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#### Abstract

While limited liability for a business enterprise had existed in some limited form since at least the Roman Empire, at the start of the 19<sup>th</sup> century it was still uncommon. By the end of the 19<sup>th</sup> century, however, limited liability was commonly available to entrepreneurs without the requirement of special grant from the sovereign or the legislature. By the start of the 20<sup>th</sup> century the rise of limited liability was usually viewed by commentators as one of the major innovations responsible for the then unprecedented economic growth of the previous century. Perhaps the only jurisdiction that delayed introducing limited liability until the 20th century, indeed until 1931, was California. Thus, the California experience may shed valuable light on the relative importance of limited liability and on the winners and losers from its adoption. Drawing inference from share prices, political campaigns and referenda outcomes, trade journals and the popular press, we find that while the move to limited liability had widespread support, it appeared to have little effect on the value of publicly traded corporations. We find at best weak evidence that moving to limited liability had any effect on the rate of corporate formation.

# I. INTRODUCTION

By the 20<sup>th</sup> century, corporate limited liability was the norm in the both common and civil law regimes.<sup>1</sup> Not only was it the national law in, England<sup>2</sup>, Germany<sup>3</sup> and

<sup>&</sup>lt;sup>1</sup>See Halpern, Limited and Extended Liability Regimes in Newman, The New Palgrave Dictionary of Economics and Law, 1998 and Blumberg, Limited Liability and Corporate Groups, 11 J. Corp. Law. 573.

France<sup>4</sup>, it had also been adopted in each of the states of the US; save one, California. Shareholders of California corporations did not, as a matter of course, enjoy limited liability until a revision in the corporate code that took effect in 1931. California is thus almost unique in having continued shareholder liability for corporate obligations to a time when the large, publicly held, corporation that characterizes modern capitalist societies had come to fruition.<sup>5</sup>

Prior to 1931, California Code §322 provided *pro rata* unlimited liability for shareholders of California Corporations. This paper collects evidence from share prices, corporate board minutes, contemporary trade publications, state incorporation records, voting patterns and the minutes of the State Bar Committee that drafted the revised corporate code that eliminated the *pro rata* unlimited liability to examine the question of whether or not the change to limited liability had any significant effect on the corporations involved. This is a topic that has become of more interest in the last decade following Hansmann and Kraakman's<sup>6</sup> call for adopting *pro-rata* unlimited liability (the kind that was the rule in California) for corporate tort.

It is, of course, tempting to assume that a move to limited liability would be beneficial to shareholders and thus would lead to an increase in share prices. Indeed, one may well imagine a "person in the street" survey finding the many, if not most, people believe that the main beneficiaries of limited liability are large, public corporations whose shareholders are able to buy and sell shares secure in the knowledge that they will not lose more than the amount that they paid for the shares.<sup>7</sup> However, that is not clear. To the

<sup>&</sup>lt;sup>2</sup> Limited Liability Act, 1855 (18 & 19 Vict., ch. 133 (1855))

<sup>&</sup>lt;sup>3</sup> Macharzina, Corporate Forms and Limited Liability in German Company Law in Orhnial, Limited Liability and the Corporation (1982)

<sup>&</sup>lt;sup>4</sup> Code de Commerce (1807), cited by Blumberg, supra note 1 at 596.

<sup>&</sup>lt;sup>5</sup> Exceptions to the rule of limited liability, which are discussed below include the survival of double liability for shareholders of Minnesota firms (to the mid 1920's) and National Banks (to 1935); American Express had pro-rata unlimited liability until 1965 (see Peter Grossman, The Market for Share of Companies with Unlimited Liability 24 J. Legal Stud. 63 (1995)), and current New York Law provides unlimited liability for unpaid wages (see footnote 24 below).

<sup>&</sup>lt;sup>6</sup> Henry Hansmann and Reinier Kraakman, Toward Unlimited Shareholder Liability for Corporate Torts, 100 Yale L. J. 1879 (1991).

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more than the amount that they paid for the shares.<sup>7</sup> However, that is not clear. To the extent that corporate obligations arise from negotiated contracts, the Coase Theorem would predict that prices associated with these contracts, such as interest rates, would adjust to reflect the changed legal regime. In this case little, if any, benefit would accrue to shareholders. While shareholders would benefit from reduced liability to tort victims, and other involuntary creditors, large corporate tort liability was very uncommon in 1931.<sup>8</sup> Thus, our working hypothesis in this paper is that the move to limited liability would have no effect on share values or on rates of incorporation.

It does seem that one group that supported the change was the organized California Bar.<sup>9</sup> It is possible that a move to limited liability would increase the demand for California lawyers if it increased the number of incorporations in California. On the other hand, the specialized expertise that California lawyers had developed in dealing with the then unique liability structure in California would have diminished in value, so the potential benefit to the organized bar is not at all clear.

This paper proceeds as follows: Section II presents a brief literature review and then reviews the legal environment regarding limited liability in California during the mid 1920's and traces the steps that lead to the change in liability in 1931, Section III presents the evidence that we have on the matter, and Section IV presents our conclusions and suggestions for future research.

<sup>&</sup>lt;sup>7</sup> Not just the man in the street. Easterbrook and Fischel's (see footnote 12 below) analysis is primarily couched in terms of the large firm with publicly traded equity. While the possibility of corporate veil being pierced may exist on paper, it is not a concern to passive shareholders of public firms. Thompson (Robert Thompson, Piercing the Corporate Veil: An Empirical Study, 76 Cornell L. Rev. 1036 (1991)) reports that there is no instance where the corporate veil has been pierced to the shareholders, much less passive shareholders, of publicly traded firms.

<sup>&</sup>lt;sup>8</sup> Class actions were not yet a part of federal civil procedure. See, generally, Yeazell, From Medieval Group Litigation to the Modern Class Action (1987). Nor is it clear, and this is precisely the point that Hansmann and Kraakman make, that it is desirable for shareholders to be able to avoid liability in such cases. As we point out later, the fact that large corporate tort actions did not exist at the time covered by this paper limits the extent to which one can draw inference about the potential effect that such a shift would have in today's environment.

<sup>&</sup>lt;sup>9</sup> The State Bar Committee on the Reform of the Corporate Code drafted the bill. See 3 California State Bar Journal 13 (1928).

# **II.** LIMITED VS. UNLIMITED LIABILITY

# A. Limited and Unlimited Liabilty

The idea that one can form a business venture that is an entity separate and distinct from its shareholders appears to go back as far as Roman law<sup>10</sup> However, as Blumberg and Mahoney have forcefully argued, it does not necessarily follow, and did not follow historically, that the investors in the entity so formed would not be liable for the entity's obligations. While there are numerous examples of corporations with limited liability in more ancient times, the current regime, in which limited liability is granted in the normal course of registration, without special charter from the government, is of recent vintage. It dates from the 19<sup>th</sup> century in England (1855), Canada (1850) the US (by 1850) and Continental Europe. That is limited liability became the norm before the rise of public equity finance.<sup>11</sup> Indeed, the conventional wisdom is that limited liability was *essential* to induce investors to invest in enterprises over which they would have limited control, and thus permit the growth of corporations whose scale would have far exceeded the entrepreneur's wealth.<sup>12</sup>

While the choice of regime is often presented in finance books as one between limited and unlimited liability, in fact there are a number of variants of both regimes. First, one must ask whether there is *any* potential for shareholders being required to put money into the firm beyond that which was initially contributed to the corporation. Second, if there is shareholder liability, are the shareholders jointly and severally liable, or is

<sup>&</sup>lt;sup>10</sup> See, generally, the essays in Orhnial, Limited Liability and the Corporation (1982). See also, Forbes, Limited Liability and the Development of the Business Corporation, 2 J. Law Econ. & Organ. 163 (1986) (introducing limited liability improved access to capital in early 19<sup>th</sup> century New England); Livermore, Unlimited Liability in Early American Corporations, 43 J. Pol. Econ. 674 (1935) (traces introduction of limited liability in New England after the American Revolution); Mahoney, Contract or Concession? An Essay on the History of Corporate Law (unpublished manuscript, University of Virginia Law School).

<sup>&</sup>lt;sup>11</sup> Publicly traded equity did not become the major source of funds for corporations until roughly the turn of the  $20^{th}$  century.

<sup>&</sup>lt;sup>12</sup> Thus, for example, the analysis of limited liability in Easterbrook and Fishel, The Economic Structure of Corporate Law (1991) is presented mainly in the context of the large firm with shareholders that are, for the most part, passive investors. For an opposite view see Stephen Presser, Thwarting the Killing of the Corporation: Limited Liability, Democracy and Economics, 87 Nw.U.L.Rev 148 (1992)(The main reason for adopting limited liability in the 19<sup>th</sup> century United States was to provide a means for individuals of limited means to organize larger scale enterprises and thus democratize the business enterprise).

the liability *pro-rata*.<sup>13</sup> Third, can a claimant sue the shareholder(s) directly, or is the claimant required to sue the corporation to compel it to assess the shareholders' assets. Fourth, if a claimant can sue shareholders directly, is the claimant required to attempt to recover from the corporation first. Finally, does a shareholder who has made a payment to a claimant have a right to reimbursement from the corporation or from the board or from other shareholders?

In the United States, before the modern concept of limited liability came to be the norm, there was much experimentation.<sup>14</sup> After it had been determined that free incorporation was to be the rule, most states did not move to limited liability, as we know it. Rather it was common for shareholders to be liable for debts of the corporation in two separate ways. First, in a liability that often continues to this day, shareholders would find themselves liable for any unpaid portion of the initial subscription (or par) value of the stock.<sup>15</sup> While this is not an important contemporary issue, in the 19<sup>th</sup> century it was common for shareholders to only pay a small fraction of the initial subscription at the time of inception, and thus significant shareholder liability continued, but was limited to the unpaid portion of the original subscription. It was also common for shareholders to be liable to creditors for twice, or thrice, the initial capital. That is, if the initial capital of the firm was \$100,000, and a given shareholder had invested \$1,000, she could be liable for an additional capital call of \$1,000 or \$2,000 depending on the state. Thus while there was some additional liability, the liability was limited to a pre-specified multiple of the paid-in-capital. This double or triple liability continued in to the 1920's in Minnesota (double liability). Even when there was some possibility of additional liability, creditors usually had to first exhaust any possibility of collection from the corporation before pro-

<sup>&</sup>lt;sup>13</sup> That is, can a creditor collect her entire obligation from a single, or just a few, shareholders, or is each shareholder only liable for his share of the corporate obligation in proportion to the percentage of equity ownership.

<sup>&</sup>lt;sup>14</sup> See the references cited in footnote 10 above.

<sup>&</sup>lt;sup>15</sup> For example, §410 California Corporate Code states:

<sup>(</sup>a) Every subscriber to shares and every person to whom shares are originally issued is liable to the corporation for the full consideration agreed to be paid for the shares.

<sup>(</sup>b) The full agreed consideration for shares shall be paid prior to or concurrently with the issuance thereof, unless the shares are issued as partly paid pursuant to subdivision (d) of Section 409, in which

<sup>(</sup>footnote continues on next page)

ceeding against the shareholders. This recovery, then, would either be the result of an action to force the corporation to issue an additional equity call on the shareholders, or a result of a bankruptcy. These types of liability are clearly different from unlimited liability in that, while the shareholder might have to pay in additional funds, the amount of the potential pay in was capped, and known to the shareholders *ex ante*.

While limited liability was the norm under state law by 1900, there was an important pocket of federal law in which this did not hold true. Until 1935, shareholders of nationally chartered banks were subject to a liability equal to twice the original paid-in capital.<sup>16</sup> The liability was pro-rata to each creditor, as was that in California.<sup>17</sup>

When we discuss the likely economic impact of moving to a system of limited corporate liability, it is it useful to distinguish between the effects arising from shareholders' immunity from contract obligations and the effects arising from shareholders' immunity from tort liability. Virtually all of the contemporaneous discussion of limited liability in, for example, England, focused on the likely effect arising from avoiding, at the shareholder level, contract obligations of the firm.<sup>18</sup> However, it seems clear that, to the extent that transactions costs are low, this should be a matter of indifference.<sup>19</sup> Indeed, in the

case the consideration shall be paid in accordance with the agreement of subscription or purchase.

<sup>&</sup>lt;sup>16</sup> The double liability for shareholders of National Banks has been examined by, among others, Barry Wilson and Edward Kane (The Demise of Double Liability as an Optimal Contract for Large-Bank Stockholders, NBER Working Paper 5848 (1996)), Jonathan Macey and Geoffrey Miller (Double Liability of Bank Shareholders; History and Implications, 27 Wake Forest L. Rev. 31 (1992)) and Benjamin Esty (The Impact of Contingent Liability on Commercial Bank Risk Taking, 47 J. Fin. Econ. 189 (1998)). The Macey and Miller paper is most relevant as they contend that the system of double liability worked reasonably well and lead to significant recoveries from shareholders.

<sup>&</sup>lt;sup>17</sup> Macey and Miller, ibid. at 41.

<sup>&</sup>lt;sup>18</sup> Including this particularly nice quote from a May 25, 1824 editorial in *The Times* of London (cited by Halpern, Trebilcock and Turnbull, see footnote 19 below): "Nothing can be so unjust as for a few persons abounding in wealth to offer a portion of their excess for the information of a company, to play with that excess—to lend the importance of their whole name and credit to the society, and then should the funds prove insufficient to answer all demands, to retire into the security of their unhazarded fortune, and leave the bait to be devoured by the poor deceived fish."

<sup>&</sup>lt;sup>19</sup> See Richard Posner, Economic Analysis of the Law (1976), Richard Posner, The Rights of Creditors of Affiliated Corporations, 43 U. Chi. L. R. 499 (limited liability is optimal because it minimizes transactions costs). See also Ekelund and Tollison, Mercantilist Origins of the Corporation 11 Bell J. Econ. 715, Meiners, et.al. Piercing the Veil of Limited Liability, 4 Del. J. Corp. L. 315 (even if there are transactions costs unlimited liability has no effect on shareholder wealth), Paul Halpern, Michael Trebilcock and Stuart Turnbull, An Economic Analysis of Limited Liability in Corporation Law, 30 U Toronto L J 117 (1980)

<sup>(</sup>footnote continues on next page)

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debate in England surrounding the change in 1855, the *Economist* took the position that such a change was not needed as any benefits of limited liability could be achieved by contracting around unlimited liability.<sup>20</sup> If transactions costs are important, the choice of liability regime would seem to be determined by one's belief about which regime provided the best set of default provisions.<sup>21</sup>

When there is a potential for the firm to cause damages by tort the situation is different. Here, it is clear that managers, working on behalf of shareholders, will behave differently in a limited liability regime than they would in an unlimited liability regime. To the extent that, in a limited liability regime, tort-victims have no access to shareholder wealth, managers have an inadequate incentive to minimize the potential cost of tort liability beyond that which consumes all of the firm's assets.<sup>22</sup> Indeed, it is just this point that motivates Hansmann and Kraakman<sup>23</sup> to argue that corporations should face pro-rata unlimited liability for tort.<sup>24</sup> Of course, the situation is not quite as clear-cut as that. For example, depending on the nature of the personal bankruptcy code, limited liability may make little difference. Moreover, if managers are excessively risk averse because they

<sup>(</sup>Limited liability is the most efficient regime for large, publicly traded, firms; because of moral hazard problems unlimited liability may be optimal for closely held firms).

<sup>&</sup>lt;sup>20</sup> The Economist, (July 1, 1854, cited by Halpern, Trebilcock and Turnbull, ibid.), It is tempting to give the editorial writer part credit for the Coase Theorem. The Economist came out against limited liability because of a belief that this was the wrong default rule. Note that by 1926 the same publication would write that the inventor of limited liability deserved "a place of honour with Watt and Stephenson, and other pioneers of the Industrial Revolution" (ibid, p. 118).

<sup>&</sup>lt;sup>21</sup> See Presser, cited in fn. 12 above for a different take on this matter. If one of the objectives of the legislature is permitting those without vast wealth to form business enterprises and compete with the wealthy, then it would seem that even if limited liability entailed and efficiency *loss* it might still be favored.

<sup>&</sup>lt;sup>22</sup> Of course, to the extent that creditors under contract have little or no bargaining power, they look like tort victims, and thus may be damaged in the same way as tort victims.

<sup>&</sup>lt;sup>23</sup> Cited in footnote 6 above.

<sup>&</sup>lt;sup>24</sup> Having different liability for different types of creditors is not unique to the Hansmann and Kraakman proposal. Current New York law provides that the ten largest shareholders of any New York Corporation have joint and severable liability for any unpaid wages (N.Y. Business Corporation Law § 630 (McKinney 1986)). Presumably this statute derives from the biblical injunction to pay any worker on the day the work is performed (Deut. 24:15).

bear more firm specific risk than the typical investor, the problem of excessive risktaking by firms will be mitigated.<sup>25</sup>

Externalization of tort risk is not the only potential effect of moving from unlimited to limited liability. Economies with limited liability may be presumed to be fundamentally more risky than economies with unlimited liability. That is, given a menu of production processes with varying risk, if expected return is positively correlated with risk, managers will choose riskier production processes. This effect is exacerbated by a limited liability regime in which owners do not bear all tort risk. Thus, in a regime of limited liability, a riskier set of production activities will be undertaken. This is an effect that is not limited to shareholders, or likely tort victims, but will effect the pricing of risk in the entire economy. Moreover, limited liability would tend to benefit shareholders of tortfeasor companies. If these shareholders are, on average, wealthier than tort victims, there are income distribution effects that may also provide an argument against limited liability.<sup>26</sup>

In any event, speculation on the likely effect of limited liability on tort victims in 1929 is probably irrelevant for our purpose. The fact of the matter is that the large classaction tort cases, those that have the prospect of bankrupting the firm, were unheard of in

<sup>&</sup>lt;sup>25</sup> See: Easterbrook and Fischel, Limited Liability and the Corporation, 52 U Chi. L Rev 89, 104(1985) (while they favor limited liability, they recognize that tort risk is externalized); Posner, The Rights of Creditors (cited in footnote 19 above) at 503 (no externalization of risk for *voluntary* creditors); Hansmann and Kraakman (cited in footnote 6 above); Leebron, Limited Liability, Tort Victims, and Creditors 91 Colum. L. Rev. 1565 (1991). See also Grundfest, The Limited Future of Unlimited Liability: A Capital Markets Perspective, 102 Yale L. J. 387 (1992) (even if pro-rata limited liability was, in principle, optimal from the point of minimizing risk externalization, modern capital markets provide a myriad of ways to avoid such liability), J. Alexander, Unlimited Liability Through a Procedural Lens, 106 Harvard L. R. 106 (regime proposed by Hansmann and Kraakman is unworkable), Hansmann and Kraakman, A Procedural Focus on Unlimited Shareholder Liability, 106 Harvard L. R. 446 (reply to Alexander) and Hansmann and Kraakman, Do the Capital Markets Compel Limited Liability? A Response to Professor Grundfest, 102 Yale L. J. 427 (1992) (reply to Grundfest). I ain't got a dog in that fight.

<sup>&</sup>lt;sup>26</sup> There is another, related, reason to question the optimality of corporate limited liability. Writers that support limited liability often cite as a rationale that limited liability fosters undertaking large, risky enterprises. While this is true, in itself, this is a distortion from the production choices that would rule absent limited liability. To the extent that one believes that competitive markets provide an optimal mix of outputs, it is difficult to see why limited liability would be expected to improve on that mix. This is not a simple case of market failure, as here adopting limited liability will mean that some tort victims will go uncompensated, else there is no advantage to it.

1928.<sup>27</sup> Indeed, none of the commentaries that I have seen on the then new California code, nor the debate leading up to its adoption, makes any mention of tort liability.

#### B. Interaction With Other Legal Doctrines

Comparing limited and unlimited liability regimes cannot be done without considering the extent to which other aspects of the legal system may provide substitutes for limited liability in an unlimited liability regime, or may, in effect, substitute for unlimited liability in a limited liability regime.<sup>28</sup>

A liberal veil piercing doctrine could serve to make shareholders indifferent between limited and unlimited liability, and might actually make some shareholders worse off under limited liability than under *pro rata* unlimited liability. While much has been written on the economics of veil piercing, the evidence suggests that there little connection between veil piercing in theory and veil piercing in practice.<sup>29</sup> In an extreme case, we can imagine a state with a negligence standard for tort liability.<sup>30</sup> When that state adopts limited liability, imagine that the courts adopt the very liberal standard that veil piercing is permitted when shareholders have permitted the firm to behave in a negligent manner.<sup>31</sup> In such a case shareholders are still liable for any tort liability that the firm incurs, as the veil piercing follows the liability rule. Moreover, since liability under veil piercing doctrine can be limited to only the most important shareholders (by amount or actual role in corporate decision-making) shareholders to whom the veil is pierced may find the m-

<sup>&</sup>lt;sup>27</sup> Yeazell (cited in fn. 8 above) provides a history of class actions and it is clear that at the federal level the mechanism for the modern class action did not exist in 1928. Moreover, a Lexis search failed to find even one class action tort case against a California corporation between 1900 and 1928. While not conclusive, this suggests that the large class-action suits by tort victims that have the potential to bankrupt the firm were not a major concern at the time.

<sup>&</sup>lt;sup>28</sup> See footnote 68 below for a possible income tax effect associated with a move to limited liability.

<sup>&</sup>lt;sup>29</sup> For example, virtually any economic analysis of veil piercing (e.g. Epstein and Fischel cited in fn. 12 above) argues that courts should be more willing to pierce in matters of tort than in matters of contract. However, Thompson's empirical study of veil piercing (cited in fn. 7 above) shows that just the reverse is true in practice. Presser states that a number of states, in a period subsequent the end of Thompson's data are, in fact, recognizing the distinction between piercing in matters of contract and tort and are proving more amenable to piercing in matters of tort (Presser cited in fn. 7 above).

<sup>&</sup>lt;sup>30</sup> We ignore contract claims for the Coasian reason stated earlier.

<sup>&</sup>lt;sup>31</sup> To the best of my knowledge, no jurisdiction has adopted this standard.

selves owing much more than their proportional share of the firm's liabilities. While we can speculate on such an event, in fact, veil-piercing doctrine in California was not nearly as liberal as that. In fact, the tests developed for piercing the corporate veil in California are much like those in other states.<sup>32</sup>

The personal bankruptcy code can mitigate the effect of shareholder liability. If the effect of personal bankruptcy is not large, perhaps because of large personal exemptions, being liable for corporate obligations may not be a particularly onerous burden on shareholders. Moreover, in that case, creditors would not expect to collect much from individual shareholders in the event of corporate failure, and will price their transactions accordingly, thereby approximating the terms of trade that would rule in a limited liability regime.

# C. The Situation in California in 1927

The shareholder liability situation in California was different from other states in 1927. The first state constitution, dating from 1849, adopted a system of *pro rata* unlimited liability. This form of liability was carried over into the 1879 constitution (art. XII § 3, repealed 1930). The enabling legislation for this section, still in place in the 1920's (California Civil Code §322, repealed 1931) stated:

Each stockholder of a corporation is individually and personally liable for such proportion of its debts and liabilities as the amount of such stock or shares owned by him bears to the whole of the subscribed capital stock . . . and for a like proportion only of each debt or claim against the corporation. Any creditor of the corporation may institute joint or several actions against any of its stockholders, for the proportion of his claim payable by each, and in such action the court must ascertain the proportion of the claim or debt for which each defendant is liable, and a several judgment may be rendered against each, in conformity therewith.

The code, thus, provides for *pro-rata* limited liability. The pro-rata nature of the liability has, as Hansmann and Kraakman have argued, much to recommend it. Not only does it provide better incentives to monitor the risk of the business enterprise, but it also means

<sup>&</sup>lt;sup>32</sup> Presser (cited in fn. 12 above) shows that, contrary to some claims, veil piercing in California like other states requires more than simple undercapitalization to pierce the veil.

that, in principal, the liability of any shareholder does not depend on the wealth of his fellow shareholders.<sup>33</sup> This is important because it would be difficult for shares to be freely transferable it a sale by one person to another could affect the liability of a third who is not a party to the sale, as would be the case if liability were unlimited in dollar amount and not *pro-rata*.

Before we turn to some of the other issues with the manner in which the liability rules worked in California, there is an ancillary issue that §322 addressed. If other states have limited liability, and California has unlimited liability, why would any shareholders incorporate in California? The second paragraph of §322 stated:

The liability of each stockholder of a corporation formed, under the laws of any other State or Territory of the United States, or of any foreign country, and doing business within this State, shall be the same as the liability of a stockholder of a corporation created under the constitution and laws of this State.

This paragraph ensures that, for debts resulting from business done in California, shareholders of even non-California corporations face pro-rata unlimited liability. In a series of cases over a 30-year period it was eventually determined, by 1914, that liability could be imposed on non-California shareholders of non-California firms for obligations resulting from business conducted in California.<sup>34</sup> However, the Atlantic appears to have presented an insurmountable barrier. In the Copper King cases<sup>35</sup> English courts found that California law did not reach to an English shareholder of an English firm (having limited

<sup>&</sup>lt;sup>33</sup> The qualifier is needed because we can imagine situations in which the inability of other shareholders to fund appropriate defense may lead to corporate liability.

<sup>&</sup>lt;sup>34</sup> In a series of cases in which California residents formed foreign corporations to do business in California, California courts held that shareholder liability was not avoided. The U. S. Supreme Court, in Pinney v. Nelson, 183 U.S. 144 (1901) (California residents were liable for debts of a corporation organized in Colorado but doing business in California) and Thomas v. Matthiessen, 232 U.S. 221 (1914) (New York resident liability regime and the liability of non-California shareholders on non-California firms doing business in California.

<sup>&</sup>lt;sup>35</sup> See Risdon Iron and Locomotive Works v. Furness, L. R. [1905] I K.B. 304, aff'd L. R. [1906] I. K. B. 49 by the Court of Appeal (under English law limited liability of English company precludes shareholder liability even for debts entered into for business done in California). The Risdon case is discussed at length in Hoheld, Nature of Stockholders' Individual Liability for Corporation Debts, 9 Colum. L. Rev. 285 (1909), 10 Colum. L. Rev. 283 (1910).

liability under English law) that did business in California. There is an asymmetry that worked to the detriment of California firms. While foreign firms that did business in California could maintain their limited liability for activity conducted outside of California, California incorporated firms could not enjoy limited liability for their activities outside of California

Returning to the first paragraph of the statute, and informed by a series of decisions, we can fill out the manner in which pro-rata limited liability worked in California.<sup>36</sup> The courts held that the obligation of the shareholder was not derivative, but rather it was separate from the obligation of the firm. Thus, a creditor could sue either, or both, the firm and the shareholders. However, the creditor could not *collect* from both the firm and a shareholder for the same obligation. Moreover, there was no right of reimbursement from the firm if a shareholder paid a corporate obligation. Of course, as the California Appellate court found in 1928,<sup>37</sup> a judgment against the firm, which was not yet final, did not pose a bar to a greater judgment against a shareholder.<sup>38</sup> The shareholder was only responsible for his portion of the obligation to each particular creditor, thus no creditor could recover his complete obligation by pursuing a single shareholder, even if that shareholder's total obligation to all creditors exceeded the amount owed by the firm to the creditor in question.<sup>39</sup>

More importantly, there were two limitations to the shareholder liability that make it, perhaps, less onerous than it may appear at first. It was possible for creditors to waive shareholder liability by contract. Also, shareholders were only liable for the firm's obligations for a period of three years after the obligation was entered into. This is important

<sup>&</sup>lt;sup>36</sup> See 2 Marsh, California Corporation Law §15.13 (1983) for a summary of how the system worked.

<sup>&</sup>lt;sup>37</sup> Muller v. Coast Counties Gas & Electric Co. 271 P. 338 (Judgment against firm did not bar larger judgment against shareholder when firm was still in process of appealing verdict against it so that the first decision was not yet final).

<sup>&</sup>lt;sup>38</sup> This means that separate action was required against each shareholder, and each shareholder could raise the facts of the underlying case. This is in contrast to the situation facing creditors of National Banks, where, after the initial adjudication that the bank was insolvent and obligations remained outstanding, the only defense available to an alleged shareholder was the she was not, in fact, a shareholder. See Macy and Miller cited in fn.16 above.

<sup>&</sup>lt;sup>39</sup> Gardiner v. Bank of Napa, 117 P. 667 (1911).

because it means, for debt obligations of longer than three years duration, shareholders were not liable for any default occurring later than three years after the date the debt was entered into<sup>40</sup>. Both of these suggest that any potential effect of the pro-rata liability regime in California was likely to be small except for firms facing significant tort-risk of a type not requiring class-action litigation. More importantly, for this paper, it suggests that we must look beyond the effect of the regime shift on the shareholders of public corporations.

# D. The Change: 1927 – 1931

Table 1 below presents the chronology of significant dates in the legislative progress toward the revised corporate code of 1931, which provided limited liability for California Corporations.<sup>41</sup> The process proceeded in two main steps and required two separate amendments to the constitution. In the first step voters in November of 1928 approved Senate Constitutional Amendment 5, summarized on the ballot as follows:

Amends Section 3, Article XII of the Constitution. Declares constitutional provision imposing stockholder's liability for debts of corporations or joint-stock associations, and director's or trustee's liability to creditors and stockholders for moneys embezzled or misappropriated by officers, shall not apply to ...California corporation using "Limited" or "Ltd." as the last word of corporate name, subjecting stockholders...to such liabilities as Legislature may provide.

This proposition did not change the liability regime, but it did empower the legislature to enact legislation that would change the regime for firms with the appropriate names.<sup>42</sup> During the following session the legislature did adopt such enabling legislation. It also passed legislation simplifying the process by which a corporation could change its name, so that all that was needed was a by-law amendment. Thus, by August of 1929, the

<sup>&</sup>lt;sup>40</sup> This restriction would serve to mitigate the argument outlined in Halpern (cited footnote 1 above) that extended liability regimes will lead to costly risk shifting between stockholders and bondholders.

<sup>&</sup>lt;sup>41</sup> At this time the legislature met only in odd numbered years.

<sup>&</sup>lt;sup>42</sup> The restriction on corporate names, in effect providing a warning to creditors that they have no recourse to the shareholders of such a firm, is essentially the same as that adopted in the Companies Act of 1855, which was the first broad limited liability act in England. In England the restriction on names was dropped in 1858.

date the two acts came into effect, any new, or extant, corporation in California could achieve limited liability without judicial or legislative intervention.<sup>43</sup>

These provisions clearly had the support of the corporate bar in California. The report of the State Bar Committee on Constitutional Amendments supported the amendment, without passing on the fundamental issue of limited liability, by arguing that the then current provision was insufficiently adaptable and that the legislature should be free to modify it.<sup>44</sup> The Report of the Committee on Revision of the Corporate Laws, however, was much more supportive of changing the liability regime. This committee, with Henry Ballantine as its draftsman and secretary had been holding public hearings during the summer of 1928 and drafted a proposed revision of the corporate code. It concluded that the California law was outdated in a number of ways, and in particular noted in its report:

Section 3 [of Article XII currently] provides...for proportional stockholder's liability for debts of the corporation which the Committee, after public hearings, correspondence and consideration, think should be eliminated entirely. It is a law peculiar to California, not found in any of our forty-eight States, and its disadvantages outweigh any beneficial effects it may have. It discourages, to an important extent, the investment of outside capital in the stock of California corporations. It also makes impossible the stock structures demanded in modern corporate financing, and so drives California enterprises to incorporate in other states.<sup>45</sup>

(footnote continues on next page)

<sup>&</sup>lt;sup>43</sup> Except for banks and insurance companies, which were excluded from provisions of the constitutional amendment passed in 1928. One potential problem with moving to limited liability in this manner was the tax treatment of a corporate name change that carried with it a change in shareholder obligations. Potentially the IRS could rule that such an event triggered a tax liability. However, by 1928 this was unlikely. See footnote 68 below.

<sup>&</sup>lt;sup>44</sup> 3 California Sate Bar Journal 8 (1928).

<sup>&</sup>lt;sup>45</sup> Report of the Committee on Revision of the Corporation Laws, 3 California State Bar Journal 13 (1928). The minutes of the committee, which will be discussed later in the paper, (see section III.G infra) make it clear that from the very first meeting it was assumed that any new corporate code would include limited liability. However, the then current liability regime should not have driven California corporations to incorporate in other states, as this would not have avoided liability for activities conducted in California. This was well settled by 1928. Moreover, while the minutes clearly reflect that the argument regarding incorporation in other states was made, they present no systematic study of the matter, and other rationales are offered for incorporation outside of California. Having said that, we note that at least one firm that was in our original of sample of California to Delaware in 1930. But this was after it could obtain limited liability in

During the next session of the state legislature a second proposition was placed on the November, 1930 ballot. This proposition amended the constitution to give all power to set the liability regime to the legislature by repealing Article XII §3 of the constitution (the section that established pro-rata limited liability). The measure passed. In January, 1931 a new corporate code for California, which had been drafted by the state bar committee on revision of the corporate code, was submitted. It passed the legislature, was signed by the governor, and became effective in August 1931.

#### **III.** EVIDENCE ON THE REASONS FOR, AND EFFECT OF, THE REGIME CHANGE

With the history out of the way, we now turn to an analysis of the change itself. We first examine the effect that the change had on shareholders and on corporations. When we have finished that analysis, we turn to analysis of trade press, the ballot referenda and the minutes of the State Bar Committee on Revision of the Corporate Code to examine the political economy of the regime change.

#### A. Evidence on the Effect of the Regime Change

#### 1. The Effect on Share Prices

# i. New York Stock Exchange Listed Stocks

If limited liability were value maximizing we would expect that adopting limited liability would increase the share price of California corporations. On the other hand, if limited liability is value neutral because creditors can adjust their terms of trade, adopting limited liability should have little effect.<sup>46</sup> Our first inference, then, is drawn from share price reaction to events surrounding the change in the liability regime.<sup>47</sup>

California just by a name change, so it is doubtful that the liability regime was the driving force in the reincorporation.

<sup>&</sup>lt;sup>46</sup> Again, recall that, absent possible reduction in transactions costs associated with making limited liability the default rule, the advantages associated with limited liability become most important in matters of tort. As noted in footnote 27 above, mass corporate tort was not a matter of concern at that time.

<sup>&</sup>lt;sup>47</sup> We will find that any effect of the liability change is too small to be detected with the data at hand. Robert Thompson has suggested that, given the fact that in his large empirical study of veil-piercing (cited in fn. 7 above) he was unable to find a single case where natural shareholders of a publicly traded corpora-

<sup>(</sup>footnote continues on next page)

We note here that there is potential bias toward finding that the change in liability had no effect on share prices. If choice of incorporation were endogenous, then we would expect firms to choose the state that is optimal for them. Thus, we might expect firms that incorporate in California to be those firms for which *pro-rata* unlimited liability is a superior liability rule to limited liability. However, there are a number of counterarguments. First, not all firms were free to choose their state of incorporation. For example, because of limitations on interstate branch banking, banks that accepted deposits in California were likely to be incorporated in California. Similarly, public utilities that served part of California were likely to be incorporated in California. We must also recognize that incorporation outside of California may be more costly for a California firm than incorporating inside California.<sup>48</sup> While these differential transactions costs might be fairly unimportant for a large firm, they might be important for small firm doing all, or virtually all, of its business in California. We have already seen that for a firm doing all or virtually all of its business in California, foreign incorporation would provide little benefit. Thus, it would appear that if the move to limited liability increases shareholder wealth, we may still be able to detect the wealth change.

We collected the monthly holding period returns (including dividends) for the period 1926 – 1935 for every NYSE listed firm incorporated in California and for a sample of matching firms not incorporated in California. Define an "event month" as a month in which steps in the legislative or electoral process associated with changes in liability regime occurred.<sup>49</sup> We assume that the following modified market model generates holding period returns:

tion were found liable, the results we present are to be expected. That our results are, upon reflection, not surprising may well be true, but not just for the reasons Thompson supposes. His study deals with veil piercing in a legal regime in which shareholder's were only liable by exception. We deal with the move to that regime from one in which shareholder liability was well established. Thus, Thompson's study is of limited applicability to ours. Indeed, to the extent they show that natural shareholders of publicly traded firms are never found liable in a limited liability regime, they suggest that the regime shift we study is more likely to have an effect on shareholder wealth.

<sup>&</sup>lt;sup>48</sup> This is true even if the only added expense is retention of counsel in the state of incorporation. Lower corporate filing fees outside of California could offset this disadvantage.

<sup>&</sup>lt;sup>49</sup> These event months will be defined later.

$$R_{jt} = + R_{Mt} + CALFIRM_{j} + EVENTMO_{t} + CALEVENT_{jt} + _{jt}$$
 (1)

where:  $R_{jt}$  is the return on security j during month t, CALFIRM<sub>j</sub> is a dummy variable taking the value of 1 if the j<sup>th</sup> firm is incorporated in California and 0 otherwise, EVENT-MO<sub>t</sub> is a dummy variable taking the value of 1 during any "event month" and 0 otherwise and CALEVENT<sub>jt</sub> is the product of CALFIRM and EVENTMO.<sup>50</sup>

This is a simple augmented market model. We make the simplifying assumption that  $\alpha$  and  $\beta$  are constant across firms <sup>51</sup>,  $\delta$  measures the incremental average return to being incorporated in California over this time period,  $\hat{e}$  measures the incremental return during the event month(s) in question and finally,  $\mu$  measures the incremental return to being a California corporation during the particular event month(s) in question. If the move to limited liability increased the value of shares in California firms, we would expect the to find higher returns to California firms over this period, and that higher return should be concentrated in months during which the likelihood of a change in the liability regime increased, thus  $\hat{i}$  should be positive.

In order to examine this matter we needed to construct a sample of publicly traded firms incorporated in California. The first step was to construct a candidate list of firms whose names included the word California, Western, Pacific, Alaska, Hawaii (or variants thereof), or the names of any major California city. I also looked at all firms engaged in motion picture production and at all banks, railroads, and other companies that I had reason to believe did business in California.<sup>52</sup> While I cannot claim that the list is exhaustive, it does appear to be reasonably complete. I then examined the Moody's Manuals for

<sup>&</sup>lt;sup>50</sup> This formulation means that when we run the regressions for multiple month events (e.g., all events associated with any legislation that affected liability in California) the  $\hat{e}$  and  $\hat{i}$  that we estimate will be a weighted average of the  $\hat{e}s\hat{i}s$  that are obtained from estimating each month in the period separately. To aid the reader in interpreting our results, we present both separate-month and multi-month regressions

<sup>&</sup>lt;sup>51</sup> All empirical results presented have been replicated by estimating a model which estimated separate  $\alpha$ 's and  $\beta$ 's for each firm. The inferences to be drawn from the results was unaffected by the inclusion of the extra parameters.

<sup>&</sup>lt;sup>52</sup> Often this reason was based on knowledge of the firms association with specific donors to the University of Southern California, or simply that I had observed that the firm, or a successor, did business in California (e.g., Emporium).

1925 and 1935 to see if, in either of these years, the firm was incorporated in California. This seems like a rather strange way to get a list of California corporations. It is. However, I have been unable to locate any listing of firms incorporated in California during that time. The government offices maintain no such list. Thus the roundabout approach.<sup>53</sup>

There were only six firms whose common stocks in the CRSP monthly return file for this period that were incorporated in California: Associated Oil, Market Street Railway, Pacific Gas and Electric, Pacific Telephone and Telegraph, Southern California Edison, and Pacific Lighting.<sup>54</sup> These firms are all either petroleum or public utilities.<sup>55</sup> To reduce the likelihood of confounding industry and liability regime effects, we chose a control sample of non-California public utility and oil firms. The control sample included: Brooklyn Union Gas, California Petroleum, Consolidated Gas, Marland (Continental) Oil, Detroit Edison, Standard Oil of New Jersey, Standard Oil of California, Superior Oil.<sup>56</sup>

Table 1 presents the significant months during the regime change. These are months during which significant legislation either was introduced in the first house, passed the introducing house after approval by the other house, was signed into law. I have also included the months of the 1928 and 1930 elections that approved the two constitutional amendments. Equation (1) was estimated for the various months separately,

<sup>&</sup>lt;sup>53</sup> More intensive searches of business directories and Moody's manuals have not turned up any California firms that were missed.

<sup>&</sup>lt;sup>54</sup> The CRSP tapes only contain prices for common stock.

<sup>&</sup>lt;sup>55</sup> Of course, these might be just the kind of firm for which limited liability was unimportant. In the next section we examine a sample of firms that were not listed on the NYSE and that come from a broader array of industries.

<sup>&</sup>lt;sup>56</sup> Clearly I desired a sample of large city utility firms. Detroit Edison is on the list because, in the 1930 census, Detroit was the city closest to Los Angeles in population. It is possible that including Standard Oil of California with the non-California firms is problematical. As it had significant operations in California, and shareholders were liable for those debts, it might be argued that it should be included with California firms. The regressions reported below have been replicated with Standard of California classified as a California firm and no inference is affected. An obvious source of non-California firms with significant California operations would be the major motion picture studios. However, as none of the studios were incorporated in California, it would be difficult to disentangle any industry effect from the "change in regime" effect that might be found from something that was going on in that particular industry. Using the film industry is especially problematical at this time as this is the time that the industry was changing from silent to sound movies, entailing significant changes in the way the studios did business.

and for groups of month corresponding to certain legislative initiatives. The results of these regressions are presented in Table 2.

In Table 2 we look to the coefficient on the variable CALEVENT to draw inference about the effect of changing the liability regime on share values. If limited liability increases shareholder wealth relative to *pro rata* unlimited liability, we should see a significant, positive, coefficient on that variable.<sup>57</sup> In virtually every month, and for all the combinations of months estimated, the coefficient on that variable is insignificantly different from 0. That is, overall, there is no evidence that the change in liability regime was associated with an increase in shareholder wealth. The last line of the table shows that over all twelve event months the coefficient is .002 and is not reliably different from 0. It is possible that we have missed some significant months during this period, however, if that were the case, we would expect the coefficient of CALFIRM, which measures the incremental return to firms incorporated in California during non-event months during our period would be positive. However, that coefficient is also insignificantly different from zero.<sup>58</sup>

Of the twelve separate event month regressions, the coefficient is significantly different from 0 in only two of them, once negative, once positive. While this is, again, not suggestive of any significant effect arising from the change in liability regime, the one month in which there was a significant positive coefficient was January, 1929, the month in which SB324 (the enabling legislation for the amendment approved at the November, 1928 general election), SB792 (which simplified the process by which a corporation could change its name to take advantage of passed the previous fall and SCA24 (which would permit the legislature to adopt limited liability for all California firms) were introduced in the Senate. Thus, it is possible that the significant coefficient in that month were related to the change in liability regime. In order to examine this possibility

<sup>&</sup>lt;sup>57</sup> Of course, this is subject to the usual caveats about whether or not the event(s) that occurred in that month was a surprise, and the power of the tests.

<sup>&</sup>lt;sup>58</sup> Recall, as was pointed out in footnote 51, all empirical results have been replicated in a model with different β's for each firm. They have also been replicated using an estimation technique that permits firm and month components in the residual variance. Again, inferences regarding limited liability are unaffected.

we collected daily share prices for the month of January, 1929. In order to control for possible industry effects, we limited ourselves to the public utility firms and oil firms in our sample and conducted a separate analysis of the return differential between California and Foreign incorporated firms for each industry.<sup>59</sup> The return differential between the California and Non-California utilities is presented in Figure 1, and that between the California and Foreign oil firms is presented in Figure 2. The bars represent the daily difference between the average return of the three California utilities and the three foreign utilities. The legislation in questions was all introduced on or before January 18, 1929. It is clear from the bars in Figure 1 that the positive return differential for utilities is concentrated in the last three days of the month. Indeed, the cumulative return differential from January 2<sup>nd</sup> to January 28<sup>th</sup> is negative.<sup>60</sup> Thus, it seems unlikely that the return coefficient reported in the regression for January, 1929 is, in fact, due to the change in the liability regime. Figure 2 presents a similar analysis for the oil industry. Again, there is nothing unusual about the period prior to January 18<sup>th</sup>. As a final check, Figure 3 presents an analysis of both oil and utility stocks. Here we treat the return difference as the average of the return difference for the utilities and the return difference for the oils. In effect, we imagine an investor following a policy of going long California Utilities and Oils and financing that position by offsetting short positions in Foreign Utilities and Oils. Again, even with the increased precision afforded by variance reduction from taking the average of the average of the two industries there is nothing abnormal about the period when the legislation was introduced. We also tested the hypothesis that the return differences during the period after January 18<sup>th</sup> were identical in mean to those from the earlier part of the month. We were unable to reject the hypothesis that the mean return differentials are the same for both part of the month. Thus, it appears that, whatever, if anything, was go-

<sup>&</sup>lt;sup>59</sup> One problem with limiting ourselves to the public utility firms in the sample is that, for these firms, avoidance of tort liability is likely to be of minimal value. If this is a serious problem, doing the analysis separately for the oil firms may solve it.

<sup>&</sup>lt;sup>60</sup> Those unfamiliar with the properties of the cumulative return differential may find some significance in the fact that the cumulative differential rises above the upper 26 line. However, if the daily return differences are independent, the standard deviation of a cumulative return difference computed over n days is  $n^{1/6}$ , where 6 is the standard deviation of the daily return differential. None of the cumulative return differences even approach statistical significance.

ing on during January, 1929 it was unrelated to the legislative process implementing the results of the 1928 referendum.

It is likely that tests based on this small a sample lack the kind of power we may be used to in large sample event studies. However, based on the behavior of share prices of the most frequently traded and largest publicly traded firms incorporated in California, there is no evidence that the change in liability regimes had any effect on shareholder wealth. <sup>61</sup>

# 2. Non-NYSE Listed Companies

We collected data on other firms incorporated in California but either unlisted, or trading on the American (then the Curb), Los Angeles or San Francisco Stock Exchanges.<sup>62</sup> Because of the difficulty in tracking down ex-dividend dates for small firms, we limited ourselves to percentage price changes, rather than the holding period returns. This should not bias our results unless dividend payment months are correlated with event months. Before proceeding we must note that the quality of this data is very poor. Many of the shares trade for prices of under \$1, which means that rather small price

<sup>&</sup>lt;sup>61</sup> While, in principal, daily return data could have been used throughout the study of NYSE listed share prices, I do not believe that it would add much to the analysis. First, the events that we are looking at did not have a precise date at which they occurred. There were no major announcements in newspapers or other media concerning these events, the change in liability regime had been discussed over time. Thus, it is unlikely that there would, in fact, be much in the way of increased precision when moving to daily returns. Of course, this also implies that tests using monthly returns are not as powerful as we would like, but one must play the hand one is dealt. On the other hand, faced with the potential that there is an effect in this particular month, it behooves us to look further, and here daily data was be helpful.

 $<sup>^{62}</sup>$  As there are no machine-readable files for this data, end of month prices were taken form the Los Angeles Times, San Francisco Chronicle, Wall Street Journal, Bank and Quotation Record and the Commercial and Financial Chronicle. Many of these companies were quite small and quotes for many of them are infrequent. When possible, percentage price changes were computed using the average of the bid and ask prices. When this was not possible, price changes were computed on a bid-to-bid or ask-to-ask basis. The presence of multiple data sources enabled us to check for, and eliminate, prices from one source that were inconsistent with prices from other sources (for example, a situation where a stock that traded in the \$70 range was reported in one source as having a price, for one month, of 70¢). We excluded firms that changed their state of incorporation out of California during the period. We are afraid that any price change associated with impending charter change might lead to mistaken inference.

changes become large *percentage* price changes. Also, many of these stocks appear to be rather illiquid.<sup>63</sup>

An examination of Table 3 reveals little evidence of a pervasive, positive, effect associated with the arrival of limited liability. When we look at the individual months, we see more evidence of *negative* average price changes than of positive.<sup>64</sup> However, there are two months, May 1929 and May 1931 where the market-adjusted returns are, on average, positive.

May 1929 was the month when the legislation enabling the amendment passed in 1928 passed the senate and became effective. It seems strange to have a large positive price effect during this month. First, there could not have been any real doubt that the enabling legislation would pass. To the extent that any uncertainty was resolved about the likelihood that California firms could gain limited liability, it would have been resolved during November, 1928, the month of the election, and for that month the market adjusted price changes are significantly negative. Further, the significantly negative. That is, it would appear that the reason that these California firms did so well was that the market did so poorly. Moreover, during the following month the return adjusted for market moves was significantly negative.<sup>65</sup> Finally, while the sample reported in Table 2 is small, there is no evidence that there was anything significant happening to the NYSE listed California companies during May 1929. For these reasons we find little support for

<sup>&</sup>lt;sup>63</sup> There are a large number of shares for which bid-ask spreads are quite large, or for which there are only bid or only ask prices. For many firms even these, rather incomplete, quotes are available only intermittently. This precludes fitting "market model" or similar regressions to individual companies with any degree of reliability. See Mark Weinstein, The Behavior of Corporate Bond Prices, 1977 for details on the difficulties in drawing inference of security prices in these circumstances.

<sup>&</sup>lt;sup>64</sup> The negative effect is consistent with the possibility that firms that incorporated in California were firms that *liked* the *pro-rata* unlimited liability that went along with California incorporation. While this is possible, I think it much more likely that the significant negative price changes are due to data problems. I have been unable to locate a single argument, either in the press or in the minutes of the State Bar Committee on the Revision of the Corporate Code that suggests that any firms actually *favored* the then current liability regime.

<sup>&</sup>lt;sup>65</sup> Note that alternating patterns of positive and negative returns, at the individual security level, are consistent with price data that is of low quality. See Weinstein, cited in footnote 63 above.

the idea that the change of liability related events of May 1929 had a significant effect on share prices.

The other month with significant market adjusted returns was May 1931. This was the month that AB 1000, the revised corporate code, passed the Assembly and the Senate. Again, the passage of this bill could not have been a big surprise. It had been discussed for years and the constitutional amendment approved by the voters in November 1930 was intended to facilitate this bill. Again, the raw returns were negative for the month. In this case an unadjusted mean percentage price change of -2.3% becomes a market adjusted price change +11.97% (using the equal weighted index), implying that the percentage price change on the market portfolio was less than -13%. Again, the following month's excess percentage price change is negative and significant. Again, there is no evidence in Table 3 that the events of this month had any effect on the non-NYSE listed firms.

Finally, the last row of Table 3 presents the average, over all event months and firms, of the percentage price changes. Here, again, we see no evidence that the events associated with the change in liability regime were associated with positive price changes. Indeed, for this sample of firms, the excess percentage price changes are, in fact, significantly negative.

In a further attempt to find an effect of the regime change on share prices, we separated the sample into two groups, banks and non-banks.<sup>66</sup> In results not reported here, we found no significant differences in the returns to banks and non-banks. Again, this is consistent with the change in liability regime having no effect on shareholder wealth.

# B. Evidence from Corporation Board Minutes

I have been in contact with a number of firms that were incorporated in California during the relevant period in an attempt to examine the minutes of board of director meet-

<sup>&</sup>lt;sup>66</sup> Recall that the new code did not give limited liability to banks.

ings that took place at that time. Only two firms, Pacific Lighting and Southern California Edison have agreed to let me examine the board minutes.<sup>67</sup>

The board minutes of Pacific Lighting do not reflect any discussion of the change in the shareholder liability regime. Over the entire period from 1926 to 1932 there is no mention of any discussion of the change in law. It is tempting to conclude that the board did have discussions, but the minutes are sanitized, or that the board did not pay any attention to what was going. It is not as though the board never took any action in response to a change in the legal environment in California. On the same November, 1928 ballot that included Senate Constitutional Amendment 5 there was another amendment approved by the voters, that extended the permitted life of a corporation. The Pacific Lighting Board took advantage of this, by adopting the appropriate by-law revision. However, they did not adopt, nor apparently even discuss, the corporate name change that would have given their shareholders protection from corporate creditors.

At Southern California Edison (SCE), the situation is different. Of the New York Stock Exchange listed firms, SCE is the only one that changed its name (to Southern California Edison, Limited) to take advantage of the 1928 amendment. This change was introduced, and approved by the board at its meeting on January 31, 1930, within about 6 months of the effective date of the 1929 legislation. There is no discussion of the change, other than noting that the change in the legal environment makes this change desirable. There was no discussion of the potential implications of the 1928 amendment prior to the election, nor was there discussion subsequent to the election, save for the small notice just referred to. It is not as though the SCE board never had any discussion of issues facing the company. Over this period, there were notations in the board minutes that, for example, "the Colorado river situation" was discussed.

<sup>&</sup>lt;sup>67</sup> I thank by colleagues, Guilford Babcock and Lloyd Levitin, whose personal appeals on my behalf made this possible.

# C. Corporate Name Changes

As was discussed above, by August 1929 any California corporation that wanted it could obtain limited liability for its shareholders simply by amending it by-laws to reflect a new name for the firm with "Limited" or "Ltd." as the last word in the title. We have seen that Southern California Edison did exactly that. If limited liability were expected to be beneficial to owners, we would expect that there would be a surge in corporate name changes, as firms already in existence arranged for reduced shareholder liability.<sup>68</sup> We have already seen that this was not the case for our sample of NYSE listed firms, as only one changed its name.<sup>69</sup> Table 4 presents data from the Reports of the California Secretary of State for the period from July 1926 to June 1930.<sup>70</sup>

If there were a backlog of companies that wanted to take advantage of limited liability by changing their name, we would expect to see an increase in number of corporate name changes during the 1929/30 fiscal year.<sup>71</sup> In order to have some basis for comparison, we present both the total number of new incorporations and the number of name changes. We would expect a rush by corporations to change their names to be reflected in an increase in the ratio of name changes to new incorporations. In fact, the ratio stays fairly constant and, if anything, it decreases to .58 in 1929/30 from .60 over the preceding three-year period. Thus, we see no evidence of an increase in corporate name changes following a change in law that permitted firms to obtain limited liability simply by chang-

<sup>&</sup>lt;sup>68</sup> It has been suggested to me that there was sufficient uncertainty about the tax-free status of reorganizations that a reasonable tax lawyer in 1929 might have felt that there was a significant potential for a name change that resulted in limited liability would have been ruled a reorganization and then be found taxable. The Supreme Court had held that reincorporating in Delaware from New Jersey was a taxable event (Marr v. United States, 268 U.S. 536 (1925)). However, the Revenue Act of 1928 clearly made reorganizations in which shareholders received stock tax-free, and further defined a reorganization to include "a mere change in identity, form, or place of organization however effected." (Ch. 852, 45 Stat. 791, §112(C)(i)(D))

<sup>&</sup>lt;sup>69</sup> At least one of the firms in our larger sample changed their names. Gilmore Oil became Gilmore Oil Ltd. during November 1929. Honolulu Oil (which, contrary to its name, did not do any business in Hawaii) became Honolulu Oil, Ltd. However, it was excluded from our sample because, though incorporated in California at the start of our period, it changed its state of incorporation to Delaware.

<sup>&</sup>lt;sup>70</sup> The number of name changes that simply added the word "Limited" or "Ltd." to the firm name was not separately tabulated. Thus, we cannot be sure how many name changes were, arguably, prompted by the change in regime.

<sup>&</sup>lt;sup>71</sup> While the start of the fiscal year does not correspond exactly to the date the new law went into effect, it is reasonably close. Southern California Edison did not change its name until January 31, 1930.

ing its name. Indeed, the number of name changes actually declined by more than 15% from the prior year while the number of new incorporations rose by about 2%.

The evidence, though weak, does have one advantage over our previous examination of publicly traded firms. We have already pointed out that we find no appellate court record of any creditor successfully going after the shareholder's of any *publicly* traded firm incorporated in California.<sup>72</sup> Thus, it is possible that shareholders of these firms perceived themselves to be immune from liability. In that case, we would expect to see little or no price response, and also no need for the board to go the expense, small though it may be, of changing the corporation's name. The data from the Secretary of State's Annual Reports, on the other hand, covers all firms in California, public and private. These results are broadly consistent with the inference drawn by looking at the publicly traded firms—limited liability appears to be a matter that was not of much concern to owners.

We have seen arguments made at the time of the change in liability regime that firms were incorporating outside of California in order to avoid the pro-rata unlimited liability regime in California.<sup>73</sup> Some evidence from Nevada is consistent with this. Table 5 presents data on the number of new incorporations and income from various corporate related fees for Nevada during the period 1924-1935. When we look at the number of new incorporations, it appears that there is an increase in the number of new firms incorporated in Nevada in 1926.<sup>74</sup> Unfortunately, the data on the number of firms stops in 1928, so we cannot look at what happened after California moved to limited liability. However, we do have data on the "total receipts from corporations." We would expect

 $<sup>^{72}</sup>$  It is not that we have seen denials of shareholder liability. We have seen no example of creditors even attempting to go after the shareholders of any publicly traded California corporation. See footnote 47 above.

<sup>&</sup>lt;sup>73</sup> Of course, as pointed out earlier, this was of no avail for that part of the business conducted in California.

<sup>&</sup>lt;sup>74</sup> Nevada adopted a new corporate code in 1925 (Nevada Stat. Ch. 177), which replaced an earlier code that dated from 1903 (Nevada Stat. Ch. 88). There does not appear to be any change in shareholder liability between the two codes. The earlier code did, however, contain an express provision that prohibited action against the shareholder of a Nevada corporation under any liability imposed upon shareholders under the laws of any other state. This express provision is missing in the 1925 act, but is presumably covered by §15 ("No stockholder in any corporation ...shall be individually liable for the debts or liabilities of the corporation..."). While one can easily imagine that some provisions of the new code made incorporation more attractive for Nevada firms, it is difficult to see how this was related to any change in shareholder liability.

this to be related to corporate activity, as corporation fees would be a major source of such revenue. Here, we see that the revenues, which were rising prior to 1929 decline in 1930 and, by 1932 are less than 40% of what they were in 1929. This is consistent with the hypothesis that California's adoption of limited liability caused firms to move out of Nevada to California. However, it is also consistent with the hypothesis that general economic conditions—"The Great Depression"—drove a reduction in corporate activity.

# D. Evidence from the Number of Corporate Income Tax Returns

In Sections III.F and III.G below we review the arguments made for and against the change in liability regimes at various hearings and in the voter information distributed in connections with the 1928 and 1930 elections. These arguments are not primarily couched in terms of the effect of the liability change on the ease of firms incorporating in California, but rather on the ease of firms doing business in California. We can examine this by looking at the number of firms filing Federal Corporate Income Tax Returns in each state.<sup>75</sup> While the data is subject to various interpretations, it does provide some evidence that may be interpreted as indicating that following the change to limited liability in California there was a relative increase in the number of corporations in California and a relative decrease in the number of corporations in the bordering states of Arizona, Nevada and Oregon.<sup>76</sup>

Figure 4 presents the percentage change in the number of income tax returns from 1931 to 1934. The percentage increase in the number of firms California corporations filing income tax returns is the  $16^{th}$  highest, while for each of the adjacent states the number of firms filing actually decreased. However, this evidence is at best, only suggestive. There were significant events in the macro-economy at this and it is difficult to disentangle business-cycle effects from any effect of the change in liability regime in California. For example, if there were cross-sectional variation in the business cycle, the evidence in

<sup>&</sup>lt;sup>75</sup> This data is provided in the Statistics of Income, Report of the Commissioner of Internal Revenue, Treasury Department, for each year. Income tax returns are listed by the state in which they have their principal place of business (except for subsidiary firms filing consolidated returns with a parent company).

<sup>&</sup>lt;sup>76</sup> For the sake of simplicity, in this sub-section only, when we refer to firms as being "California" (or any other state) we mean that they have their principal place of doing business in that state.

Figure 4 may simply be a manifestation of a stronger California economy relative to that in the bordering states. Some evidence that this is what is going on is contained in the percentage of firms reporting positive net income on their income tax returns.<sup>77</sup> Over the 1923-1934 period 21.83% of the Federal Corporate Income Tax returns filed in the United States reported positive income. The percentage in California was 23.03%, while the percentages in Oregon, Arizona and Nevada were 17.39%, 19.50%% and 17.70% respectively. Thus, while the percentage of firms with positive income was higher in California than in the nation, that in each of the bordering states was lower. If, as we would expect, this is indicative of a stronger California economy, then the change in the number of firms filing income tax returns may well be unrelated to the change in liability regime.

# E. Evidence from Trade Publications

If the change in liability regime was important to creditors, we might expect that lenders, especially bankers, would have been concerned. On the one hand, the inability to seize personal assets would be detrimental to creditors. On the other hand, as pointed out by Mahoney, the ability to separate personal from corporate assets may make lending more efficient.<sup>78</sup>

We examined every issue of the *California Banker*, official publication of the California Bankers Association (CBA) from 1926 to 1932. We found no indication that the CBA took any position on the change in liability. It was mentioned only in context of reviews of legislation, and then only in passing. The CBA clearly took positions on legislation that affected banking, *per se*, but appears to have been indifferent to the change in liability regime. Also, after the change in liability regime, we do not see any analysis of how the change will affect bank lending. One of the functions of the *California Banker* was providing model documents for various banking transactions. We would expect that certain information that used to be relevant for lending to individuals (e.g., Do they own stock in any California corporations?) would change. Yet, we see no new model forms, or advice on new credit guidelines, provided.

<sup>&</sup>lt;sup>77</sup> These figures are in the same reports as the number of income tax returns filed.

The one exception to this is the fact that the CBA supported legislation to impose double shareholder liability for state chartered banks. This brought the liability regime for state chartered banks into conformity with that for federally chartered banks. This change was necessitated by the change in the liability regime that is the subject of this paper. Absent the change, there would have been no shareholder liability for California banks, a situation with which the CBA was uncomfortable.

# F. Evidence from the Ballot Propositions

# 1. Coverage of the Propositions and the Voter Statements

So far we have seen little or no evidence that the change in liability regime had a significant effect on California Corporations.<sup>79</sup> We can, however look at some evidence that may provide insight into what was *expected* from the change. Because the move to limited liability required amending the progressive era constitution of 1879, which enshrined pro-rata limited liability, we may be able to get some information about the politics and political economy of the change by analyzing the vote and the supporters of the amendments.

In general, the major newspapers and the corporate community in California supported the 1928 amendment. The State Bar supported it. Interestingly, while the Los Angeles Times and the San Francisco Chronicle supported the amendment, the Sacramento Bee opposed it. The Bee advised voters that the proposition would be "in the interest of promoters and not of creditors."<sup>80</sup> Also, in keeping with our earlier argument, nowhere in any discussion of either the 1928 or 1930 propositions is there any discussion of the differential effect of limited liability on tort and contract obligations.

Under California law, statements provided by supporters and opponents of the proposition may accompany ballot initiatives. We have the argument in support of the

<sup>&</sup>lt;sup>78</sup> See Mahoney, cited in footnote 10 above.

<sup>&</sup>lt;sup>79</sup> We now return to our normal convention. The phrase "California Corporation" refers to a corporation whose state of incorporation is California.

<sup>&</sup>lt;sup>80</sup> Sacramento Bee, Nov. 1, 1928. The Bee's editors didn't consider the possibility that creditors could simply adjust their rates to compensate for increased risk.

1930 amendment.<sup>81</sup> Three points are made in support of the argument. First, that the state needs a "modern system of laws for the regulation of corporations, better adapted to the present day economic and social conditions than the antiquated laws we now have."<sup>82</sup> Inman cites "Dean of the State University Law School,"<sup>83</sup> and also presents the famous quote from Nicholas Butler, President of Columbia University: "The limited liability corporation is the greatest single discovery of modern times."<sup>84</sup>

The second argument is that:

Thousands of corporations, organized by California citizens to transact business in California, incorporate under the laws of other states because they cannot obtain reasonable corporate facilities at home. It is absurd for the people of California to continue to place themselves under this disadvantage.<sup>85</sup>

It is not at all clear what this means. First, it was a matter of settled law that foreign corporations doing business in California were subject to the same liability, for California debts, as California corporations.<sup>86</sup> Thus, on the face of it, this part of the argument is false. Moreover, even if it were not false, it is not at all clear that California corporations suffer a significant loss by being organized under the laws of, say, Nevada. It is true, that the state misses out on corporation-filing fees by having firms incorporate out-ofstate, but that is not mentioned in the argument.<sup>87</sup>

<sup>&</sup>lt;sup>81</sup> We have been unable to locate the arguments from the 1928 initiative. It appears that there were no arguments provided against the 1930 amendment. Of course, these arguments must be taken with the proverbial grain of salt. The arguments are intended to convince voters and hence may not reflect the actual rationale of supporters.

<sup>&</sup>lt;sup>82</sup> J. M. Inman, Argument in Support of Senate Constitutional Amendment No. 24, Proposed Amendments to Constitution and Proposed Laws to be submitted to the Electors, Tues. Nov. 4, 1930, p. 21.

<sup>&</sup>lt;sup>83</sup> Ibid.

<sup>&</sup>lt;sup>84</sup> ibid. Apparently President Butler never tasted a cold beer.

<sup>&</sup>lt;sup>85</sup> Ibid. Dan Klerman has pointed out to me that perhaps this argument should be read to mean that corporations organized by California citizens, primarily to do business in California, are being incorporated out of state in order to obtain limited liability for non-California debts. As we will see later on (see Section III.G below), there were no empirical studies done to support this claim.

<sup>&</sup>lt;sup>86</sup> See footnote 34 above.

<sup>&</sup>lt;sup>87</sup> Though loss of fees is mentioned by Ballantine, California Corporation Laws 1932.

The third argument is that California corporations are unable to raise sufficient equity because of pro-rata unlimited liability. It is rather difficult to imagine that California firms were, in fact, short of capital because of the liability regime. First of all, in the 1920's the California economy was thriving, as Los Angeles became, by 1930, the fifth most populous city in the U.S. Second, even if the liability regime did reduce the supply of equity capital because creditors would have access to shareholder wealth, this same access would imply that lenders would be *more* willing to provide funds. To a first approximation, if transactions costs are not too high, the substitution of debt for equity should not matter.<sup>88</sup>

One telling point regarding the proposition is the unanimity of support that it had among the "powers that be". The 1930 proposition passed both the Assembly and the Senate unanimously, and had the support of major newspapers in the state.<sup>89</sup> Essentially, the argument amounted to an argument for modernity. California was a modern state, and modern states had limited liability.

The actual voter turnout on the propositions suggests that they were not controversial. The 1928 proposition passed with 56.39% of the vote. Of the 21 ballot propositions, this was the 15<sup>th</sup> highest positive vote. It attracted a total of 1,067,824 votes, the 19<sup>th</sup> highest of the 21 propositions on the ballot. This would seem to indicate that there was little interest in the amendment. This lack of interest, however, may not be related to a lack of uncertainty about the outcome. When we rank the propositions by the absolute value of the difference between the percentage positive vote and .5, that is, by how close the outcome was without regard to whether the proposition passed or not, SCA5 is 19<sup>th</sup> out of 21. That is, 18 of the 21 outcomes were more lopsided than the vote on SCA5.

The 1930 ballot measure was approved by 59.51% of those voting. Once again the proposition did not generate as much voter interest as others on the ballot, ranking  $22^{nd}$  of 26 propositions in terms of the total number voting on the proposition. When we

<sup>&</sup>lt;sup>88</sup> This is simply the Modigliani-Miller Proposition. Of course, we know that there are many ways for capital structure to matter, but Inman is not discussing any of these.

<sup>&</sup>lt;sup>89</sup> The Los Angeles Times, San Francisco Chronicle and the Sacramento Bee all endorsed the measure.

rank by how close the outcome was to 50% in favor, we see that this proposition ranked 19<sup>th</sup> out of the 26, so once again, 18 propositions had a more lopsided vote than this one.

We can gauge the interest in the ballot propositions by modeling the vote on the propositions that were on the 1928 and 1930 ballots. We are interested in whether the total vote on the proposition was lower than would have been expected given the closeness of the vote on the proposition and its location on the ballot.<sup>90</sup> Our regression results, present in Table 6 indicate that total vote decreases as the proposition goes further down the ballot, that there is a higher vote on initiatives than on other propositions, and that more people voted on propositions in the presidential election year of 1928 than in 1930. However, the dummy variable for the limited liability initiatives is insignificantly different from 0, and has a negative sign. That is, even after taking into account the position on the ballot, fewer people voted on these propositions than on other propositions on that same ballot. Again, this is consistent with the hypothesis that the move to limited liability was not a matter of unusual interest to the voters.

If limited liability is viewed as beneficial to corporations we might expect that the vote in favor of the ballot propositions would be higher in counties where corporations were relatively important. Of course, these counties may also contain a lot of voters who fear becoming tort victims, so the benefit to corporations may not appear in the vote tally. We would expect corporate status to be more important for manufacturers than for farmers. We tried a number of different regressions designed to test this hypothesis. We collected data on the vote for the propositions on a county-by-county basis, and county data on total, urban and rural population, along with manufacturing and agricultural output form the 1930 census.<sup>91</sup> The dependent variable was the log of the odds in favor of

<sup>&</sup>lt;sup>90</sup> We experimented with a number of measures of how close the vote was on the proposition, however none of these measures entered into either separate 1928 or 1930 regressions, or the combined regression we present here, at the 10% level.

<sup>&</sup>lt;sup>91</sup> The census data was obtained from the United States Historical Census Browser, at the website: <u>http://fisher.lib.virginia.edu/census/</u>.

proposition.<sup>92</sup> The independent variables are (1) the ratio of the value of manufacturing output in 1929 to the sum of the total value of manufacturing output in 1929 and agricultural output in 1930, (2) population density, (3) a dummy variable for northern California counties, (4) the percentage of the population that was considered Urban in the 1930 census. The results of these regressions are presented in Table 7.

The results are confusing. In the 1928 election we see that counties in which manufacturing was relatively more important were, in fact, counties that had a higher vote in favor of the proposition. We also find that population density and the "North" dummy had explanatory power. This is, at least, suggestive that the limited liability status was valuable to corporations. However, that supposition is not supported at all by the vote in 1930. Here the only significant explanatory variable is population density. If, as was represented, the revised corporate code that would be enabled if the 1930 proposition passed was important for California corporations, and for more than just the change in liability regime, we would expect the model to work for 1930 as well as 1928. However, this is not the case. Overall, then, the results of the vote lend at best weak support for the proposition that the liability regime was of particular import to corporations, and may reflect fear of corporate tort on the part of voters.

# G. Evidence from the State Bar Committee Minutes

The revised corporate code that became law in 1931 was drafted by The California State Bar Committee on Revision of the Corporation Laws. This committee met on a regular basis from 1928 on and minutes of each meeting were kept. Examining the minutes of this committee may provide more insight into the rationales for the move to limited liability. <sup>93</sup> Actually, there were two subcommittees, one that met in San Francisco and one that met in Los Angeles, with frequent coordination between the two. Both the Los Angeles and San Francisco committees met, on average, every other week during

<sup>&</sup>lt;sup>92</sup> This formulation, along with the use of the dummy variable for Northern California counties, follows Matthew Kahn and John Matsusaka, Demand for Environmental Goods: Evidence from Voting Patterns in California Initiatives, 40 J. Law Econ. 137 (1997).

<sup>&</sup>lt;sup>93</sup> The only copy of the minutes is in the Los Angeles County Law Library. There is said to be a copy in the State Bar Library in San Francisco, but that library is unable to locate its copy.

this period.<sup>94</sup> Members of the committees represented a number of different law firms, but it is clear that corporate firms in California were represented.<sup>95</sup>

A reading of the minutes suggests that from the beginning it was clear that the committee would recommend a move to limited liability. The committee commissioned no studies of the matter at all, just heard statements, often from its own members, supporting the move. The minutes show no discussion of the move, but rather the fact that, by June of 1928 the committee was holding meetings to which outsiders were invited to discuss the move. There were a total of four meetings, one in Los Angles and three in San Francisco at which discussion of the liability change occurred.

The first meeting took place in Los Angeles on June 11, 1928. It was attended by, in addition to the committee, representatives of the California Land Title Association, the Investment Bankers Association, the Los Angeles Chamber of Commerce, the Clearing House Association, the State Corporation Department, and a few C.P.A.'s. The relevant part of the minutes reads as follows:<sup>96</sup>

The Chairman stated briefly the plans of the Committee and asked cooperation of representatives of the different organizations. There was an extensive discussion of the subject of the peculiar California proportional stockholders' liability and of the proposed constitutional amendment permitting limited companies. It was suggested by one of the representatives present, that stockholder's liability is a factor in extending credit by banks, and that it has certain benefits in giving protection to creditors. It was argued, on the other hand, that it tends to hamper the sale of the California securities, and keeps much money out of the state. Personal guarantees by officers and shareholders of corporations would be more effective. It was

<sup>&</sup>lt;sup>94</sup> The committee met a total of 8 times in 1928, once in 1929, and 80 times in 1930. The decision to advocate a move to limited liability was made during 1928. Indeed, the very first meeting in Los Angeles was one where representatives of various organizations were introduced to the committee and the main subject of discussion, as we shall see below, was moving to limited liability.

<sup>&</sup>lt;sup>95</sup> While not all members are listed in the two main guides of the time (The American Bar and Martindale's Law Directory; both of which appear to have required payment of a fee for listing), a number list corporation law as a field of practice. Further, Joesph Loeb's firm (Loeb, Walker and Loeb, which eventually became Loeb and Loeb) lists a number of motion picture studios and other private corporations in its client list (The American Bar, 1927, p. 71). Later in the period a member of what became Gibson, Dunn joined the committee.

<sup>&</sup>lt;sup>96</sup> I realize that there are many grammatical errors or what appear to the modern reader strange choices of word. I have reviewed the quotations below carefully, and all are accurate.

pointed out that the investment of limited amounts in business enterprises without further liability is the great advantage of corporations over partnerships. It was suggested that in such matters we should adopt the social viewpoint, considering the welfare of stockholders as well as creditors, and whether stockholders liability does not actually do more harm than good. It was pointed out that the California stockholders' liability may often be unjust to shareholders of foreign corporation doing business in California and results in the organization of holding companies in other states.

It is apparent from these minutes that there was clear uniformity of opinion that the liability regime in California should be changed. Note that this is the first meeting of the Los Angeles sub-committee. It would seem that there must have been prior, informal, conversations to permit them to move to a public meeting on this issue so quickly.

The minutes of the meeting held on June 25, 1928 in San Francisco suggest a deeper, and more contentious discussion. That committee had already had some regular meetings.

The question of eliminating the proportional shareholders liability, was extensively discussed. Some of the bankers feel that they have some protection from the stockholders' liability. It was pointed out, however, that in smaller corporations, the protection may be obtained by personal indorsement or guarantee; and in later corporations, stockholder's liability is of little practical value. Credits are more readily granted corporations where some stockholders are men of means to whom recourse could be had, but individual indorsement would be a better security. Stockholders' liability is of value only in the case of short-time loans, and credits granted in the ordinary course of business, and even here is of no value in the case or repeated renewals. It was admitted that there is seldom any resort to stockholder's liability.

Colonel Wright, of the California Development Association, stated that the sentiment of his organization is in favor of doing away with stockholders' liability on the ground that it is a detriment to corporate finance in California. If all the other states in the Union can get along and extend credit without stockholders' liability, California can do so. The fear of stockholders' liability if often a bugaboo. Creditors sometimes refuse to take preferred stock in a new re-organized company. New York attorneys advise their clients against investment in the stock of any California corporation. Business interests believe that California is being handicapped by stockholders' liability in attracting capital. The California Development Association will back a constitutional amendment for limited liability companies at the coming election.

Public utilities and other corporations frequently resort to the device of a holding corporation organized under the laws of some other state. This,

however, is in part for the sake of being able to resort to the Federal courts. California is still a borrowing and developing states, and we wish sound corporation laws in order to attract those who have capital to invest, and this applies to local capital aw well as outside capital, and to that of small as well as large investors. It is essential to the welfare of the state as a whole to eliminate this liability. It will facilitate issuing of stock to employees.

Here we see all of the standard arguments being made; California has a shortage of investment capital (though why debt cannot substitute for equity is not addressed), holding companies are formed out of state to avoid the liability (if so, what the harm in keeping the liability as it is?), fear of stockholder liability is a bugaboo. If we couple the arguments in this meeting with those of the meeting in Los Angeles we have supporters of the change claiming, at the same time, that the shareholder liability does not really work, that it scares off non-California investors, and that non-California investors are advantaged over California investors in that they are harder to track down.

At the meeting of July 9, 1928, in San Francisco, we see the first evidence of a group that is opposed to the change in the liability regime. The minutes read:

Mr. Cosby<sup>97</sup> expressed the opinion that the San Francisco Association of Credit Men is at present in favor of the unlimited stockholders' liability in connection with extending credit to corporations. The subject was discussed at some length, and Mr. Dahlquist<sup>98</sup> pointed out the futility of suits against numbers small stockholders involving prohibitive expense. The most reliance is placed on stockholders' liability where 50% or more of the stock is owned by one individual.

It was pointed out that investors object to taking stock in California corporations, and this is a serious disadvantage in selling stock in the East. California is still in a condition where we are endeavoring to obtain the investment capital from the East and Middle West. The opinion was expressed that it would be more in the interest of the State as a whole to put our law on the same basis as other states.

It was pointed out that in the case of bank loans, the bank is in a position to demand a guarantee by the principal stockholders. In the case of merchandise credits, more attention can be paid to the financial statement of the corporation itself.

<sup>&</sup>lt;sup>97</sup> Zellerbach Paper Company, and represented the San Francisco Association of Credit Men

<sup>&</sup>lt;sup>98</sup> Orick, Palmer and Dahlquist, representing the California Investment Bankers Association.

In the case of large failures, the large stockholders are apt to be involved in the bankruptcy also. An example of this is the Sutter Basin issue guaranteed by Armour, who died insolvent.

It was pointed out that stockholders within the state are likely to be sued, while outside holders of stock will escape liability.

The San Francisco Association of Credit Men is a group that is involved in extending trade credit. As such, they would tend to view extending credit as incidental to their sales function, and, as opposed to a bank, lack the personnel and the skill to engage in detailed examinations of creditworthiness. They would also probably find it inconvenient to arrange for personal guarantees from the shareholders of their customers for each purchase.

The last meeting that discussed the matter took place on August 6, 1928 in San Francisco. The San Francisco Credit Men are still opposed, and the committee decides to send one of its own to convince them to see the light. The relevant part of the minutes reads:

The question respecting the elimination of a stockholders liability was again discussed. Mr. Roberts<sup>99</sup> stated that the San Francisco Association of Credit Men were against the elimination of this provision of our law. After considerable discussion of the matter, in which the arguments were reviewed as have been previously considered by the committee, Mr. Roberts suggested that someone be appointed to address the San Francisco Association of Credit Men on the subject. It was suggested that Mr. Steinhart give such an address, without officially representing the Committee, but being entirely free to state his personal views. It was agreed that Mr. Steinhart should arrange a meeting with representatives of the Chamber of Commerce and the San Francisco Credit Men's Association, and with other organizations which might be interested, to consider this vital problem. Mr. Steinhart stated that in his opinion it would be impossible to modernize our California laws without the elimination of the provisions in our law respecting stockholders liability. Certain other members of the committee who were present at the meeting seemed to concur in this view. The advisability of launching an active educational campaign to show the necessity for ridding our law of the present stockholders liability before the November election was also discussed.

<sup>&</sup>lt;sup>99</sup> Crocker First National Bank, representing San Francisco Association of Credit Men.

Clearly the committee did no empirical work to judge the extent to which California corporations actually found it difficult to raise money. Overall the arguments are rather confusing. On the one hand advocates of the change argue that the threat of being sued limits the availability of raising money, on the other the argument is that the then current liability regime presents no advantage to creditors because of the expense of seeking out small shareholders. Presumably, then, the difficulty lies not in amassing money from small, passive, investors, but rather the problem lies in attracting large investors. But, it is not at all clear why such investors could not provide debt capital.<sup>100</sup>

Supporters of the move to limited liability allege that "Public utilities and other corporations frequently resort to the device of a holding corporation organized under the laws of some other state." First, as noted in the minutes, one reason to form an out of state holding company, at that time, was to get access to Federal Courts on diversity grounds. At that time a corporation was a citizen only of the state in which it incorporated.<sup>101</sup> In order to test this proposition, I looked at 1930 Moody's Public Utilities Manual. This was the near the high point of the large, multi-state, public utility holding companies, implying that utilities all over the country, not just in California, found it advantageous to form foreign holding companies. The 1930 Moody's Manual lists a total of 31 utility parents<sup>102</sup> (that is, either sole operating companies or companies owning more than one utility) (23 for profit and 8 mutual) that are incorporated in California and have only California operations. It lists 30 foreign parent corporations, which suggests that the statement may be true. However, of the 30 foreign parents, only 5 of them have only California operating subsidiaries. Most, 25 of 30, have operating subsidiaries in multiple states. Because such holding companies were common at that time, and many such holding companies had no operations in California, the dominant motive for forming multi-

<sup>&</sup>lt;sup>100</sup> While it is true that debt would provide lower returns to potential investors, it would also entail less risk. Firms could issue income bonds to these wealthy investors, which could offer high returns without bank-ruptcy risk.

<sup>&</sup>lt;sup>101</sup> Thus, incorporation in a small state like Delaware was likely to make access to Federal Courts a likely outcome. It was not until 1964 (PL 88-439) that a corporation was considered a citizen *both* of the state in which it was incorporated *and* the state in which it has its principal place of business.

state holding companies was probably not avoidance on liability under the California prorate unlimited liability. The evidence, then, does reveal a surge of foreign holding companies operating California public utilities to avoid the California liability regime.

That the San Francisco Credit Men were the only organized group that remained opposed to the change in liability is interesting, and consistent with our economic analysis of limited liability. The Credit Men are in the business of extending trade credit in connection with sales of goods. As the extension of credit is incidental to the sale, it does not make sense for them to expend significant resources in closely evaluating each customer. Moreover, it would be costly to get a guarantee for each order. We would expect this group, then, to be more like tort creditors than other contract creditors, and thus are more likely to suffer from the changing in liability.

#### **IV. SUMMARY AND CONCLUSIONS**

This paper presents evidence on the economic effect of moving from pro-rata unlimited liability to limited liability. While we might prefer better data and larger sample sized, we see no evidence that adopting limited liability, in fact, lead to an increase in shareholder wealth and little evidence that it lead to an increase in the use of the corporate form in California.

It is interesting to speculate on the potential broader implications of the finding. It would be a mistake to conclude, on the basis of this study, that the move to limited liability would have no effect in other jurisdictions, or in the present time. First, it must be recalled that the limitations on the pro-rata limited liability in California may have served to insulate shareholders from the worst possible outcomes.<sup>103</sup> Shareholders were only liable for debts for a period of three years after they were incurred, and there is no instance of creditors ever being able to collect from the shareholders of a publicly traded corporation. Second, the change in liability regime took place before the rise of mass corporate

<sup>&</sup>lt;sup>102</sup> I am not interesting in the number of operating companies, but only in the number of independent parent companies; thus I count either ultimate parents or, when there is no holding company, the operating utility. <sup>103</sup> If this is true, however, we must wonder why the move had so much support.

tort liability. Thus, it seems likely that pro-rata unlimited liability would either impact shareholder wealth (if Hansmann and Kraakman are correct), or force firms to arrange their ownership structures so that judgment proof entities actually owned the equity (if Grundfest is correct). Our study only examines one state and one point in time, and should not be construed as a broad challenge to the optimality of limited liability for large companies. After all, it is probably not an accident that during the 19<sup>th</sup> century virtually all advanced economies adopted limited liability as the norm, while continuing to allow for unlimited liability (for example, a partnership) if investors desired.

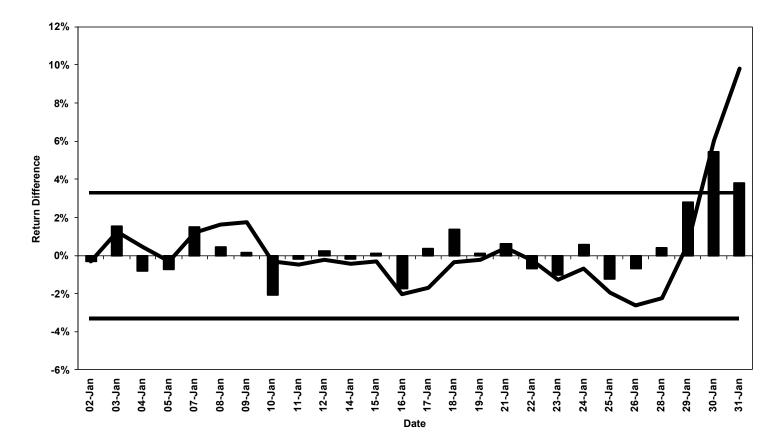
Another question that may be worth examining, and is beyond the scope of this paper, is role of the state bar in the move to limited liability.<sup>104</sup> Presumably the State Bar would be interested in maximizing the income of its members. To the extent that California had a unique liability system, members of the state bar would have an advantage over non-California lawyers in advising firms wishing to do business in California. Further, as it was presumably well known among corporate attorneys in other states that California law was different from that in other states, ignorance of the law would not keep outside attorneys from bringing in local counsel. On the other hand, California lawyers would not be used to working under the more common limited liability regime. Thus, either they would have to invest significant time and effort in order to become familiar with two different liability regimes, or they might be unable to provide adequate advice for clients wishing to incorporate outside of California, as indeed they well might in order to avoid pro-rata limited liability on their non-California operations. It may be the case that, upon closer examination, the move to limited liability came primarily from that portion of the corporate bar that served large firms with significant out-of-state clients.<sup>105</sup>

<sup>&</sup>lt;sup>104</sup> The role of private bodies as drafters of legislation is explored in Alan Schwartz and Robert E. Scott, The Political Economy of Private Legislatures, 143 U. Pa. L. Rev. 595 (1995).

<sup>&</sup>lt;sup>105</sup> However, as my colleague Dan Klerman (who actually did go to law school) has pointed out, limited liability is an easier regime with which to deal. Thus, experienced members of the bar would have little to gain, and perhaps much to lose, from the change. Law students, on other hand, would welcome the change, but it is hard to imagine that the students were the driving force in the legal community.

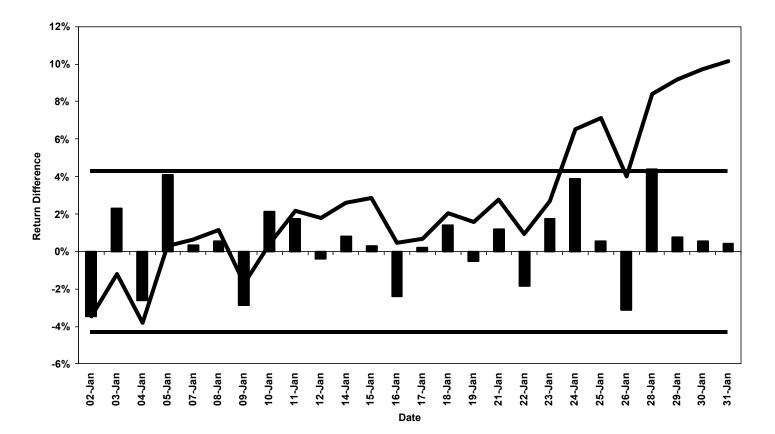
#### Figure 1: Daily Returns Differences Between California and Foreign Utility Shares, January 1929

The columns in this figure are the daily return differences between three California incorporated public utility shares (Pacific Gas and Electric, Pacific Lighting, Southern California Edison) and the shares of three utilities incorporated outside of California (Brooklyn Union Gas, Consolidated Gas, Detroit Edison) for each trading day during January, 1929. The dashed horizontal lines are bands of 2 sample standard deviations around zero. The other solid line is the cumulative return differential over the month.



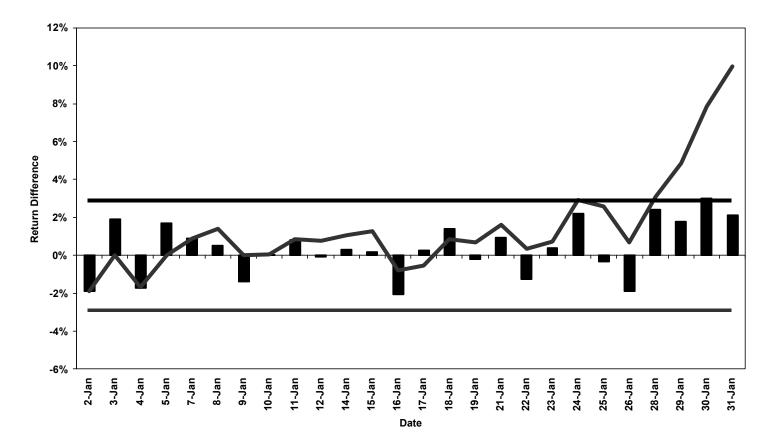
#### Figure 2: Daily Returns Differences Between California and Foreign Oil Shares January 1929

The columns in this figure are the daily return differences between the California incorporated oil company (Associated Oil) and the shares of three oil companies incorporated outside of California (Standard Oil of New Jersey, Standard Oil of California, Signal Oil) for each trading day during January, 1929. The dashed horizontal lines are bands of 2 sample standard deviations around zero. The other solid line is the cumulative return differential over the month.



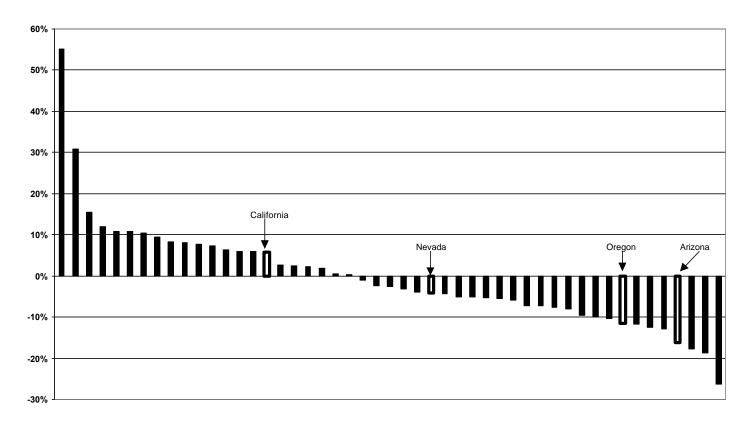
# Figure 3: Daily Returns Differences Between California and Foreign Oil and Utility Shares, January 1929

The columns in this figure are the averages of the return differentials for Oil and Utility Shares presented in Figure 1 and Figure 2 above. As in those figures, the dashed horizontal lines are bands of 2 sample standard deviations around zero and the other solid line is the cumulative return differential over the month.



## Figure 4: Percentage Change in Number of Federal Corporate Income Tax Returns, by State 1931 to 1934

This figure presents the percentage change in the number of Federal Income Tax returns filed by state and also for the District of Columbia. The change is measured from 1931 to 1934. The data is sorted from highest to lowest percentage change.



### Table 1: Significant Dates for Change in Liability Regime

Month	Event(s)
January, 1927	Senate Constitutional Amendment 5 (SCA5), Allowing Limited Li- ability for Appropriately Named Firms, Introduced in Senate
April, 1927	SCA5 Passed by Senate
November, 1928	SCA5 Approved by Voters
January, 1929	SB324 Enabling SCA5 Introduced in Senate SB792 Simplifying Name Change Process Introduced in Senate SCA24, Allowing the Legislature to Change the Liability Regime in California, Introduced in Senate
April, 1929	SCA24 Passes Senate
May, 1929	SB324 Passes Senate, Signed by Governor SB792 Passes Senate
June, 1929	SB792 Signed by Governor
August, 1929	SB324, SB792 Become Effective
November, 1930	SCA24 Approved by Voters
January, 1931	AB1000, New Corporate Code, Introduced in Assembly
May, 1931	AB1000 Passes Assembly and Senate
June, 1931	AB1000 Signed by Governor
August, 1931	AB1000 Becomes Effective

#### Table 2: Share Price Performance During Months of Events Associated with Adopting Limited Liability

This table presents the results of estimating the following regression equation

$$R_{jt} = + R_{Mt} + CALFIRM_{j} + EVENTMO_{t} + CALEVENT_{jt}$$

where  $R_{jt}$  is the return on the companies shares,  $R_M$  is the return on the market index,<sup>1</sup> CALFIRM is a dummy variable that takes a value of 1 for firms incorporated in California and 0 otherwise; EVENTMO is a dummy variable that takes a value of 1 for a particular event month(s); CALEVENT is the product of EVENTMO and CALFIRM. If the change to limited liability is anticipated to me beneficial to shareholders, and if the events are not fully anticipated, we expect  $\delta$ , the coefficient of CALEVENT to be positive. Regressions are pooled, time-series, cross-sections over the period from January 1926 to December 1935 for a total of 16 firms.<sup>2</sup> The firms incorporated in California: Associated Oil, Market Street Railway, Pacific Gas and Electric, Pacific Telephone and Telegraph, Richfield Oil, Southern California Edison, Pacific Lighting. Firms incorporated in other states are: Brooklyn Union Gas, California Petroleum, Consolidated Gas, Marland (Continental) Oil, Detroit Edison, Standard Oil of New Jersey, Standard Oil of California, Superior Oil. t-statistics in parenthesis below each estimated coefficient. Shaded cells indicate a coefficient significantly different from zero at the 5% level.

Share Price Performance During Months of Events Associated with Adopting Limited Liability								
<b>Event Month and Description</b>		Coefficients						
<b>F</b>	Constant	Market Return	CALFIRM	EVENTMO	CALEVENT			
SCA5 Introduced in Senate (1/27)	.004	.832	.001	013	.004			
	(.826)	(24.546)	(.168)	(290)	(.052)			
SCA5 Passes Senate (4/27)	.004	.832	.001	041	.002			
	(.885)	(24.556)	.165	(903)	(.027)			
SCA5 Approved by Voters (11/28)	.002	.827	.003	.134	188			
	(.561)	(24.328)	(.416)	(2.771)	(-2.638)			

<sup>&</sup>lt;sup>1</sup> All reported regressions use the CRSP value weighted index. Similar results were obtained when the regressions were estimated using the CRSP equal weighted index.

<sup>&</sup>lt;sup>2</sup> Regressions were estimated using OLS. Other estimation techniques designed to recognize possible correlations through time of the same firm or across firms at the same time yielded similar results. For all regressions, the estimated  $R^2$  was .28 and the number of observations was 1538.

Share Price Performance During			Coefficients	-0	
Event Month and Description	Constant	Market Return	CALFIRM	EVENTMO	CALEVENT
SB324, SB792, SCA24 Introduced (1/29)	.004	.832	000	076	.168
	(.941)	(24.566)	(040)	(-1.569)	(2.363)
SCA24 approved by Senate (4/29)	.004	.833	.001	042	.029
	(.876)	(24.560)	(.145)	(863)	(.404)
SB324, SB792, SCA24 Pass Senate, SB324 Signed into	.004	.832	.001	019	.019
Law (5/29)	(.834)	(24.486)	(.155)	(382)	(.266)
SB792 Signed into Law (6/29)	.003	.830	.001	003	.058
	(.799)	(24.390)	(.099)	(057)	(.817)
SB324, SB792 Effective (8/29)	.003	.829	.001	.049	009
	(.714)	(24.402)	(.185)	(1.009)	(131)
SCA24 Approved by Voters (11/30)	.004	.833	.000	028	.126
	(.850)	(24.592)	(.011)	(578)	(1.768)
AB1000 introduced (1/31)	.003	.829	.002	.100	063
	(.621)	(24.447)	(.250)	(2.071)	(878)
AB1000 Passes Senate and Assembly (5/31)	.003	.835	.001	.028	015
	(.741)	(24.404)	(.196)	(.583)	(215)
AB1000 Signed by Governor (6/31)	.003	.838	.002	001	100
	(.791)	(24.548)	(.315)	(012)	(-1.406)
AB1000 Effective (8/31)	.002	.833	.001	.104	040
	(.607)	(24.612)	(.219)	(2.147)	(561)
Months Associated With SCA5, SB324, SB792	.003	.830	.000	.004	.012
	(.727)	(24.372)	(.070)	(.231)	(.433)
Months Associated with SCA24, AB1000	.003	.832	000	.009	.017
	(.647)	(24.566)	(011)	(.510)	(.639)

Share Price Performance During Months of Events Associated with Adopting Limited Liability						
Event Month and Description	Coefficients					
The second se	Constant	Market Return	CALFIRM	EVENTMO	CALEVENT	
All Event Months	.002 (.391)	.828 (24.377)	.001 (.129)	.016 (1.146)	.002 (.088)	

# Table 3: Percentage Price Changes for all California Firms for SelectedMonths

This table presents the returns for all publicly traded California corporations during months associated with the change in liability taken from Table 1<sup>1</sup>. All numbers in this table are in percentage per month. For comparison purposes the Equal and Value weighted returns exclude dividends and other distributions, making them comparable to percentage price changes. t-statistics in parenthesis. Shaded cells indicate t-statistics significantly different from 0 at the 5% level.

Month	Num- ber of Firms	Min	Max	Median	Mean	Average excess return over Equal Weighted Market Portfolio	Average excess return over Value Weighted Market Portfolio
1/27	27	-16.58	23.14	.00	.68 (.51)	11 (08)	.76 (.58)
4/27	19	-38.46	116.67	-1.03	1.03 (.15)	.39 (.06)	.58 (.08)
11/28	36	-28.57	22.22	1.10	2.39 (1.36)	-9.02 (-5.15)	-9.15 (-5.22)
1/29	51	-65.22	133.33	1.91	4.99 (1.38)	1.96 (.54)	15 (04)
4/29	63	-21.47	53.66	0.00	44 (35)	-1.63 (-1.31)	-2.08 (-1.66)
5/29	63	-24.04	8.86	-2.52	-3.32 (-4.23)	5.83 (7.43)	2.61 (3.32)
6/29	59	-18.10	25.00	94	1.34 (1.14)	-5.64 (-5.24)	-8.25 (-7.68)
8/29	56	-16.67	33.33	.65	4.29 (2.91)	1.85 (1.25)	-3.80 (-2.57)
11/30	57	-78.57	50.00	-3.60	-6.23 (-2.55)	-3.50 (-1.43)	-3.13 (-1.24)

<sup>&</sup>lt;sup>1</sup> Prices were copied from the Los Angeles Times, The Wall Street Journal, The Bank and Quotation Record and the Commercial and Financial Chronicle. When possible, percentage price changes are computed from the mean of the bid-ask spread in both months. When this proved to be impossible, returns were calculated as the percentage change in the bid price or ask price in two successive months.

Month	Num- ber of Firms	Min	Max	Median	Mean	Average excess return over Equal Weighted Market Portfolio	Average excess return over Value Weighted Market Portfolio
1/31	54	-32.36	46.23	.56	2.81 (1.38)	-10.97 (-5.40)	-3.12 (-1.54)
5/31	35	-40.91	50.00	-1.90	-2.30 (96)	11.97 (5.00)	11.49 (4.80)
6/31	36	-75.00	63.41	2.80	3.89 (1.12)	-13.54 (-3.91)	-9.27 (-2.68)
8/31	53	-28.57	33.33	0.00	.17 (.11)	2.27 (1.52)	.58 (.39)
All Months	603 firm months	-78.57	133.33	0.00	.54 (.87)	-1.52 (-2.32)	-2.01 (-3.17)

#### Table 4: California Corporate Actions by Biennium

This table summarizes information from the annual reports of the California Secretary of State. The year begins on July 1, thus the first column is event that occurred from July 1, 1923 to June 30, 1924. The last row was derived from the data for this paper and does not appear in the annual report.<sup>2</sup>

	1926/27	1927/28	1928/29	Total from 1926/1928	1929/30
Articles of Incorpora- tion (Domestic)	9,942	8,269	8,387	26,598	8,523
Change Name of Cor- poration	473	506	601	1,580	496
Ratio of Name Change to New Arti- cles	.048	.061	.072	.060	.058

<sup>&</sup>lt;sup>2</sup> These numbers are taken from the Biennial Report of the Secretary of State, State of California for the period 7/1/26 - 6/30/28 and for the period 7/1/28 - 6/30/30. There appear to be some typographical errors in the column headings for the earlier report. I am reporting the years in a manner consistent with earlier reports. After the report covering the period ending 6/30/30 the Secretary of State's reports ceased to contain information on the number of new incorporations and name changes.

Year	Number of New Incorpora- tions	Total Receipts from Corpo- rations <sup>2</sup>
1924	452	\$24,516
1925	477	\$49,751
1926	1,012	\$94,673
1927	1,316	\$119,780
1928	1,204 <sup>3</sup>	\$130,069
1929		\$160,508
1930		\$117,487
1931		\$91,524
1932		\$59,217
1933		\$42,979
1934		\$47,266
1935		\$40,711

# Table 5: Number of Incorporations and Total Receipts fromCorporations, Nevada, 1924-19351

<sup>&</sup>lt;sup>1</sup> Christopher Driggs, Nevada State Library and Archives provided this data.

<sup>&</sup>lt;sup>2</sup> This includes revenues from corporate filings and also from lists of officers for existing corporations, lists of resident agents for existing corporations, amendments to articles of incorporation for existing corporations.

<sup>&</sup>lt;sup>3</sup> Data on number of new incorporations ends in 1928.

## Table 6: The Total Vote Cast for Ballot Propositions in 1928 and1930

The dependent variable in the regression is the total voter cast for a ballot proposition on the 1928 and 1930 elections. The independent variables are: 1) ALNODDS, the absolute value of the log of the odds,  $\left| ln \left( \frac{F}{1-F} \right) \right|$ , where F is the vote in favor of a given proposition, 2) LNUM, the log of the proposition number on the ballot (first, second, etc.) for the given election, 3) INIT, a dummy variable taking on a value of 1 if the measure was placed on the ballot as a result of voter signatures, 4) REF, a dummy variable taking on the value of 1 if the measure is a voter referendum, 5) PRES, a dummy variable taking on the value of 1 for 1928 6) LIMLIAB, a dummy variable taking on a value of 1 for the two ballot propositions associated with the move to limited liability. Shaded cells indicate co-

efficients with t-statistics significantly different from 0 at the 5% level.

Independent Variable	Coeff	ïcient	t-statistic
Constant	1,114	1,341	24.01
ALNODDS	72,	905	1.47
LNUM	-52,	994	-2.99
INIT	175,	,226	4.51
REF	25,991		.35
PRES	155,661		3.71
LIMLIAB	-78,	437	-1.12
Number of Observatio	ns = 47		$R^2 = .68$

#### Table 7: The Vote on the 1928 and 1930 Ballot Propositions

The dependent variable in each regression is the log of the odds,  $ln\left(\frac{F}{1-F}\right)$ , where F is the percentage of the county vote in favor of the proposition. Each of the independent variables is computed from data provided, on a county basis, by the United States Historical Census Browser at <u>http://fisher.lib.virginia.edu/census/</u>. MANVPCT is the total value of manufactured product in 1929 divided by the sum of the total value of manufactured product in 1929 and the total value of agricultural product in 1930. POPDEN is the population density computed using the population from the 1930 census. NORTH is a dummy variable that takes a value of 1 for every county in California except for Imperial, Kern, Los Angeles, Orange, Riverside, San Bernadino, San Louis Obisbo, Santa Barbara and Ventura. PURBAN is the urban population divided by the sum of the urban and rural population. The numbers in parentheses are t-statistics. The observations are weighted by  $\sqrt{(nF(1-F))}$ , where n is the number of votes cast on the proposition. Numbers in parentheses are t-statistics. Shaded cells indicate coefficients significant at the 5% level.

Year	CON	MANVPCT	POPDEN	NORTH	PURBAN	$\mathbf{R}^2$
1928	.4216 (2.924)	7.3751 (2.057)	-3.1346 (-2.140)	4476 (-4.141)	.1221 (.656)	.39
1930	.0383 (.425)	1.6122 (.707)	7004 (750)	04556 (668)	.5274 (4.543)	.48