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Railroad Receiverships and Modern Bankruptcy Theory

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Some of the most important – and most interesting – recent work in the area of corporate and sovereign bankruptcy is rooted in the late 1800s and early 1900s, the golden age of the railroad receivership.[1] This

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[1] *See, e.g.*, Douglas G. Baird & Robert K. Rasmussen, *Control Rights, Priority Rights, and the Conceptual Foundations of Corporate Reorganizations*, 87 VA. L. REV. 921 (2001) [hereinafter Baird & Rasmussen, *Control Rights*]; Douglas G. Baird & Robert K. Rasmussen, *Boyd's Legacy and Blackstone's Ghost*, 1999 SUP. CT. REV. 393 [hereinafter Baird & Rasmussen, *Boyd's Legacy*]; David A. Skeel, Jr., *An Evolutionary Theory of Corporate Law and Corporate Bankruptcy*, 51 VAND. L. REV. 1325, 1353-76 (1998). *See also* DAVID A. SKEEL, JR., DEBT'S DOMINION: A HISTORY OF BANKRUPTCY LAW IN AMERICA 63 (2001); Douglas G. Baird & Robert K. Rasmussen, *The End of Bankruptcy*, 55 STAN. L. REV. 751, 758-59 (2002); Patrick Bolton, *Toward a Statutory Approach to Sovereign Debt Restructuring: Lessons from Corporate Bankruptcy Practice Around the World*, IMF Staff Paper, Vol. 50 (2003) (on file with author); William W. Bratton & G. Mitu Gulati, *Sovereign Debt Restructuring and the Best Interest of Creditors*, at p. 71 (available at http://ssrn.com/abstract=387880); Lee C. Buchheit & G. Mitu Gulati, *Sovereign Bonds and the Collective Will*, 51 EMORY L.J. 1317, 1326-28 (2002); Daniel J. Bussel, *Coalition-Building Through Bankruptcy Creditors' Committees*, 43 U.C.L.A. L. REV. 1547, 1552-59 (1996); Barry Eichengreen, *Restructuring Sovereign Debt*, – J. ECON. PERSP. – (forthcoming) (draft on file with author); Barry Eichengreen, Kenneth Kletzer & Ashoka Mody1, *Crisis Resolution: Next Steps*, NBER Working Paper No. W10095 (Revised Draft, June 2003) (on file with author); Julian Franks & Oren Sussman, *Financial Innovations and Corporate Insolvency*, World Bank Working Paper (Revised Draft, Sept. 24, 1999) (on file with author); Nicholas L. Georgakopoulos, *Bankruptcy Law For Productivity*, 37 WAKE FOREST L. REV. 51 (2002); Jeffrey Stern, Note, *Failed Markets and Failed Solutions: The*

was an age when multi-million dollar corporations, most with hopelessly tangled financial structures, dealt with financial distress with a minimum of government involvement. The era's appeal to modern bankruptcy scholars – many of whom have a lukewarm relationship with the current chapter 11[2] – is obvious.[3]

Thus, railroad receiverships recently have been used as the basis of a new model for reorganization of firms with strong manager-owners,[4] as a model for sovereign debt restructuring,[5] and as an integral part of an account of American corporate law and its development.[6] Receiverships have also been deployed in support of recent arguments

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Unwitting Formulation of the Corporate Reorganization Technique, 90 COLUM. L. REV. 783 (1990); Julie A. Veach, Note, *On Considering the Public Interest in Bankruptcy: Looking to the Railroads for Answers*, 72 IND. L.J. 1211 (1997). *Accord* Edward S. Adams, *Governance in Chapter 11 Reorganizations: Reducing Costs, Improving Results*, 73 B.U. L. REV. 581, 584-86 (1993); Douglas G. Baird & Thomas H. Jackson, *Bargaining After the Fall and The Contours of the Absolute Priority Rule*, 55 U. CHI. L. REV. 738 (1988).

2 *See, e.g.*, Robert K. Rasmussen, *Debtor's Choice: A Menu Approach to Corporate Bankruptcy*, 71 TEX. L. REV. 51 (1992).

3 As I argue in another paper, "[o]n some level bankruptcy scholars have been trying to contract their way out of chapter 11 almost since the day it was enacted." Stephen J. Lubben, *The Illusion of Control Rights – A Comment on the "New Chapter 11*", at p. 10 (available at http://ssrn.com/abstract=391740). Railroad receivership – which was effectively a private deal enforced with the power of a federal district court – arguably presents a historical achievement of this ideal. *See* SKEEL, DEBT'S DOMINION, *supra* note 1, at 66 (arguing that "the increasing contractualization [of receiverships] can be seen as evidence that Wall Street Professionals were doing both good and well.")

4 Baird & Rasmussen, *Control Rights*, *supra* note 1.

5 Buchheit & Gulati, *Sovereign Bonds*, *supra* note 1. *See also* Stephen J. Lubben, *Out of the Past: Railroads & Sovereign Debt Restructuring*, – GEO. J. INT'L L. – (forthcoming, summer 2004).

6 David A. Skeel, Jr., *An Evolutionary Theory*, *supra* note 1.

about the interpretation of the Bankruptcy Code[7] and the overall need for chapter 11 reorganization.[8] In short, the modern uses of railroad receiverships abound.

But these discussions of railroad receivership – with their implicit or explicit suggestions that history offers lessons for reorganization of today's troubled borrowers – have not been tested against the available empirical evidence. As one scholar recently noted, "we really don't know all that much about what went on in equity receiverships."[9]

In particular, how do we know these receiverships were effective at addressing firms' financial distress? Recent literature in this area assumes that the results achieved in railroad receiverships must have been beneficial, typically with little more than the faith J.P. Morgan & Co.'s participation must have ensured positive results[10] and the converse assertion that the Legal Realists were attacking what they did not understand when they took on these receiverships during the New Deal.[11]

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[7] Baird & Rasmussen, *Boyd's Legacy*, *supra* note 1.

[8] Baird & Rasmussen, *End of Bankruptcy*, *supra* note 1.

[9] {Cite to Ayer's response to Baird from 10/10/03 ABI conference}

[10] Baird & Rasmussen, *Control Rights*, *supra* note 1, at 933 ("The key to the success of the equity receivership lay in the control rights given to the investment bankers and their need to return to the market in the future. Their reputations turned on maximizing the value of the firm as a whole, not on their treatment of any particular bondholder."); *see also* Baird & Rasmussen, *Boyd's Legacy*, *supra* note 1, at 403; SKEEL, DEBT'S DOMINION, *supra* note 1, at 66, 112. Recent events show that reputational concerns are, at best, semi-strong constraints on misbehavior. *See* John C. Coffee, Jr., *Understanding Enron: It's About the Gatekeepers, Stupid*, 57 BUS. LAW. 1403 (2002).

[11] Baird & Rasmussen, *Control Rights*, *supra* note 1, at 928 ("Investors could depend upon investment bankers and their lawyers to look out for their interests. The investment banker's livelihood required convincing future investors to invest in the bonds that they sold. As long as J.P. Morgan and Paul Cravath proposed restructurings that were in the joint interest of the bondholders, the bondholders would continue to trust them with their money."), *and id.* at 925 n.10 ("[A]cademics of this period did not acquit

This paper remedies the existing gap in the literature by looking at a sample comprised of the largest railroads in the United States at the turn of the twentieth century, approximately half of which went through a receivership between 1890 and this country's entry into World War I. By examining the fate of these two groups of railroads after the World War, I am able to shed some light on the long-term effectiveness of receiverships. The results are striking.

The data shows that having undergone a receivership before World War I made a railroad more than two and a half times (*i.e.*, 150%) more likely to undergo another receivership or bankruptcy after the War.[12] The average railroad that reorganized under a receivership subsequently failed at a rate more than twice as high as railroads that had never gone through a receivership and almost three times as high as modern chapter 11 debtors. And the data shows that Morgan's involvement with a road had little effect on the road's ability to avoid financial distress. Moreover, the railroads that underwent receiverships in the "golden age" shrank their average operating income between the wars, even after accounting for inflation and deflation, while the roads that never went through a receivership saw their operating income grow by an average of more than $3 million.[13]

In sum, railroad receivership offers a poor example of effective corporate reorganization. Contemporary commentators who belittle the Legal Realist critiques of railroad receiverships are being unfair

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themselves especially well. They misunderstood the practice of corporate reorganizations and butchered the finance theory."); *see also* Marcus Cole, *Corporate Bankruptcy in the New Millennium: Limiting Liability Through Bankruptcy*, 70 U. CIN. L. REV. 1245, 1268-69 (2002).

12 *See infra* Table 6.

13 Dollar figures in this article have been standardized to 1900 dollars. *See infra* note __.

to the critics and overly romantic about the success and utility of receiverships.[14]

At heart, even though it is very tempting to see receiverships in terms of modern practice, they really were not some sort of steam-powered, proto-chapter 11. Unlike modern chapter 11 – where a debtor can radically revamp its financial structure while in bankruptcy – railroad receiverships were limited to making modest adjustments to a firm's financial structure. If a railroad had taken on excessive debt, receiverships could return a road's financial structure to the mainstream of industry practice, but they were not capable of facilitating substantial improvements that would allow a road to weather the next economic downturn. And, to make matters worse, receiverships appear to have taken as long, and sometimes much longer, than today's much maligned chapter 11 cases,[15] while costing much more.[16]

Limited by their very nature as a largely consensual form of reorganization – debtors could not "cram down" a dissenting class as they can now[17] – receiverships could do little more than fine-tune the roads' financial structures when all indications pointed to the need for major

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14 As David Skeel noted while reading an earlier draft of this paper, the Realist/New Deal critique of receiverships consisted of two parts, both serving a single argument that small investors were swindled in the process. First, the New Dealers believed that receiverships were ineffective at addressing a railroad's financial problems. Second, they argued that receiverships were tainted by professionals' self interest. The contemporary literature tended to focus on the second argument, while I focus on the first argument in this paper. But the second point also supports the first, inasmuch as the conflicts of interests explain why an ineffective procedure was perpetuated long after its faults should have been apparent. *See infra* Part IV.

15 *See infra* Tables 3A and 3B. To be sure, criticism of the length of chapter 11 cases seems to have tempered with the realization that Eastern Airlines was not typical of chapter 11 at large. *See, e.g,* Baird & Rasmussen, *End of Bankruptcy*, *supra* note 1, at 789 ("Bankruptcy judges are asked to identify quickly who can make it and who cannot. There is evidence that bankruptcy judges do this job well.").

16 *See*, *supra* note __ and text.

17 *See* 11 U.S.C. § 1129(b).

overhauls.[18] After all, by 1890 the railroads had precipitated several major economic panics, as well as sundry minor panics, and they would play instrumental roles in two more significant downturns before World War I.[19]

Equity receiverships were more like workouts, with all their acknowledged limitations,[20] than chapter 11 or other forms of bankruptcy reorganization.[21] But the railroads and their bondholders already knew how to negotiate a workout and they did so frequently.[22]

Receiverships, like chapter 11 today, were expected to offer something more – a stronger tool for resolving a railroad's financial

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[18] *See* PHILIP M. PAYNE, PLANS OF CORPORATE REORGANIZATION 2 (1934) ("A court of equity has neither authority nor power to carry out and enforce any plan of readjustment without the cooperation of the owners of the property, the holders of the stocks and bonds.").

[19] *Cf.* 1 GRANT GILMORE, SECURITY INTERESTS IN PERSONAL PROPERTY 430 (1965) ("Historically the railroads have made insolvency a way of life, with brief periods of prosperity punctuating the successive reorganizations.").

[20] For example, one study has found that present-day out-of-court restructurings generally result in a lesser reduction in debt loads than bankruptcy reorganization. Stuart C. Gilson *et al.*, *Troubled Debt Restructurings: An Empirical Study of Private Reorganization of Firms in Default*, 27 J. FIN. ECON. 315 (1990). Moreover, it is generally believed that workouts often fail, in part due to holdout problems, and result in formal bankruptcy proceedings. *See* Stephen J. Lubben, *The Direct Costs of Corporate Reorganization: An Empirical Examination of Professional Fees in Large Chapter 11 Cases*, 74 AM. BANKR. L.J. 509, 519-20 (2000) (arguing that workouts must be seen as part of a larger process leading to the resolution of financial distress).

[21] Alternatively, receiverships might be seen as comparable to the informal negotiation procedures used when financial distress compels large English firms to reorganize. *See* Armour et al., *Corporate Ownership Structure and the Evolution of Bankruptcy Law: Lessons from the United Kingdom*, 55 VAND. L. REV. 1699, 1757-58 (2002).

[22] *See, e.g.,* STUART DAGGETT, RAILROAD REORGANIZATION ch.10 (1908) (discussing the 1902 out-of-court restructuring of the Rock Island Railroad).

problems. The data presented herein suggests that receiverships failed in this mission. That the railroads' many sophisticated professionals failed to address this situation and continued to steer their clients through receivership after receivership lends credence to the Legal Realist claims that the many roles these professionals filled clouded their judgment.[23]

The remainder of this article is divided into four parts. Part I of this article begins the examination of receiverships by placing railroads in the context of the country's financial development in the late 1800s and early 1900s, with a special concentration on the years between 1900 and 1937, which will be the focus of my empirical analysis. Part II looks at railroad finance and the use of equity receiverships to address a railroad's financial distress. This part of the article contains a detailed description of what a receivership was and how it was used to address a railroad's financial collapse. Part III then presents the empirical part of the paper, already summarized above. Part IV looks at the implications of these empirical results for present-day scholarship and concludes with the observation that the actors in railroad receiverships were complex characters, unsuited to broad generalizations.

It is not my goal in this article to critique any particular use of receiverships in modern scholarship. Nonetheless, as I discuss more fully in Part IV, the data presented herein plainly puts a new burden on those who would use receiverships to advance present-day goals. In particular, these authors face the task of explaining why the defects this

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[23] *See* David A. Skeel, Jr., *The Rise and Fall of the SEC in Bankruptcy*, at n. 18 (June 1999) (available at http://ssrn.com/abstract=172030) ("The dominant theme of [William O. Douglas' SEC report on receiverships] is that the Wall Street investment bankers and lawyers who managed the reorganization process focused more on their own fees than on the interests of investors."); *see also* David A. Skeel, Jr., *Vern Countryman and the Path of Progressive (And Populist) Bankruptcy Scholarship*, 113 HARV. L. REV. 1075, 1089 (2000) ("[T]he Wall Street professionals who organized protective committees in order to negotiate the reorganization seemed to focus more on obtaining generous fees for themselves than on striking a good bargain on behalf of the scattered investors whom they purported to represent. The big losers, of course, were small, individual investors.") (footnote omitted).

paper identifies would not also undermine any new model that draws insights from the early days of corporate reorganization.

I. The Railroad Industry Between 1900 and 1937

In his report on the young country, de Tocqueville noted that "[t]he longest railways yet constructed are in the United States."[24] He no doubt could not have anticipated the future.

Railroads burst forth from just over 35,000 miles of track at the end of the Civil War to almost 195,000 miles of track in 1900.[25] Along the way the railroads had precipitated several major financial collapses, but by the turn of the twentieth century railroad management and investors probably looked to the future with a good deal of optimism.

Railroads had emerged from the receiverships of the 1890s with greatly rationalized capital structures and, by all accounts, a substantial reduction in their fixed charges. By 1900 railroads had become the dominant mode of transportation and had yet to face significant competition from either the trucking or airline industries, or the growth of individual automobile ownership.[26]

But the railroads' bumpy past would color their future, leading to well-intentioned but poorly implemented regulation at the very time that the railroads needed to adapt to the rapidly changing twentieth-century economy.[27]

"Most of the great [railroads] had been built by fraudulent construction companies, and if perchance a road had been honestly built,

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24 ALEXIS DE TOCQUEVILLE, DEMOCRACY IN AMERICA 554 (J.P. Mayer ed., George Lawrence trans., HarperPerennial 1988) (1835). For a good, concise account of railroads in the antebellum period, see Paul H. Cootner, *The Role of Railroads in United States Economic Change*, 23 J. ECON. HIST. 477 (1963).

25 U.S. DEPT. OF TREASURY, STATISTICAL ABSTRACT OF THE UNITED STATES 404 (1902).

26 *See* ROBERT SOBEL, THE AGE OF GIANT CORPORATIONS: A MICROECONOMIC HISTORY OF AMERICAN BUSINESS 1914-1984 at 31-33 (2d ed. 1984) (describing the rapid change of the automotive industry after the First World War); JOHN F. STOVER, AMERICAN RAILROADS 96-97 (2d ed. 1997).

27 *See generally* ALBRO MARTIN, ENTERPRISE DENIED: ORIGINS OF THE DECLINE OF AMERICAN RAILROADS, 1897-1917 (1972) (arguing that the ICC choked off railroad investment leading to the eventual decimation of the industry). Martin undoubtedly overstates his case.

there was always an opportunity to correct this oversight by disreputable, but highly profitable, manipulation of its securities."[28] Thus, the Union Pacific's management bound the railroad to contracts with corporations that management owned.[29] The management of both the Baltimore & Ohio and the Santa Fe hid financial rot for years through base accounting fraud.[30] Jay Gould's outrageous machinations as minority shareowner and controlling figure of the Erie lead to the branding of that road the "Scarlet Woman of Wall Street."[31]

At the same time, the railroads offered generous rates to powerful shippers like Standard Oil, while charging local farmers higher rates to subsidize the practice, a tactic that both reduced railroad revenues and engendered popular hostility.[32] As Herbert Hovenkamp has noted, the reasons for rate discrimination were many, and not all were nefarious.[33] But rate discrimination was very often a small piece of the more general

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[28] EDWARD G. CAMPBELL, THE REORGANIZATION OF THE AMERICAN RAILROAD SYSTEM 1893-1900 at 15 (1938).

[29] Wardell v. Union Pac. Ry. Co., 103 U.S. 651 (1881).

[30] STUART DAGGETT, RAILROAD REORGANIZATION 22-23 (1908) ("Earnings had been increased by the most arbitrary of book-keeping devices . . . and the Baltimore & Ohio took its place with other American corporations, the managements of which have indulged in secret juggling with the books.") [hereinafter, Daggett (1908)]; *see also id*. at 208 (commenting on the failure of the Santa Fe and remarking that "[f]ew more disgraceful instances of juggling of figures have been brought to light in the history of American railroad finance.").

[31] The most recent telling of this story can be found in Edward B. Rock, *Encountering the Scarlet Woman of Wall Street: Speculative Comments at the End of the Century*, 2 THEORETICAL INQUIRIES IN LAW 237 (2000).

[32] JEAN STROUSE, MORGAN: AMERICAN FINANCIER 257 (1999).

[33] Herbert Hovenkamp, *Regulatory Conflict in the Gilded Age: Federalism and the Railroad Problem*, 97 YALE L.J. 1017, 1049-50 (1988); *see also* Henry H. Swain, *Comparative Statistics of Railroad Rates*, 6 AMER. STAT. ASSOC. 115 (1898) (noting the flaws in efforts to examine the validity of rates solely by revenues per mile).

growth of cartels in the late 1800s and early 1900s,[34] which made the legitimate grounds for such differential pricing pale in comparison to political fervor about the seemingly unstoppable growth of big business.[35]

In the end, insiders' continued extraction of private benefits from railroads left the roads unable to face economic downturns and their continued arrogance in the face of growing public resentment left them unable to head off federal regulation. In 1873, the investment bank heading up the financing of the Northern Pacific Railroad failed, leading to a general stock-market panic and the closure of the New York Stock Exchange for ten days in September of that year.[36] Ultimately, 89 railroads defaulted on their bonds, which led to a general economic collapse that lasted until the end of the decade.[37]

The railroads recovered in the 1880s, but soon began to reach the limits of their geographic expansion – much future building would add redundant capacity to the national rail system, rather than expand its reach to new locales.[38] Cutthroat competition naturally followed. J.P. Morgan and others attempted to negotiate price-fixing and

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34 *See, e.g.,* Handy v. Cleveland & M. R. Co., 31 F. 689 (C.C. D. Ohio 1887) (describing scheme by which railroad would carry Standard Oil's products at ten cents a barrel, while charging Standard Oil's competitors 35 cents, and remitting the spread to Standard Oil).

35 For a sense of the disdain many farmers felt for the railroads, see FRANK NORRIS, THE OCTOPUS (1901) (fictionalized account of battle between California farmers and the Southern Pacific Railroad – the "octopus" of the novel's title). Stuart Daggett has a chapter on the Southern Pacific's active and often colorful role in California and national politics in his CHAPTERS ON THE HISTORY OF THE SOUTHERN PACIFIC 199-221 (1922). *See also* KEVIN STARR, INVENTING THE DREAM: CALIFORNIA THROUGH THE PROGRESSIVE AGE 205 (1985) ("The last four years of the SP's control over California were the most flagrant. Certainly the legislature of 1907 set new records for influence-peddling and outright bribery.").

36 SEAN DENNIS CASHMAN, AMERICA IN THE GILDED AGE 35-36 (2d ed. 1988).

37 *Id.* at 36.

38 *See* J. Fred Weston, *The Industrial Economics Background of the Penn Central Bankruptcy*, 26 J. FIN. 311, 311-12 (1971).

market allocation agreements among the roads, but, like most cartels, these agreements were only effective in the short term.[39] Throughout the decade controlling shareholders – including leading investment banks that were often the silent partners of the more notorious speculators[40] – continued to extract private benefits from the railroads.[41] And the railroads continued to produce periodic turbulence in the country's economy even in a time of putative prosperity.[42]

By 1893 the railroads were wracked by the twin forces of low net revenues – a result of unbridled rate cuts – and continued financial rot.[43] Ten days before Grover Cleveland began his second stint as President, the Philadelphia and Reading Railroad was placed in the hands of a receiver.[44] The other major railroads soon followed: by the end of the year the Erie, Northern Pacific, Union Pacific, and the Sante Fe had all

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39 *See* VINCENT P. CAROSSO, INVESTMENT BANKING IN AMERICA 39 (1970); RON CHERNOW, THE HOUSE OF MORGAN 54-58 (1990); MATTHEW JOSEPHSON, THE ROBBER BARONS 307-11 (1934); MAURY KLEIN, THE LIFE AND LEGEND OF JAY GOULD 466 (1986).

40 DOLORES GREENBERG, FINANCIERS AND RAILROADS 1869-1889 at 48-49 (1980) ("Morton, Bliss & Company carefully guarded the respectability upon which credit ratings rested and as a matter of policy often refused to let their railroad ties be publicly identified.").

41 *E.g., id.* at 185 (discussing the Kentucky Central's issuance of $2 million in bonds to insiders, including leading investment bankers, "without payment to the railroad"); N.S.B. Gras & Henrietta M. Larson, *J. Pierpont Morgan in Railway Finance, 1879-88*, at 88, 89-90 *in* THE RAILROADS: THE NATION'S FIRST BIG BUSINESS (Alfred D. Chandler, Jr. ed., 1965).

42 *See, e.g.,* JEAN EDWARD SMITH, GRANT 619-21 (2001) (discussing the 1884 failure of Grant & Ward, the resulting stock-market panic, and the Wabash Railroad's subsequent default on its bonds).

43 *See* Gras & Larson, *J. Pierpont Morgan*, supra note __, at 92 ("Morgan's opportunity came with the panic of 1893, which precipitated the failure of many railroads inherently weak from the results of bad management and destructive competition.").

44 Cashman, *supra* note __, at 222.

been taken over by receivers. The depression of 1893 would eventually lead to the collapse of 126 railroads by June of 1894,[45] representing $2.5 billion in capital or 25% of the total railroad capital at the time.[46]

At roughly the same time, Congress responded to continued pressure to cure railroad abuses. 1887 saw the passage of the Interstate Commerce Act,[47] which established the first federal administrative agency designed specifically to regulate the railroad industry,[48] followed by the Sherman Antitrust Act in 1890,[49] which was eventually interpreted to apply to the railroads.[50] The advent of federal regulation threatened railroad profits and caused a good deal of alarm among investors,[51] but in

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45 WILLIAM Z. RIPLEY, RAILROADS: FINANCE & ORGANIZATION 376 (1915).

46 *Id.*; *see also* Cashman, *supra* note __, at 222; Charles Hoffmann, *The Depression of the Nineties*, 16 J. ECON. HIST. 137, 138 (1956).

47 Interstate Commerce Act, ch. 104, 24 Stat. 379 (1887). A good history of the early days of the Act can be found in Clyde B. Aitchison, *The Evolution of the Interstate Commerce Act: 1887-1937*, 3 GEO. WASH. L. REV. 289 (1937). A helpful table, providing a summary of the various amendments to the original Act can be found in Weston, *supra* note __, at 313.

48 *See* Joseph D. Kearney & Thomas W. Merrill, *The Great Transformation of Regulated Industries Law*, 98 COLUM. L. REV. 1323, 1331-33 (1998).

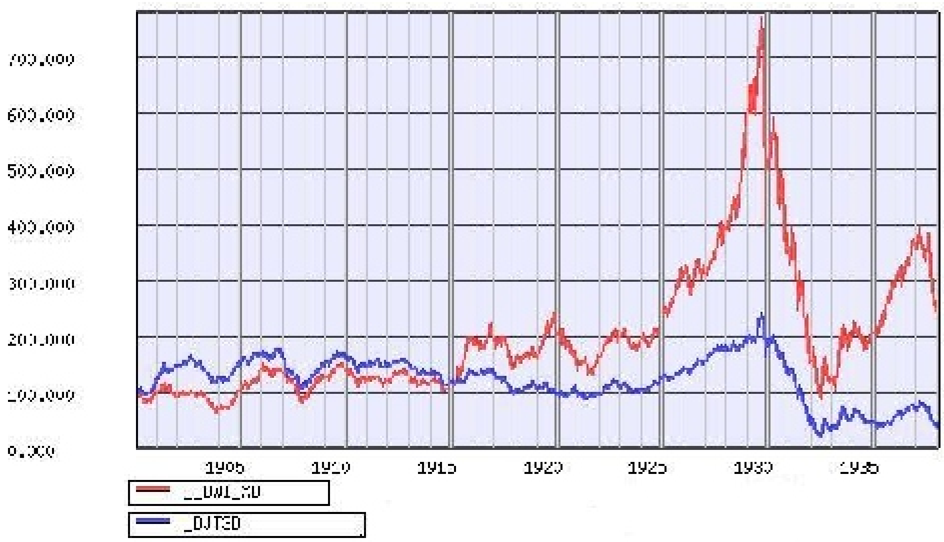
49 Sherman Antitrust Act, ch. 647, 1-7, 26 Stat. 209 (1890).

50 Northern Securities Co. v. United States, 193 U.S. 197, 331 (1904); United States v. Trans-Missouri Freight Assoc., 166 U.S. 341, 342 (1897).

51 *Cf.* Arthur T. Hadley, *Railroad Business Under the Interstate Commerce Act*, 3 Q. J. ECON. 170, 176 (1889) ("The practical difficulty is that the law, by the clause prohibiting pools, has rendered it nearly impossible for the railroads to cultivate such reasonable relations with one another; or, rather, it has made it possible for the most reckless manager among several rival companies to dictate the policy of them all."). Hadley's anti-competitive (or pro-collusion) tone was not atypical in the late 1800s. *See* Michael Perelman, *Fixed Capital, Railroad Economics and the Critique of the Market*, 8 J. ECON. PERSP. 189 (1994).

Figure 1A **Dow Jones Industrial Average (__DWI__XD) and Dow Jones Transports, 1900 -1937 (Indexed, 1900 = 100)**

Source: www.globalfindata.com



the short term – largely as the result of several Supreme Court decisions – both the Interstate Commerce Act and the Sherman Act were rendered impotent.[52] Indeed, until the Progressive Era was in full swing, the Sherman Act was only used to harass railway unions – most notably in the case of union leader and future presidential candidate Eugene Debs.[53]

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52 JOSEPHSON, ROBBER BARONS, *supra* note __, at 306; *see also* LEWIS L. GOULD, THE PRESIDENCY OF WILLIAM MCKINLEY 160-61 (1980) (discussing the Justice Department's narrow view of the antitrust laws during this period). As Morton Horowitz has noted, this was an age when "American courts came as close as they had ever had to saying that one had a property right to an unchanging world." MORTON J. HOROWITZ, THE TRANSFORMATION OF AMERICAN LAW: THE CRISIS OF LEGAL ORTHODOXY 151 (1992).

53 In re Debs, 158 U.S. 564 (1895); *see also* United States v. E. C. Knight, Co., 156 U.S. 1, 16 (1895). The best biography of Debs is still NICK SALVATORE, EUGENE V. DEBS, CITIZEN AND SOCIALIST (1982).

In short, railroads were in an enviable position in 1900. The problems of the 1800s seemed to have been solved, in part through the reorganization (and sometimes "Morganization")[54] of key roads following the depression in 1893. And the twin specters of the automobile and government regulation seemed, for now, to be easily managed.[55]

Despite the promise that railroads showed in 1900, the industry would see two more large waves of financial distress and receiverships before the start of World War II. Between 1908 and 1916 ten significant railroads, each with over 1,000 miles of track, and myriad smaller railroads, would begin receivership proceedings.[56] And after the

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54 This was the term used to describe J.P. Morgan's paradigmatic reorganization scheme, used repeatedly in the 1890s. As E.G. Campbell explains

> The Morgan reorganizations during the nineties all followed the same general patter, manifesting three especially important characteristics. The immediate problems which had precipitated trouble – the finances of the road – were put on a sound basis. Secondly, Morgan was reluctant to surrender control of the roads after the reorganizations had been completed; by means of voting trusts his control was perpetuated and even after the trusts had been terminated, his representatives were usually to be found among the directors of the companies. The third feature of Morgan's railroad activities during the late nineties was the establishment of the Community of Interests idea, both in theory and in fact; to this end, of course, Morgan's continued control over the roads he had reorganized served as a nucleus about which to build.

Campbell, *supra* note __, at 148.

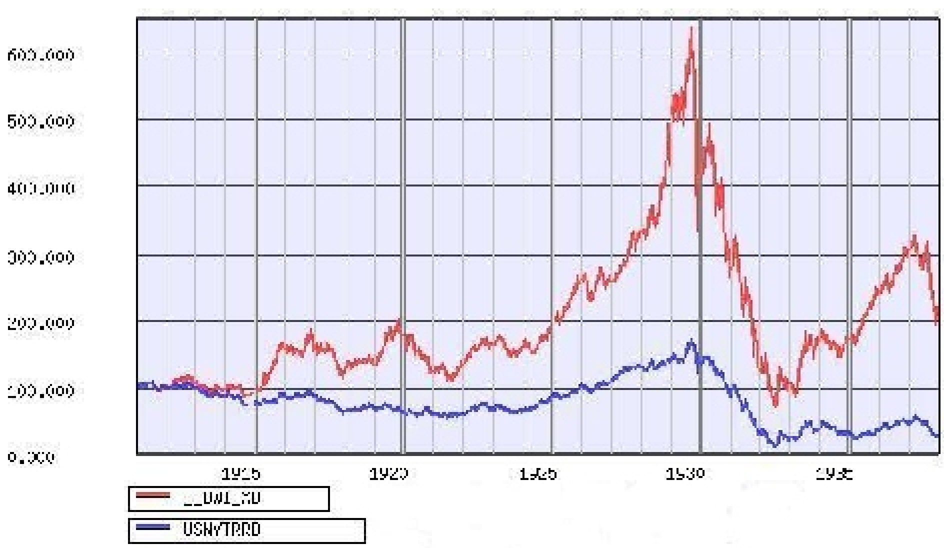
55 *See* HAROLD U. FAULKNER, THE DECLINE OF LAISSEZ FAIRE, 1897-1917 at 228 (1961) ("To the railroads, approaching in 1900 the height of their power, any idea that the few self-propelled contraptions puttering through the streets would ever constitute a rival worth considering was too fantastic for serious consideration.").

56 *See* Robert T. Swaine, *Reorganizations of Corporations: Certain Developments of the Last Decade*, 27 COLUM. L. REV. 901, 901-02 n.3 (1927) (reporting that in 1916 more than 80 railroads owning approximately 42,000 miles of track - about 16% of the total track mileage - were in receiverships).

stock market crash in 1929, railroad revenues dropped from $6 billion in 1928-1929 to $3 billion in 1933.[57]

<u>Figure 1B</u> **Dow Jones Industrials (__DWI__XD) and New York Times Rail Index, 1911 - 1937 (Indexed, 1911 = 100)**

Source: www.globalfindata.com



[57] Ralph L. Dewey, *The Maintenance of Railroad Credit*, 36 AMER. ECON. REV. 451, 452 (1946).

By 1932 over 20,000 miles of railroad, owned by more than 50 railroads, were in receiverships,[58] and by 1940 more than 60,000 miles of rail were operated by trustees under section 77 of the Bankruptcy Act, which was enacted in 1933.[59] Many more railroads avoided bankruptcy or receivership solely by the grace of large government loans[60] or by resort to the emergency debt postponement measures added to the Bankruptcy Act during the New Deal.[61]

Moreover, as shown in Figures 1A and B, after World War I railroads significantly underperformed when compared to the broader market.[62]

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58 INTERSTATE COMMERCE COMMISSION, 46TH ANNUAL REPORT OF THE INTERSTATE COMMERCE COMMISSION 15 (1932).

59 Florence de Haas Dembitz, *Progress and Delay in Railroad Reorganizations Since 1933*, 7 LAW & CONTEMP. PROBS. 343, 344 (1940).

60 *See* George P. Baker & William L. Crum, *The Railroad Situation and Outlook*, 17 REV. ECON. STATS. 79, 85-86 (1935).

61 Ch. 393, 53 Stat. 1134 (1939). These provisions were enacted in July 1939 and, by their terms, expired one year later. Similar legislation was in force from 1942 until November 1945. Ch. 610, 56 Stat. 787 (1942). The provisions of both enactments were applicable only to common carriers (as defined in section 20a of the Interstate Commerce Act) that were not the subject of a receivership or bankruptcy. *See* ARTHUR W. SELVERSTONE, BANKRUPTCY AND REORGANIZATION 287-295 (1940) (discussing the 1939 legislation).

62 These graphs use the Dow Jones Transport index as a proxy for railroads. Before January 1970, this index was comprised solely of railroads and was at times known as the Dow Jones Rail index. Dow Jones calculated its first all rail index on October 26, 1896. Its components included Atchison, Burlington, CCC & St. Louis, Chesapeake & Ohio, Chicago & North Western, Erie, Jersey Central, Lake Shore, Louisville & Nashville, Manhattan Elevated, Missouri Kansas & Texas Pfd., Missouri Pacific, New York Central, Northern Pacific pfd., Philadelphia & Reading, Rock Island, St. Paul, Southern Railway pfd., Susquehanna & Western pfd., and Wabash pfd. *See generally*, Globalfindata.com, *The Encyclopedia of Global Financial Markets* (9th ed. 2003) (available at http://www.globalfindata.com/articles/Global.doc).

II. Railroad Financial Structures and the Resolution of Financial Distress

A. *Railroad Finance*

In the early years of the twentieth century, railroad finance was dominated by three themes that are often neglected in recent (legal) accounts of the era. First, the degree of foreign investment in American railroads, as a portion of the road's overall capital, declined as the century progressed and all but disappeared by 1915.[63] The initial decline in the foreign investment as a percentage of the whole undoubtedly reflects the growth of domestic investment capital,[64] and the consolidation of the railroad industry into control groups dominated by domestic investors.[65] It also reflects the simple fact that some foreign investors, having made significant profits from their initial investments in North America, had now moved on to other developing markets like Latin America and Australia.[66] The complete withdrawal of foreign investment by 1915 is

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63 *See* Leland H. Jenks, *Capital Movement and Transportation: Britain and American Railway Development*, 11 J. ECON. HIST. 375, 375 (1951) (stating that British "railroad holdings in the United States amounted to around 15 per cent of the railroad capitalization; at earlier periods, though the amount was less, the proportion may have been as high as one fourth.").

64 DOROTHY R. ADLER, BRITISH INVESTMENT IN AMERICAN RAILWAYS 1834-1898, at 200 (1970) (describing the 1890s as "the end of an era" in foreign investment in the United States as the economy grew to provide domestic sources of capital).

65 MIRA WILKINS, THE HISTORY OF FOREIGN INVESTMENT IN THE UNITED STATES TO 1914 at 195 (1989).

66 Albert Fishlow, *Lessons from the Past: Capital Markets During the 19th Century and the Interwar Period*, 39 INT'L ORG. 383, 395-96 (1985). One must be careful not to push this point too far: foreign investment (particularly British investment) in the United States and its railroads remained substantial until the outbreak of hostilities in Europe. *Id.* at 394 tbl. 2 (showing that over $4 billion of the $20 billion in oversees British investment in 1914 was placed in the United States); *see also* Jenks, *supra* note ___, at 375 (stating that about $3 billion of the total $4 billion of British investment in the United States on the eve of the war was connected with American railroads). Further, as Professor Wilkins notes, a decline in the degree of European control of American railroads does not mean a diminution of total investment in the railroads. Wilkins, *supra* note ___, at 197.

rather plainly the result of the already stagnating conflict in Western Europe.[67] Taken together, however, these trends remind us that the picture of J.P. Morgan and other investment bankers as the mediator between domestic railroads and foreign investors was increasingly becoming a relic of the nineteenth century.

Second, railroads increased their reliance on debt financing throughout the period, despite the extensive experience with repeated bouts of financial distress, which would seem to counsel for a greater use of equity.[68]

Accordingly to Ripley, in the early part of the nineteenth century railroads were often financed entirely, or at least predominately, by equity.[69] By the end of the Civil War, however, railroads had turned to bonds – typically secured bonds – for the bulk of their capital.

The reasons for this change are unclear. Ripley asserts that the increasing size of railroad projects and state law rules against issuing shares for less than par were among the factors that thwarted the continued use of equity financing.[70] But size, standing alone, is no reason to choose debt financing over equity.

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67 *See generally* JOHN KEEGAN, THE FIRST WORLD WAR (1999). *See also* Fishlow, *supra* note ___, at 390 ("Shortly after the war began, European holdings of American securities were liquidated to meet new expenses and the United States, a prominent investor in Latin America since the 1890s, became a net creditor for the first time.").

68 Jan Kmenta & Jeffrey G. Williamson, *Determinates of Investment Behavior: United States Railroads, 1872-1941*, 48 REV. ECON. & STATS. 172, 174 (1966); *see also* STOVER, AMERICAN RAILROADS, *supra* note __, at 162.

69 RIPLEY, RAILROADS: FINANCE & ORGANIZATION, *supra* note __, at 10-11. *See also* Alfred D. Chandler, Jr., *Patterns of American Railroad Finance, 1830-50*, 28 BUS. HIST. REV. 248 (1954).

70 *Id.* at 11-14. *Accord* Baird & Rasmussen, *Control Rights*, *supra* note 1, at n.__ ("The need for debt financing arose with the tremendous expansion of railroads after that time.").

The rules with respect to par value (and stock issuance in general) were undoubtedly burdensome,[71] and further complicated by the fact that many early railroads were chartered by the acts of the legislature,[72] but if par value were a serious problem we would expect to see some evidence of railroads lobbying state legislatures during the nineteenth century to permit the issuance of no par or low par stock. Instead, the move to allow no par stock did not come until the Progressive Era[73]

More pragmatically, the need to raise additional capital by debt – in particular, secured debt – was probably the natural result of rampant self-dealing in the 1800s. Secured debt gave non-insider investors the highest degree of protection against claim dilution and asset substitution in an age when stock watering and other forms of looting were common. Even well managed railroads would have had a difficult time convincing the markets that their equity was immune from this sort of self-dealing, since the true ownership of a railroad was often concealed.[74]

Further, from the supply side, management had a strong incentive to rely on debt over equity given the belief – endemic among

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71 *See, e.g.,* Mass. St. of 1871, c. 389 (providing that, "if any railroad corporation, owning a railroad in this Commonwealth, and consolidated with a corporation in another state, owning a railroad therein, increases its capital stock, or the capital stock of such consolidated corporation, without authority of the legislature of this Commonwealth, or without such authority extends its line of road," "the charter and franchise of such corporation shall be subject to be forfeited and become null and void."). Like the doctrine invalidating *ultra vires* acts, the par value rules were often the source of creative attempts to avoid otherwise binding obligations. *E.g.,* Peterborough R. R. Co. v. Nashua & L. R. R. Co., 59 N.H. 385 (1879) (rejecting claim that railroad's pledge of stock as collateral was sale for less than par).

72 *See* Commonwealth v. Lehigh A. R. Co., 18 A. 414 (Pa. 1889); State *ex rel.* Attorney General v. Northern Pacific Railway Co., 147 N.W. 219 (Wis. 1914).

73 *See* Albert S. Keister, *Recent Tendencies in Corporate Finance*, 30 J. POL. ECON. 257, 258 (1922); Victor Morawetz, *Shares Without Nominal or Par Value,* 26 HARV. L. REV. 729 (1913); *see also* Herbert Hovenkamp, *The Marginalist Revolution in Legal Thought,* 46 VAND. L. REV. 305, 352-56 (1993).

74 *See* Greenberg, FINANCIERS, *supra* note __, at 180.

management throughout history[75] – that dividends could only be reduced in extreme circumstances. Common stock of the era typically paid upwards of five or six percent of par (which was typically $100) in annual dividends, at a time when risk-free interest rates were less than four percent.[76]

The reliance on secured debt did not diminish in the twentieth century, despite an ostensible reduction in the degree of insider self-dealing.[77] As shown in Table 1, between 1900 and 1937 new railroad bond issues were overwhelming secured issues. The presence of hundreds of millions of dollars in unsecured bonds, however, reminds us that not all of a railroad's unsecured creditors were trade creditors.[78]

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[75] *See generally*, John Lintner, *Distribution of Incomes of Corporations among Dividends, Retained Earnings, and Taxes*, 46 AMER. ECON. REV. 97 (1956).

[76] The yield on 10-year U.S. government bonds was less than 4% every year between 1890 and 1919, and was less than 3.5% for the first decade of the twentieth century.

[77] Insider self-dealing had actually just moved to a more sophisticated level – often taking the form of overly generous spreads obtained by shareholder/bankers. *See, e.g.*, FAULKNER, THE DECLINE OF LAISSEZ FAIRE, *supra* note __, at 200 (describing the Chicago and Alton's sale of $40 million of 3% bonds to its bankers, who were also shareholders, at 65 and the resale to the public at 90).

[78] *See* Baird & Rasmussen, *Boyd's Legacy*, *supra* note 1, at 405 ("Most of the [unsecured] creditors were suppliers with ongoing relationships with the railroad."); Baird & Rasmussen, *Control Rights*, *supra* note 1, at 927 ("Railroads were initially built and financed in stages. Each stage was financed through mortgages whose form paralleled that of conventional real estate mortgages."); *id.* at n.21 ("Besides the bondholders, there were few other creditors. Suppliers of coal and the like were paid on an ongoing basis.").

Table 1: Railroad Bond Offerings By Year (Millions of Dollars)

Based on NBER's sample of all large (> $5 million) railroad issues and 10% of smaller railroad issues

Year of Offering	Total	Secured Issues			Unsecured Issues	Information Lacking
		Senior	Intermediate	Junior		
1900	$345.1	$135.0	$88.1	$111.5	$10.5	$0.0
1901	735.6	260.9	79.7	375.0	20.0	0.0
1902	517.0	143.8	93.6	215.5	64.1	0.0
1903	398.7	79.1	60.8	218.8	40.0	0.0
1904	531.6	131.5	103.2	251.4	45.5	0.0
1905	738.0	224.9	49.1	306.6	157.4	0.0
1906	429.8	60.9	35.3	214.5	119.1	0.0
1907	556.4	61.5	56.4	221.4	209.2	7.9
1908	573.6	127.7	190.3	186.9	68.7	0.0
1909	668.8	128.0	218.7	135.9	186.1	0.1
1910	443.7	122.9	48.9	131.6	129.9	10.4
1911	524.4	149.3	121.1	186.0	68.0	0.0
1912	442.6	77.1	29.6	185.7	150.2	0.0
1913	519.6	110.1	183.6	130.8	95.1	0.0
1914	558.3	70.6	147.5	225.2	115.0	0.0
1915	668.5	59.0	240.8	252.1	116.6	0.0
1916	546.1	131.9	305.6	103.6	5.0	0.0
1917	491.4	65.3	168.1	237.8	20.2	0.0
1918	185.8	49.1	95.5	33.0	8.2	0.0
1919	250.4	48.5	102.5	80.8	18.0	0.6
1920	261.4	62.5	66.7	96.5	35.7	0.0
1921	590.4	70.4	100.3	418.4	1.3	0.0
1922	455.5	74.3	163.5	205.4	12.2	0.1
1923	283.8	114.7	37.7	92.2	39.2	0.0
1924	654.4	104.9	152.7	385.9	10.9	0.0
1925	368.6	133.7	121.8	72.7	40.4	0.0
1926	296.5	46.6	132.7	77.8	39.4	0.0
1927	621.1	157.8	185.8	250.4	27.1	0.0
1928	573.7	173.6	267.4	51.7	81.0	0.0
1929	344.0	53.2	45.1	65.2	180.1	0.4
1930	760.5	159.2	129.6	299.4	172.3	0.0
1931	396.6	25.3	191.3	108.6	71.4	0.0
1932	63.5	15.9	17.9	14.4	15.3	0.0
1933	115.7	54.3	38.7	0.4	0.1	22.2
1934	246.6	40.0	153.4	22.8	12.9	17.5
1935	170.4	136.4	18.7	15.2	0.1	0.0
1936	680.5	142.3	256.0	192.0	90.2	0.0
1937	194.3	48.3	0.7	92.6	52.7	0.0

Source: W. BRADDOCK HICKMAN, STATISTICAL MEASURES OF CORPORATE BOND FINANCING SINCE 1900 at 135 (1960).

The continued overuse of debt well into the twentieth century probably can also be traced to the reality that individual share ownership was still relatively rare until the 1920s and, before then, common stock was primarily held by investment banking firms and a handful of very wealthy individuals (some of them investment bankers).[79] These parties had every incentive to leverage their returns as shareholders, and they could tolerate the risks associated with this leverage, especially since they knew that failure would not necessarily mean loss of control, as railroad receiverships of the age frequently allowed existing equity to remain in place in the reorganized firm.[80] Accordingly, a railroad's owners, who might otherwise be expected to complain about the overuse of bond debt, were likely to stay mum.

In short, despite past experience, management and their financial advisers continued to utilize financial structures that increased the chances of default in times of economic disturbance. For purposes of this article, this aspect of railroad finance is especially important because roads that had gone through receiverships – roads that had been given an opportunity to reform their capital structures – were no better positioned to face financial hardship than roads that had never defaulted. For example, as shown in Table 2, in June 1917 the Missouri Pacific emerged from a two-year receivership under a plan that left more than $128 million in bonds and equipment obligations in place. The plan also provided for almost $98 million in new secured debt and more 71 million shares of cumulative 5% preferred stock, both issued in exchange for old securities. Thus, more than $225 million in secured debt and a sizable block of cumulative preferred stock was stacked against a railroad that the federal government would estimate, one year latter, had operating assets worth

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79 *See* ADOLPH A. BERLE AND GARDINER C. MEANS, THE MODERN CORPORATION AND PRIVATE PROPERTY 58-62 (1932).

80 William H. Moore, *Railroad Fixed Charges in Bankruptcy Proceedings*, 47 J. POL. ECON. 100, 114-15 (1939).

just more than $250 million.[81] Combined with the repeated instances of financial distress among railroads, financial structures like these call into question the efficacy of the railroad receivership as a device for solving a firm's financial problems.

Table 2: Missouri Pacific Railroad Financial Structure (as of June 30, 1917)

Amount	*Type*
$125.5 million	Pre-receivership Bonds[a]
$3.7 million	Pre-receivership Equipment Trust Certificates and similar obligations
$51.4 million	General Mortgage 4% Bonds
$46.9 million	First and Refunding Mortgage 5% Bonds
$71.8 million (par value)	5% Cumulative Preferred Stock
$82.8 million (par value)	Common Stock

Note:
a Includes $34.5 million of River & Gulf Division First Mortgage 4% Bonds issued in 1903; remainder unidentified.

Source: FLOYD W. MUNDY, MUNDY'S EARNING POWER OF RAILROADS 384-86 (1922).

The third and final important aspect of railroad finance in the early twentieth century is the reduced reliance that railroads placed on the market for financing as they increasingly turned to internal sources of funds as the century progressed.

In an impressive study undertaken for the National Bureau of Economic Research and published in 1960, Melville J. Ulmer found that in the 1880s railroads secured 90 percent of their funds from the sale of stocks and bonds.[82] By the 1910s, however, internal sources of funds provided more than 40 percent of a railroad's required funds. And

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81 FLOYD W. MUNDY, MUNDY'S EARNING POWER OF RAILROADS 63 (1928) (reporting that the ICC had issued a preliminary valuation for the road of just over $250.8 million as of June 30, 1918). The ICC was ordered to determine the "fair value" of the nation's railroads by the Valuation Act, Pub. L. No. 400, § 19a, 37 Stat. 701, 701 (1913).

82 MELVILLE J. ULMER, CAPITAL IN TRANSPORTATION, COMMUNICATIONS, AND PUBLIC UTILITIES: ITS FORMATION AND FINANCING 153-56, tbl. 46 (1960).

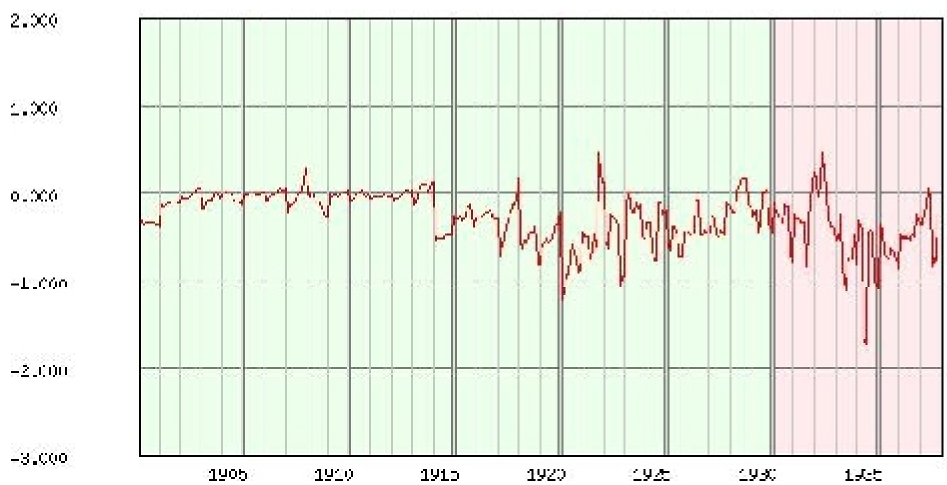
between 1921 and 1940, the vast majority of a railroad's funds – approximately 95 percent – were generated internally.

While several explanations probably account for this trend, contemporary commentators were aware that railroad securities were not as attractive as they had once been. As Benjamin F. Bush, the receiver for the Missouri Pacific, told the Commercial Club of St. Louis

> In the past, the prospect of increasing returns with the development of the country and the advance in the market value of railroad securities operated as an inducement to attract capital, but these incentives are entirely lacking in the existing situation. The conditions which now obtain repel rather than invite such investments . . .[83]

<u>Figure 2A</u>   Moody's AAA Corporate Bond Yield less Moody's New Rail Yield

Source: www.globalfindata.com



[83] Benjamin F. Bush, *Why Are Several Large Western Railroad Systems in Receivers' Hands?* at 13 (Oct. 27, 1915) (pamphlet, in author's personal collection).

And, as shown in Figures 2A and 2B, railroad debt costs increased in the years between the wars. This would have pushed managers to find other sources of funds, possibly even at the expense of reducing direct dividend payments to shareholders.

Moreover, the rail industry had undergone a significant change in ownership during the 1890s. The railroad industry at the turn of the twentieth century had coalesced around five to seven control groups.[84] This was in part the result of the railroad receiverships of the 1890s, which gave financiers an opportunity to consolidate the rail industry and minimize management's opportunities to engage in harmful rate wars.[85]

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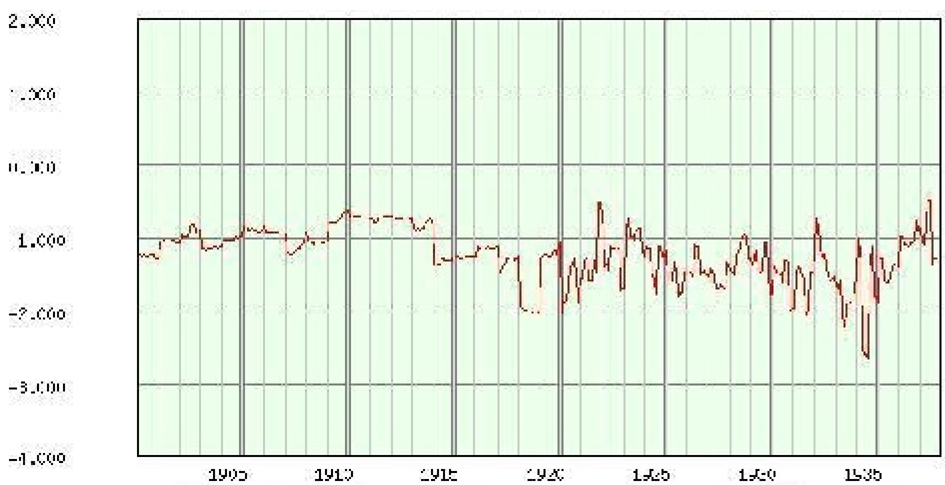
84 *See* William G. Roy & Phillip Bonacich, *Interlocking Directorates and Communities of Interest Among American Railroad Companies, 1905*, 53 AMER. SOC. REV. 368 (1988).

85 C. JOSEPH PUSATERI, A HISTORY OF AMERICAN BUSINESS 191-94 (2d ed. 1988) (discussing the move from informal agreements, to pooling arrangements, to consolidation in response to rate competition).

It also reflected a larger effort by certain investors, including J.P. Morgan and E.H. Harriman, and corporate groups, such as the Pennsylvania Railroad, to control coal, steel, and other key industries in the United States.[86] Railroads, as the only viable mode of transportation

Figure 2B **U.S. 10 Year Bond Yield Less Moody's New Rail Yield (1900-37)**

source: *www.globalfindata.com*



[86] *See* Frank Haigh Dixon, *The Economic Significance of Interlocking Directorates in Railway Finance*, 22 J. POL. ECON. 937, 946 (1914) ("[T]he small group of men which controls the United States Steel Corporation, itself an owner of important railways, are directors in twenty-nine railway systems having 126,000 miles of line."); O. Virtue, *The Anthracite Combinations*, 10 Q. J. ECON. 296, 296 (1896) ("These combinations have not been simply combinations of producers for the control of a trade, nor have they been merely pooling arrangements of carriers. It is in the fact that both

of these products, were an integral part of these larger efforts, although the extreme attempts at consolidation would eventually run afoul of the Progressive's "trust busting" tendencies.[87] This trend toward consolidation may have allowed some groups to internalize their funding needs, much like the conglomerates of the 1960s.

Taken together, the second and third points discussed in this part of the article show a possible overarching trend toward the increasing use of debt in a constricting pool of outside railroad financing. More generally, all three of the foregoing points suggest the importance of precision when addressing railroad finance during the late 1800s and early 1900s, when the concurrent effects of regulation, industry consolidation, and increasing competition for investor dollars make railroad finance at the beginning of the period almost unrecognizable at the end. Broad generalizations, based on accounts of practices that may have been prevalent in the nineteenth century, are unlikely to capture the true nature of railroad finance, and thus railroad reorganization, in any sort of spaciotemporal manner.

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mining and transportation powers have been enjoyed by several of the large companies."); *see also* NELL IRVIN PAINTER, STANDING AT ARMAGEDDON: THE UNITED STATES, 1877-1919 at 184 (1987) (noting that the United Mine Workers claimed that J.P. Morgan used his joint ownership of railroads and coal mines to hide the mines' profitability); RIPLEY, RAILROADS: FINANCE & ORGANIZATION, *supra* note __, at 425 ("The prevalence of interlocking directorships, not only among railroads but also between them and the great banking and industrial companies, has been forcibly brought to public attention of late in connection with the further Federal regulation of monopoly by amendment of the Anti-Trust law.").

[87] *See, e.g.,* Stuart Daggett, *The Decision on the Union Pacific Merger*, 27 Q. J. ECON. 295 (1911) (commenting on the Supreme Court's decision ordering the dissolution of the Harriman railroad empire).

B. *Railroad Financial Distress (the Railroad Receivership)*

While the United States enacted its first permanent bankruptcy statute in 1898, the Bankruptcy Act did not allow for the reorganization of large corporations and expressly excepted railroads from its scope.[88] Corporate reorganization under federal statute would not come until the 1930s – in the case of the railroads, with the enactment of section 77 to the Bankruptcy Act in 1933.[89] Even then, the immediate effects were

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[88] Ch. 541, 30 Stat. 544, *amended by* Act of June 22, 1938, (the "Chandler Act"), ch. 575, 52 Stat. 840, *repealed by* Bankruptcy Reform Act of 1978 (the "Bankruptcy Code"), Pub. L. No. 95-598, 92 Stat. 2549. *See generally* CHARLES WARREN, BANKRUPTCY IN UNITED STATES HISTORY (1935); Vern Countryman, *A History of American Bankruptcy Law*, 81 COM. L.J. 226 (1976); Bradley Hansen, *Commercial Associations and the Creation of a National Economy: The Demand for Federal Bankruptcy Law*, 72 BUS. HIST. REV. 86 (1998); Henry G. Newton, *The United States Bankruptcy Law of 1898*, 9 YALE L.J. 287 (1900).

As the leading bankruptcy treatise explains, before

> the Great Depression . . . it was possible to effect an arrangement for corporate rehabilitation--as distinguished from pure liquidation--in one of three major ways: (1) through a voluntary arrangement entered into between the debtor and its creditors; (2) through formal bankruptcy procedure, either by using the composition section of the Bankruptcy Act (Section 12) or by employing the bankruptcy sale as a means of purchasing the assets of the debtor, with the creditors and sometimes the stockholders participating under some sort of an arrangement; or (3) through an equity receivership obtained on a creditor's bill, pursuant to which the business continued operating under the supervision of a receiver appointed by the court. . .. Of these methods, the equity receivership, particularly as administered in the federal courts, was the more feasible and came to be most frequently employed.

7 COLLIER ON BANKRUPTCY P 1100.11 (2003) (footnotes omitted). Interestingly, while the 1898 Act excluded railroads from its scope, the earlier 1867 Bankruptcy Act, which was repealed in 1878, contained no such prohibition and railroads occasionally filed thereunder. *See* In re Boston, Hartford & Erie R.R. Co., 3 Fed. Cas. 951 (C.C.S.D.N.Y. 1872) (No. 1,678); *see also* SKEEL, DEBT'S DOMINION, *supra* note 1, at 54.

[89] Reorganization of Railroads Engaged in Interstate Commerce, Pub. L. No. 72-420, 47 Stat. 1474 (1933), *repealed by* Bankruptcy Reform Act of 1978 (the "Bankruptcy Code"), Pub. L. No. 95-598, 92 Stat. 2549. As the Commission on Bankruptcy Laws of the United States summarized in the early 1970s:

limited, as no major railroad completed a section 77 reorganization until the 1940s[90] -- the average large railroad that entered section 77 during the Depression would spend more than seven and a half years under bankruptcy court protection.[91]

Long before 1898, however, attorneys and investment bankers had realized that the routine liquidation of railroads would destroy a considerable amount of going concern value.[92] In addition, courts routinely referred to railroads as "utilities" that simply could not be allowed to fail.[93] By the panic of 1857, these concerns led to the general

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> section 77 was originally added to the Bankruptcy Act in 1933 and completely rewritten in 1935 for purposes of rearrangement, simplification, and clarification. Additional amendments to various subdivisions of section 77 were enacted in 1936, 1939, 1951, 1958, and in 1962. Interestingly, the Chandler Act of 1938 which was an extensive rewriting of the entire Bankruptcy Act did not make any changes whatever in section 77.

REPORT OF THE COMMISSION ON BANKRUPTCY LAWS OF THE UNITED STATES, PART 1 263 (1973) (footnotes omitted). *See also* Max Lowenthal, *The Railroad Reorganization Act*, 47 HARV. L. REV. 18 (1933); Churchill Rodgers & Littleton Groom, *Reorganization of Railroad Corporations Under Section 77 of the Bankruptcy Act*, 33 COLUM. L. REV. 571 (1933).

[90] de Haas Dembitz, *supra* note ___, at 343-44.

[91] Edward T.P. Watson, *Distribution of New Securities in Sec. 77 Reorganizations*, 5 J. FIN. 337, 337 (1950).

[92] Henry H. Swain, *Economic Aspects of Railroad Receiverships*, 3 ECON. STUD. 53, 73 (1898) (noting that some receiverships occurred as early as the late 1830s); *see also* Walter W. Miller, Jr., *Bankruptcy's New Value Exception: No Longer a Necessity*, 77 B.U. L. REV. 975, 976-77, 981-82 (1997).

[93] *See generally* Armistead B. Rood, *Protecting the User Interest in Railroad Reorganization*, 7 LAW & CONTEMP. PROBS. 495 (1940); *see also* Louisville Trust Co. v. Louisville N.A. & C. Ry., 174 U.S. 674, 682 (1899) (arguing that "a railroad is not simply private property, but also an instrument of public service" and that these facts "justify a limited displacement of contract and recorded lien"); Central Bank & Trust Co. v. Greenville & W. R. Co., 248 F. 350, 352 (D.S.C. 1917) ("Persons in private business may abandon it at their whim or pleasure. Not so with a railroad. It is a public

acceptance of the railroad or equity receivership,[94] which remained the predominant means of corporate reorganization until the New Deal and the enactment of section 77.[95]

A receivership was commenced by an unsecured creditors' petition[96] to a court to exercise its equity jurisdiction and appoint a

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highway."); *cf.* R.F.C. v. Denver & R.G.W. R.R., 328 U.S. 495, 536 (1946) (investment in a railroad involves "the risk that in any depression or reorganization the interests of the public would be considered as well as [the interests of investors]"); Continental Ill. Nat. Bank. & Trust Co. v. Chicago, R.I. & P. R.R., 294 U.S. 648, 671 (1933) (section 77 case; stating that protection of the public interest was a factor to be considered, and the public interest required the railroad to be continued in operation as a going concern.).

94 Greenberg, FINANCIERS, *supra* note __, at 24 ("When the country slumped into depression after the panic of 1857, [bankers] took further steps to protect bondholder interests and gained their first experience in the intricacies of railroad bankruptcy, receivership, and reorganization."). The first reorganization through receivership is often said to have occurred in 1846, when a Georgia court appointed a receiver over the insolvent Munroe Railway Co. and successfully reorganized it as the Macon and Western Railway. *See* Macon & W.R.R. v. Parker, 9 Ga. 377 (1851).

95 Charles Jordon Tabb, *The History of the Bankruptcy Laws in the United States*, 3 AM. BANKR. INST. L. REV. 5, 21-22 (1995).

96 The Wabash receivership, 22 F. 272 (C.C. E.D. Mo. 1884), is often said to be the first case to allow the debtor to initiate its own receivership – moving railroad reorganization closer to modern chapter 11 practice. *E.g.,* Albro Martin, *Railroads and the Equity Receivership: An Essay on Institutional Change*, 34 J. ECON. HIST. 685 (1974); Skeel, *An Evolutionary Theory, supra* note 1, at 1357 n.113; Ann Woolhandler, *The Common Law Origins of Constitutionally Compelled Remedies*, 107 YALE L.J. 77, 100 n.111 (1997). This claim can be traced to D.H. Chamberlain, *New-Fashioned Receiverships*, 10 HARV. L. REV. 139 (1896). At most, however, Wabash was but a cosmetic change, as prior receiverships were often initiated by bondholders who were officers or directors, and at least some earlier proceedings had been instituted by the debtor directly. *See generally* Bradley Hansen, *The People's Welfare and the Origins of Corporate Reorganization: The Wabash Receivership Reconsidered*, 77 BUS. HIST. REV. 377 (2000) (noting that one of the earliest receiverships, involving the Macon and Western Railway in the 1840s, was apparently instituted by the debtor and that Chamberlain had a vested interest in the *Wabash* case).

receiver to take control of the debtor's assets.[97] An unsecured creditor was needed to ensure that the receiver gained control of all of the debtor's property, not just the property covered by a particular mortgage.[98] Bondholders generally preferred to proceed in federal court, but state-court receiverships were also possible and quite common, especially for smaller railroads, so it was important to select a petitioning creditor that would not destroy diversity jurisdiction.[99]

The debtor railroad would file an answer admitting the allegations of creditor's complaint, obviating the need for the unsecured creditor to have previously obtained a judgment on its debt.[100] The court would then appoint one or more receivers to take control of the debtor's property. Courts routinely appointed an officer or other insider as the

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[97] Central Life Sec. Co. v. Smith, 236 F. 170, 173-74 (7th Cir. 1916); *see also* EDWARD SHERWOOD MEADE, CORPORATION FINANCE 409-410 (1910) (describing the process used to commence a receivership).

[98] *See* Byrne, *The Foreclosure of Railroad Mortgages in the United States Courts*, in SOME LEGAL PHASES OF CORPORATE FINANCING, REORGANIZATION AND REGULATION 79 (1916).

[99] Warner Fuller, *The Background and Techniques of Equity and Bankruptcy Railroad Reorganizations-A Survey*, 7 LAW & CONTEMP. PROBS. 375, 379 (1940). Controversy about venue shopping seems to have been as acute then as it is today. *See* Thomas Clifford Billig, *Corporate Reorganization: Equity v. Bankruptcy*, 17 MINN. L. REV. 237, 253-54 (1933) ("The United States district court for the southern district of New York is the popular forum for equity receivership cases. Yet, certainly not one [debtor] in ten, and possibly not one in fifty is a New York corporation.").

[100] Edward H. Levi & James W. Moore, *Bankruptcy and Reorganization: A Survey of Changes II*, 5 U. CHI. L. REV. 219, 225 (1937) ("The defect of a lack of a judgment creditor with execution returned unsatisfied... was... cured by the debtor's consent to the appointment of a receiver"). Before the device of debtor's consent was perfected, friendly creditors were instructed to "get a preference for himself by attachment or other process and [] asked to file a general creditor's bill [for appointment of a receiver]." Byrne, *The Foreclosure of Railroad Mortgages*, *supra* note __, at 90.

road's receiver, although often an independent co-receiver was also appointed to guard against self-dealing.[101]

Once the primary petition was granted, ancillary receiverships were filed in all other relevant jurisdictions, since, in the absence of Congressional legislation, even a federal court could only exercise its equitable powers over property within its district.[102] Foreclosure suits would then follow by one or more classes of secured bondholders, but these suits would proceed no further than their initiation until the various bondholders and management agreed upon a reorganization plan.[103]

The railroads managers and its investment bankers would then race to form committees for each class of the railroad's securities and the committees then solicited deposits of these securities.[104] The railroad's

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[101] Byrne, *The Foreclosure of Railroad Mortgages*, *supra* note __, at 91 ("Usually it is of importance, and the court is willing, that some one connected with the railroad in an operating capacity should be a receiver. The court ordinarily appoints as a co-receiver some one not previously connected with the railroad of whose fitness it has personal knowledge."); *see also* Paul D. Cravath, *The Reorganization of Corporations*, in SOME LEGAL PHASES OF CORPORATE FINANCING, REORGANIZATION AND REGULATION 160 (1916) (noting this was the regular practice in the S.D.N.Y.).

[102] Great Western Mining Co. V. Harris, 198 U.S. 561, 577 (1905); Booth v. Clark, 58 U.S. 322 (1855). Before 1912, a circuit judge could enter an order commencing the receivership in all districts within the circuit, which provided a further advantage to proceeding in federal court. Byrne, *The Foreclosure of Railroad Mortgages*, *supra* note __, at 92-93; *see also* Cornelius W. Wickersham, *Primary and Ancillary Receiverships*, 14 VA. L. REV. 599, 602-03 (1928).

[103] F. CLEVELAND & F. POWELL, RAILROAD FINANCE 246 (1914); *see also* Canada S. Ry. v. Gebhard, 109 U.S. 527, 539 (1883) ("[F]or it rarely happens in the United States that foreclosures of railway mortgages are anything else than the machinery by which arrangements between the creditors and other parties in interest are carried into effect, and a reorganization of the affairs of the corporation under a new name brought about.").

[104] HASTINGS LYON, CORPORATE FINANCE: PART II 230 (1916) ("At the same time that the creditor's bill making the application for receivership was being prepared the management was also form a bondholders' protective committee."); Fuller, *supra* note __, at 381. A 1930s commentator on railroad investments explained that the

own investment bankers had "fairly complete and accurate lists of bondholders, lists which [gave] them the inside track in soliciting deposits and proxies."[105] Once constituted, the committees worked to negotiate a reorganization plan on behalf of the holders who had deposited with that committee – although often the outlines of a plan had already been created by the road and its bankers.[106] The various committees would agree upon a reorganization plan, appointing a new, blanket reorganization committee to effectuate the plan.[107]

While the focus of this article is on the railroad's financial restructuring, receiverships also facilitated operational restructuring,

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deposit process

> was accomplished by means of placing the bonds themselves in the custody of a bank or trust company, usually in New York, designated as "depository." The depository handed the bondholder a "certificate of deposit," which was virtually a receipt for his bond, under the terms of a "deposit agreement." This was an elaborate printed document delegating practically unlimited authority to the Protective Committee to deal with the bonds according to its discretion and judgment. In the case of large bond issues, listed on security exchanges, certificates of deposit were usually promptly listed for trading.

HAROLD PALMER, INVESTMENT SALVAGE IN RAILROAD REORGANIZATIONS 55 (1938).

[105] Paul M. O'Leary, *The Role of Banking Groups in Corporate Reorganizations*, 29 AMER. ECON. REV. 337, 338 (1939).

[106] Arthur S. Dewing, *The Procedure of Contemporary Railroad Reorganization*, 9 AMER. ECON. REV. 1, 4-5, 25-26 (1919).

[107] Cravath, *Reorganization of Corporations*, *supra* note __, at 171-73. In some cases it was apparently possible for a receiver to serve on the committee, a possibility fraught with obvious conflicts of interests. *See* Fowler v. Jarvis-Conklin Mortg. Co., 63. F. 888, 890 (C.C.S.D.N.Y. 1894) ("Nor is it any ground for removal that one of the receivers has become a member of a reorganization committee. Several federal courts have approved of such a practice; and although this court entertains a different opinion, and will require absolute neutrality on the part of its officers, as between conflicting plans of reorganization, it will be sufficient if the receiver, now that some conflict over the plan of reorganization is foreshadowed, promptly resign from membership of the committee.").

within the broader limits imposed by the general rule that the road could not cease its operations in any significant respect.[108] For example, through the use of receiver certificates – essentially notes issued to cover expenses incurred during the receivership, which typically had priority over preexisting debts[109] – the receiver could finance the purchase of new rolling stock and the refurbishment of existing facilities.[110] The receiver also had the ability to assume and reject contracts and leases.[111]

To implement the reorganization plan, once agreed upon, the foreclosure sale would recommence and the road's assets would be sold to a new legal entity.[112] In most cases, however, the purchasing party was a representative of the reorganization committee, which was allowed to "credit bid" the face amount of the securities deposited with the committee.[113] Few third-parties, faced with the need to pay cash, could afford to match the committee's supply of unpaid bonds.[114] Many also

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108 *See supra* note __.

109 Wallace v. Loomis, 97 U.S. 146, 162-63 (1877); Charles Thomas Payne, *The General Administration of Equity Receiverships of Corporations*, 31 YALE L.J. 685, 696-97 (1922). *See also* Otte v. Manufacturers Hanover Commercial Corp. (In re Texlon Corp.), 596 F.2d 1092, n.3 (2d Cir. 1979) ('It has long been the practice, both in equity receiverships and in reorganization proceedings under § 77, former § 77(B), and chapter X, for courts to authorize the issuance of certificates priming claims that would otherwise be entitled to prior payment.').

110 2 ARTHUR S. DEWING, THE FINANCIAL POLICY OF CORPORATIONS 1345-49 (5th ed. 1953) (discussing the use of receiver certificates).

111 Ellsworth E. Clark et al., *Adoption and Rejection of Contracts and Leases by Receivers*, 46 HARV. L. REV. 1111 (1933).

112 Dewing, *Contemporary Railroad Reorganization*, *supra* note __, at 28-29.

113 *Id.* at 29.

114 *See, e.g.*, Sage v. Central R.R., 99 U.S. 334, 339 (1878) ("The amount required is so large usually, that it is beyond the reach of ordinary purchasers . . . the first-mortgage bondholders are the only party that can become the purchasers, and they only, because they need not pay their bid in cash."); Churchill Rodgers, *Rights and Duties*

suspected collusion among bankers kept outside bidders from obtaining the needed financing.[115]

Upon sale, pre-receivership claims would be effectively discharged – although no formal discharge was possible without statutory authority – as the claims were against a corporate shell that no longer owned any assets.

One of the most controversial features of receiverships was the frequency with which existing shareholders were able to maintain their position in the reorganized railroad, despite the road's failure to pay creditors in full. These shareholders were given this stock in exchange for payment of an assessment, which helped provide liquidity to the reorganized road. But the old shareholders typically also received subordinated notes or preferred stock upon payment of the assessment.

For example, under the St. Louis & San Francisco's November 1, 1915 reorganization plan, existing shareholders who paid an assessment of $500 per share received $500 in junior secured notes and 820 shares of the new common stock.[116] Given the parity between the new debt and the assessment, it appears that the old shareholders – or at least the ones who could afford the assessment – were retaining equity in the reorganized firm without paying for it and at the expense of unpaid creditors, who could have otherwise received the new stock in the reorganization.

A similar result can be seen in the Pere Marquette Railroad's October 30, 1916 reorganization plan, which provided that preferred and common shareholders could pay an assessment of $97.50

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of the Committee in Bondholders' Reorganizations, 42 HARV. L. REV. 899, 910-11 (1929).

115 *See* E. Merrick Dodd, *Reorganization Through Bankruptcy: A Remedy for What?*, 48 HARV. L. REV. 1100, 1100-01 (1935) (asserting that a there was a "tacit understanding among members of the banking fraternity" that the debtor's reorganization would be conducted by "those particular investment bankers through whom the corporation had been accustomed to conduct its long-term financing").

116 FLOYD W. MUNDY, EARNING POWER OF RAILROADS 378-79 (1919).

(per $1000 of shares owned) and receive a bundle of new preferred and common stock with a combined par value of $300.[117] Likewise, the Missouri, Kansas & Texas' 1921 reorganization plan provided that common shareholders could pay an assessment of $2,500 per 100 shares ($10,000 par value) held and receive $1,400 in secured bonds, $600 in income bonds, and 100 shares of common stock in the reorganized railroad.[118] The plan contains no indication that the effective price of $5 per share reflected the value of the road, but when the unsecured creditors objected, the plan was upheld by the Eighth Circuit.[119]

This aspect of receiverships would particularly irk the Realists-New Dealers, who saw nothing more than a blatant attempt to favor well-connected shareholders over smaller bondholders and trade creditors.[120] The participants in receiverships, on the other hand, defended the practice, alleging that the stockholders' cash infusion "can be obtained

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[117] *Id.* at 293-94.

[118] PAYNE, *supra* note __, at 239, 249-51 (reprinting the November 1, 1921 reorganization plan).

[119] Kansas City Terminal Ry. Co. v. Central Union Trust Co., 28 F.2d 177, 188 (8th Cir. 1928) ("that the stockholders, in order to obtain any participation, were compelled to further invest to the extent of . . . 25 per cent . . . of the par value of the participating stock, we can conclude that there is no doubt as to the fairness of this offer to the unsecured creditor").

[120] Baird and Rasmussen's contention that retention of old shareholders "ensured the ongoing participation of the old managers" in the reorganized road is unconvincing, given their simultaneous acknowledgment that managers "did not, however, own anywhere near a majority of the shares." Baird & Rasmussen, *Control Rights*, *supra* note 1, at 932 & n.29. There were certainly more direct ways to ensure continued participation by management, such as retention bonuses, that would not have conferred a windfall on the large pool of non-managerial shareholders. For a recent discussion of retention bonuses, see David A Skeel, Jr. *Creditors' Ball: The 'New' New Corporate Governance in Chapter 11*, – U. PA. L. REV. – (2004); *see also* Mechele Dickerson, *A Behavioral Approach to Analyzing Corporate Failures*, 38 WAKE FOREST L. REV. 1, __ (2003).

only by a plan which gives the stockholders something of definite value, over and above what they pay for it."[121]

The requirement of paying a substantial assessment in exchange for continued participation in the railroad's future may have been a thinly disguised means of squeezing out smaller stakeholders, who may have been unable to afford the assessment, especially during an economic downturn – not unlike the use of reverse stock-splits today.[122] This interpretation finds support in a 1910 Yale Law Journal article, whose author complained that

> in many instances [receivership] proceedings are instituted solely for the purpose of repudiating unsecured claims or depriving minority stockholders, and at times all stockholders, of their interest, for the benefit of a few. A resort to receiverships has become quite common, especially when the holders of a large amount of stock of the corporation are also the holders of the secured indebtedness. In such cases a reorganization is effected upon terms most favorable to these large holders by making heavy assessments on the stock or even bonds, and excluding all who are unwilling to submit to these terms, from participation in the reorganization.[123]

Moreover, at least until the Supreme Court's *Boyd* decision,[124] unsecured creditors, of all types, were generally excluded from

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121 Swaine, *Reorganizations of Corporations*, *supra* note __, at 915.

122 *See* Albert V. House Jr., *Post-Civil War Precedents for Recent Railroad Reorganization*, 25 MISS. VALLEY HIST. REV. 505, 507 (1939) ("Above all, it becomes clear that control of the new company has been regarded as the most important of the stakes of reorganization.").

123 Jacob Trieber, *The Abuses of Receiverships*, 19 YALE L.J. 275, 276-77 (1910).

124 Northern Pacific Railway Co. v. Boyd, 228 U.S. 482 (1913). In *Boyd*, stockholders had been allowed to participate in the reorganization of the Northern Pacific Railroad upon paying a cash assessment, while certain unsecured creditors were excluded

the reorganization altogether. Even after *Boyd*, there is good reason to doubt that unsecured creditors received markedly better treatment.[125] For

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from the plan. After the plan succeeded, Boyd, an unsecured creditor, sued the reorganized railroad on the theory that stockholders had received assets which belonged to the unsecured creditors. The Court held that a transfer by existing stockholders to themselves could not defeat the claim of a dissenting creditor. Essentially *Boyd* is a kind of fraudulent transfer or successor liability case, although the case is most often seen as a precursor to the development of the absolute priority rule in Case v. Los Angeles Lumber Prods. Co., Ltd., 308 U.S. 106 (1939). *See* Douglas G. Baird & Thomas H. Jackson, *supra* note 1; *see also* John D. Ayer, *Rethinking Absolute Priority After Ahlers*, 87 MICH. L. REV. 963, 969-973 (1989); Chauncey H. Hand & G. Clark Cummings, *Consensual Securities Modification*, 63 HARV. L. REV. 957, 974-76 (1950); Bruce A. Markell, *Owners, Auctions, and Absolute Priority in Bankruptcy Reorganizations*, 44 STAN. L. REV. 69, 81 (1991); *cf.* Louisville Trust Co. v. Louisville, New Albany and Chicago Ry. Co., 174 U.S. 674, 684 (1899) ("[T]he stockholder's interest in the property is subordinate to the rights of creditors; first of secured and then of unsecured creditors . . . any arrangement of the parties by which the subordinate rights and interests of the stockholders are attempted to be secured at the expense of the prior rights of either class of creditors comes within judicial denunciation"). There is some indication that even after *Los Angeles Lumber* railroad reorganizations sometimes deviated from absolute priority. Walter J. Blum, *The "New Directions" For Priority Rights in Bankruptcy Reorganizations*, 67 HARV. L. REV. 1367, 1369 (1954) ("In railroad bankruptcy reorganizations the ICC and the Supreme Court both have talked in terms of adhering to absolute priority, but the approved plans contain allocations that give senior security holders substantially less compensation than called for by absolute priority in the classical sense."). The absolute priority rule was formally applicable to the reorganization of railroads under Bankruptcy Act § 77, as § 77(e) required that the plan of reorganization be "fair and equitable," the same phrase the Court construed in *Los Angeles Lumber* as requiring adherence to absolute priority. *See* Note, *The Proposed Bankruptcy Act: Changes in the Absolute Priority Rule for Corporate Reorganizations*, 87 HARV. L. REV. 1786, n.3 (1974); *see also* Recent Case Note, *Order Transferring Railroad Reorganization from Bankruptcy to Equity Reversed*, 103 U. PA. L. REV. 966, 968 (1955).

[125] Cutcheon, *An Examination of Devices Employed to Obviate the Embarrassments to Reorganizations Created by the Boyd Case*, in SOME LEGAL PHASES OF CORPORATE FINANCING, REORGANIZATION AND REGULATION 35 (1931); Dodd, *supra* note ___, at 1101, 1124. *See also* SKEEL, DEBT'S DOMINION, *supra* note 1, at 67-68 (summarizing the response to *Boyd*, and concluding that "[a]s loudly as reorganization lawyers complained about *Boyd*, the case and their response reinforced the elite bar's hegemony over receivership practice.").

example, as late as 1934 Henry J. Friendly argued that a plan that gave shareholders securities with a priority above those given to creditors would not violate the *Boyd* decision if "the offer made to the stockholders does not go beyond what is reasonably necessary to procure [shareholder] acceptance and the payment of the required funds."[126]

Recent scholars have sometimes implied that these sorts of "freeze out" issues were not appreciable, since unsecured creditors were protected by various early or priority payment rules.[127] To some extent these rules did help many unsecured trade creditors,[128] but modern scholarship has overstated the reach of these rules.

The payment of certain trade creditors ahead of secured bondholders was justified by what we would today call implied consent. As the Supreme Court explained

> The business of all railroad companies is done to a greater or less extent on credit. This credit is longer or shorter, as the necessities of the case require; and when companies become pecuniarily embarrassed, it frequently happens that debts for labor, supplies, equipment, and improvements are permitted to accumulate, in order that bonded interest may be paid and a disastrous foreclosure postponed, if not altogether avoided. In this way the daily and monthly earnings, which ordinarily should go to pay the daily and monthly expenses, are kept from those to whom in equity they belong, and used to pay the mortgage debt. The income out of which the mortgagee is to be paid is the net income obtained by deducting from the gross earnings what

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126 Henry J. Friendly, *Some Comments on the Corporate Reorganizations Act,* 48 HARV. L. REV. 39, 76 (1934); *see also* Carl B. Spaeth & Gordon W. Winks, *The Boyd Case and Section 77*, 32 ILL. L. REV. 769, 770 (1938) ("Prior to enactment of Section 77 . . . it was to be expected that the lower federal courts would sanction plans which were inconsistent with the *Boyd* case.").

127 Baird & Rasmussen, *Boyd's Legacy*, *supra* note 1, at ___.

128 Byrne, *The Foreclosure of Railroad Mortgages*, *supra* note __, at 119.

> is required for necessary operating and managing expenses, proper equipment, and useful improvements. *Every railroad mortgagee in accepting his security impliedly agrees that the current debts made in the ordinary course of business shall be paid from the current receipts before he has any claim upon the income.*[129]

Thus the "six month rule" allowed for the priority payment of operating expenses, defined as claims for wages, supplies, services, and traffic balances, so long as the claims were not stale.[130] This benefit was later expanded under the "doctrine of necessity" to include those trade creditors who had enough power to make future operations difficult, even if they did not strictly fit within the bounds of the original six month rule.[131]

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129 Fosdick v. Schall, 99 U.S. 235, 252 (1878) (emphasis added).

130 Thomas v. Peoria & R.I. R.R. Co., 36 F. 808, 819 (C.C. N.D. Ill. 1888) (Harlan, J.) ("It would not do to charge the income of mortgaged railroad property, managed by a receiver, or the property itself, with every debt incurred in all its previous history for labor, supplies, or equipment."). In fact, the six month period for determining whether a debt was "current" and thus entitled to priority was not considered absolute, and courts were instructed to consider each claim on its merits. Southern Ry. v. Carnegie Steel Co., 176 U.S. 257 (1900). The present chapter 11 incorporates the six month rule through a rather vague statutory provision, applicable only to railroads. 11 U.S.C. § 1171(b); *see also* 11 U.S.C. § 103(g).

131 Miltenberger v Logansport Ry., 106 US 286 (1882); Benjamin Wham, *Preference in Railroad Receiverships*, 23 ILL. L. REV. 141, 147 (1928) ("[T]he 'necessity of payment' theory admits to preference claims which do not necessarily possess the characteristics required for preference . . . so long as the claimant is in position to demand payment as the price of future labor and materials."); *see also* In re Boston & Maine Corp., 634 F.2d 1359, 1370 (1st Cir. 1980) ("*Miltenberger* is concerned, not with the 'diversion' precept of *Fosdick*, but with the more general authority of the receivership court to accord priority status to pre-receivership claims in order to prevent the stoppage of a business impressed with the public interest. The case emphasizes the power of the court to effect payment of pre-receivership claims and the validity of the means it chooses to effect payment; the analysis is not in terms of the property interest of operating expense creditors in operating revenues and the limitation of the mortgagee's rights to net income, but it is in terms of paying those pre-receivership expenses that are brought within the principle of administrative expenses by their relation to the continuance of the railroad business.").

Excluded from these rules were unsecured claims for goods and services related to new construction,[132] breach of contract,[133] personal injury,[134] and other torts,[135] including those related to the loss of goods given to the railroad for shipment.[136] Thus there were undoubtedly some unsecured creditors left unpaid after a receivership, including most involuntary creditors. Moreover, it's a doubtful point that only a few stakeholders had a reorganization plan imposed on them against their will, especially since receiverships lacked the procedural safeguards built into present-day chapter 11.

Since there was no formal voting on the reorganization plan, even among those classes of creditors that were directly addressed in the plan, dissent or consent to the plan was accomplished by depositing or

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[132] Robert T. Swaine, *Reorganization - The Next Step: A Reply to Mr. James N. Rosenberg*, 22 COLUM. L. REV. 121, 129-30 (1922) ("The so called 'six months rule' . . . applies only to claims for materials delivered or services rendered in connection with maintenance and operation. In other words it does not apply to claims on account of new construction.") (footnote omitted); *see also* Lackawanna Iron & Coal Co. v. Farmers' Loan & Trust Co., 176 U.S. 298 (1900) (holding that supplier of rails for major improvements was not ordinary course trade creditor entitled to protection of the six month rule).

[133] Central Trust Co. v. Wabash, St. L. & P. R. Co., 32 F. 566, 567 (C.C. E.D. Mo. 1887).

[134] Farmers' Loan & T. Co. v. Green Bay, W. & St. P. R. Co., 45 F. 664, 667 (C.C. D. Wis. 1891) (holding wrongful death action, based on tort committed within six months of receivership, was not subject to six month rule).

[135] Charles Thomas Payne, *supra* note __, at 691 ("The argument against [the tort creditor] is a negative one. He cannot claim any of the grounds for preference given to supply creditors. The liability to him is not, in theory, an 'expense of operation.'").

[136] Easton v. Houston & T. C. R. Co., 38 F. 12 (C.C.D. Tex. 1889).

withholding securities from the committee.[137] Claimants could also withdraw their previously deposited securities, but were strongly discouraged from doing so by deposit agreements that assessed withdrawing claimants for a portion of the committee's professional fees.[138]

Dissents were also ostensibly protected by the court's setting an "upset price," which represented the minimum the road could sell for at the sale – somewhat like an auction reserve.[139] Claimants could either dissent and demand cash equal to their portion of the upset price, or could agree to the plan and receive securities in the new railroad that were inevitably worth substantially more. Indeed, if the securities offered under the plan were not worth substantially more than the cash upset price, the number of bondholders demanding their share of the upset price would lead to the failure of the reorganization, for the simple reason that if the road could have afforded to pay a large number of its bondholders in cash, it would not have been in receivership in the first instance.

While upset prices may have initially protected minority creditors, by 1917 Learned Hand could, with more honesty than most, proclaim that "any upset price whatsoever is a concession to the known uselessness of an auction."[140] Commentators tended to agree, arguing that

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137 *See* William O. Douglas, *Protective Committees in Railroad Reorganizations*, 47 HARV. L. REV. 565, 570 (1934) ("The large number of depositors, their notorious inertia and failure to respond, and the difficulty of reaching them make it necessary to adopt a rather simple rule of thumb to determine whether they have or have not accepted the plan. The failure to withdraw probably is one of the few satisfactory rules of thumb available.") (footnotes omitted).

138 *Cf.* Werner, Harris & Buck v. Equitable Trust Co., 35 F.2d 513, 514 (10th Cir. 1929).

139 Dewing, *Contemporary Railroad Reorganization*, *supra* note __, at 29-31.

140 Equitable Trust Co. v. Western Pac. Ry., 244 F. 485, 504 (S.D.N.Y. 1917), *aff'd*, 250 F. 327 (2d Cir. 1918).

low upset prices, solely designed to pressure creditors to agree to the plan, were the norm.[141]

The receiverships tended to last for several years – sometimes many, many years. On the extreme end, the receiverships could outlast the careers of several receivers. For example, the Pittsburg, Shawmut & Northern, which operated approximately 200 miles of track, was taken over by a receiver in August of 1905. The road operated under receivership until 1946, when the receivership was converted to a section 77 bankruptcy proceeding, leading to the abandonment of the railroad in 1947, more than forty years after it first sought protection from its creditors.[142]

Less anecdotally, key statistics regarding the length of the 25 primary receiverships in the present study are set forth in table 3A below. The length of the receiverships in my sample ranged from slightly less than two years to more than eight years, with the mean (median) standing at 3.9 years (3.4 years). This is somewhat longer than the average duration of "between two and three years" Henry H. Swain reports in his more comprehensive study of the receiverships of the nineteenth century.[143]

Table 3A: Duration of Sample Receiverships (days to discharge of receiver)

Mean	Median	Std. Dev.	n
1422.88	1246.00	837.62	25

[141] *See* Joseph L. Weiner, *The Conflicting Functions of the Upset Price in a Corporate Reorganization*, 27 COLUM. L. REV. 132, 145 (1927). *But see* Samuel Spring, *Upset Prices in Corporate Reorganization*, 32 HARV. L. REV. 489, 494 (1919) ("American courts have gone too far in this solicitude for the interest of the minority. The fixing of an upset price to protect minority bondholders means the intervention of the court at the controlling moment of a reorganization with the purpose, or result, of defeating the control of the majority.").

[142] *See* In re Pittsburg, S. & N. R. Co., 75 F. Supp. 292 (W.D. Pa. 1947).

[143] Henry H. Swain, *Economic Aspects of Railroad Receiverships*, *supra* note ___, at 103.

Table 3B shows corresponding data from Lynn LoPucki's Bankruptcy Research Database,[144] which allows for a comparison of receiverships with the time spent in present-day chapter 11 cases:

Table 3B: Duration of Chapter 11 Cases (days to confirmation of plan)

Mean	Median	Std. Dev.	n
521	432	448	440

On average, receiverships were plainly much lengthier propositions than reorganization under the current chapter 11.

In many ways this delay was inherent in the function of receiverships. While much attention was given to the work done on a reorganized road's financial structure, it was also understood that a receivership acted as a safe harbor during an economic downturn.[145] A railroad could await an economic turnaround, free from harassment by creditors, and emerge from the receivership when improved market conditions would have the happy effects of improving the plan's viability while also allowing the road to avoid the sort of serious reductions in debt that might be warranted but would be strongly opposed by bondholders, whose consent was required for confirmation of a plan.[146] By the Great Depression, however, this model of receiverships as a holding pen for distressed railroads – which was also carried over to the new section 77

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144 Available at lopucki.lawlib.ucla.edu. LoPucki's WebBRD contains data on all large, public-company reorganization cases filed in the United States Bankruptcy Courts from October 1, 1980 -- 569 total cases as of June 30, 2002, when my query was run. Many thanks to Professor LoPucki for making his data available online.

145 Byrne, *The Foreclosure of Railroad Mortgages*, *supra* note __, at 132 (commenting that "[b]ondholders and stockholders alike" may want to postpone a foreclosure sale, and the end of the receivership, "in order to find out what the railroad is capable of under favorable financial conditions"); *see also* Daggett (1908), *supra* note ___, at 27-28 ("The success of this Baltimore & Ohio reorganization plan was very largely due to the time at which it was put through. In other words, the reorganization was completed just when an unparalleled era of prosperity was fairly underway.").

146 *Cf.* Manhattan Rubber Mfg. Co. v. Lucey Mfg. Co., 5 F.2d 39, 43 (2d Cir. 1925) (Hough, J. dissenting) (referring to the parties to a receivership as "sitting under the chancellor's 'umbrella' and watching the weather outside.").

proceedings – meant that many roads would spend a decade or more under court protection.[147]

Similarly, while there is little data on the costs of receiverships during this period,[148] the anecdotal evidence that does exist suggests that the costs were substantial.[149] Turning back to the 1915-16 reorganization of the St. Louis & San Francisco, the railroad paid various attorneys – its own and those of its creditors – slightly more than $900,000 during the reorganization,[150] which represents approximately 3.5% of its pre-receivership assets.[151] If typical of other receiverships, and once the fees of non-legal professionals are included (especially bankers), the direct costs of receiverships would be substantially greater than those of today's large chapter 11 cases, which studies have suggested cost about 2.5% of pre-bankruptcy assets.[152]

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147 *See supra* note 66 and text.

148 *Cf.* Jerold B. Warner, *Bankruptcy Costs: Some Evidence*, 32 J. FIN. 337, 340 (1977) (eleven railroad sample of cases under section 77 between 1933 and 1955).

149 The House Judiciary Committee stated that one of the benefits of enacting section 77 would be that the statute would "put a stop to the wholesale plundering by reorganization managers, both by way of fees and for commissions covering new securities." H.R. Rep. No. 1897, 72d Cong., 2d Sess. 5-6 (1933). The same committee report also noted that "[t]he protracted period of such administration, the duplication of expense incident to ancillary receiverships, the waste, the opportunity for manipulation on the part of special groups, are too well known to require comment." *Id.*

150 SECURITIES AND EXCHANGE COMMISSION, REPORT ON THE STUDY AND INVESTIGATION OF THE WORK, ACTIVITIES, PERSONNEL AND FUNCTIONS OF PROTECTIVE AND REORGANIZATION COMMITTEES: PART 1 – STRATEGY AND TECHNIQUES OF PROTECTIVE COMMITTEES 219 (1937).

151 FLOYD W. MUNDY, EARNING POWER OF RAILROADS 442 (1914) (reporting that, as of June 30, 1913, the railroad had reported assets of more than $25 million, in then-current dollars).

152 Lubben, *The Direct Costs of Corporate Reorganization*, *supra* note __, at __ (finding that direct costs – professional fees – averaged 2.5% of assets if prepackaged cases were excluded from the sample); *see also* Lynn M. Lopucki and

In short, receiverships were lengthy, and perhaps quite expensive by modern standards. But were they effective? The next section tackles that issue head-on.

Joseph W. Doherty, *The Determinants of Professional Fees in Large Bankruptcy Reorganization Cases* 1 J. EMPIRICAL L. STUD. __ (2004).

III. An Empirical Analysis of Railroad Reorganization

A. *The Sample*

The sample began with 68 large railroads, and the final sample consists of 53 railroads. The initial railroads in the sample were those discussed by Stuart Daggett in his classic book on railroad reorganization in the 1890s[153] and his 1918 article in the *Quarterly Journal of Economics* on railroad reorganization in the early 1900s,[154] but I omitted the Kansas City, Mexico & Orient, for which data was unavailable.[155] I then added to the sample all railroads covered in *Mundy's Earning Power of Railroads* with more than 500 miles of track in 1900, less the railroads discussed in the two Daggett sources.[156] This produced the initial sample of 68 railroads, comprised of those railroads that had gone through at least one receivership between 1890 and 1917 (the "Receivership Group") –

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153 Daggett (1908), *supra* note ___.

154 Stuart Daggett, *Recent Railroad Failures and Reorganizations*, 32 Q. J. Econ. 446 (1918) [hereinafter, Daggett (1918)]. Daggett's article is limited to railroads with more than 500 miles of track at the time of their reorganization between 1908 and 1917. In some instances, these railroads had less than 500 miles of track in 1900.

155 Arthur E. Stilwell, previously the promoter of the Kansas City Southern, built this railroad in the early 1900s with the intention of reaching the deep-water port of Topolobampo, Mexico, thus creating the shortest rail route from Kansas City to the Pacific coast. Construction delays, a shortfall of capital, the Mexican Revolution, and a lack of traffic lead to a receivership in 1912. The Santa Fe acquired the road in 1928 and thereafter sold the Mexican portion. Keith L. Bryant, Jr., *Arthur E. Stilwell* in RAILROADS IN THE AGE OF REGULATION, 1900-1980 at 423 (Keith L. Bryant, Jr. ed. 1988).

156 Mundy's was a leading source of financial statistics during this era, and was one of the sources John Moody used to create his well-known bond rating system. *See* Frank Partnoy, *The Siskel and Ebert of Financial Markets? Two Thumbs Down for the Credit Rating Agencies*, 77 WASH. U. L.Q. 619, n.79 (1999) ("Moody relied heavily on reports published in 1906 and 1907 concerning the railroad industry, including 'The Earning Power of Railroad' by Floyd Mundy and 'American Railways as Investment' by Carl Snyder, each of which contained elaborate statistics on the railroad industry, including detailed operating and financial data.").

Floyd W. Mundy was a member of Jas.H. Oliphant & Co., a brokerage firm located in New York and Chicago.

which initially consisted only of the Daggett railroads – and a control group of railroads that had not gone through a receivership in this period, drawn from Mundy's (the "Control Group").

To maintain the dichotomy between the two halves of the sample, one of the railroads drawn from *Mundy's* was moved into the Receivership Group when further research revealed that it had gone through receiverships in the 1890s, although it was not covered in either of the Daggett sources.

Fifteen railroads were then removed from the initial sample because they did not continue to exist as separate entities in 1937, when my study concludes. Two of these deleted roads, one a Receivership Group and the other a Control Group railroad, were acquired out of receiverships by the Baltimore and Ohio. One Control Group railroad simply lacked complete financial information after 1930. All other deleted railroads would have been members of Control Group and were acquired by other Control Group railroads, most often the New York Central or the Pennsylvania.

Following these adjustments, the Receivership Group is comprised of 25 railroads which went through one or more receiverships between 1890 and the end of 1917. The Control Group consists of 28 railroads that did not go through a receivership during that same time period. Together the entire sample consists of 53 of the largest railroads at the turn of the twentieth century.

Financial data for all railroads in the sample was taken from several editions of *Mundy's Earning Power of Railroads*. *Mundy's* is one of the few continuous sources of data on individual railroads in the early part of the twentieth century. The Interstate Commerce Commission's reporting requirements – as well as the Commission's power to enforce those requirements– were not fully defined until after World War I.[157]

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[157] The original 1887 Act to Regulate Interstate Commerce required railroads to file an annual report with the ICC. However, the ICC could not compel use of a uniform reporting format until many years latter. *See generally* Kumar Sivakumar & Gregory Waymire, *Enforceable Accounting Rules and Income Measurement by Early 20th Century Railroads*, J. ACCOUNTING RES. (forthcoming).

With the qualifications discussed in section B below, I coded fields for each road's operating revenues, net income, and fixed charges[158] for all years between between 1900 and 1937 for all railroads, save 1916 and 1918 through 1920.[159] In addition, I coded each railroad's track mileage for the years 1900, 1910, 1921, 1930, and 1940. Information on the length of the primary receiverships for the Receivership Group,[160] and the number of receiverships and bankruptcies all railroads underwent between 1890 and 1937 were also coded.

To allow for some consideration of the effect of J.P. Morgan & Co.'s involvement with a railroad, which current scholars have focused on, I also coded a dummy variable to indicate whether or not the road was controlled by J.P. Morgan & Co. in the years between 1900 and 1918. Unlike the prior fields, which rely on information available in *Mundy's*, information on J.P. Morgan & Co.'s involvement in a particular road's management was taken from a variety of sources, starting initially with Roy & Bonacich (1988),[161] supplemented with the sources indicated in the note.[162]

For purposes of this variable, railroads that were controlled by Morgan-controlled railroads were deemed to be under the control of Morgan. For example, the Maine Central is considered to be a Morgan-controlled road, because the Boston & Maine held a controlling interest in

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158 Defined as interest payments, lease payments, and taxes.

159 See *infra* section B for a discussion of the reasons for omitting these years.

160 *See supra* Table 3A. As used in this article, "primary receivership" refers to the receivership covered by Daggett, even if the railroad had multiple receiverships between 1890 and 1917.

161 Roy & Bonacich, *supra* note __, at 373.

162 J. Bradford De Long, *Did J. P. Morgan's Men Add Value? An Economist's Perspective on Financial Capitalism*, in INSIDE THE BUSINESS ENTERPRISE: HISTORICAL PERSPECTIVES ON THE USE OF INFORMATION 205 (Peter Temin ed. 1991), and Carlos D. Ramirez, *Did J.P. Morgan's Men Add Liquidity? Corporate Investment, Cash Flow, and Financial Structure at the Turn of the Twentieth Century*, 2 J. FIN. 661 (1995).

the Maine Central, and the New York, New Haven & Hartford (a road under Morgan's direct control) controlled the Boston & Maine through its ownership of the Boston R.R. Holding Company.[163]

To the extent data was available, I also coded variables that reflected the reduction of fixed charges (in percentage terms) resulting from Receivership Group's primary receiverships, as well as the ratio of their fixed charges to gross income (total income less operating and maintenance expenses) shortly after the receivership. Data for the former variable was found in Daggett (1908)[164] and Daggett (1918).[165] Various editions of *Mundy's* provided data for calculation of the latter variable with respect to the railroads in Dagett (1918), with data for the railroads in Daggett (1908) coming from that source itself.[166] These two variables were coded for 19 of the 25 railroads in the Receivership Group.

An additional variable captures the real growth – or more often, decline – in the value of a railroad's publicly traded shares between 1921 and the first five months of 1935. This data was available for 31 of the 53 railroads in the sample.

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163 *See* FLOYD W. MUNDY, EARNING POWER OF RAILROADS 213-14 (1913); *see also* George H. Merriam, *New York, New Haven & Hartford Railroad* in RAILROADS IN THE AGE OF REGULATION, 1900-1980 at 322 (Keith L. Bryant, Jr. ed. 1988) ("It controlled the Boston & Maine and the Maine Central and shared control of the Rutland and the Boston & Albany with the New York Cental. Its trolley empire covered most of southern New England. This transportation giant was managed for J.P. Morgan by Charles S. Mellen."); *see also* Charles F. Sabel, *Comment on J. Bradford De Long, Did J. P. Morgan's Men Add Value? An Economist's Perspective on Financial Capitalism*, in INSIDE THE BUSINESS ENTERPRISE: HISTORICAL PERSPECTIVES ON THE USE OF INFORMATION 242-43 (Peter Temin ed. 1991); HENRY LEE STAPLES & ALPHEUS THOMAS MASON, THE FALL OF A RAILROAD EMPIRE: BRANDEIS AND THE NEW HAVEN MERGER BATTLE (1947); Richard M. Abrams, *Brandeis and the New Haven-Boston & Maine Merger Revisited*, 36 BUS. HIST. REV. 408 (1962).

164 Daggett (1908), *supra* note ___, at 357.

165 Daggett (1918), *supra* note ___, at 468.

166 Daggett (1908), *supra* note ___, at 358.

Finally, for a subset of the railroads, namely those listed on the New York Stock Exchange, I obtained data on the book value of common equity from 1926 through 1937. This data comes from Kenneth R. French's online data library,[167] and contains hand-collected book equity values from *Moody's Transportation Manual* published in June of each of the foregoing years.[168] I was able to obtain book value data for 37 of the 53 railroads in the sample, albeit with some missing years.[169]

Once the data was entered for all 53 railroads in the sample, all dollar figures were standardized to 1900 dollars[170] to allow for inter-year comparisons and to avoid the effects of inflation and deflation, which varied wildly between 1900 and 1937. This standardization was achieved by multiplying the dollar figures by an inflation factor derived from the annual average of the Consumer Price Index. For the twelve years before 1913, when the Consumer Price Index came into being, all dollars figures were adjusted using the annual average of the monthly Index of General Prices calculated by the Federal Reserve Bank of New York.[171]

B. *Notes on Methodology*

This section details the significant decisions I made with respect to several key problems that arose during the data collection phase of the study.

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167 Available at mba.tuck.dartmouth.edu/pages/faculty/ken.french/. I am extremely grateful to Professor French for making his data available online.

168 *Cf.* James L. Davis, Eugene F. Fama and Kenneth R. French. *Characteristics, Covariances and Average Returns: 1929-1997*, 55 J. FIN. 389 (2000) (discussing the data collection).

169 Eighteen of these railroads are from the Receivership Group, and nineteen are from the Control Group.

170 $1 million in 2002 would translate into $41,539.32 in "1900 Dollars" and $1 million in 1900 would be worth slightly more than $24 million today.

171 www.globalfindata.com provided both the Consumer Price Index and the Index of General Prices for the relevant years.

First, no data was coded for 1918, 1919, and 1920. Following the United States' entry into World War I, and the resulting severe gridlock in Eastern and Midwestern rail yards and boxcar shortages nationwide, the United States Railroad Administration assumed operational control of the nation's railroads.[172] This nationalization lasted for 26 months through March 1, 1920 – more than a year after the November 11, 1918 armistice. Since the government attempted to run the roads as a unified whole, inclusion of this period might distort the overall picture of the roads between 1900 and 1937.[173]

The federal government also factors in my decision to exclude data from 1916 from the sample. From the early days of the eighteen-hundreds, most railroads operated on a fiscal year than ran from June of each year. But a few notable railroads, like the New York Central, operated on a calendar year. Starting in 1916, the Interstate Commerce Commission ordered all roads to adopt the calendar year as their fiscal year.

Thus, in this sample, data for years before 1917 typically corresponds to the calendar year that begins on June of the stated year and extends until the end of May the next calendar year. No data was coded for 1916, as Mundy's reports most railroads statistics for 1915-16, which I code as 1915 data, and then reports statistics for 1917. The few railroads that have reported data for 1916 – those who were already on a calendar year cycle – would again tend to distort the overall picture of the 53 roads in the sample.

Even after omitting these years, several railroads were missing data for specific years or specific financial measures. This

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172 *See* David M. Kennedy, OVER HERE: THE FIRST WORLD WAR AND AMERICAN SOCIETY 252-58 (1980); *see also* Willaim R. Doezema, *United States Railroad Administration* in RAILROADS IN THE AGE OF REGULATION, 1900-1980 at 447-48 (Keith L. Bryant, Jr. ed. 1988); GEORGE H. DRURY, GUIDE TO NORTH AMERICAN STEAM LOCOMOTIVES: HISTORY AND DEVELOPMENT OF STEAM POWER SINCE 1900 at 405-08 (1993).

173 *See generally* Robert D. Cuff, *United States Mobilization and Railroad Transportation: Lessons in Coordination and Control, 1917-1945*, 53 J. MIL. HIST. 33 (1989).

problem was most acute in the pre-World War I years, especially for railroads that were in receivership. Arguably these missing figures could bias the study in opposite directions: on the one hand, by excluding data from some of the leanest years for the Receivership Group roads, the pre-war picture of these roads might seem better than it actually was (in a relative sense). On the other hand, since I rely on average figures for most of the regressions I run in the remainder of the article, the omission of some years from the Receivership Group could tend to overweight the remaining years, which would present a very stark picture if those remaining years were the ones leading up to the primary receivership. In the end, the reader probably should just keep in mind that the pre-war numbers in the sample are somewhat less reliable than the figures from the 1920s and 30s.

In addition, about half of the fixed charges figures in the sample had to be estimated, using one of two approaches. First, each volume of *Mundy's* reports the dollar figures for net income and operating revenues, as well as a variety of percentages – such as net income as a percentage of total income and fixed charges as a percentage of total income – for each road for each of the several preceding years. Thus, for those years for which I was unable to obtain a volume, it was possible to use a subsequent year's volume to obtain the actual dollar amounts for operating revenues and net income, and calculate fixed charges from the other figures. Use of this method inevitably introduces slight errors into the data – primarily as a result of rounding of the percentage figures in *Mundy's* – but my tests on years in which I had complete data suggest that these errors are typically less than one percent of the total dollar amount involved.

But in years in which a railroad had a net operating loss, *Mundy's* does not report net income as a percentage of total income – instead simply reporting an unspecified "deficit." For these years it was necessary to estimate fixed charges by multiplying *Mundy's* figures for fixed charges as a percentage of *total* revenues against the road's *operating* revenues. For those railroads with substantial income from non-operational sources, this approach likely introduced more significant errors into the data, perhaps as high as five percent of the total dollar amount involved.[174] For a more typical railroad, with operations as its primary source of income, the errors are modest, comparable to those seen from the algebraic method discussed above. The need to use this second method of estimation was most acute for the 1930s, for which volumes of *Mundy's* are hard to come by and when many roads operated at a loss.

Finally, railroad bankruptcies or receiverships that commenced after 1937, or concluded before 1890, are not considered for purposes of this article. For example, both the Pennsylvania and New York Central Railroads are considered to have had no bankruptcies or other reorganizations – despite their spectacular failure (as the combined Penn Central Railroad) in 1970.[175]

On the other hand, a bankruptcy or receivership that was ongoing at any point between January 1, 1890 and January 1, 1938 is counted for purposes of this sample. For example, the International and Great Northern's receivership that lasted from 1889 until 1892, as well as its section 77 bankruptcy proceeding that stretched from 1933 until 1956, are each counted in this study, even though both proceedings extend beyond the start or finish of my sample.

In some cases these limitations on what "counts" as a bankruptcy or receivership have seemingly odd results. The Erie Railroad went through at least four receiverships or bankruptcies between its formation and 1950, but only one of those fell between 1890 and 1937 –

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[174] The following table illustrates the differences in the two estimation approaches as applied to the Baltimore & Ohio's 1928 financial information:

	Actual	*Estimate: First Approach (Algebraic)*	*Estimate: Second Approach (Operating vs. Total Income)*
Fixed Charges	$42,924,155.00	$43,404,778.44	$41,680,087.86
Error	n/a	$480,623.44	($1,244,067.14)

[175] In re Penn Cent. Transp. Co., 384 F. Supp. 895, 903 (Regional Rail Reorg. Ct. 1974). *See generally* STAFF OF HOUSE COMM. ON BANKING AND CURRENCY, 92D CONG., THE PENN CENTRAL FAILURE AND THE ROLE OF FINANCIAL INSTITUTIONS (Comm. Print 1972); J. DAUGHEN & P. BINZEN, THE WRECK OF THE PENN CENTRAL (2d ed. 1999).

and one not included was commenced on January 1, 1938. But the ever changing nature of the railroad industry, particularly after 1950, would make any attempt to count all failures equally problematic, mudding the results with the changing fortunes of railroads in the larger economy. For example, practically every Northeastern railroad in the sample was in bankruptcy in the 1970s,[176] while these same railroads were among the strongest between 1900 and 1945. In short, drawing lines around certain dates is inevitably arbitrary, but also inevitable in order to complete the study.

C. *Descriptive Statistics*

Table 4A sets forth some basic descriptive statistics with respect to the overall sample.

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176 *Cf.* Regional Rail Reorganization Act of 1973, Pub. L. No. 93-236, 87 Stat. 1010 (1974).

Table 4A: Characteristics of Sample Railroads

	Mean	Median	Max.	Min.	Std. Dev.	n
Miles of Track						
1900	2,612.02	1,673.00	8,655.00	146.00[a]	2,246.33	50
1910	3,287.33	2,229.00	10,350.00	457.00[b]	2,783.07	51
1921	3,669.29	2,241.50	11,678.00	512.00	3,170.52	52
1930	4,031.96	2,240.00	13,832.00	512.00	3,703.92	53
1940	3,913.75	2,113.00	13,413.00	507.00	3,603.57	53
Operating Income						
1900	23,710,308.52	15,594,262.50	88,539,827.00	2,324,274.00	20,101,425.69	48
1917	35,311,956.93	25,419,466.87	149,601,287.46	2,336,072.82	32,955,121.45	53
1921	35,452,756.64	25,861,169.25	205,250,910.50	1,313,816.53	36,599,188.96	53
1929	44,682,907.07	31,239,235.69	297,355,054.39	2,055,688.07	50,588,735.29	53
1937	36,631,183.60	23,944,533.16	236,640,611.50	1,896,228.62	43,841,858.30	53
Net Income						
1900	4,073,250.13	2,398,124.00	16,771,499.00	146,950.00	4,239,912.43	47
1917	5,730,858.01	2,271,615.37	28,812,275.42	(244,777.64)	7,131,244.83	53
1921	1,849,103.00	831,641.22	13,765,031.66	(6,289,409.23)	3,954,355.55	53
1929	6,605,886.80	3,401,128.33	44,155,976.73	(98,431.20)	8,890,690.28	53
1937	896,000.87	(160,598.08)	17,938,752.46	(7,687,321.11)	4,643,940.75	53
Book Value of Common Equity (millions of dollars)						
1926	68.55	45.47	251.00	8.75	64.92	34
1929	80.85	50.88	328.68	9.82	81.18	36
1933	109.40	58.75	502.89	11.45	119.15	36
1937	84.50	33.84	436.63	(3.11)	105.87	36

Notes:

All dollar figures have been standardized to 1900 dollars, as described in the text. Sources are as described in the text.

a Reflects the Norfolk & Southern R.R., a Receivership Group railroad. Merged with the Virginia & Carolina Coast R.R. in 1906 and thus had more than 500 miles of track by the time covered in Daggett (1918) .

b Wheeling & Lake Erie R.R., which Daggett reported as having 504 miles of track when it was taken over by a receiver in 1908. Mundy's reports only 442 miles for this road as of June, 1908, although Mundy's lists the road at 512 miles after WWI.

This table provides further evidence that the years between the wars were unkind to the Nation's railroads. Several factors are at work here, including the pervasive government regulation of railroads following the passage of the Transportation Act of 1920,[177] and the failure of the roads to adapt to a changing economic environment where railroads were no longer the sole competitor for investor dollars and the automobile and, to a lesser extent, the airplane, increasingly threatened railroads' dominance of the transportation network.

On a more positive note, it bears noting the tremendous size of these railroads. The average operating income of over $26 million in 1900 translates to more than $645 million in 2002. The largest of the railroads in the sample in 1900 in terms of operating income – the Pennsylvania Railroad – earned more than $2 billion in today's dollars.

But as the standard deviation numbers show, there is a great deal of variation in the sample. Accordingly, Table 4B shows some of the same descriptive statistics, broken down by the two groups in the sample, to allow for comparison:

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[177] Ch. 91, 41 Stat. 456. The Transportation Act of 1920 granted the Interstate Commerce Commission the power to set minimum rates, to adjust the rates of one carrier for the purpose of protecting the profits of another, and to require any railroad earning more than six percent on investment to relinquish one-half of that "excess" to the commission for redistribution to less profitable carriers. *See generally*, Aitchison, *supra* note ___, at 357-364.

Table 4B: Characteristics of Sample Railroads, By Group

	Mean	Median	n	Mean	Median	n
	Receivership Group (1890-1917 Receiverships)			*Control Group (No Pre-WWI Receiverships)*		
Miles of Track						
1900	2,739.95	2,206.50	22	2,511.50	1,552.00	28
1910	3,398.70	2,265.00	23	3,195.86	2,028.50	28
1921	3,612.42	2,280.50	24	3,718.04	2,106.00	28
1930	3,706.00	2,206.50	25	4,323.00	2,154.50	28
1940	3,652.96	2,113.00	25	4,146.61	2,075.00	28
Operating Income						
1900	22,650,286.80	21,459,580.00	20	24,467,466.89	14,673,593.50	28
1910	30,521,273.58	23,782,060.86	23	34,402,016.55	25,547,881.47	28
1917	30,713,704.64	23,735,074.69	25	39,417,539.34	28,566,826.58	28
1921	29,944,911.63	24,300,461.16	25	40,370,475.39	29,065,805.84	28
1929	36,510,782.96	25,328,386.60	25	51,979,446.46	31,380,608.09	28
1937	28,703,597.42	22,209,509.36	25	43,709,385.54	25,066,549.96	28
Net Income						
1900	3,685,941.95	1,801,220.50	20	4,360,145.07	2,560,831.00	28
1910	4,278,723.46	1,221,892.19	23	6,734,895.61	4,965,183.46	28
1917	4,615,606.27	1,157,192.83	25	6,726,618.49	3,450,961.30	28
1921	1,822,972.81	829,140.09	25	1,872,433.53	1,021,998.56	28
1929	5,066,731.61	3,248,573.69	25	7,980,132.50	4,296,803.47	28
1937	(24,765.25)	(231,555.47)	25	1,718,113.48	264,157.20	28
Book Value of Common Equity (millions of dollars)						
1926	62.32	36.42	16	74.08	55.48	18
1929	70.93	38.08	17	89.72	68.26	19
1933	91.64	40.74	17	125.29	84.58	19
1937	69.66	26.33	18	99.34	67.54	18

Notes:

All dollar figures have been standardized to 1900 dollars, as described in the text. Sources are as described in the text.

If size is measured by track miles operated, Table 4B shows that the two subparts of my sample are roughly comparable. On the other hand, the financial numbers show a mixed picture by 1921 – in terms of net income the two groups are comparable, but by other measures the Control Group is somewhat larger. And by 1937 the Control Group has clearly passed the Receivership Group by all measures. The Control Group's operating income, while down from the highs of the late 1920s, is still above its 1921 levels. Average net income in 1937 fell below 1921 for the Control Group, but only slightly. And the Control Group is still well in the black in terms of book value of equity.

Conversely, the Receivership Group fell to an average net loss of slightly more than $24,500 and its average operating income in 1937 also dipped below 1921 levels. The significant difference between the mean and median book value figures also suggests that the average is hiding a good deal of distress. Indeed, the average (median) change between 1926 and 1937 book values for the Receivership Group was $14.26 million ($4.94 million), while the corresponding numbers for the Control group were $30.36 million and $11.41 million, respectively.

D. *The Effectiveness of Receiverships* – A First Look

Contemporary literature often noted that railroad receiverships achieved a large reduction in a road's fixed charges, which was thought to vitally improve a road's health.[178] As shown in Table 5A, the data generally bears out this intuitive sense, showing that fixed charges were reduced, on average, by more than 25% in the 19 primary receiverships for which this data was available.[179]

Table 5A: Reduction in Fixed Charges (percentage reduced)

Mean	Median	Std. Dev.	n
25.39%	31.16%	-52.44%	19

178 *See, e.g.*, Arthur S. Dewing, *The Purposes Achieved by Railroad Reorganization*, 9 AMER. ECON. REV. 277, 279-80 (1919).

179 The odd standard deviation results from one railroad that actually increased its fixed charges by more than 170% in its receivership as part of a deal to absorb another railroad – resulting in increased fixed charges but a larger railroad.

As shown in Table 5B, however, fixed charges continued to consume a very large part of the reorganized railroads' gross income (total income less operating and maintenance expenses), leaving little margin for increased maintenance or even slight downturns in operating income.

Table 5B: Fixed Charges as Percentage of Post-Receivership Gross Income

Mean	Median	Std. Dev.	n
69.96%	71.24%	15.28%	19

This is one initial indication that receiverships were not designed to provide railroads with optimal capital structures, but rather with typical capital structures such as might be found in a non-bankrupt railroad.

This suggestion is further born out by consideration of Table 5C, which shows that, during the inter-war years, the Receivership Group's average fixed charges as a percentage of total income were virtually indistinguishable from those of the Control Group – despite the reduction worked by the primary receiverships.

Table 5C: Average Fixed Charges as Percentage of Inter-War Total Income

	Mean	Median	Std. Dev.	n
Entire Sample	23.00%	23.00%	5.00%	53
Receivership Group (1890-1917 Receiverships)	23.00%	23.00%	5.00%	25
Control Group (No Pre-WWI Receiverships)	23.00%	22.00%	5.00%	28

Roads that went through a receivership were not exploring new capital structures in their receiverships. Instead, they were returning to the norm – which meant relatively high debt levels – even though the norm might have been inappropriate for railroads who suffered under poor operating locations or intense local competition.

And, upon further examination, the figures in Table 4B, *supra*, reveal some hints that all was not well with the roads in the Receivership Group. This is made clear by Table 5D, which shows the change in the railroads' financial health, as measured by operating and net income, for the years between the wars.

Table 5D: Change in Railroads' Inter-War Financial Condition, By Group

	Mean	Median	n	Mean	Median	n
	Receivership Group (1890-1917 Receiverships)			*Control Group (No Pre-WWI Receiverships)*		
Change in Operating Income	(1,241,314.21)	(355,928.00)	25	3,338,910.15	(1,501,579.59)	28
Change in Net Income	(1,847,738.06)	(1,330,568.83)	25	(154,320.05)	(871,026.09)	28

Notes:
All dollar figures have been standardized to 1900 dollars, as described in the text. Sources are as described in the text.
"Change" is the difference between the indicated figure in 1937 and 1921.

To be sure, some railroads in the Receivership Group experienced substantial success after their receivership. This is best seen in the ShrPrChg(IntW/Real) variable, which captures the 1935 share price as a percentage of the 1921 share price, in both cases as standardized to remove the effects of inflation and deflation. Three out of the twelve railroads in the Receivership Group for which this data was available saw real growth in their share prices during this period, as compared to only one railroad out of nineteen in the Control Group. But two out of these three railroads in the Receivership Group with real growth in share prices had already been through multiple receiverships before World War I, and the other, the Union Pacific, was arguably anomalous, since its trip into receivership in the 1890s was rather plainly the result of management's infamous self-dealing as opposed to real operational or financial problems.

E. *The Effectiveness of Receiverships* – Regression Analysis

To examine the effectiveness of railroad receiverships further, I next turn to some basic regression models. To facilitate this analysis, I created a new dummy variable (MultiBankr1921) which is coded "1" if a railroad went through a bankruptcy or receivership between 1921 and the end of 1937,[180] and is otherwise coded as "0."

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180 Remember that, starting in the 1930s, railroads had the choice of either reorganizing under a traditional receivership or by way of a bankruptcy proceeding under section 77 of the Bankruptcy Act. *See* Guaranty Trust Co. of N.Y. v. Seaboard Air Line Ry. Co., 53 F. Supp. 672 (E.D. Va. 1943) ("Before the passage of the Act of Congress providing for railroad reorganization as a part of the bankruptcy law the only juridical mode of railroad reorganization was in equity. Since then it may be thought that equity

By using this dummy variable I start the two Groups from a position of equality and measure their inter-war performance without regard to their prior financial condition. If receiverships were effective at resolving a railroad's financial problems, we would expect that the Receivership Group roads should encounter financial distress as often (or even less often) than the railroads in the Control Group.

I then regressed more than 45 other variables onto MultiBankr1921 to determine if they showed signs of explaining a road's tendency to undergo multiple bankruptcies, including the basic dummy variable that indicates whether or not a road was in the Control or Receivership Groups. Because of the problems associated with performing OLS regressions with a binary dependent variable,[181] I used a logistic regression model to estimate the factors which influence the result in MultiBankr1921.[182] Table 6 shows the more interesting results of this analysis.[183]

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for such a purpose is outmoded but not outlawed."). *But see* New England Coal & Coke Co. v. Rutland R. Co., 143 F.2d 179, 184-85 (2d Cir. 1944) (Frank, J.) ("In place of the shoddy, leaky, chancellor's umbrella supplied at the instance of an unsecured creditor and upon the debtor's consent, Congress had supplied the well-built shelter of the Bankruptcy Act. Consequently the receiver here was 'irregularly appointed' . . . once the judge's attention was directed, in any way, to that irregularity, he should have taken steps to correct it. The filing of the § 77 petition illuminated the basic flaw in the equity proceeding (resulting from its illegitimate inception) and offered an obvious simple means of eradicating it."). *See also supra* Part III, section B.

[181] FRED C. PAMPEL, LOGISTIC REGRESSION: A PRIMER 1-14 (2000).

[182] Logistic regression predicts the probability that the dependent variable event will occur (*i.e.*, a response of "1") given the independent variables. In standard logistic regression, the predicted values of the dependent variable can range from 0 to 1. The coefficients for the predictor variables measure the change in the probability of the occurrence of the dependent variable event in log units.

[183] A WordPerfect file, containing the output from each run performed in connection with Table 6, is available from the author upon request. The table shows all regressions with results that were statistically significant ($p < .10$).

Table 6: Bivariate Logistic Regression Analysis

	Independent Variables	Coeff	StdErr	p-value	LRχ^2 [df=1]	p-value
1	Group (Receivership = 1; Control = 0)	1.0186	0.5922	p < .10	3.0616	p < .10
2	Morgan Control (Yes = 1)	-0.5842	0.6716	n.s.	0.7900	n.s.
3	Fixed Charges Change (1937 less 1921)	-0.0000	0.0000	p < .10	5.1211	p < .05
4	Standardized Fixed Charges Change (1937 less 1921)	-0.0008	0.0005	p < .10	3.4993	p < .10
5	Average Op. Income (1900 to 1937)	-0.0000	0.0000	p < .10	4.9698	p < .05
6	Average Net Income (1900 to 1937)	-0.0000	0.0000	p < .01	16.2551	p < .01
7	Average of Net Income as % Op. Income (1900 to 1937)	32.8346	11.0216	p < .01	12.4959	p < .01
8	Average of Fixed Charges as % Op. Income (1900 to 1937)	14.1099	4.8701	p < .01	11.3660	p < .01
9	Average Standardized Op. Income (1900 to 1937)	-0.0001	0.0001	p < .05	6.1320	p < .05
10	Average Standardized Net Income (1900 to 1937)	-0.0039	0.0012	p < .01	26.5959	p < .01
11	Average Standardized Fixed Charges/Average Standardized Op. Income (1900 to 1937)	12.8547	4.6073	p < .01	10.0390	p < .01
12	Average Op. Income (1900 to 1917)	-0.0000	0.0000	p < .10	4.1808	p < .05
13	Average Net Income (1900 to 1917)	-0.0000	0.0000	p < .05	8.805	p < .01
14	Average of Fixed Charges as % Total Income (1900 to 1917)	19.4218	7.8304	p < .05	7.7041	p < .01
15	Average of Net Income as % Op. Income (1900 to 1917)	-11.3380	4.1139	p < .01	10.3694	p < .01
16	Average of Fixed Charges as % Op. Income (1900 to 1917)	14.2720	6.6550	p < .05	5.3938	p < .05
17	Average Standardized Op. Income (1900 to 1917)	-0.0001	0.0001	p < .10	4.4258	p < .05
18	Average Standardized Net Income (1900 to 1917)	-0.0011	0.0005	p < .05	10.7201	p < .01
19	Average Standardized Fixed Charges/Average Standardized Op. Income (1900 to 1917)	17.3547	7.0515	p < .05	7.4989	p < .01
20	Average Op. Income (1921 to 1937)	-0.0000	0.0000	p < .10	5.4271	p < .05
21	Average Net Income (1921 to 1937)	-0.0000	0.0000	p < .01	35.8654	p < .01
22	Average of Fixed Charges as % Total Income (1921 to 1937)	19.7462	7.9615	p < .05	8.0478	p < .01
23	Average of Net Income as % Op. Income (1921 to 1937)	-39.7486	11.0729	p < .01	32.0177	p < .01
24	Average of Fixed Charges as % Op. Income (1921 to 1937)	7.0110	2.6806	p < .01	9.0217	p < .01
25	Average Standardized Op. Income (1921 to 1937)	-0.0001	0.0001	p < .05	7.2023	p < .01
26	Average Standardized Net Income (1921 to 1937)	-0.0063	0.0017	p < .01	40.3128	p < .01
27	Average Standardized Fixed Charges/Average Standardized Op. Income (1900 to 1917)	5.7649	2.4981	p < .05	6.6207	p < .05

Notes:

Dependent variable is MultiBankr1921, which is described in the text. 34 cases (64.15%) have Y=0; 19 cases have Y=1.

Standardized variables were created by dividing the indicated financial figure by each road's 1940 track mileage.

n = 53

From regression 1 we see that the probability of undergoing a receivership or bankruptcy for a particular railroad is related (LRχ^2 p = 0.0802) to whether or not a railroad went through a prior receivership. Specifically, from the coefficient we can calculate that a pre-World War I receivership (*i.e.*, membership in the Receivership Group) increases the odds of a receivership or bankruptcy in the inter-war period by a factor of 2.7692.[184] This means that railroads in the Receivership Group are more than two and a half times more likely to undergo one or more receiverships or bankruptcies in the inter-war years as the Control Group railroads.

In short, a railroad was more likely to undergo an additional bankruptcy or receivership if it already went through a receivership. This result throws into question the efficacy of the receiverships that occurred between 1890 and America's entry into World War I.

To be sure, relationship does not prove causation, and we can not conclude that having gone through one receivership causes a railroad to go through more receiverships. The frequent need for reorganization of the Receivership Group railroads may reflect the poor economic conditions of the regions where these roads were located or, conversely, the strong economic conditions and resulting competition among railroads.

But the data does suggest that receiverships were not effective at addressing a railroad's financial problems on the first try. Given the apparently significant direct costs associated with a receivership[185] – and the presumably large indirect costs associated with the extended duration of these proceedings[186] – it is unlikely that repeated receiverships could be socially optimal.

Additionally, the refiling rate (*i.e.*, railroads with a positive response in MultiBankr1921) for the Receivership Group railroads is an astounding 12 out of 25 – or almost 50%. Large, present-day chapter 11

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184 $\exp^{(\text{slope})} = e^{1.0186} = 2.7692$.

185 *See supra* note __ and text.

186 *See* Tables 3A and 3B.

cases have a refiling rate of 17%,[187] and only 7 out of 28 railroads in the Control Group (*i.e.*, 25%) sought protection from creditors during the inter-war period. Thus, the average railroad that reorganized under a receivership subsequently failed at a rate more than twice as high as railroads that had never gone through a receivership and almost three times as high as former chapter 11 debtors.

Many of the other significant results in Table 6 are self evident – for example, measures of a railroad's inter-war profitability (regressions 23, 25 and 26) or profitability over the full term of the sample (regressions 5, 6, and 10) are strongly predictively of whether or not a railroad will undergo a receivership or bankruptcy in the inter-war period. But regressions 13, 15 and 18 are troublesome, inasmuch as they suggest that a railroad's profitability *before* World War I is predictive of whether or not it will experience financial distress *after* World War I. In a sample where almost half of the railroads went through one or more receiverships before the War, pre-War profitability arguably should have little bearing on post-War bankruptcies. This may also provide an indication that receiverships were not effectively addressing the railroads' financial problems.

Table 6 also reveals that fixed charge figures, especially those that relate fixed charges to the size of the road, are also good predictors of a railroad's future need for bankruptcy or receivership.[188] Again, this has a good deal of intuitive appeal – the greater the fixed burden on a road, the more significant even a small economic downturn becomes. But the fixed charge regressions for the pre-War period, such as regressions 14 and 16, again show some ability to predict post-War financial distress, whereas the prior receiverships in the sample would suggest that pre-War measures should be of little import.

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[187] Lynn M. LoPucki and Sara D. Kalin, *The Failure of Public Company Bankruptcies in Delaware and New York: Empirical Evidence of a "Race to the Bottom"*, 54 VAND L. REV. 231, 249 tbl. 4 (2001) (reporting that the refiling rate is 10% when Delaware and the S.D.N.Y. are excluded from the sample).

[188] For example, regressions 3, 8, 14, 16, 22, and 24.

Interestingly, J.P. Morgan & Co.'s earlier involvement with a road has a negligible effect on the probability of multiple bankruptcies or receiverships. While Morgan's involvement may have been optimal in good times – at least for investors, although some of these gains were apparently simple wealth transfers resulting from monopolization[189] – it appears that the firm's involvement did little to forestall a railroad's future financial distress, perhaps because the benefits of Morgan's involvement with a road were unlikely to last once Morgan was forced to step back after the passage of the Clayton Antitrust Act in 1914.[190]

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[189] Miguel Cantillo Simon, *The Rise and Fall of Bank Control in the United States: 1890-1939*, 88 AMER. ECON. REV. 1077, 1087 (finding that a large part of the gains to investors that came from Morgan's involvement represented gains from cartels that Morgan coordinated).

[190] *See* Carosso , *supra* note __, at 179-80. *See also* HENRY R. SEAGER & CHARLES A. GULICK, JR., TRUST AND CORPORATION PROBLEMS 420-21 (1929) (Noting that the Clayton Act's "most important limitation affecting industrial combinations was that, beginning two years from the date of the approval of the act, no person could at the same time be a director in any two or more industrial corporations").

IV. Implications for Modern Bankruptcy Theory

The foregoing data plainly cautions against an unconsidered embrace of railroad receiverships as a font of ideas for the improvement of corporate or sovereign reorganization. Admittedly, it does not show that receiverships caused yet more receiverships. The roads that went through receiverships may have been weak roads, with little chance for success. Other functional problems may have plagued them. But the data does suggest that receiverships were not effective at addressing a railroad's financial problems, whatever they may have been.

Modern scholarship tends to equate receiverships with chapter 11, or its New Deal statutory predecessors – and then to wonder why the New Dealers felt the need to provide a statutory alternative to something that already provided a consensual means of dealing with corporate distress. But, as the data presented here reminds us, receiverships were only viable if the debtor and its creditors could agree on a plan that would result in a sale of the railroad.[191] Financially troubled railroads were almost entirely dependent on creditor goodwill to make the receivership process work. If too many bondholders opted to take the upset price, and exit the railroad, the process would fail. And there was no way to compel bondholders to participate.

Thus, the debtor-railroad was limited to proposing a plan that reflected the management's (presumed) desire to revamp the railroad's financial structure while also providing for the smallest possible

[191] In this way, railroad receiverships were not a true example of contractualism in place of formal bankruptcy, since the bargaining took place *ex post*, rather than *ex ante* as most modern day scholars advocate. *See, e.g.,* Alan Schwartz, *A Contract Theory Approach to Business Bankruptcy*, 107 YALE L.J. 1807 (1998). Recent reviews of the contractualist literature include Susan Block-Lieb, *The Logic and Limits of Contract Bankruptcy*, 2001 U. ILL. L. REV. 503 and Stephen J. Lubben, *Some Realism About Reorganization: Explaining the Failure of Chapter 11 Theory*, 106 DICK. L. REV. 267 (2001).

abrogation of the bondholders' claims.[192] Such a tradeoff was bound to produce less "reorganization" than might be objectively optimal.

It might be tempting to point to the railroads' inability to liquidate as the reason for the repeated need for reorganization. In some, probably small, subset of cases, this was undoubtedly true. Some railroads simply offered service on routes that were already well-served by other, more efficient carriers.

But recall that receiverships did not seek to give railroads optimal capital structures, but rather typical capital structures – essentially, receiverships were about returning wayward railroads to the financial mean.[193] Somewhere between the typical capital structure and complete liquidation many roads might have found a workable solution to their financial distress. For example, roads in underdeveloped areas of the country probably should have been capitalized with something close to an "equity only" structure, an option no road seems to have taken in its receivership. Again, the need to reach consensus with the railroad's bondholders probably precluded this sort of restructuring, especially since "it was not uncommon that the men who owned largely of the mortgage bonds also held largely of the shares."[194]

Even beyond the data presented herein, the tendency to equate receiverships with chapter 11 also lends itself to a stylized version of history that accentuates the triumphs of investment bankers and

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192 *See* W.Z. Ripley, *Railroad Over-Capitalization*, 28 Q.J. ECON. 601, 625 (1914) (noting that the need to gain bondholders' consent to a plan often resulted in the overly generous distribution of new securities, leading to future problems).

193 See supra Table 5C and text.

194 De Forest Billyou, *Priority Rights of Security Holders in Bankruptcy Reorganization: New Directions*, 67 HARV. L. REV. 553, 556 (1954) (quoting Adrian H. Joline, a leading reorganization lawyer, in a speech from 1900). Two decades ago Mark Roe made a similar argument with respect to chapter 11, asserting that the desire to terminate a chapter 11 case would lead senior creditors to agree to suboptimal capital structures. Mark J. Roe, *Bankruptcy and Debt: A New Model for Corporate Reorganization*, 83 COLUM. L. REV. 527, 543-44 (1983). Roe's article was the first salvo in an onslaught against chapter 11 that I critique in Lubben, *Some Realism*, *supra* note __.

corporate lawyers – negotiating a private solution among sophisticated bondholders – while placing the blame for the loss of this golden age squarely on hapless and misinformed New Dealers, in particular William O. Douglas and Jerome Frank.[195]

But the Realists were not "misled" into believing that receiverships were nothing more than traditional mortgage foreclosures. They readily understood that the form of a foreclosure sale was being used to achieve something more,[196] but they believed that too often the result achieved was inequitable and the product of self-dealing.[197] For this reason, many of the Realists would ultimately lead the charge against receiverships when they gained power through the New Deal.

Similarly, while the use of Douglas and Frank as a foil is deft, the focus on the New Deal misses the significant degree of dissatisfaction with railroad receiverships that existed long before Douglas even received his law degree.[198] Also missing is any mention of the use of

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[195] *See supra* note 11.

[196] THURMAN W. ARNOLD, THE FOLKLORE OF CAPITALISM 235-39 (1937) (comparing a receivership to "a Chinese play, in that it was endless, and very highly stylized," but acknowledging that "[b]ehind the scenes a different game went on . . . in which different conflicting interests traded and negotiated for strategic position within the enterprise, much as rival military cliques might struggle for the control of an army."). As Victor Brudney has noted, the Supreme Court was the one party that routinely and rigidly adhered to the foreclosure conception of reorganization. Victor Brudney, *The Investment-Value Doctrine and Corporate Readjustments*, 72 HARV. L. REV. 645, n.94 (1959).

[197] *See, e.g.*, MAX LOWENTHAL, THE INVESTOR PAYS (1933); HAROLD PALMER, INVESTMENT SALVAGE IN RAILROAD REORGANIZATIONS 1 (1938) ("Railroad reorganization was a racket many years before the word racket was coined; and thousands of investors have paid tribute to it with the loss of their fortunes.").

[198] Taylor v. Philadelphia & Reading R. Co., 9 F. 1, 3 (C.C. E.D. Pa. 1881) ("The modern practice, prevailing to some extent, of transferring corporate property to the custody of the courts, to be thus held and managed for an indefinite period of years, to suit the convenience of parties, whereby general creditors are kept at bay, I regard as a mischievous innovation."); James N. Rosenberg, *A New Scheme of Reorganization,* 17 COLUM. L. REV. 523, 528 (1917) ("Judge Hough [of the S.D.N.Y. and later the 2d Cir.] . .

receiverships to alter labor agreements, prevent strikes, and punish labor leaders.[199] Or the use of railroad receiverships in federal courts to place railroads outside the regulatory control of state governments, [200] avoid certain federal regulations,[201] and to thwart the collection of state taxes.[202]

. speaks of the frequent 'tyranny and extravagance' of reorganization committees . . . Judge Hough's words were justified."); Thomas A. Thacher, *Some Tendencies of Modern Receiverships*, 4 CAL. L. REV. 32, 47 (1915) ("Since the committee formed will in all probability be the only bidder, the property will be sold for a fraction of its value, and the bondholder staying out of the reorganization scheme will receive little. The small bondholder, therefore, has practically no choice."); *see also* JAMES W. ELY, JR., RAILROADS AND AMERICAN LAW 179-80 (2001) ("By the start of the twentieth century, railroad receiverships were the subject of frequent complaint."); D.H. Chamberlain, *New-Fashioned Receiverships*, 10 HARV. L. REV. 139 (1896).

199 *See, e.g.*, Arthur v. Oakes, 63 F. 310 (7th Cir. 1894); Ames v. Union P. R. Co., 74 F. 335 (C.C.D. Neb. 1896); Thomas v. Cincinnati, N. O. & T. P. R. Co., 62 F. 803 (C.C.S.D. Ohio 1894); In re Wabash R. Co., 24 F. 217 (C.C.D. Mo. 1885). *See also* WILLIAM E. FORBATH, LAW AND THE SHAPING OF THE AMERICAN LABOR MOVEMENT 66-68 (1991); ARNOLD M. PAUL, CONSERVATIVE CRISIS AND THE RULE OF LAW: ATTITUDES OF BAR AND BENCH, 1887-1895, at 117 (1976); WILLIAM G. ROSS, A MUTED FURY. POPULISTS, PROGRESSIVES, AND LABOR UNIONS CONFRONT THE COURTS, 1890-1937 (1994); Walter Nelles, *A Strike and Its Legal Consequences--An Examination of the Receivership Precedent for the Labor Injunction*, 40 YALE L.J. 507 (1931).

200 Quincy, Missouri, & Pacific R.R. v. Humphreys, 145 U.S. 82 (1892); Thompson, *The Court Management of Railroads*, 27 AMER. L. REV. 31 (1893).

201 United States v. Harris, 177 U.S. 305, 309-10 (1900) (excluding receivers from federal railroad regulations regarding transport of live animals). *See also* ROBERT H. JACKSON, THE STRUGGLE FOR JUDICIAL SUPREMACY 118-19 (1941) ("[I]nventive lawyers had just devised an . . . exclusive method of lynching a Congressional enactment without a fair trial. Some lawyer who had in his hands a receivership or a trusteeship in reorganization proceedings would apply to a federal judge for 'instructions' as to whether he should obey the law. Of course he did not want to, or he would not ask.").

202 *See Memorial of the General Assembly of South Carolina to the Congress of the United States in the Matter of Receivers of Railroad Corporations and the Equity Jurisdiction of the Courts of the United States*, 28 AMER. L. REV. 161 (1894).

And any attempt to ascribe Douglas and his compatriots with all the credit or blame for bringing an end to receiverships fails to consider the larger trends at work during the New Deal. Federal equity jurisdiction was under attack across the board – consider the enactment of the Norris-LaGuardia Act in 1932,[203] the Johnson Act in 1934,[204] and the Tax Injunction Act in 1937.[205] The attack on receiverships was just one part of a larger trend aimed at counteracting the use of federal equity jurisdiction in service of big business.[206]

As one historian has noted, the role played by the well-known New York and Boston investment bankers was

> decidedly uneven. There were many examples where responsible reorganization and consolidation resulted in financial and physical rehabilitation . . . On the other hand, the injection of banker control was often accompanied by unscrupulous financial manipulation which shattered the financial structure of the roads and impaired their physical property . . . It is interesting to note that the same bankers who did a good job on one road were not above ruining another.[207]

Generalizations about the roles of such complex actors are bound to fall short.

Nonetheless, the concerns that Douglas and others expressed about the many conflicts of interests that followed receivership professionals – for example, many investment banking firms and their

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203 The Norris-LaGuardia Act, Pub. L. No. 65, 47 Stat. 70 (1932).

204 The Rate Injunction Act ("Johnson Act"), Pub. L. No. 105-175, 48 Stat. 775 (1934).

205 The Tax Injunction Act, Pub. L. No. 105-175, 50 Stat. 738 (1937).

206 *See* Edward A. Purcell, Jr., *Rethinking Constitutional Change*, 80 VA. L. REV. 277, 278-79 (1994).

207 FAULKNER, THE DECLINE OF LAISSEZ FAIRE, *supra* note ___, at 198.

principles were holders of road securities while also advising both the roads and the roads' reorganization committees – are worth some reconsideration in light of the data presented in this article. Too often modern scholarship seems to allow the authors' understandable distaste for the infrastructure that Douglas built to replace receiverships – which was often clumsy and overly bureaucratic[208] – to drive the analysis of the merits of the Realist critique of receiverships.[209] But Douglas' critique of receiverships was not dependent on the vitality of his reform proposals.

In particular, the high failure rates described herein must have been manifest to the professionals involved in railroad receiverships, yet they apparently made little effort to develop alternative forms of restructuring until the late 1920s and early 1930s,[210] and only then because the Supreme Court had begun to make ominous suggestions that receiverships only would be allowed in railroad cases, and not in cases of general corporate financial distress.[211] If these talented professionals had truly been working to advance their clients' interests, it seems likely that new ideas and approaches would have emerged much earlier, especially

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208 To be sure, contemporary commentators thought otherwise. *See* Eugene V. Rostow & Lloyd N. Cutler, *Competing Systems of Corporation Reorganization: Chapters X and XI of the Bankruptcy Act*, 48 YALE L.J. 1334, 1334 (1939) ("Chapter X is in every way an improvement upon is predecessors, the equity receivership and the Section 77B proceeding.").

209 *See* Baird & Rasmussen, *Control Rights*, *supra* note 1, at 937; *id* at n.10 ("[T]hese . . . academics put their theories into practice when they went to Washington during the New Deal. The damage done to the law of corporate reorganizations has taken decades to fix and has still not been set completely right.").

210 *See, e.g.*, Robert T. Swaine, *Corporate Reorganization--An Amendment to the Bankruptcy Act--A Symposium*, 19 VA. L. REV. 317 (1933).

211 *See, e.g.*, Harkin v. Brundage, 276 U.S. 36, 52 (1928); *see also* Friendly, *Some Comments on the Corporate Reorganizations Act*, *supra* note __, at 43; Skeel, Jr., *An Evolutionary Theory of Corporate Law and Corporate Bankruptcy*, *supra* note 1, at 1360 ("Starting in the 1920s, the Supreme Court began hinting that railroads were a special case, and that the Court had serious doubts about other firms' use of the receivership process.").

once *Boyd* made the existing infrastructure more cumbersome.[212] But, as the Realists noted, these professionals had every reason to maintain the *status quo* – or, more benignly, simply remain indifferent to the high failure rates of receiverships. After all, receiverships not only generated healthy professional fees but also provided the bankers with an easy means of aggregating railroads within control groups.[213]

Similarly, the data presented herein also calls for some consideration of whether the consensual nature of receiverships might have implications for modern uses of receiverships. In this paper I have argued that this aspect of receiverships most likely lead to an "under reorganization" of railroads, reflecting the parties' attempts to avoid the hard choices that might have warded off future financial difficulties. Arguably the same argument could be made against the use of receiverships in several modern contexts, such as sovereign debt restructuring.[214] Indeed, it seem likely that all systems that determine the amount of debt reduced by reference to the amount of reduction that creditors are willing to bear will suffer from similar failings.

From these few examples alone, the need to reconsider the utility of railroad receivership and the role they can play in modern approaches to financial distress seems plain.

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212 *See supra* note __.

213 *See supra* note __.

214 *See* Buchheit & Gulati, *Sovereign Bonds*, *supra* note 1.

Conclusion

In the foregoing pages I have presented data that throws into question the effectiveness of railroad receiverships. Since these receiverships form the basis of myriad present-day academic projects, my findings have obvious and serious implications for several ongoing debates.

It is quite true that the findings presented in this paper do not directly support the argument that the myriad projects bottomed on accounts of railroad receivership are defective. My task has been to highlight the dubious nature of the foundation, rather than to declare the enterprise beyond salvation. The merits of each individual project is necessarily a task for other articles and other authors, each undertaken in light of the findings presented herein.