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Law and History by Numbers: Use, But with Care

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Abstract

This paper, prepared for a University of Illinois College of Law symposium honoring Prof. Larry Ribstein, deals with the historical development of corporate law in the United States, focusing on the promise and perils of quantification. The paper is part of a larger project where we have already deployed the “anti-director rights index” (ADRI), a well-known mechanism for quantifying the protection various nations’ corporate laws offer investors, to “score” Delaware corporate law from the turn of the 20th century to the present day (<http://ssrn.com/abstract=2079505>). We are currently expanding our research by investigating two additional bodies of corporate law (Illinois and the Model Business Corporations Act) and by taking into account as a second measure of corporate law an “anti-self-dealing index” (ASDI) that focuses on regulation of transactions between a company and those who control it. We identify in this paper various reasons for undertaking a quantitative, historically-oriented analysis of U.S. corporate law. The paper focuses primarily, however, on the logistical challenges associated with such an inquiry. We indicate that it is impossible to code U.S. corporate law historically with clinical precision but nevertheless conclude that the quantification exercise in which we are currently engaging should provide sufficient insights to be worthwhile.

Keywords: Corporate law, corporate governance, law and finance, empirical legal scholarship, leximetrics, anti-director rights index, anti-self-dealing index, competitive federalism

JEL Classifications: G38, K22, N21, N22

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Law and History by Numbers: Use, But With Care

Steven A. Bank^{*}, Brian R. Cheffins^{**} and Harwell Wells^{***}

Abstract

This paper, prepared for a University of Illinois College of Law symposium honoring Prof. Larry Ribstein, deals with the historical development of corporate law in the United States, focusing on the promise and perils of quantification. The paper is part of a larger project where we have already deployed the “anti-director rights index” (ADRI), a well-known mechanism for quantifying the protection various nations’ corporate laws offer investors, to “score” Delaware corporate law from the turn of the 20th century to the present day (<http://ssrn.com/abstract=2079505>). We are currently expanding our research by investigating two additional bodies of corporate law (Illinois and the Model Business Corporations Act) and by taking into account as a second measure of corporate law an “anti-self-dealing index” (ASDI) that focuses on regulation of transactions between a company and those who control it. We identify in this paper various reasons for undertaking a quantitative, historically-oriented analysis of U.S. corporate law. The paper focuses primarily, however, on the logistical challenges associated with such an inquiry. We indicate that it is impossible to code U.S. corporate law historically with clinical precision but nevertheless conclude that the quantification exercise in which we are currently engaging should provide sufficient insights to be worthwhile.

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I. INTRODUCTION

This paper deals with the historical development of corporate law in the United States, focusing on the promise and perils of quantification. Quantification of corporate law has become a prominent feature in empirical work done on comparative corporate governance, with particular emphasis on the contribution that robust shareholder protection can make to a nation's financial and economic development. While Larry Ribstein was a highly prolific scholar who explored numerous aspects of corporate law, this was not territory into which he ventured. Nevertheless, he did write extensively on corporate law aspects of competitive federalism,¹ a topic where historically oriented quantification can provide insights. Moreover, although Larry was not a frequent producer of empirical legal scholarship,² he was an active consumer and frequently attended and commented on papers at the annual Conference on Empirical Legal Studies.³

Larry, as a commentator on empirical legal scholarship, counselled legal academics against rushing headlong into the quantitative arena. He observed in 2009 that

“Legal scholars once decried too much untested theorizing. That time is long gone. Legal academics’ discovery of empirical research has given rise to the greatest explosion of intellectual entrepreneurship since Al Gore created the internet. Now

¹ See, for example, Larry E. Ribstein, *Efficiency, Regulation and Competition: A Comment on Easterbrook and Fischel's Economic Structure of Corporate Law*, 87 NW. UNIV. L. REV. 254, 261-71 (1992); Larry E. Ribstein and Erin Ann O'Hara, *Corporations and the Market for Law*, [2008] U. ILL. L. REV. 661; Bruce H. Kobayashi and Larry E. Ribstein, *Nevada and the Market for Corporate Law*, 35 SEATTLE UNIV. L. REV. 1165 (2012).

² He did, however, occasionally engage in it. See, for example, Larry E. Ribstein, *Statutory Forms for Closely Held Firms: Theories and Evidence from LLCs*, 73 WASH. UNIV. L.Q. 369, 412-30 (1995) (providing data in tabular form on the formation of LLCs and the presence of provisions in limited liability company legislation dealing with prescribed issues).

³ See, e.g., http://www.elsblog.org/the_empirical_legal_studi/2007/11/ribsteins-rundo.html (last visited September 5, 2013).

instead of untested hypotheses we get unhypothesized tests. . . . The empirical bubble has encouraged scholars to go right to the data, sometimes without developing the theory adequately for a good empirical test.”⁴

Larry additionally called for a “focus on methodology” and “more humility by both empiricists and theoreticians.”⁵

We have already engaged in quantitative analysis of the historical development of U.S. corporate law and are continuing with this research.⁶ Nevertheless, somewhat akin to Larry, we adopt in this paper a cautionary tone concerning empirical analysis. The methodological approach we are employing has been characterized as “leximetrics,” which involves quantitative measurement of law.⁷ Some have expressed doubts about the whole enterprise, questioning whether it is even possible to develop sensible numerical measures of complex legal concepts.⁸ Assuming for the sake of argument that it is theoretically possible to do this, however, one might assume that, once a robust coding protocol has been developed, it would at least be a reasonably straightforward task to find the law and translate it into numbers. As we describe in the paper, our experience suggests otherwise.

⁴ Larry Ribstein, *Why CELS?*, Ideoblog (web journal), November 23, 2009, archived at <http://web.archive.org/web/20091201233450/http://busmovie.typepad.com/ideoblog/2009/11/why-cels.html> (last visited September 5, 2013).

⁵ *Id.*

⁶ Brian R. Cheffins, Steven A. Bank, and Harwell Wells, *Questioning “Law and Finance”*: *US Stock Market Development, 1930-70*, 55 BUS. HIST. 598 (2013).

⁷ Priya P. Lele and Mathias Siems, *Shareholder Protection: A Leximetric Approach*, 7 J. CORP. L. STUD. 17, 18 (2007). The term “leximetrics” was first coined by Robert Cooter and Tom Ginsburg: *ibid.*, 18, n. 4 (citing Robert D. Cooter and Tom Ginsburg, *Why the Same Laws are Longer in Some Countries Than Others*, U. Illinois Law & Economics Research Paper LE 03-012 (2003), 2).

⁸ John W. Cioffi, *Legal Regimes and Political Particularism: An Assessment of the “Legal Families” Theory from the Perspectives of Comparative Law and Political Economy*, [2009] BYU L. REV. 1501, 1504.

In the corporate law context, leximetrics has typically been deployed in cross-country studies that can be termed “comparative law and finance.”⁹ It is also possible, however, to focus on one country by coding the law across time.¹⁰ This is what we have been doing. In a 2013 article we deployed the “anti-director rights index” (ADRI), a well-known mechanism for quantifying the protection various nations’ corporate laws offer investors, to “score” Delaware corporate law from the turn of the 20th century to the present day.¹¹ We are currently expanding our research by measuring two additional bodies of corporate law, Illinois’s and the Model Business Corporations Act (MBCA), the model set of laws promulgated by the Committee on Corporate Laws of the Section of Business Law of the American Bar Association. We are also measuring all three bodies of corporate law (Delaware, Illinois and the MBCA) by reference to a second measure, an “anti-self-dealing index” (ASDI) that focuses on regulation of transactions between a company and those who control it.

One reason we have embarked on this research is the success quantitative analysis has already enjoyed in the corporate governance realm. According to Lucian Bebchuk and Assaf Hamdani, the ADRI is “(a)mong academic researchers the most influential metric for evaluating governance arrangements worldwide,” and the ADRI and the ASDI had, as of a few years ago, already provided the basis for more than one hundred cross-country studies.¹² Mathias Siems and Simon Deakin judge that the importance of the series of studies in which the ADRI and ASDI were initially conceived and applied “cannot be over-estimated.”¹³ The

⁹ Mathias Siems and Simon Deakin, *Comparative Law and Finance: Past, Present, and Future Research*, 166 J. INSTIT. THEO. ECON. 120, 120 (2010).

¹⁰ *Ibid.*, 123.

¹¹ Cheffins, Bank and Wells, *supra* note xx.

¹² Lucian Bebchuk and Assaf Hamdani, *The Elusive Quest for Global Corporate Governance Standards*, 157 U. PA. L. REV. 1263, 1276, 1313-14 (2009).

¹³ Siems and Deakin, *Comparative*, *supra* note xx, 122.

publications providing the foundation for ADRI and ASDI research are indeed among the most cited in economics and law.¹⁴

A second reason we have undertaken this research is that, despite the growing importance of leximetrics, only a tiny handful of studies have attempted to measure quantitatively changes in U.S. corporate law across time. U.S. corporate law has been coded for the construction of the ADRI and the ASDI as well as for two shareholder protection indices Mathias Siems developed in tandem with an academic team associated with the Cambridge-based Centre for Business Research.¹⁵ But only one of these indices, a 60 variable index Siems constructed that was deployed for five countries for the years 1970 to 2005, offers evidence of how matters developed in the U.S. over a significant period of time.¹⁶

Other efforts to quantify U.S. corporate law have focused on measuring the pace of change rather than the level of protection afforded. William Carney, in a 1998 paper, and Roberta Romano, in a 2006 article, measured the rate of diffusion of corporate law by quantifying states' adoption of measures dealing with a variety of important corporate law

¹⁴ *Ibid.*

¹⁵ Rafael La Porta, Florencio López-de-Silanes, Andrei Shleifer and Robert Vishny, *Law and Finance*, 106 J. POL. ECON. 1113, 1130-31 (1998) (coding the U.S. together with 48 other countries using the ADRI); Simeon Djankov, Rafael La Porta, Florencio López-de-Silanes and Andrei Shleifer, *The Law and Economics of Self-Dealing*, 88 J. FIN. ECON. 430, 442, 454 (2008) (discussing coding of the U.S. for the ASDI and a revised version of the ADRI); on scoring the U.S. for the ASDI, see data made available by Andrei Shleifer: <http://scholar.harvard.edu/shleifer/publications/law-and-economics-self-dealing> (last visited September 5, 2013); Holger Spamann, *The "Antidirector Rights Index" Revisited*, 23 REV. FIN. STUD. 467 (2010) (discussing recoding of Delaware's ADRI score); Lele and Siems, *Shareholder*, *supra* note xx, 30-43 (U.S. one of five countries coded using a 60 variable shareholder protection index); Mathias Siems, *Shareholder Protection Around the World (Leximetric II)*, 33 DEL. J. CORP. L. 111, 122-34 (discussing scores for the U.S. and for 19 other countries using a ten variable shareholder protection index).

¹⁶ Lele and Siems, *Shareholder*, *supra* note xx, 31-32 (discussing general shareholder protection trends in the U.S. for 1970-2005).

topics.¹⁷ Carney's paper was an extension of research done for a 1997 article in which he developed a taxonomy of European Community Directives on company law and used this to assess the extent to which provisions in these Directives were part of corporate law in U.S. states.¹⁸ Finally, in a 2001 article Mark West carried out a detailed breakdown of the contents of the MBCA, Illinois corporate legislation and Japan's Commercial Code to compare the extent to which U.S. and Japanese corporate law diverged in the fifty years following Japan's 1950 adoption of a statutory scheme with a strong American flavor.¹⁹

Third and finally, we believe our historically-oriented quantification project is worth pursuing because it might offer valuable analytical insights. Our 2013 article, in which we deployed the ADRI in order to plot the evolution of Delaware corporate law over time, illustrates the point.²⁰ The standard historical narrative for U.S. corporate law is that competition between states, led by New Jersey and then Delaware, served to reduce constraints on managerial freedom of action and concomitantly displaced various shareholder rights.²¹ While academics have disagreed whether the process was beneficial, there has been implicit agreement that meaningful change – a “race” -- did occur.²² Our analysis revealed a somewhat different story. Delaware's ADRI score remained unchanged between 1900 and

¹⁷ William J. Carney, *The Production of Corporate Law*, 71 SO. CAL. L. REV. 715 (1998); Roberta Romano, *The State as a Laboratory: Legal Innovation and State Competition for Corporate Charters*, 23 YALE J. ON REG. 209 (2006).

¹⁸ William Carney, *The Political Economy of Corporate Charters*, 26 J. LEGAL STUD. 303, 319-27 (1997).

¹⁹ Mark D. West, *The Puzzling Divergence of Corporate Law: Evidence and Explanations from Japan and the United States*, 150 U. PA. L. REV. 527 (2001). We do not include in our discussion here a 2002 article by Bebchuk, Cohen and Ferrell because their empirical analysis was restricted to one legal topic, namely anti-takeover laws: Lucian Bebchuk, Alma Cohen and Allen Ferrell, *Does the Evidence Favor State Competition in Corporate Law?*, 90 CAL. L. REV. 1775 (2002).

²⁰ Cheffins, Bank and Wells, *supra* note xx.

²¹ See sources cited *ibid.*, 604, nn. 24-25.

²² *Ibid.*, 604 (text accompanying nn. 26-27).

1967, dropped modestly in 1967, and held constant thereafter.²³ An inference that could plausibly be drawn from our leximetric research is that change was not as dramatic as the conventional wisdom implies.

Although we believe there are good reasons for undertaking a quantitative, historically-oriented analysis of U.S. corporate law, we readily acknowledge potential limitations on such an inquiry. Legal academics have frequently reacted coolly to efforts to rate law by reference to indices such as the ADRI and the ASDI.²⁴ One source of concern has been coding errors, particularly with the ADRI.²⁵ Doubts on this count have been at least partly assuaged, however, because several of the creators of the ADRI subsequently recoded the ADRI to meet various objections concerning their initial effort and because the scoring of the ASDI was done in consultation with practicing attorneys in each of the 72 countries focused upon.²⁶

More broadly, scholars have expressed doubts about whether it is in fact possible to distill law numerically.²⁷ Concerns of this sort arguably reflect a general hesitancy among legal academics to deploy analytical methods that require a reduction in complexity.²⁸ Forceful advocates of quantitative analysis of law have at times shown little patience for academic lawyers' concern that "law by numbers" is counterproductively reductionist. For instance, Andrei Shleifer, the distinguished economist who initiated the research project that

²³ *Ibid.*, 608-9.

²⁴ Siems and Deakin, *Comparative*, *supra* note xx, 122.

²⁵ For some examples of coding errors see Spamann, *Antidirector*, *supra* note xx, 472-73.

²⁶ Djankov *et al.*, "Law and Economics", *supra* note xx, 432-33, 453-54.

²⁷ *Supra* note xx and related discussion.

²⁸ Siems and Deakin, *supra* note xx, 124 (acknowledging the line of thinking but ultimately advocating the use of quantitative analysis, carefully done); Holger Spamann, *Large-Sample, Quantitative Research Designs for Comparative Law?*, 57 AM. J. COMP. L. 797, 807 (2009) (*ditto*).

generated the ADRI and ASDI, quipped in a 2005 interview that “Lawyers don’t do empirical work. They just argue with each other.”²⁹ Shleifer’s criticism of legal academics, if it was ever apt, certainly seems to miss the mark now given that interest in empirical legal studies has been sufficient over the past decade to sustain an empirical legal studies society, journal, and annual conference.³⁰ Indeed, it has been said that “empirical legal scholarship is all the rage.”³¹ Even so, the instinctively sceptical reaction of many legal academics to quantitative legal research is not without foundation – it is hard to reduce law satisfactorily to numbers. Indeed, that is a key point this paper makes. Parts II and III indicate that quantifying corporate law satisfactorily using the ADRI and the ASDI respectively is a challenging process.

Given that the creators of the ADRI themselves saw fit to recode earlier findings it is hardly a novel insight that using this index can be a challenge. In contrast, little has been said about difficulties associated with coding the ASDI, even though it may be supplanting the ADRI as the index of choice for corporate law-related law and finance research.³² As Part III of our paper shows, however, deploying the ASDI can be far from straightforward.

Quantifying law is difficult but we do not believe it is futile. The fact we are seeking to track numerically the evolution of U.S. corporate law reflects our faith in the enterprise. Ultimately, we are optimistic that analyzing the historical development of U.S. corporate law through the prism of the ADRI and the ADSI can generate sufficient insights to justify

²⁹ Quoted in Nicholas Thompson, *Common Denominator*, LEGAL AFFAIRS, January/February 2005, available at http://www.legalaffairs.org/issues/January-February-2005/feature_thompson_janfeb05.msp (last visited September 5, 2013).

³⁰ See <http://www.lawschool.cornell.edu/SELS/about.cfm> (last visited September 5, 2013).

³¹ Ken Kersch, *House-breaking Law Professors: Michael Klarman’s Backlash Thesis*, Balkinization (May 4, 2012), available at <http://balkin.blogspot.co.uk/2012/05/housebreaking-law-professors-michael.html> (last visited September 5, 2013).

³² See discussion *infra* notes xx to xx and related discussion.

proceeding. Still, the coding challenges we draw attention to in this paper indicate that, at least in this context, Larry’s invocation to law professors not to rush headlong into the empirical realm is a valuable one. The admonition “use with care” is one that is apt here.

II. THE ANTI-DIRECTOR RIGHTS INDEX

A. The ADRI’s Elements

Studies deploying the anti-director rights index and the anti-self dealing index are part of a burgeoning law and finance literature oriented around quantitative comparative analysis which aims to trace the relationship between nations’ laws and legal institutions on the one hand and their corporate governance and financial systems on the other.³³ A key message of this literature has been that “law matters”, in the sense that laws that protect shareholders typically constitute the foundation for well-developed equity markets.³⁴ Given the current prominence of U.S. stock markets, it follows that U.S. corporate law should have been shareholder-friendly in the period when the nation’s equity markets developed. The primary motivation underlying the 2013 article in which we plotted the evolution of Delaware corporate law by reference to the ADRI was to test this proposition.³⁵

The ADRI was constructed and deployed in a 1998 *Journal of Political Economy* article and related publications by four financial economists, Rafael La Porta, Florencio López-de-Silanes, Andrei Shleifer, and Robert Vishny, generally referred to as “LLSV”.³⁶

³³ For an overview of the literature and its popularity, see John Armour, Simon Deakin, Priya Lele and Mathias Siems, *How Do Legal Rules Evolve? Evidence from a Cross-Country Comparison of Shareholder, Creditor and Worker Protection*, 58 AM. J. COMP. L. 579, 582-85 (2009).

³⁴ Cheffins, Bank and Wells, *supra* note xx, 598.

³⁵ *Ibid.*, 599, 604, 608.

³⁶ La Porta, López-de-Silanes, Shleifer and Vishny, *supra* note xx. While this paper was published in 1998, LLSV identified 1993-94 as the point in time they examined the legal rules of the countries in their sample: 1119, n. 2.

As we described in our 2013 article,³⁷ the ADRI codes the presence or absence of six elements of a jurisdiction's company law, each of which LLSV believed gave shareholders power against directors: 1) the ability to mail in a proxy vote; 2) the absence of a requirement that shareholders deposit shares before a shareholder meeting, rendering them non-transferable ("no block"); 3) the availability of cumulative voting, which permits minority shareholders to "bundle" their votes and thereby increases the likelihood they can elect their representatives to the board of directors; 4) mechanisms offering relief to minority shareholders who have been oppressed or unfairly prejudiced; 5) rules obliging a company to give existing shareholders a right of first refusal when new shares are issued ("pre-emptive" rights); and 6) the ability of shareholders owning 10 per cent or more of a company's shares to call an extraordinary shareholders' meeting. LLSV awarded countries "0" or "1" with respect to each variable, depending on how each country's company law dealt with each issue, with a higher cumulative score signalling a more shareholder-friendly legal regime. The maximum score any country could receive was "6", though "5" in fact was the highest score LLSV awarded.³⁸

B. Delaware and the ADRI

LLSV focused on Delaware when coding the U.S. and, being aware that incorporating under Delaware law was a popular option for large publicly traded companies throughout most of the 20th century, we did the same in our 2013 article.³⁹ Delaware's present-day ADRI score was our departure point. We then worked backwards, searching for changes to Delaware law that would have altered the score for any of the variables.⁴⁰

³⁷ Cheffins, Bank and Wells, *supra* note xx, 604-5.

³⁸ La Porta, López-de-Silanes, Shleifer and Vishny, *supra* note xx, 1128.

³⁹ *Ibid.*, 1119; Cheffins, Bank and Wells, *supra* note xx, 605-6.

⁴⁰ Cheffins, Bank and Wells, *supra* note xx, 606.

One might presume that scoring Delaware’s ADRI over time would be reasonably straightforward, given the small number of variables involved and Delaware’s longstanding corporate law pre-eminence. We discovered differently. Our first challenge came at the outset, when we needed to choose appropriate present-day benchmarks. At first glance, the obvious departure point would be the score of “5” out of “6” LLSV awarded the U.S. in their 1998 article, with the only “0” occurring because shareholders lack pre-emptive rights under Delaware law.⁴¹ However, in a 2008 article La Porta, López-de-Silanes, and Shleifer, together with Simeon Djankov (DLLS), revised key ADRI definitions and coded the U.S. and 71 other countries using the new version based on those countries’ laws as of 2003.⁴² We correspondingly needed to decide which version of the ADRI to use in our historical analysis.

Our choice mattered because scores generated under DLLS’s revised ADRI differed quite substantially from scores awarded under LLSV’s original ADRI. Overall, the coding correlation between the two was only 0.60,⁴³ due in large part to the fact that with the revised (2008) ADRI, enabling (or “opt-in”) provisions—rules that a corporation could choose to adopt but were neither mandatory nor default terms—were coded differently. Under LLSV’s original ADRI protocol, a company law rule that allowed a corporation to “opt in” to a particular shareholder-protective arrangement could be coded as a “1”. DLLS, in contrast, coded such an optional provision as a “0”.⁴⁴ In Delaware, the U.S. state that both LLSV and DLLS focused on,⁴⁵ both cumulative shareholder voting and the ability of a 10% shareholder to call an extraordinary meeting are “opt in” provisions. LLSV thus gave the U.S. a “1” for

⁴¹ La Porta, López-de-Silanes, Shleifer and Vishny, *supra* note xx, 1128, 1130.

⁴² Djankov *et al.*, “Law and Economics”, *supra* note xx, 453.

⁴³ *Ibid.*, 455.

⁴⁴ *Ibid.*, 454.

⁴⁵ *Ibid.*; *supra* note xx and related discussion.

both variables but DLLS coded them as “0”.⁴⁶ The U.S., with its new DLLS score of “3,” was correspondingly transformed from a top rank corporate law country to a jurisdiction that provided below average protection.⁴⁷

Given that DLLS themselves characterized the revised ADRI as superior to the original, we decided to use the revised ADRI in our study. There was an additional benchmark candidate to consider, however, before looking backwards. DLLS generated their revised ADRI in response to a then on-going effort to recode the original LLSV by Holger Spamann.⁴⁸ Spamann’s methodology was more rigorous and transparent than LLSV’s, in that he consulted with local lawyers of each country being coded to ascertain what the law in fact was in their jurisdiction, made his raw legal data available online and deployed a detailed coding protocol, again made available online, to convert the raw data into ADRI scores for each country.⁴⁹

For the purposes of our study, Spamann’s methodological advantages may well have been irrelevant if he had given the U.S. the same score on each ADRI component as did DLLS. Had he done so, we could simply have used DLLS’s revised ADRI, drawing upon Spamann’s insights as and when they were pertinent. In fact, however, Spamann scored the U.S. differently than DLLS, giving it a “2” overall rather than “3” because he adopted a tougher standard than DLLS for awarding a “1” for proxy voting that Delaware failed to

⁴⁶ Cheffins, Bank and Wells, *supra* note xx, 606.

⁴⁷ *Ibid.*

⁴⁸ Spamann, *Antidirector*, *supra* note xx, 474.

⁴⁹ *Ibid.*, 470.

meet.⁵⁰ We took the view that Spamann’s coding of Delaware law provided as credible a departure point for our analysis as did DLLS’s so we correspondingly opted to rely on both.

With our benchmarks in place we then searched backwards for changes to Delaware law that would have caused the score to change for any of the variables. For pre-emptive rights, the one variable where we determined that Delaware’s score changed over time, we were able to deduce the chronology quite readily. Shareholders in Delaware companies had pre-emptive rights under common law principles.⁵¹ Correspondingly, a “1” was justified as of our kick-off date of 1899, the year Delaware enacted a new general incorporation statute based on New Jersey law to attract incorporation business.⁵²

Delaware amended its corporate law in 1927 to permit corporations to use their certificate of incorporation to displace pre-emptive rights.⁵³ This alteration to the law was insufficient, however, to merit a change to Delaware’s ADRI score because the presumption remained that shareholders had pre-emptive rights. Only in 1967 did Delaware’s score on the pre-emptive rights variable fall from “1” to “0”, due to a provision in the Delaware General Corporation Law (DGCL) enacted that year which statutorily abolished common law pre-emptive rights.⁵⁴

⁵⁰ Spamann only awarded a country a “1” for the proxy voting variable if the law required for proxies to have “yes or no” “two way” voting, something Delaware law does not do. See Cheffins, Bank and Wells, *supra* note xx, 606-7.

⁵¹ ADOLF A. BERLE AND GARDINER C. MEANS, *THE MODERN CORPORATION & PRIVATE PROPERTY* 133-34 (1932).

⁵² Cheffins, Bank and Wells, *supra* note xx, 605.

⁵³ Delaware General Corporation Law 1927 § 5, para. 10.

⁵⁴ The statute still allowed a corporation to “opt in” to preemptive rights in its charter: Delaware General Corporation Law 1967 § 102(b)(3). This remains the case but is insufficient to justify giving the U.S. a “1” with respect to pre-emptive rights. See Holger Spamann, *Appendix to The ‘Antidirector Rights Index’ Revisited*, 184, available at http://rfs.oxfordjournals.org/content/suppl/2009/09/24/hhp067.DC1/hhp067_suppl_data.pdf (2008) (last visited September 5, 2013).

While identifying the ADRI variable that had changed between 1899 and the present day was reasonably straightforward, matters became more complicated when we sought to confirm that other variables had *not* changed during the period. The component focusing on oppressed or unfairly prejudiced minority shareholders illustrates the point. LLSV, in their 1998 article, awarded a country “1” if its corporate law granted minority shareholders “a judicial venue to challenge the decisions of management or of the assembly (shareholders)[.] or the right to step out of the company by requiring the company to purchase their shares when they object to certain fundamental changes, such as mergers, asset dispositions, and changes in the articles of incorporation.”⁵⁵ Although we opted not to use LLSV’s ADRI as a present-day ADRI benchmark, this definition remained relevant to us because Spamann relied upon it in his recoding of the original ADRI.⁵⁶

We were confident a “1” was appropriate for Delaware under the original ADRI version of the oppressed minority component because from 1899 onward Delaware law provided dissenting shareholders with an appraisal remedy when mergers and combinations occurred.⁵⁷ It was also appropriate because a “1” was awarded under the original ADRI if shareholders had a “judicial venue to challenge management,” and we concluded that Delaware shareholders had the right to bring a derivative suit against management throughout the 20th century. But proving this latter point was surprisingly difficult. While the right of shareholders to file derivative suits against directors can be traced back in the U.S. at least as

⁵⁵ La Porta, López-de-Silanes, Shleifer and Vishny, *supra* note xx, 1122.

⁵⁶ See Spamann, *Antidirector*, *supra* note xx, 476-77 (rejecting the DLLS definition of the oppressed minority index component on the grounds that it was too vague).

⁵⁷ Corporation Law of Delaware § 56 (1899): “If any stockholder in either corporation consolidating as aforesaid, who objected thereto in writing, shall within twenty days after the agreement of consolidation has been filed...demand in writing from the consolidated corporation payment of his stock, such consolidated corporation shall...pay to him the value of the stock at the date of consolidation.”

far as 1831,⁵⁸ the earliest Delaware case we could find confirming matters was from 1923.⁵⁹ However, in a 1924 case the Delaware Chancery Court indicated that “the principle [was] well-settled” that when a shareholder asserted a right on behalf of a corporation the right was derivative.⁶⁰ We inferred from this that it was well understood prior to this point in time that derivative suits could be brought under Delaware law even if there was no case law specifically on point.

While a “1” was clearly the correct score for Delaware under the original LLSV definition of the “oppressed minority” component, DLLS complicated matters by modifying the relevant definition in their 2008 article. According to DLLS, a “1” would be merited if a minority shareholder could successfully challenge a resolution of the board and shareholders that was “unfair, prejudicial, oppressive, or abusive.”⁶¹ DLLS did not further define these broad terms. Anyone subsequently using the DLLS version of the ADRI to measure the quality of corporate law correspondingly had extremely wide coding discretion.

Using the discretion available to us, we ultimately concluded that, because minority shareholders in Delaware apparently had the scope to bring derivative suits prior to 1900 and continued to have scope to do so thereafter, a “1” was appropriate under DLLS’s version of the oppressed minority variable from 1899 to the present day. The judgment call, however, was not entirely straightforward. In contrast with the position in many U.S. states, in 1993 the Delaware Supreme Court, in *Nixon v. Blackwell*, declined to afford to “oppressed”

⁵⁸ Taylor v. Miami Exporting Co., 5 Ohio 162 (1831). The U.S. Supreme Court recognized the derivative suit in Dodge v Woolsey, 59 U.S. 331 (1855), which subsequently became the leading case.

⁵⁹ Allied Chemical & Dye Corp. v. Steel & Tube Corp. of America, 120 A. 486, 491 (Del. 1923).

⁶⁰ Fleeer v. Frank H. Fleeer Corp., 125 A. 411, 415 (Del. Ch. 1924).

⁶¹ Djankov *et al.*, “Law and Economics”, *supra* note xx, 455, Table 9, indicating also that a country was awarded 0.5 if a shareholder could challenge conduct that was “unfair, prejudicial or oppressive”.

minority shareholders of closely held corporations special judicial protection.⁶² We also were aware of a 2006 study of the pre-Great Depression “plight of minority shareholders” by economic historians Naomi Lamoreaux and Jean-Laurent Rosenthal in which they said U.S. judges “were not willing to allow disgruntled shareholders easy access to the courts.”⁶³ Nevertheless, given the derivative action option, and given that even Lamoreaux and Rosenthal were prepared to concede that “complaining stockholders were in a much stronger position if they could also show that the controlling group had knowingly behaved improperly,”⁶⁴ we opted to take advantage of the generality of the language DLLS used so as not to complicate our coding unduly. We correspondingly concluded that the U.S. should be given a “1” from 1899 to the present for the oppressed minority shareholder component under the DLLS as well as the LLSV definition of minority shareholder oppression.

C. Cumulative Voting Under the MBCA

We are, as mentioned, extending our historical ADRI coding efforts beyond Delaware to Illinois and the Model Business Corporations Act. This research is on-going, so at this point we cannot provide any sort of definitive analysis of the challenges associated with this coding effort. However, we can already identify at least one topic where coding is difficult to do satisfactorily, namely cumulative voting under the MBCA. It is important to remember in this context that the MBCA is not a statutory measure *per se*. Instead it offers guidance to states on statutory provisions to adopt and correspondingly can offer scope simultaneously

⁶² Nixon v. Blackwell, 626 A. 2d 1366 (1993); Robert A. Ragazzo, *Toward a Delaware Common Law of Closely Held Corporations*, 77 WASH. U.L.Q. 1099, 1101 (1999).

⁶³ Naomi Lamoreaux and Jean-Laurent Rosenthal, *Corporate Governance and the Plight of Minority Shareholders in the United States Before the Great Depression*, CORRUPTION AND REFORM: LESSONS FROM AMERICA’S ECONOMIC HISTORY 125, 147 (Edward L. Glaeser and Claudia Goldin eds., 2006).

⁶⁴ *Ibid.*, 145.

for mandatory, presumptive or enabling rules. With cumulative voting, between 1955 and 1984 the MBCA waffled in a way that complicates ADRI coding.

The original MBCA, issued in 1950, provided for mandatory cumulative voting.⁶⁵ The approach changed in 1955, when the ABA's Corporate Law Committee adopted a new approach which gave states adopting the Act a choice among several provisions.⁶⁶ The new version of the Act retained the language of the 1950 Act for jurisdictions that required mandatory cumulative voting. For states not so bound the MBCA made available two options. An adopting jurisdiction could adopt either a presumptive ("Unless the articles of incorporation otherwise provide") or permissive ("the articles may provide that") approach to cumulative voting.⁶⁷ The 1969 version of the Act no longer included any sort of mandatory cumulative voting provision but the alternative presumptive and permissive formats were retained.⁶⁸ Only in 1984 was the presumptive option dropped, leaving the "opt in" approach as the recommended provision.⁶⁹

DLLS, when they recoded the ADRI, expressly drew attention to cumulative voting as an illustration of the consequences of their new scoring of enabling provisions. They awarded the U.S. (i.e., Delaware) a "0" for cumulative voting rather than "1" because

⁶⁵ See Model Business Corporation Act § 31, ¶ 4, set out in ___ *Business Corporation Act*, 6 BUS. LAW. 1, 25 (1950) ("every shareholder entitled to vote at such election shall have the right...to cumulate his votes by giving one candidate as many votes as the number of such directors multiplied by the number of his shares shall equal...").

⁶⁶ Herbert F. Sturdy, *Mandatory Cumulative Voting: An Anachronism*, 16 BUS. LAW. 550, 574 (1961). The history related here is, oddly, misreported in the most recent version of the annotated MBCA. *Compare* MODEL BUSINESS CORPORATION ACT ANNOTATED § 7.28, Annotation/Historical Background/2. The Model Act (4th ed., 2008) (referring to a change in 1960) *with* 1 MODEL BUSINESS CORPORATION ACT ANNOTATED § 31, at 522 (1960) (dating the change to allow "permissive cumulative voting as an equal alternative" to 1955).

⁶⁷ MODEL BUSINESS CORPORATION ACT ANNOTATED § 31 (1960).

⁶⁸ MODEL BUSINESS CORPORATION ACT ANNOTATED § 33 ¶ 4 (1971, 2nd ed).

⁶⁹ COMMITTEE ON CORPORATE LAWS OF THE SECTION OF CORPORATION, BANKING AND BUSINESS LAW OF THE AMERICAN BAR ASSOCIATION, REVISED MODEL BUSINESS CORPORATION ACT § 7.28(b) (1984).

Delaware law simply permitted corporations to adopt a cumulative voting scheme.⁷⁰ By analogy, with the MBCA the appropriate score currently should be “0” because it has the same enabling format as Delaware. A “0”, moreover, would be appropriate at least back to 1984, when the Act adopted the purely “opt in” approach.

Conversely, the cumulative voting score for the MBCA should be “1” between 1950 and 1955, given that it instructed states to adopt a mandatory rule. Between 1955 and 1984, however, the situation is uncertain, given the even-handed approach the MBCA drafters took between a permissive and presumptive rule. Our inclination at this point is to score the MBCA a “1” for cumulative voting prior to 1969 and “0” from 1969 to 1984. This is because between 1955 and 1969 room was left open for continued use of the mandatory approach in addition to the permissive and presumptive options whereas the introduction of the pure permissive/presumptive choice in 1969 implied a shift away from a presumptive format. We have not yet, however, resolved this issue definitively.

III. ANTI-SELF DEALING INDEX

A. Why Focus on the ASDI in Addition to the ADRI?

Given the popularity of the anti-director rights index one might wonder why we decided to add a second index, the ASDI, to our project. There are good reasons, though, why coding the ASDI historically should be an equal if not higher priority than the ADRI. First, DLLS explicitly proffered the ASDI as a superior alternative to the ADRI.⁷¹ According to them, the ADRI was “based on an ad hoc collection of variables” while the ASDI dealt “with corporate self-dealing in a more theoretically grounded way.”⁷² In developing the ASDI, DLLS’s chosen approach was to craft a hypothetical self-dealing transaction, measure

⁷⁰ Djankov *et al.*, “Law and Economics”, *supra* note xx, 454.

⁷¹ Bebchuk and Hamdani, *supra* note xx, 1279.

⁷² Djankov *et al.*, “Law and Economics”, *supra* note xx, 432.

the legal hurdles that would have to be addressed to execute the transaction and award scores to countries based on how high the hurdles were.⁷³

Second, the quality of the legal research underpinning DLLS's coding of the ASDI was superior to that underpinning either LLSV's original ADRI or DLLS's revised ADRI. LLSV and DLLS essentially coded the ADRI relying purely on their own desk-top secondary research.⁷⁴ In contrast, with the ASDI DLLS consulted lawyers in each of the 72 countries covered in that index and coded the data accordingly.⁷⁵ Third, the ASDI delivered more potent empirical results than the ADRI. DLLS found that, when the ASDI measuring private enforcement was controlled for using the ADRI and vice versa, the private enforcement ASDI was a more robust predictor of stock market development.⁷⁶

Fourth, and finally, the ASDI has proven popular among those carrying out empirical law and finance research, with more than 30 academic papers deploying this index to measure legal protection afforded to investors.⁷⁷ The ASDI could indeed be supplanting the ADRI as the primary numerical measure of the quality of corporate law. In some instances, authors use both the ADRI and ASDI, sometimes citing the ASDI's methodological advantages and sometimes without expressing a preference for one or the other.⁷⁸ With other

⁷³ *Ibid.*

⁷⁴ Spamann, *Antidirector*, *supra* note xx, 471 (describing LLSV's methodology).

⁷⁵ *Supra* note xx and related discussion.

⁷⁶ Djankov *et al.*, "Law and Economics", *supra* note xx, 456.

⁷⁷ A list of papers where the ADRI had been deployed up to June 2013 is available from the authors on request.

⁷⁸ See, for example, Kose John, Steven Freund, Duong Nguyen and Gopala K. Vasudevan. *Investor Protection and Cross-Border Acquisition of Private and Public Targets*, 16 J. CORP. FIN. 259, 263-64 (2010) (ASDI judged to be as methodologically superior); Abed Al-Nasser Abdallah, Wissam Abdallah and Mohsen Saad, *The Effect of Cross-Listing on Trading Volume: Reducing Segmentation Versus Signaling Investor Protection*, 34 J. FIN. RES. 589, 596 (2011) (no preference); Reena Aggarwal, Isil Erel, Miguel Ferreira and Pedro Matos, *Does Governance Travel Around the World? Evidence from Institutional Investors*, 100 J. FIN. ECON. 154, 164 (2011) (no preference).

papers the ASDI is deployed without any reference to the ADRI.⁷⁹ Another variation is that the ADRI is mentioned but the ASDI is used without any explanation for the choice.⁸⁰ There are also occasions where authors indicate they are deploying the ASDI in preference to the ADRI because there was a better “fit” with the data.⁸¹ Finally, there are various papers where the ASDI’s methodological advantages and robust results are explicitly invoked to explain why it is being used rather than the ADRI.⁸²

B. The ASDI’s Core Elements

The hypothetical transaction that DLLS used as the departure point for coding the ASDI revolves around Buyer Co., a publicly traded food manufacturer, agreeing to purchase an unused fleet of trucks from Seller Co., a privately held retailer.⁸³ Mr. James, a director and 60% shareholder of Buyer Co. and a 90% shareholder of Seller Co., proposes the transaction. It is unclear whether the transaction is unfair to Buyer Co. According to DLLS,

⁷⁹ See, for example, Suman Banerjee, Lili Dai and Keshab Shrestha, *Cross Country IPOs: What Explains Differences in Underpricing?* 17 J. CORP. FIN. 1289, 1291 (2011); Stephen Bryan, Robert Nash and Ajay Patel, *Law and Executive Compensation: A Cross-Country Study*, 23 J. APPLIED CORP. FIN. 84, 85 (2011); Julian Franks, Colin Mayer, Paolo Volpin and Hannes F. Wagner, *The Life Cycle of Family Ownership: International Evidence*, 25 REV. FIN. STUD. 1675, 1686 (2012).

⁸⁰ Radhakrishnan Gopalan and Sudarshan Jayaraman, *Private Control Benefits and Earnings Management: Evidence from Insider Controlled Firms*, 50 J. ACCOUNTING RES., 117, 119, 137 (2012).

⁸¹ Mingzhi Liu and Michael Magnan, *Self-Dealing Regulations, Ownership Wedge, and Corporate Valuation: International Evidence*, 19 CORP. GOV.: INT’L REV. 99, 101-2 (2011) (indicating that the ASDI was better suited to dealing with companies with dominant shareholders, which predominated in the population of companies the authors were focusing upon).

⁸² In-Mu Haw, Simon Ho, Bingbing Hu and Xu Zhang, *The Contribution of Stock Purchases to the Value of the Firm and Cash Holdings Around the World*, 17 J. CORP. FIN. 152, 156 (2011); Klaus Gugler, *The Determinants of Rent Extraction in the Parent-Subsidiary Relation*, 40 EMPIRICA 343, 347, 359 (2013).

⁸³ Djankov *et al.*, “Law and Economics”, *supra* note xx, 433.

“[a]ll required approvals are obtained and all the required disclosures made,” but Buyer Co. shareholders still sue “the interested parties and the approving body.”⁸⁴

To measure the law governing their hypothetical self-dealing transaction DLLS compiled two anti-self-dealing indices, one measuring private enforcement (civil remedies) and the other public enforcement (fines and other criminal sanctions). Their private enforcement index was in turn composed of two sub-indices.⁸⁵ One focused on *ex ante* private control of self-dealing (regulation of the process by which the sale of the trucks could be validated). The other measured *ex post* private control (the ease with which minority shareholders of Buyer Co. could establish potential wrongdoing in the courts after the transaction had been entered into).

DLLS used a wider range of sources of law when coding the ASDI than they did for the ADRI. For instance, while LLSV’s original ADRI focused on company and bankruptcy/organization law and therefore implicitly excluded securities law, DLLS expressly took into account each country’s “stock market act and regulations” with the ASDI.⁸⁶ Also, while LLSV refrained from referring to stock exchange listing rules when coding the ADRI, DLLS treated such measures as being equivalent to statutory provisions and case law principles.⁸⁷

C. Scoring the United States (Delaware) Under the ADSI

Following the approach we adopted with the ADRI, with the ASDI we begin with a jurisdiction’s current score then work back through time to identify changes to the law that would change that score. One of the DLLS team (Shleifer) has made available publicly the

⁸⁴ *Ibid.*

⁸⁵ *Ibid.*, 434-35.

⁸⁶ *Ibid.*, 433; La Porta, López-de-Silanes, Shleifer and Vishny, *supra* note xx, 1120.

⁸⁷ *Ibid.*

scores they awarded when compiling the ASDI for the 72 countries they considered.⁸⁸ The scores for the U.S., which were derived from Delaware law,⁸⁹ trailed the world average markedly in some instances. The most obvious example was public enforcement (Table 1), where the U.S. was awarded 0.00.

Table 1: Public Enforcement, U.S. Score and World Average

ASDI Variable	US score	World average
Fine imposed on approving parties assuming disclosure occurs (0 for “no” or 1 for “yes”)	0	0.46
Prison term imposed on approving parties assuming disclosure occurs (in years)	0	2.22 years
Fine imposed on Mr. James assuming disclosure occurs (0 for “no” or 1 for “yes”)	0	0.36
Prison term imposed on Mr. James assuming disclosure occurs (in years)	0	1.87 years
Public enforcement index	0.00	0.41
Prison term for Mr. James if he does not disclose	25 years	4.63 years

Source: DLLS (2008), Table 4; data made available via Andrei Shleifer’s website

With the public enforcement index the discrepancy between the U.S. and the global average was somewhat misleading. Statutory provisions that yielded positive scores on this index for various countries often did not deal specifically with the sort of transaction in DLLS’s hypothetical. Instead the offences in question often were general in nature, such as misuse of company assets (Belgium), intentionally causing damage to the company (Sweden) and breach of trust for failing to care properly for company assets (Germany).⁹⁰ In the U.S., some states stipulate that criminal sanctions can be imposed on directors who declare

⁸⁸ See Shleifer, *supra* note xx.

⁸⁹ Djankov *et al.*, “Law and Economics”, *supra* note xx, 442.

⁹⁰ *Ibid.*, 437.

dividends unlawfully or fail to prepare and keep required corporate records.⁹¹ It does not appear, however, that criminal sanctions are imposed for related party transactions or for general corporate malfeasance, meaning the U.S. public enforcement index score of 0.00 is correct on its own terms. Based on DLLS’s findings, however, the fact that public enforcement may lag in the U.S. would not be expected to affect outcomes, as their chosen public enforcement measures did not correlate in a meaningful way with measures of stock market development.⁹²

What about private enforcement? To put DLLS’s findings into context, the U.S. self-dealing regime has its critics. In a 2011 article exploring constraints on “tunnelling” (extraction of wealth from companies by their managers and controlling shareholders) in the U.S., Vladimir Atanasov, Bernard Black, and Conrad Ciccotello characterized matters generally as “a glass at best half-full” and said regulation of asset sales to related parties was “weak.”⁹³ On the other hand, in a 2000 paper comparing the law governing self-dealing in the U.S., the U.K., Italy, France, and Germany, Luca Enriques observed that “self-dealing regulation is more sophisticated and has more bite in the U.K. and the U.S. than in the other sample countries.”⁹⁴ Similarly, the nine authors of *The Anatomy of Corporate Law*, a 2009 study of corporate law in six “core” jurisdictions of France, Germany, Italy, Japan, the U.K., and the U.S., indicated that Delaware courts were much more willing to review conflicted

⁹¹ WILLIAM E. KNEPPER AND DAN A. BAILEY, LIABILITY OF CORPORATE OFFICERS AND DIRECTORS sec. 8.03, 8-11-8-14 (8th ed. 2012).

⁹² *Ibid.*, 451.

⁹³ Vladimir Atanasov, Bernard Black and Conrad S. Ciccotello, *Law and Tunneling*, 37 J. CORP. L. 1, 2, 24, 49 (2011).

⁹⁴ Luca Enriques, *The Law on Company Directors’ Self-Dealing: A Comparative Analysis*, 2 INT’L. COMPARATIVE CORP. L.J. 297, 330 (2000).

transactions for fairness than courts elsewhere and said that for controlling shareholders (such as Mr. James) the liability risk was highest in the U.S.⁹⁵

DLLS’ ASDI coding for private enforcement corroborates this mixed verdict. For ex ante control, U.S. law scored a mediocre 0.33 out of a possible “1,” below the global average of 0.36 (Table 2). The low score was attributable primarily to the fact that Delaware does not require a vote by disinterested shareholders on a self-dealing transaction such as the one involving Buyer Co. and Mr. James. Of the 23 countries that had a higher score than the U.S., only five (Belgium, Chile, Israel, Norway and Taiwan) similarly lacked this requirement.⁹⁶

Table 2: Ex ante Control of Self-Dealing, U.S. Score and World Average

ASDI Variable	US score	World average
Buyer Co.’s disinterested shareholders must approve the transaction (0 or 1)	0	0.25
Disclosures Buyer Co. must make before the transaction can be approved (possible scores of 0, 0.33, 0.66 and 1)	1	0.44
Disclosures Mr. James must make before the transaction can be approved (possible scores of 0, 5. and 1)	1	0.67
Independent review of transaction required (0 or 1)	0	0.31
Ex ante disclosure (average of preceding three variables)	0.67	0.47
Ex ante private control (average of approval by disinterested shareholders and ex ante disclosure)	0.33	0.36

Source: Data made available via Andrei Shleifer’s website

In contrast, DLLS’s coding of ex post control captures the potency of U.S. regulation of self-dealing transactions. The U.S.’s overall ex post control score of 0.98 (Table 3) was

⁹⁵ REINIER KRAAKMAN *ET. AL.*, *THE ANATOMY OF CORPORATE LAW: A COMPARATIVE AND FUNCTIONAL APPROACH* 175, 178 (2nd ed., 2009).

⁹⁶ Derived from Shleifer, *supra* note xx, Ex Ante control tab.

second only to Singapore’s, driven upwards both by a legal system conducive to litigation and a disclosure regime the *Anatomy of Corporate Law* authors characterized as being more intense than that of any other country they focused on.⁹⁷ Combining this high score with the mediocre score of 0.33 for ex ante private control yielded an overall score of 0.65 for private control of self-dealing, 10th highest among the 72 countries DLLS coded and well above the global average (Table 3).⁹⁸

Table 3: Ex post Control of Self-Dealing, U.S. Score and World Average

ASDI Variable	US score	World average
Disclosures required in annual reports and other periodic disclosure documentation (ranging from 0 to 1)	1	0.56
Minority shareholder – standing to sue (0 or 1)	1	0.74
Rescission as a remedy for the transaction	1	0.19
Ease of holding Mr. James liable (ranging from 0 to 1)	1	0.43
Ease of holding directors liable who approved the transaction (ranging from 0 to 1)	1	0.49
Access to evidence (possible scores of 0, 0.25, 0.5, 0.75 and 1)	0.75	0.56
Ease in proving wrongdoing (average of preceding five variables)	0.95	0.48
Ex post private control of self-dealing (average of disclosure in periodic filings and ease of proving wrongdoing)	0.98	0.52
ASDI for private enforcement (average of ex ante private control and ex post private control)	0.65	0.44

Source: Data made available via Andrei Shleifer’s website

While Shleifer has made available spreadsheets showing the score each country was awarded for each ASDI variable, DLLS have not provided background information documenting how they determined particular scores. This has created difficulties for our

⁹⁷ KRAAKMAN *ET. AL.*, *supra* note xx, 156.

⁹⁸ Derived from Shleifer, *supra* note xx, Ex-Post control tab.

research, as our protocol has been to start with present-day coding for the U.S. and work backwards to find changes in the law. Because DLLS have not explained how they awarded particular scores, we have not always been sure what laws they looked to in order to justify a particular result. The coding for disclosure rules illustrates the problem.

DLLS gave the U.S. a “1” for ex post disclosure of their hypothetical transaction in annual reports and other periodic disclosure documentation. Here the source for the coding was easy to identify. By virtue of federal securities law companies with securities traded on a stock market are obliged to file annually a Form 10-K, item 13 of which stipulates that such a company must furnish the information required by Item 404 of Regulation S-K.⁹⁹ Item 404, which deals with transactions between companies and related persons, in turn sets out detailed requirements which match the criteria DLLS identified as sub-components of their disclosure in periodic filings variable.¹⁰⁰

DLLS also gave the U.S. a “1” for ex ante disclosures required from Buyer Co. and Mr. James. In contrast with ex post disclosure, it is not obvious what laws required this. The Federal securities laws do not require disclosure of proposed transactions. U.S. state law also does not directly mandate such disclosure, unlike (for instance) U.K. companies legislation, which explicitly requires a director with a personal interest in a proposed transaction with the director’s company to disclose the personal interest to the board.¹⁰¹ U.S. state law instead provides “safe harbors” for related party transactions which set out procedures that, if followed, will help shield a transaction from challenge and directors from liability.¹⁰² The

⁹⁹ Form 10-K, available at <http://www.sec.gov/about/forms/form10-k.pdf> (last visited September 5, 2013).

¹⁰⁰ 17 C.F.R. § 229.404 (2013).

¹⁰¹ Companies Act 2006, c. 46, § 177.

¹⁰² MODEL BUSINESS CORPORATION ACT ANNOTATED, *supra* note xx, § 8.60/Annotation/Statutes (listing statutory provisions from all states of this nature).

most likely explanation for the U.S. receiving a “1” for ex ante disclosure, we have concluded, is that DLLS expected those procedures would be followed in the hypothetical transaction and that disclosure would occur in fulfillment thereof.

DLLS, as mentioned, focus on Delaware corporations¹⁰³ and the state’s safe harbor provision is in section 144 of the DGCL. If the terms of the section are fulfilled this will limit but not eliminate court scrutiny of a related party transaction.¹⁰⁴ The safe harbor kicks in if a related party transaction is approved by a majority of disinterested directors or by a good faith vote of disinterested shareholders or is approved otherwise by the board or the shareholders and is fair to the corporation.¹⁰⁵ Approval will not be effective under the safe harbor, however, unless the directors or shareholders have been told, or already know, the material facts.¹⁰⁶ As noted, DLLS assume in their hypothetical that approvals which were supposed to be sought in fact had been obtained and all mandatory disclosures had been made.¹⁰⁷ We conclude that DLLS awarded the U.S. a “1” for ex ante disclosure by Mr. James and Buyer Co. because they (and their legal advisors) would have assumed that the

¹⁰³ *Supra* note xx and related discussion.

¹⁰⁴ *See, e.g., Fliegler v. Lawrence*, 361 A.2d 218, 222 (Del. 1976) (saying of § 144 “Nothing in the statute sanctions unfairness . . . or removes the transaction from judicial scrutiny”); Edward P. Welch *et al.*, 1 FOLK ON THE DELAWARE GENERAL CORPORATION LAW s. 144.2.2, GCL-IV-249 (2013).

¹⁰⁵ Lawrence E. Mitchell, *Fairness and Trust in Corporate Law*, 43 DUKE L.J. 425, 440 (1993); Eric G. Orlinsky, *Corporate Opportunity Doctrine and Interested Director Transactions: A Framework for Analysis in an Attempt to Restore Predictability*, 24 DEL. J. CORP. L. 451, 464-66 (1999).

¹⁰⁶ Delaware General Corporation Law § 144(1)(a) (2013) (“The material facts as to his relationship or interest and as to the contract are disclosed or are known to the board....”), § 144 (1)(b) (“The material facts as to his relationship or interest and as to the contract are disclosed or are known to the shareholders....”).

¹⁰⁷ *Supra* note xx and related discussion.

transaction could only be approved under Delaware's safe harbor provision if they had made proper disclosures to the board and shareholders.¹⁰⁸

D. Challenges Associated with Scoring the ASDI Chronologically

Having done our best to ascertain why DLLS coded the U.S. the way they did, we still face the evidentiary problem of discovering when the law took its present form. When, for instance, was ex post disclosure of related party transactions first required? Item 404 of Regulation S-K currently justifies DLLS awarding the U.S. a "1" for this variable and the S.E.C. first promulgated Item 404 in 1982, to take effect in 1983.¹⁰⁹ In so doing it indicated that Item 404's origins could be traced back to a 1942 S.E.C. release revamping rules imposing disclosure requirements on companies soliciting proxies.¹¹⁰ One might presume correspondingly that prior to that point the appropriate score for ex ante disclosure would be "0" rather than "1". As 1934 drew to a close, however, the *Wall Street Journal* published verbatim the contents of a model Form 10 that companies registered with the S.E.C. had to

¹⁰⁸ The situation may in fact be somewhat more complex than the text reflects. DLLS assume that all mandatory disclosures were made but Delaware law does not mandate any particular form of disclosure by a particular party. Instead, § 144 of the Delaware General Corporation Law offers three different ways for a self-interested transaction to be approved and the disclosure involved differs with each. If disinterested director approval is sought under § 144(a)(1) then the directors must either receive disclosure of material facts or must already know them. The same is true with the shareholders if shareholder ratification is sought under § 144(a)(2). Finally, under § 144(a)(3) a related party transaction may be upheld if it received some kind of approval and was fair to the corporation. While the first two approaches available under §144 typically require affirmative disclosure § 144(a)(3) arguably does not so long as a court would eventually find the deal "entirely fair." Despite this a prudent lawyer instructed to protect DLLS' related party transaction from legal challenge could quite reasonably conclude after reviewing the statute and case law that lack of disclosure would doom it. The fact that it is not entirely clear whether disclosure would be necessary under Delaware law under DLLS' hypothetical facts nevertheless illustrates effectively the complexities involved with coding the law under the ASDI.

¹⁰⁹ Securities and Exchange Commission, *Disclosure of Certain Relationships and Transactions Involving Management*, 17 CFR Parts 229, 239, 240, and 249, [Release Nos. 33-6441, 34-19290, 40-12865, File No. S7-939], 47 F.R. 55661-01 (December 13, 1982).

¹¹⁰ Securities and Exchange Commission, Release 34-3347 (December 18, 1942) (7 FR 10653), Item 5-H.

submit and this mandated disclosure of material contracts between the company and any of its directors or officers.¹¹¹ Correspondingly, it would seem that a “1” was appropriate as far back as 1935. We have found, however, this is difficult to confirm, as even the S.E.C. does not have on file early Form 10 precedents.

The difficulties associated with chronology are potentially even more acute when case law is involved. When coding is based on a statutory measure or supporting regulations—assuming evidentiary difficulties can be addressed—it typically should be possible to identify with precision when the law changed, namely when the relevant provisions were promulgated, amended, or deleted. When deducing a rule from case law, however, as David Kershaw observed in a 2012 article on the evolution of U.S. and U.K. fiduciary law governing self-dealing, “[i]dentifying evolutionary shifts in legal doctrine and attributing time periods in which they took place is a precarious task.”¹¹² Case law authorities can, for instance, conflict. Also, there might well not be a case from a state directly on point even though the law would have been thought of at the time as being well settled.

Our attempts to code historically the “standing to sue” ASDI variable illustrate the difficulties associated with coding based on case law. To show this, we need quickly to review the development of the law concerning shareholder approval of related party transactions. As DLLS correctly say, currently “[t]he U.S. does not require shareholder approval for related-party transactions....”¹¹³ Shareholder approval can, however, affect outcomes and shift burdens of proof in litigation over related party transactions, which is not surprising given the role disinterested shareholder ratification plays in statutory provisions such as s. 144 of the DGCL. To quote DLLS again, in the hypothetical transaction, with Mr.

¹¹¹ *Text of Form for Permanent Security Registrations*, WALL ST. J., Dec. 26, 1934, 8.

¹¹² David Kershaw, *The Path of Corporate Fiduciary Law*, 8 N.Y.U. J. L. & BUS. 395, 476 (2012).

¹¹³ Djankov *et al.*, “Law and Economics”, *supra* note xx, 442.

James being a controlling shareholder as well as a director, under Delaware law “[a]pproval by...disinterested shareholders...would shift the burden of the proof to the plaintiff, but the standard of review would remain entire fairness.”¹¹⁴ Shareholder ratification may have mattered more, however, in the past because it might well have been the only means available to regularize a related party transaction. This in turn may have affected the standing a shareholder would have had to launch a legal challenge to the transaction, and meant that the score for standing to sue should have been “0” rather than “1.”

As noted above, under s. 144 of the DGCL approval by informed, disinterested directors, or flawed approval of a transaction that was fair to the corporation, will have the same insulating effect as a good faith shareholder vote.¹¹⁵ Section 144 was originally enacted in 1967.¹¹⁶ Even before then, though, Delaware courts had held that the common law did not treat shareholder approval as the only means available to insulate a related party transaction at least partially from judicial scrutiny. For instance, in the 1953 case of *Gottlieb v. Heyden Chemical Corp.* the Delaware Supreme Court indicated that a contract in which a majority of directors were interested could withstand a legal challenge if the transaction had been entered into in good faith and was intrinsically fair.¹¹⁷

Further back in time matters apparently used to be different. According to a widely cited 1966 article by Harold Marsh, during the late 19th and early 20th centuries at common

¹¹⁴ *Ibid.*, n. 5. If Mr. James had been director but not a controlling shareholder then shareholder ratification would prompt a court to deploy the business judgment rule: *In re Wheelabrator Tech., Inc. Shareholders Litigation*, 663 A.2d 1194, 1203 (1995); Michael P. Dooley and Michael D. Goldman, *Some Comparisons Between the Model Business Corporation Act and the Delaware General Corporation Law*, 56 BUS. LAW. 737, 744 (2001).

¹¹⁵ *Supra* note xx and related discussion.

¹¹⁶ Mary A. Jacobson, *Interested Director Transactions and the (Equivocal) Effects of Shareholder Ratification*, 21 DEL. J. CORP. L. 981, 989 (1996).

¹¹⁷ *Gottlieb v. Heyden Chemical Corp.*, 90 A. 2d 660, 663 (Del. 1952).

law a related party transaction was voidable at the request of the corporation notwithstanding that it was fair or was approved by a disinterested majority of directors.¹¹⁸ This characterization of the law's development has been questioned, most notably in two articles by Norwood Beveridge, but continues to be widely accepted.¹¹⁹ A point not in question, however, is that even if a related party transaction was otherwise voidable a corporation's shareholders could regularize everything by way of ratification.¹²⁰

If a related party transaction could only be regularized by the shareholders this had potentially significant implications for enforcement. As Beveridge put it, the corollary to giving shareholders collectively the exclusive power to validate a related party contract was that "an individual shareholder could not sue to avoid an interested director contract regardless of its fairness since the decision to bring this claim was to be made by the shareholders as a group".¹²¹ Marsh indeed noted that an 1899 New York Court of Appeals

¹¹⁸ Harold Marsh, *Are Directors Trustees? Conflict of Interest and Corporate Morality*, 22 BUS. LAW. 35, 36-37 (1966).

¹¹⁹ Kershaw, *supra* note xx, 439-40 (acknowledging the wide acceptance of Marsh's view while offering a critique of it); Norwood P. Beveridge, *The Corporate Director's Fiduciary Duty of Loyalty: Understanding the Self-Interested Director Transaction*, 41 DEPAUL L. REV. 655, 659-62 (1992) (contending that the Marsh characterization was erroneous); Norwood P. Beveridge, *Interested Director Contracts at Common Law*, 33 LOY. L.A. L. REV. 97, 98-99 (1999) (acknowledging that his critique of Marsh's scholarship generated considerable interest but did not yield a high degree of acceptance). While Kershaw (*op. cit.*) is critical of Marsh's analysis, he does concede that New York courts treated related party transactions as voidable when the director on the other side of the contract acted for the corporation (at 471-72). This matches the facts in the DLLS hypothetical, where Mr. James proposed the transaction: Djankov *et al.*, *supra* note xx, 433.

¹²⁰ Marsh, *Are*, *supra* note xx, 48 ("All of the cases seem to hold that such ratification will suffice to validate the transaction with an interested director, at least in the absence of fraud or unfairness"); Beveridge, *Interested*, *supra* note xx, 123 (saying of New York and New Jersey law "even where a majority of the directors were interested in a contract with the corporation, such a contract could be ratified by the shareholders...."); WM. L. COOK, HANDBOOK OF THE LAW OF PRIVATE CORPORATIONS 494, 500 (1907) (indicating that shareholders could ratify related party transactions and saying that in New York and some other jurisdictions such transactions were voidable even if fair, noting as well though that such contracts were enforceable until avoided).

¹²¹ Beveridge, *Interested*, *supra* note xx, 120-21, 123-24.

decision was authority for the proposition “that the question of the voidability of a contract between a corporation and one of its directors...could not be raised by a shareholder in a derivative suit...but only by the corporation itself.”¹²²

To return to the standing to sue component of the private enforcement ASDI, how should this be coded for the era when only shareholder ratification could validate a related party transaction? DLLS say that a “1” is only the appropriate score for the standing to sue variable if a minority shareholder can sue derivatively. Marsh’s statement, taken at face value, suggests that a state where courts followed the New York jurisprudence should be awarded a “0” for standing to sue since individual shareholders could not challenge a related party transaction. The point, however, is not entirely clear. Even in those jurisdictions where only shareholders acting collectively could ratify a related party transaction, minority shareholders apparently could challenge in court a related party transaction that was fraudulent or illegal.¹²³ The departure from the general rule was thought to be narrowly cast,¹²⁴ but fraud seemingly could be established in cases lacking truly exceptional facts.¹²⁵

Even assuming that a U.S. state should be awarded a “0” for the standing to sue variable because shareholder ratification was the only way to regularize a related party

¹²² Marsh, *Are*, *supra* note xx, 42, citing *Burden v. Burden* 54 N.E. 17 (1899).

¹²³ Beveridge, *Interested*, *supra* note xx, 124; the fraud exception was also acknowledged in *Burden v. Burden* 54 N.E. 17 (1899).

¹²⁴ ARTHUR W. MACHEN, *A TREATISE ON THE MODERN LAW OF CORPORATIONS* 1312-13 (1908) (“a minority shareholder can never enjoin the execution of such contracts, unless they are actually fraudulent, if the shareholders are to have an opportunity to avoid them”). By 1940, in contrast, it was generally accepted that a minority shareholder could obtain standing to challenge a related party transaction and could succeed by showing “gross unfairness” in addition to fraud or illegality: WILLIAM J. GRANGE, *CORPORATION LAW FOR OFFICERS AND DIRECTORS: A GUIDE TO CORRECT PROCEDURE* 415 (1940).

¹²⁵ Cases cited by Beveridge in support of his assertion that an individual shareholder could only sue upon showing a contract was fraudulent or illegal suggest that a minority shareholder could get standing if directors obtained assets for half the appropriate price or less. See Beveridge, *Interested*, *supra* note xx, 124, n. 156, citing *Endicott v. Marvel*, 87 A. 230 (N.J. Ch. 1913); *Landis v. Sea Isle City Hotel Co.* 31 A. 755 (N.J. Ch. 1895).

transaction and individual shareholders correspondingly lacked the power to challenge the transaction merely because it was unfair, to code historically we still need to determine the dates when this was the applicable rule. Here we come upon another, unexpected, stumbling block: for the first part of the 20th century, there is remarkably little Delaware case law to draw upon. This may surprise those aware that a rich body of case law precedent is a major selling point the state currently relies upon to retain its status as the jurisdiction of choice among publicly traded U.S. companies.¹²⁶ Nevertheless, Kershaw has said “that Delaware self-dealing law in the early 20th century was in effect a blank sheet of paper,”¹²⁷ observing “(t)he dearth of Delaware self-dealing case law is striking.”¹²⁸

According to Kershaw, “Delaware law on self-dealing commenced in the 1920s” with the 1921 decision in *Cahall v. Lofland*.¹²⁹ In this case the Delaware Supreme Court indicated that, where directors arranged a contract between themselves and the company, the contract was voidable, with approval by the shareholders being the mechanism available to correct matters.¹³⁰ Correspondingly, it is plausible that Delaware should be coded as “0” for standing to sue in the opening decades of the 20th century, assuming its courts followed the New York approach.¹³¹ The paucity of case law means, however, that it is difficult to ascertain both whether this coding is correct and, if it is, when Delaware’s standing to sue score would have increased to “1.”

IV. CONCLUSION

¹²⁶ John Armour, Bernard Black and Brian Cheffins, *Delaware’s Balancing Act*, 87 IND. L.J. 1345, 1349 (2012).

¹²⁷ Kershaw, *supra* note xx, 482.

¹²⁸ *Ibid.*, 480.

¹²⁹ *Ibid.*; *Cahall v. Lofland*, 114 A. 224 (Del. 1921).

¹³⁰ *Cahall v. Lofland*, 114 A. 224, 231-32 (Del. 1921).

¹³¹ *Cahall v. Lofland* does not provide any guidance on the issue because a minority shareholder did not challenge the impugned transaction. This instead was done by the company’s receiver: *Cahall v. Lofland*, 114 A. 224, 227 (Del. 1921).

The foregoing analysis of the historical development of corporate law in the U.S. indicates that tracking change by way of leximetrics, in the form of the widely deployed anti-director rights and anti-self dealing indices, is by no means a straightforward affair. Open-ended definitions, such as the one DLLS adopted with the minority shareholder oppression component of the ADRI,¹³² can make it difficult to code the law satisfactorily. Even when the nature of a particular variable in a legal index is clear, ascertaining what the law in fact was going back through time can be challenging. The fact that a dearth of Delaware case law complicates coding of the ASDI for that state bears this out.¹³³

The challenges associated with deploying leximetrics to investigate the development of U.S. corporate law over time illustrate the wisdom of Larry Ribstein’s cautionary words concerning legal academics and empirical legal scholarship. Still, in this instance the game should be worth the candle. Due to definitional difficulties and evidentiary gaps, coding U.S. corporate law historically cannot be done with clinical precision. Nevertheless, so long as uncertainties are appropriately acknowledged it should be possible to generate acceptably accurate historical anti-director rights and anti-self dealing indices.

Using the ADRI and ASDI to quantify the development of U.S. corporate law should not merely be feasible but could also generate valuable insights. We already know from our research concerning Delaware that its ADRI score did not drop in the way the deregulatory “race” nomenclature that dominates the literature implies it would.¹³⁴ Though our ASDI research is ongoing, it also could generate a challenge to what is conventional wisdom with the development of the law governing related party transactions, namely that fiduciary

¹³² *Supra* notes xx to xx and related discussion.

¹³³ *Supra* notes xx to xx and accompanying text.

¹³⁴ *Supra* note xx and related discussion.

standards were watered down over time.¹³⁵ In the case of Delaware, its private enforcement ASDI score may well have increased during the 20th century, implying that regulation of self-dealing became more robust when a relaxation of the rules would have been anticipated. As we have seen, the disclosure in annual filings score would have moved from “0” to “1” in the mid-1930s with the introduction of S.E.C. disclosure rules, while the standing to sue score may also have risen during the opening decades of the 20th century when Delaware courts ultimately acknowledged that it was possible to safeguard a related party transaction without shareholder ratification.¹³⁶ If Delaware’s ASDI private enforcement score in fact increased over time a rethink of the historical evolution of regulation of related party transactions may be in order.

We acknowledge that to the extent our results contradict received wisdom this may reflect the limitations of leximetrics rather than casting legitimate doubt on accepted history. Still, given the popularity of the ADRI and ASDI even this would be a worthwhile insight. The upshot is that even accepting that caution is an appropriate byword with empirical legal studies in this instance the historically-oriented quantification exercise in which we are currently engaging should prove to be worthwhile.

¹³⁵ Marsh, “Are”, *supra* note xx, 57 (“the legal history in this areas seems to demonstrate that the courts have progressed from condemnation, to toleration, to encouragement of conflict of interest”); Ahmed Bulbulia and Arthur R. Pinto, *Statutory Responses to Interested Directors’ Transactions: A Watering Down of Fiduciary Standards?*, 53 NOTRE DAME L. REV. 201, 204 (1977) (“Thus the common law moved from the traditional inflexible rule with its certainty of application, to a more flexible but uncertain approach involving questions of fairness”); J. Robert Brown, *The Irrelevance of State Corporate Law in the Governance of Public Companies*, 28 U. RICH. L. REV. 317, 342 (2004) (saying in the context of self-dealing transactions “Court decisions...sharply restricted the duty of loyalty”).

¹³⁶ *Supra* notes xx to xx, xx to xx and accompanying text.

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