinguish between the alternatives. The debate ultimately hinges on a counterfactual: is there an alternative path which corporate law could have followed which would have led to a more efficient outcome? Comparing real-world law with hypothetical alternatives is never likely to lead to clear conclusions. And yet, comparison of actual Delaware law to other actual alternatives is inherently unsatisfactory because the fact of Delaware's dominance importantly skews the comparison. For purposes of simplicity, in the model of Section IV this Article implicitly assumed that corporate decision makers make the best choice for the corporation, given the environment. However, I personally do not believe that assumption is true. It does seem quite possible to me that the incentives of corporate decision makers diverge from the interests of shareholders. I cannot prove it, however.

Unsurprisingly, we are currently on even more shaky ground when it comes to issues that have only been raised more recently in the debate. For instance, we do not really know whether network effects of the kind described by Klausner and others really exist in corporate law, or if they do exist, whether they are of a significant size and importance. Assuming that such effects exist, we have even less developed ideas about appropriate policy responses in the face of those effects.

This Article has tried to open a dialogue on that last question. It has considered whether allowing competition between states for corporate charters is a good idea in the face of network effects. The formal model presented in Section IV tentatively suggests that some competition is better than none, but that, at least at some point, more competition may not be better than less. However, Section IV also laid out a large number of effects and mechanisms not accounted for in the simple model. What policy suggestions will look appealing once those effects are accounted for is, right now, quite unclear. How these questions interact with the traditional focus on the incentives facing corporate decision makers is, if anything, even more unclear.

240. See supra notes 28-75 and accompanying text.
241. See supra notes 137-45 and accompanying text.
242. See supra Part III.D.
243. See McDonnell, supra note 22, for further work on how increasing returns affect competition after some form of lock-in has occurred.
If I am right about the current state of scholarship concerning charter competition, what implications follow for making policy recommendations? How are we to go about making policy if, as I believe, we are so lacking in any clear empirical understanding of the practical consequences of different policies? I do not think that question is unique to this particular area. In fact, I think it is a quite ubiquitous and profound problem.

I do not have a well worked out general answer to this general problem. However, we might seek some help from a general principle endorsed by thinkers as diverse as Edmund Burke and John Maynard Keynes. Where the effects of a policy innovation are highly uncertain and potentially large, we should be reluctant to pursue that innovation unless its expected benefits greatly outweigh its expected costs. As long as the present is not too terribly bad, taking a risk on changing the system is not worth it where the change may lead to some improvement, but may instead lead to a serious worsening of the situation. I do not want to push this point too far. After all, most realistically possible changes to U.S. corporate law are unlikely to have catastrophically bad effects. Moreover, recent scandals suggest that our current situation may not be all that enviable. Some changes may be worth trying. Burke and Keynes were both reformers, after all.

But, where some change is advisable, a change that retains flexibility and does not trample on existing institutions too severely is frequently best. To the extent that reform can preserve most of the plausible benefits of our current mixed national/state system, it should strive to do so. The hard balancing act is to achieve the benefits of increasing returns, maintain some spur to evolution for the leading state, and also correct for any possible race to the bottom problems due to the misaligned incentives of corporate managers. This Article suggests some ways in which our current mixed national/state system balances those goals in a plausibly attractive way, although large gaps remain in our


245. See ROBERT SKIDELSKY, I JOHN MAYNARD KEYNES: HOPES BETRAYED, 1883-1920, at 154-57 (1983), for a discussion of an unpublished essay by Keynes, "The Political Doctrines of Edmund Burke." A key passage from Keynes's essay is as follows:

Our power of prediction is so slight, it is seldom wise to sacrifice a present evil for a doubtful advantage in the future. Burke ever held, and held rightly, that it can seldom be right to sacrifice the well-being of a nation for a generation, to plunge whole communities in distress, or to destroy a beneficent institution for the sake of a supposed millenium in the comparatively remote future.

Id. at 155.
understanding. Before adopting any alternative, we must ask why, given our current knowledge, we would expect that alternative to balance those goals better than the current system.

Let us apply these ideas to several proposals in the area of federalism and corporate and securities law in the U.S. A perennial suggestion is that all corporations be required to incorporate under a federal corporate law. This Article has argued that the network effects critique of state competition does not give a good reason for such a national law. Still, if one believes the race to the bottom story that corporate decision makers face quite poor incentives which cause them to incorporate under laws which hurt shareholders, that suggestion may appear attractive. However, it is not at all clear how true the race to the bottom story is. Furthermore, it is uncertain whether the federal government, or anyone else, really knows what an optimal, or even significantly better, corporate law would look like. Even if we knew what the law should be, there is much doubt whether Congress and the SEC (or a new federal agency) would have the proper incentive to adopt that law. Lack of competition would make the federal government less responsive than Delaware to changes in the business environment. The total package in Delaware, including its experienced judiciary, may well be much better than what the federal government could offer; the nationalist procedure carries risk of major losses. Since the current American system seems to be doing decently well, at least as a way of protecting shareholders, compared with any other country in the world, it seems to me that the case for the major change of federal chartering is as yet quite unproved. Moreover, there appears to be little political constituency for such a change. There may well be a link between the two: if the current situation were bad enough that such a major change were indeed desirable, a political constituency for such change might very well appear.


A related change, floated by Cary in his seminal article, is for national minimum corporate law standards. For instance, the national government could set minimum fiduciary duties which all officers and directors must follow, regardless of the state of incorporation of their company. If the minimum standards have adequate bite, this would help reduce the race to the bottom problem. This proposal is subject to many of the same objections as national chartering, just set out. However, there is an important difference. National chartering would be a major change from our current situation. National minimum standards might be a major change too, or they might instead be seen as merely a modification of our current situation, depending on the nature of the national standards. That is because national securities laws are already an important source of regulation. To at least a degree, for instance, those laws already set a form of minimum fiduciary duty. The securities laws are largely focused on disclosure issues, but disclosure and fiduciary duty are often closely linked—most violations of fiduciary duty are undisclosed. Thus, if we feel that race to the bottom type concerns are creating serious problems, a modest extension of national securities laws or rules may be in order. So long as they do not go too far beyond what can be clearly justified, such changes fit relatively well with the already existing framework in the U.S. The Burke/Keynes approach is a recipe for modest, incremental change, not no change at all. The current ferment caused by Enron, WorldCom, and other corporate scandals seems most likely to end in some limited reforms of this sort. Some reforms have begun, such as the Sarbanes-Oxley Act of 2002, and corporate governance reforms initiated by the New York Stock Exchange. I do not think that the Sarbanes-Oxley Act is all that big a change, although some have touted it as such. I doubt its benefits

248. See Cary, supra note 4, at 701-03.
249. See id. at 702.
250. See supra notes 226-32 and accompanying text.
251. The U.S. Supreme Court has explicitly said that federal securities laws should not interfere with the state-law question of fiduciary duty. See Santa Fe Indus., Inc. v. Green, 430 U.S. 462, 476, 478-79 (1977). However, the link just noted between disclosure and fiduciary duties has made this distinction hard to draw. See Goldberg v. Meridor, 567 F.2d 209, 217-18, 221 (2d Cir. 1977).
253. See Cunningham, supra note 247.
COMPETITION FOR CORPORATE CHARTERS will turn out to be as great as its sponsors suggest, nor its costs as great as its detractors fear.

Lucian Bebchuk and Allen Ferrell have recently floated a rather different suggestion. Their proposal comes in two parts. First, they suggest allowing corporations to opt in to a set of national rules governing change of control transactions. On its own, this would simply add one more supplier to the corporate charter law market. If one believes the race to the bottom story, perhaps the national government will offer a better law than Delaware. The problem, though, is getting corporations to choose that law. That is where the second part of the Bebchuk-Ferrell proposal comes in. They propose a mandatory national rule giving shareholders in all corporations, no matter where incorporated, the right to initiate a vote choosing to opt in to the national regime. That could make it much harder for managers to choose and stick to the corporate laws of a state which mistreats shareholders, although the problems of shareholder apathy in voting and collective action may well limit the practical effectiveness of this proposal even if implemented.

This proposal has more going for it than national chartering. It is less disruptive of the status quo, more narrowly targeted to an identified problem, and still leaves corporations with a great deal of flexibility and choice. It seems unlikely to cause a great deal of harm: if shareholders really do like Delaware law, then presumably they will not vote to follow the national regime. There are some scenarios in which certain shareholders could abuse the system, but those scenarios seem to me of limited concern. In the model of Section IV, the addition of one more competing “state” (the national government) could conceivably make the chances of finding a good dominant law a bit worse, but that does not seem likely to be a significant effect here, and it may be that at this point adding one new alternative, particularly a significantly different one, would increase the chances of finding major improvements on current law.

Thus, the Bebchuk-Ferrell proposal is quite reasonable, and I support it. However, the case in favor of it is not overwhelmingly

254. See Bebchuk & Ferrell, supra note 50, at 143-48.
255. See id. at 143. They limit their proposal to change in control because they see this as the main area in which a race to the bottom has occurred. See id. at 161-62.
256. See id. at 148.
powerful. The expected costs are low, making the proposal decently attractive, but with quite uncertain and possibly low expected benefits (particularly given problems of shareholder apathy), the case for the proposal is not incredibly strong. Furthermore, it is hard to find a strong political constituency likely to push the idea, although perhaps large institutional investors like CalPERS or TIAA-CREF might take the lead. Unless the current problems brought on by Enron and other scandals persist and worsen, I doubt there is the political will to make this idea into law. That is too bad—but it’s not all that bad.

Roberta Romano has made a reform proposal from the other end of the debate, as a strong supporter of the race to the top story.259 Romano thinks that state competition has worked well enough in corporate law that we should try it out in securities law as well.260 She suggests that corporations should be allowed to choose which state’s securities laws they will be governed by, just as they currently choose which corporate law to be governed by.261 The national government would cease to automatically govern the securities transactions of all American corporations, although the national government could offer a set of securities laws as one alternative among which companies could choose.262

If you truly believe the race to the top story, then indeed why not extend the logic to securities law? However, once again, the case for the race to the top hypothesis is just not strong enough to support this reform idea. A race to the bottom in securities law could be extremely damaging to American capital markets. After all, both foreign companies and investors seem quite happy to enter those American capital markets, even with the allegedly over-interventionist U.S. securities laws. Here, as with national chartering, there just does not seem to be a good reason to introduce such a major change. Romano herself recognizes that there is little chance of her proposal becoming law.263 That is as it should be.

260. See id. at 2385; see also Stephen J. Choi & Andrew T. Guzman, Portable Reciprocity: Rethinking the International Reach of Securities Regulation, 71 S. CAL. L. REV. 903, 948-49 (1998).
261. See Romano, supra note 259, at 2402.
262. See id. at 2365.
263. See Dirk H. Bliedener, Discussion Report, in COMPARATIVE CORPORATE GOVERNANCE 219 (K.J. Hopt et al. eds., 1998) (“Professor Romano had already emphasized that the chances for implementing her new competitive approach to securities regulation in the U.S. were as good as winning in the state lottery without even purchasing a ticket.”).
Thus, my bottom-line policy recommendation, and the second main argument of this Article, is that there is currently little need to fundamentally alter the structure of American corporate and securities law. The mix of federalism and nationalism of our present system seems to be doing a decent enough job of protecting shareholders, or at least no one has yet come up with an alternative that is clearly better enough to risk trying. Some modest extensions of national rules in response to Enron and other scandals may be called for, but these changes should, and in all likelihood will, merely tweak the current system, not constitute a fundamental change of it.

I should note one big caveat to this conclusion. I have taken as given that the main concern of the law is to correctly balance the relationship between shareholders and managers, and in particular, to provide adequate protection of shareholders while still leaving managers with the flexibility they need. I have, until now, left out the interests of other groups affected by corporations. It is possible that current law does not adequately protect the needs of some other groups. In particular, corporate employees may not be well enough treated in the present American system. Changing that might require some deep changes in the American system. Even then, though, it is not clear to me that corporate law federalism is a big part of that problem. If one wants to understand why American corporate law ignores the interests of workers, one should look mainly to broader and deeper issues of American politics and society, not to Delaware’s role in dictating corporate law. Indeed, those interested in pursuing employee-oriented reforms to American corporate law may well find that their best strategy is to first pursue changes in a few progressive states and see how the changes work there. States may still turn out to be the best laboratory for corporate democracy.
FIGURE 1

STATE COMPETITION v. FEDERAL REGULATION, PROBABLE OUTCOMES

Probability

Unrestrictive Optimum Restrictive

State competition

Federal law
### Table 1: Simulation Results—Average Time to Lock-In

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### Table 2: Simulation Results—Average Distance from 0.5

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