

January 2002

Coase's Paradox and the Inefficiency of Permanent Strike Replacements

Seth D. Harris
New York Law School

Follow this and additional works at: https://openscholarship.wustl.edu/law_lawreview



Part of the [Labor and Employment Law Commons](#), and the [Law and Economics Commons](#)

Recommended Citation

Seth D. Harris, *Coase's Paradox and the Inefficiency of Permanent Strike Replacements*, 80 WASH. U. L. Q. 1185 (2002).

Available at: https://openscholarship.wustl.edu/law_lawreview/vol80/iss4/3

This Article is brought to you for free and open access by the Law School at Washington University Open Scholarship. It has been accepted for inclusion in Washington University Law Review by an authorized administrator of Washington University Open Scholarship. For more information, please contact digital@wumail.wustl.edu.

COASE'S PARADOX AND THE INEFFICIENCY OF PERMANENT STRIKE REPLACEMENTS

SETH D. HARRIS*

I. INTRODUCTION

A small but important body of scholarship has developed over the past two decades suggesting that the Coase Theorem¹ can help to justify and explain interpretations of the National Labor Relations Act (NLRA or the Act).² The affinity between the Coase Theorem and the NLRA appears

* © Seth D. Harris. Associate Professor of Law, New York Law School. B.S., Cornell University School of Industrial & Labor Relations, 1983; J.D., New York University School of Law, 1990. Alan Krueger's research inspired this Article and his generosity improved it on numerous occasions. I also benefitted immensely from comments on an earlier draft from Ronald Ehrenberg, Steve Ellmann, Julius Getman, Cynthia Gramm, Arthur Leonard, Carlin Meyer, David Schoenbrod, and Harry Wellington. I presented an earlier draft of this Article to New York Law School's Faculty Scholarship Colloquium. Research assistants Richard Gaeckle, Cynthia Mitchell, and Lisa Trocchio, as well as Kelli Brownnewell and Christi Wilson, and Joe Molinari and Larry Reeves of the Mendik Law Library, made extensive and important contributions. Cathy Jenkins lent essential assistance too substantial to detail. Nonetheless, I bear responsibility for all errors and omissions. Finally, this Article would not have been possible without the loving support of my patient partner, Karen Rosen.

1. The "theorem" was derived from, but not explicitly stated in, R.H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960) [hereinafter Coase, *Social Cost*]. Coase later ratified George Stigler's statement of the theorem ("under perfect competition private and social costs will be equal") in R.H. COASE, THE FIRM, THE MARKET, AND THE LAW 14, 174-75 (1988) [hereinafter COASE, THE FIRM]. Coase's *Social Cost* is among the most influential law review articles ever written. See, e.g., Daniel Q. Posin, *The Coase Theorem: Through a Glass Darkly*, 61 TENN. L. REV. 797, 806 n.40 (1994) (noting that Coase's article is the most-cited article in all of the social sciences). Coase is the intellectual father of the law and economics movement. See, e.g., Daniel A. Farber, *Parody Lost/Pragmatism Regained: The Ironic History of the Coase Theorem*, 83 VA. L. REV. 397, 397 (1997) ("[I]f there is anything that can be described as the canon of 'law and economics,' the Coase Theorem is at the heart of it."). See also *id.* at 399 (quoting Richard Posner as saying that *Social Cost* "as everybody knows—it's silly to dwell on it—is basic to the whole economic analysis of law").

2. See, e.g., Leonard Bierman & Rafael Gely, *Striker Replacements: A Law, Economics, and Negotiations Approach*, 68 S. CAL. L. REV. 363 (1995) [hereinafter Bierman & Gely, *Striker Replacements*]; George M. Cohen & Michael L. Wachter, *Replacing Striking Workers: The Law and Economics Approach*, in PROCEEDINGS OF NEW YORK UNIVERSITY 43RD ANNUAL NATIONAL CONFERENCE ON LABOR 109, 113 (Bruno Stein ed., 1990); Kenneth G. Dau-Schmidt, *A Bargaining Analysis of American Labor Law and the Search for Bargaining Equity and Industrial Peace*, 91 MICH. L. REV. 419 (1992); Keith N. Hylton, *Efficiency and Labor Law*, 87 NW. U. L. REV. 471 (1993); Keith N. Hylton & Maria O'Brien Hylton, *Rent Appropriation and the Labor Law Doctrine of Successorship*, 70 B.U. L. REV. 821 (1990); Stewart J. Schwab, *Collective Bargaining and the Coase Theorem*, 72 CORNELL L. REV. 245 (1987) [hereinafter Schwab, *Collective Bargaining*]; Michael L. Wachter & George M. Cohen, *The Law and Economics of Collective Bargaining: An Introduction and Application to the Problems of Subcontracting, Partial Closure, and Relocation*, 136 U. PA. L. REV. 1349 (1988).

obvious.³ Both the theorem and the Act acknowledge bargaining as a potentially efficient problem-solving strategy. Both the theorem and the Act set efficiency as a goal. This Article examines this apparent affinity and challenges the idea that the Coase Theorem and the NLRA are compatible.⁴

A. *Mackay Radio's Inefficiency*

This Article's challenge to the purported relationship between the Coase Theorem and the NLRA consists of two arguments. The first argument parries efforts by some of Coase's disciples to vindicate the Coase Theorem by attempting to show that it explains everything in the law.⁵ This Article reconsiders one Coasean analysis of an early, important, and notorious interpretation of the NLRA—*NLRB v. Mackay Radio Corp.*⁶—and challenges its conclusion that the rule of law which emerged from *Mackay Radio* is efficient. *Mackay Radio* held that employers may lawfully hire permanent replacement workers when their incumbent employees strike.⁷ This Article will show that the *Mackay Radio* doctrine does not satisfy the efficiency standards that scholars have derived from Ronald Coase's seminal 1960 article "The Problem of Social Cost."⁸ If demonstrating that the Coase Theorem explains a great deal supports its validity, then it stands to reason that one way to criticize the alleged affinity between the Coase Theorem and the NLRA is to show that the theorem cannot explain a very important rule in American labor law.

Decided only three years after Congress enacted the NLRA, *Mackay*

3. Admittedly, this is not a universally held view. Law and economics scholars were slow to examine labor law prior to the 1980s, primarily because they view the National Labor Relations Act as rent-seeking legislation that cannot satisfy any efficiency standard. See, e.g., Richard A. Posner, *Some Economics of Labor Law*, 51 U. CHI. L. REV. 988, 989 (1984) [hereinafter Posner, *Some Economics*]. See also RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 349-61 (5th ed. 1998) [hereinafter POSNER, *ECONOMIC ANALYSIS*] (setting forth the "cartelization" argument regarding unions and the NLRA); James B. Zimarowski et al., *An Institutionalist Perspective on Law and Economics (Chicago Style) in the Context of United States Labor Law*, 35 ARIZ. L. REV. 397, 417 (1993) (describing the influence of law and economics scholars on labor law as "unspectacular").

4. See, e.g., Schwab, *Collective Bargaining*, *supra* note 2, at 254 ("[A] system in which private parties write their own contracts in accordance with their private interests will also promote the free flow of resources to those who value them most highly. Putting resources to their most valued use is the essence of an efficient economy. It thus seems natural to equate the [NLRA's goal of industrial peace] with the goal of an efficient economy where capital and labor flow freely.").

5. See Pierre Schlag, *An Appreciative Comment on Coase's The Problem of Social Cost: A View From the Left*, 1986 WIS. L. REV. 919, 922, 943 (1986).

6. 304 U.S. 333 (1938).

7. *Id.*

8. Coase, *Social Cost*, *supra* note 1.

Radio carved a large, looming exception into Congress' expansive and express protection of workers' right to strike in the NLRA.⁹ The decision arose out of an economic strike to which the employer responded by bringing replacement workers from its offices in other parts of the country to San Francisco to fill the strikers' jobs. The employer promised eleven replacement workers that they could remain in San Francisco. Only five replacements ultimately chose to remain.¹⁰ When the strike ended, the employer reinstated some striking workers but refused reinstatement to five strikers who were prominent union leaders. The employer defended its action as necessary to fulfilling its promise to the five replacement workers eager to remain in the San Francisco office.¹¹ The Supreme Court upheld the conclusion of the National Labor Relations Board (NLRB or the Board) that the employer had committed unfair labor practices by discriminating against the union activists.¹²

9. Section 7 of the NLRA defines the set of rights conferred on workers by the statute, including the right to engage in concerted activities such as strikes. See 29 U.S.C. § 157 (2001) ("Employees shall have the right to . . . engage in other concerted activities for the purpose of collective bargaining or other mutual aid or protection . . ."). Section 8(a) makes it an unfair labor practice for an employer to "interfere with, restrain, or coerce employees in the exercise of the rights guaranteed in [Section 7]," or "by discrimination in regard to hire or tenure of employment or any term or condition of employment to encourage or discourage membership in any labor organization." 29 U.S.C. § 158(a)(1), (3) (2001). Section 13 establishes an interpretive rule designed to give further protection to the right to strike. See 29 U.S.C. § 163 (2001) ("Nothing in this [Act], except as specifically provided for herein, shall be construed so as either to interfere with or impede or diminish in any way the right to strike, or to affect the limitation of qualifications on that right.").

Michael LeRoy, a leading expert on strikes involving permanent replacement workers, has argued that the *Mackay Radio* merely confirmed pre-NLRA law. See Michael H. LeRoy, *Changing Paradigms in the Public Policy of Striker Replacements: Combination, Conspiracy, Concert and Cartelization*, 34 B.C. L. REV. 257, 268-71, 283 n.157 (1993) [hereinafter LeRoy, *Changing Paradigms*]. So, declaring that the Court created something new in this decision may overstate *Mackay Radio*'s role; that is, it may have merely codified existing law. This interpretation of *Mackay Radio* finds some support in the fact that the brief submitted to the Supreme Court by the NLRB's General Counsel assumed that *Mackay Radio* was entitled to hire permanent replacement workers. JAMES B. ATLESON, *VALUES AND ASSUMPTIONS IN AMERICAN LABOR LAW* 23-24 (1983).

On the other hand, the *Mackay Radio* Court had only recently and reluctantly acknowledged the authority of Congress to legislate in restraint of employers' and workers' purported freedom of contract, perhaps in response to President Roosevelt's ill-fated and ill-conceived court-packing plan. See Seth D. Harris, *Conceptions of Fairness and the Fair Labor Standards Act*, 18 HOFSTRA LAB. & EMP. L.J. 19, 69-99 (2000) (discussing this period in the Court's history). *Mackay Radio* may be better understood as a last death gasp of the pro-*Lochner* majority that decided the case. See Karl E. Klare, *Judicial Deradicalization of the Wagner Act and the Origins of Modern Legal Consciousness, 1937-1941*, 62 MINN. L. REV. 265, 301 (1978); Eileen Silverstein, *If You Can't Beat 'Em, Learn to Lose, But Never Join Them*, 30 CONN. L. REV. 1371, 1373-74 (1998) (citing PETER H. IRONS, *THE NEW DEAL LAWYERS* (1982)).

10. *Mackay Radio*, 304 U.S. at 337-39, 346.

11. *Id.*

12. *Id.* at 346-47.

In oft-criticized dicta,¹³ however, the *Mackay Radio* Court declared that replacing the striking workers and refusing to “discharge those hired to fill the places of strikers, upon the election of the latter to resume their employment, in order to create places for them,” did not violate the Act.¹⁴ More precisely, “[t]he assurance by [the employer] to those who accepted employment during the strike that if they so desired their places might be permanent was not an unfair labor practice”¹⁵

The rule of *Mackay Radio*, as elaborated upon by later Supreme Court decisions, turns on fine distinctions between “firing a striker” (an unfair labor practice¹⁶), “permanently replacing a striker” (not an unfair labor practice), and “temporarily replacing a striker” (also not an unfair labor practice).¹⁷ Replacement workers are “permanent” if, and only if, the employer has given assurances that the replacements will have job security after the strike concludes.¹⁸ If the employer fails to make the requisite assurances to the replacement workers, they are “temporary” and the striking workers are entitled to reinstatement in their former jobs when they make an unconditional offer to return to work.¹⁹

“Permanent” does not mean eternal. Permanently replaced strikers are entitled to reinstatement to their former jobs if the jobs become “vacant” or the employer expands its business, but only if the employer does not have legitimate and substantial business reasons supporting a refusal to offer full reinstatement.²⁰ This purported “right” to reinstatement often

13. See, e.g., PAUL C. WEILER, GOVERNING THE WORKPLACE 388 (1990) [hereinafter WEILER, GOVERNING] (“seemingly casual dicta”); Samuel Estreicher, *Strikers and Replacements*, 3 LAB. LAW. 897, 899 (1987) (“The statement about the right to hire permanent replacements is classic *obiter dictum* . . .”).

14. See *Mackay Radio*, 304 U.S. at 345-46.

15. *Id.* at 346.

16. See NLRB v. Int’l Van Lines, 409 U.S. 48, 52-53 (1972); NLRB v. Browning-Ferris Indus. Chem. Servs., Inc., 700 F.2d 385, 389 (7th Cir. 1983) (Posner, J.).

17. Only economic strikers may be permanently replaced. Strikers protesting an unfair labor practice may not be permanently replaced. See *infra* notes 172 and 173. Also, an employer may not permanently replace workers it has locked out. Paul C. Weiler, *A Principled Re-Shaping of Labor Law for the Twenty-First Century*, 3 U. PA. J. LAB. & EMP. L. 177, 202 (2001) [hereinafter Weiler, *A Principled Re-shaping of Labor Law*].

18. See *infra* text accompanying notes 176-77.

19. Laidlaw Corp., 171 N.L.R.B. 1366, 1368-69 (1968), *enf’d*, 414 F.2d 99 (7th Cir. 1969) *cert. denied* 397 U.S. 920 (1970). See also *Medite of N.M., Inc.*, 314 N.L.R.B. 1145, 1148 (1994), *enf’d* 72 F.3d 780 (10th Cir. 1995) (holding that economic strikers are entitled to reinstatement in vacant positions that are substantially equivalent to their former jobs); *but see* *Rose Printing Co.*, 304 N.L.R.B. 1076, 1078 (1991) (holding that economic strikers are not entitled to reinstatement in vacant positions for which they are qualified if the positions are not substantially equivalent to their former jobs).

20. NLRB v. Fleetwood Trailer Co., 389 U.S. 375 (1967) (holding that reinstatement entitlement triggered by poststrike expansion of business); Laidlaw Corp., 171 N.L.R.B. 1366 (1968), *enf’d* 414

proves illusory, however. A striker surrenders her status as an “employee,” and thereby her protections under the Act, if she secures a substantially equivalent job.²¹ Further, few strikers awaiting a “vacancy” can subsist supported only by their union’s strike fund. Permanently replaced strikers may be forced to effectively abandon their reinstatement entitlement by seeking an equivalent job in another city or changing careers.²²

Coase’s “Social Cost” was concerned with reorienting lawyers’ and economists’ perspective on the problem of “externalities”; that is, the costs of one party’s production that fall on other parties.²³ The hiring of permanent replacement workers pursuant to *Mackay Radio* creates a fairly typical externalities problem for the Coasean analyst.²⁴ Employers hire

F.2d 99 (7th Cir. 1969), cert. denied 397 U.S. 920 (1970) (holding that reinstatement entitlement triggered by replacement worker leaving her job). The job is “vacant” if the replacement worker has finally quit or been discharged by the employer. *Medite of N.M., Inc. v. NLRB*, 72 F.3d 780, 788 (10th Cir. 1995) (citing *NLRB v. Delta-Macon Brick & Tile Co., Inc.*, 943 F.2d 567 (5th Cir. 1991)). A temporary layoff does not constitute a “vacancy” and, therefore, does not trigger the striker’s entitlement to reinstatement. *Aqua-Chem, Inc.*, 288 N.L.R.B. 1108 (1988), *enfd* 910 F.2d 1487 (7th Cir. 1990); *Giddings & Lewis, Inc. v. NLRB*, 675 F.2d 926, 930-31 (7th Cir. 1982).

21. See 29 U.S.C. § 152(3) (2001) (“The term ‘employee’ shall include any employee . . . whose work has ceased as a consequence of, or in connection with, any current labor dispute . . . and who has not obtained any other regular and substantially equivalent employment”); *Laidlaw Corp.*, 171 N.L.R.B. at 1369.

22. Some distinguished commentators have correctly noted that the slimness of the odds that a “vacancy” in the striker’s former job will occur both soon enough for the reinstatement entitlement to be meaningful and at a time when the striker is not substantially and equivalently employed renders these definitions of “firing” and “permanently replacing” distinct but not different. See, e.g., George Schatzki, *Some Observations and Suggestions Concerning a Misnomer—‘Protected’ Concerted Activities*, 47 TEX. L. REV. 378, 383 (1969); Weiler, *A Principled Re-Shaping of Labor Law*, *supra* note 17, at 201. Labor law students express their views on the plausibility of the distinction between “firing” and “permanent replacement” with unbelieving guffaws when the subject is raised in class discussion. See, e.g., COMMITTEE ON LABOR AND HUMAN RESOURCES REP. NO. 103-10 at 4-5 (1993) (on S. 55, The Workplace Fairness Act) (quoting testimony by Professors Paul Weiler and William Gould that discussions of the fine distinctions drawn by the *Mackay Radio* doctrine cause students to burst out laughing every year); see also Silverstein, *supra* note 9, at 1373. (“[E]ven the most conservative students have wondered at a result that honors, on the one hand, the prohibition against discharging employees because they strike, but allows, on the other hand, replacement of strikers and retention of strikebreakers once the dispute has ended.”) An empirical study by Cynthia Gramm and John Schnell lends support to this skepticism, although within limits imposed by estimation based on a small sample. Gramm and Schnell found that hiring permanent replacement workers reduces the proportion of striking bargaining unit members who are reinstated after a strike, holding all other factors constant, to about the same level as workers whose employers have permanently shut down some or all of their operations. See Cynthia Gramm & John Schnell, *Empirical Effects of Using Permanent Strike Replacements*, 3 CONTEMP. ECON. POL’Y 122, 128, 130 (1994).

23. Coase, *Social Cost*, *supra* note 1, at 1-2. See Michael I. Swygert & Katherine Earle Yanes, *A Primer on the Coase Theorem: Making Law in a World of Zero Transaction Costs*, 11 DEPAUL BUS. L.J. 1, 2 (1998) (defining “externalities”). See also COASE, THE FIRM, *supra* note 1, at 24 (defining “externality” to be “the effect of one person’s decision on someone who is not a party to that decision”).

24. The one noteworthy difference with the classic examples of externalities offered by Coase is

permanent replacement workers as one method of continuing production during a strike.²⁵ Among other consequences of this decision, the strikers are idled and their wages and production largely lost, at least for some period of time. In the language of externalities, the strikers bear the cost of the employer's hiring of permanent replacement workers.

Coase set efficiency, or maximization of social product, as the goal when addressing externalities. He sought to persuade his readers that the approach to externalities he associated with the Pigouvian tradition would not maximize social product.²⁶ According to Coase, Pigou would have required the producing party to internalize the externalities' costs that the market would not otherwise require them to bear, perhaps by compensating injured parties through damages.²⁷ The self-interested decisions of the producer would thereby better serve the social good.²⁸ Coase rejected this calculus on the grounds that it failed to take into account all of the relevant costs and benefits and, therefore, did not offer an accurate assessment of social product.²⁹

Coase challenged the idea that one of two conflicting activities must be the "cause" of an externality and, therefore, required to internalize the externality's costs. Coase argued that externalities arise out of the parties' reciprocal demands for limited resources.³⁰ A railroad cannot incinerate a farmer's crops unless the farmer grows her crops on land where the railroad's trains will throw sparks.³¹ Similarly, strikes are the reciprocal products of unions' and employers' failure to reach an agreement at the

that the *Mackay Radio* doctrine implicates three parties rather than two: the employer, the striking workers (and their union), and the replacement workers. This difference is relevant only to the calculation of the social product.

25. See *infra* text accompanying note 46.

26. See Coase, *Social Cost*, *supra* note 1, at 28-42 (citing A. C. PIGOU, *THE ECONOMICS OF WELFARE* (4th ed. 1932)). So, if a business polluted causing injury to its neighbors, Pigou would have required the business to pay a tax or damages equal to the costs the business imposed on its neighbors. Keith N. Hylton & Steve E. Laymon, *The Internalization Paradox and Workers' Compensation*, 21 *HOFSTRA L. REV.* 109, 111-15 (1992); Bruce Yandle, *Coase, Pigou, and Environmental Rights, in WHO OWNS THE ENVIRONMENT?* 119-20 (Peter J. Hill & Roger E. Meiners eds., 1998). There is some controversy as to whether Coase's rendering of Pigou's theory fairly represented the older economist's views. See A.W. Brian Simpson, *Coase v. Pigou Re-examined*, 25 *J. LEGAL STUD.* 53, 63-79 (1996). See also COASE, *THE FIRM*, *supra* note 1, at 20 (acknowledging that his interpretation of Pigou has been controversial).

27. Coase, *Social Cost*, *supra* note 1, at 28-42.

28. *Id.*

29. *Id.*

30. See *id.* at 13.

31. This is one of several hypothetical examples Coase employed in *Social Cost*. Coase used this example because Pigou had used it in his analysis of externalities. For the same reason, I will reconsider the railroad-farmer example in Part IV of this Article.

bargaining table. In Stewart Schwab's pithy phrase: "it takes two to tort."³² Thus, any calculation of social product must take into account not only the producer's costs and benefits, but also costs and benefits to the other party to the externality.

Coase also argued that the social product calculation must include transaction costs. To illustrate his point, he posited a hypothetical world in which no transaction costs exist and suggested what came to be known as the Coase Theorem: if the parties to an externality can costlessly exchange their legal entitlements, they will redress any externality by negotiating an agreement that maximizes social product regardless of which party's activity is legally protected.³³ Coase's purpose was to demonstrate that, if the parties do not bargain to an efficient result, excessive transaction costs probably interfered with their bargaining.³⁴ A railway and a farmer will not negotiate a solution to \$50 worth of burnt crops if the bargaining process costs \$60. A union and an employer will not negotiate a collective

32. Stewart Schwab, *Coase Defends Coase: Why Lawyers Listen and Economists Do Not*, 87 MICH. L. REV. 1171, 1173 (1989) [hereinafter Schwab, *Coase Defends*]. I agree with suggestions by Pierre Schlag and Bruce Ackerman that Coase's insight regarding the reciprocal nature of externalities can be a powerful deconstructive tool for progressive lawyers and scholars. See BRUCE A. ACKERMAN, RECONSTRUCTING AMERICAN LAW 54-55 (1984); Schlag, *supra* note 5, at 950. For example, Martha Minow used a related argument to deconstruct the notion of "difference" that is central to employment discrimination law and other fields. See, e.g., MARTHA MINOW, MAKING ALL THE DIFFERENCE (1990) [hereinafter MINOW, MAKING]; Martha Minow, *The Supreme Court 1986 Term—Foreword: Justice Engendered*, 101 HARV. L. REV. 10 (1987) [hereinafter Minow, *The Supreme Court*].

33. COASE, THE FIRM, *supra* note 1, at 13-14. Scholars debate two versions of the Coase Theorem: the weaker or "efficiency" version, which asserts that the parties will reach an efficient result through costless bargaining regardless of the assignment of legal entitlements; and the stronger or "invariant" version, which asserts that the parties will always reach the same efficient result under the same conditions. See, e.g., Posin, *supra* note 1, at 804-05; Schwab, *Coase Defends*, *supra* note 32, at 1174. Since the invariance proposition does not play a role in this Article's analysis, I have stated the weaker "efficiency" version. It is sufficient for these purposes. For the same reasons, any debate about the adequacy of either version is beyond the scope of this Article.

There are several possible renderings of the Coase Theorem. See, e.g., Schlag, *supra* note 5, at 922; Schwab, *Coase Defends*, *supra* note 32, at 1174; Swygert & Yanes, *supra* note 23, at 2, 5 n.9. For example, there is no consensus as to whether Coase required perfect information. See Schwab, *Collective Bargaining*, *supra* note 2, at 278-80 and n.124, n.125 (discussing the role of information in bargaining and citing articles that disagree on how it should be addressed). This Article assumes that perfect information is not required, but that information availability is relevant to strategic bargaining behavior.

34. Coase's views probably could have been stated more definitively if the 1960 version of *Social Cost* were the only point of reference. However, Coase's later comments on his article, after substantial criticism on this point, suggest that this weaker version is more appropriate. See COASE, THE FIRM, *supra* note 1, at 161 ("It is certainly true that we cannot rule out [a non-Pareto optimal] outcome if the parties are unable to agree on the terms of exchange, and it is therefore impossible to argue that two individuals negotiating an exchange *must* end up on the contract curve, even in a world of zero transaction costs in which the parties have, in effect, an eternity in which to bargain. However, there is good reason to suppose that the proportion of cases in which no agreement is reached will be small.").

bargaining agreement if one party engages in costly strategic bargaining for its own exclusive benefit.³⁵ In sum, it is not possible to assess whether a response to an externality is efficient without knowing the costs associated with arriving at and implementing that response.³⁶

Coase's insights about transaction costs and the efficacy of bargaining were intended to pose an important question: since we do not live in a world free of transaction costs,³⁷ how should efficiency-minded lawmakers

35. Coase did not expressly define transaction costs to include "opportunistic" or "strategic" behavior; rather, he offered the following definition:

In order to carry out a market transaction it is necessary to discover who it is one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading up to a bargain, to draw up the contract, to undertake the inspection needed to make sure that the terms of the contract are being observed, and so on.

Coase, *Social Cost*, *supra* note 1, at 15. See also COASE, *THE FIRM*, *supra* note 1, at 6 (quoting Carl J. Dahlman, *The Problem of Externality*, 22 J.L. & ECON. 148 (1979)) (describing "transaction costs" as "search and information costs, bargaining and decision costs, policing and enforcement costs."); Robert C. Ellickson, *The Case for Coase and Against 'Coaseanism'*, 99 YALE L.J. 611, 615-16 (1989) (defining "transaction costs" as including "get-together costs," "decision and execution costs," and "information costs"); Daniel A. Farber, *Parody Lost/Pragmatism Regained: The Ironic History of the Coase Theorem*, 83 VA. L. REV. 397, 405 (1997) ("measurable costs of entering into transactions"). See generally OLIVER E. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM* 20-22 (1985) [hereinafter WILLIAMSON, *ECONOMIC INSTITUTIONS*] for a fuller discussion of transaction costs. Nonetheless, some of Coase's interpreters, including George Cohen and Michael Wachter, whose work is the central focus of this Article's first argument, have included opportunistic behavior among those transaction costs that erect barriers to efficient bargains. Compare, e.g., Wachter & Cohen, *supra* note 2, at 1358-61 (including strategic behavior in the definition of transaction costs); Oliver E. Williamson, *Transaction-Cost Economics: The Governance of Contractual Relations*, 22 J.L. & ECON. 233, 234 (1979) [hereinafter Williamson, *Contractual Relations*] ("[O]pportunism is a central concept in the study of transaction costs . . ."); POSNER, *ECONOMIC ANALYSIS*, *supra* note 3, at 68-69 (same); and Dau-Schmidt, *supra* note 2, at 473 (same); with Schwab, *Coase Defends*, *supra* note 32, at 1176 n.13 (arguing that strategic bargaining and transaction costs should be treated separately because their remedies are different). See generally Robert Cooter, *The Cost of Coase*, 11 J. LEGAL STUD. 1, 14-24 (1982) (arguing that strategic bargaining is a more important barrier to efficient bargains than transaction costs to the extent that efficient bargains may become impossible even in a world of zero transaction costs). See also generally Dau-Schmidt, *supra* note 2, at 442-50 (discussing and illustrating the role that strategic bargaining behavior plays in collective bargaining).

Other important "transaction-cost" economists have noted the danger associated with ambiguity in the concept of transaction costs given the centrality of the concept to Coase's enterprise. See, e.g., Oliver E. Williamson, *Book Review: 'The Firm, the Market and the Law'*, 77 CAL. L. REV. 223, 229 (1989) ("A chronic problem with Coase's work has been that the concept of transaction costs is vague. Being very elastic, transaction costs can be—and sometimes are—used to rationalize any outcome whatsoever.") (footnote omitted).

36. See COASE, *THE FIRM*, *supra* note 1, at 12 ("[T]he increase in the value of the outcome which a new constellation of rights allows has to be matched against the costs of carrying out the transactions needed to achieve that new constellation, and such a rearrangement of rights will only be undertaken if the cost of the transactions needed to achieve it is less than the increase in value which such a rearrangement makes possible."). See also Ellickson, *supra* note 35, at 613 ("[P]eople tend to arrange their affairs so as to minimize the sum of their . . . transaction costs . . ."). According to Coase, the same analysis must be undertaken when government intervention, rather than bargaining between the parties, is the proposed solution to an externality. COASE, *THE FIRM*, *supra* note 1, at 25.

37. See Coase, *Social Cost*, *supra* note 1, at 15; COASE, *THE FIRM*, *supra* note 1, at 26 (citing J.

respond to externalities when transaction costs or strategic bargaining prevent an efficient bargain between the parties associated with an externality?³⁸ While his article's meta-argument is that government intervention is not required every time an externality develops, Coase acknowledged that governmental intervention may lead to increased social product in certain circumstances.³⁹ But where the boundary between efficient and inefficient government intervention lies and where the parties' bargaining and government intervention should begin and end depends upon the circumstances.⁴⁰

Coase's interpreters have suggested two ways in which legal rules can improve efficiency. First, legal rules may be designed to assign initial legal entitlements so that transaction costs are minimized (the "transaction-cost reduction" approach). This approach assists bargaining parties in reaching the efficient agreement of their choice.⁴¹ For example, if a legal rule could reduce the railway's and the farmer's transaction costs associated with redressing \$50 worth of burnt crops from \$60 to \$10, then the parties should be able to bargain to an efficient result if their bargain

Wallis & D. North, *Measuring of the Transaction Sector in the American Economy, 1870-1970, in LONG-TERM FACTORS IN AMERICAN ECONOMIC GROWTH* 95-148 (S. Engerman & R. Gallman eds., Nat'l Bureau of Econ. Research, 1986).

38.

In these conditions the initial delimitation of legal rights does have an effect on the efficiency with which the economic system operates. One arrangement of rights may bring about a greater value of production than any other. But unless this is the arrangement of rights established by the legal system, the costs of reaching the same result by altering and combining rights through the market may be so great that this optimal arrangement of rights, and the greater value of production which it would bring, may never be achieved.

Coase, *Social Cost*, *supra* note 1, at 16.

39. Coase, *Social Cost*, *supra* note 1, at 18 ("[T]here is no reason why, on occasion, such governmental administrative regulation should not lead to an improvement in economic efficiency. . . . It is my belief that economists, and policy-makers generally, have tended to over-estimate the advantages which come from governmental regulation. But this belief, even if justified, does not do more than suggest that government regulation should be curtailed."). One commentator suggested that Coase's *Social Cost* betrayed a "deep skepticism as to the desirability of government intervention." Simpson, *supra* note 26, at 58. Coase responded sharply and directly that Simpson was wrong. R. H. Coase, *Law and Economics and A.W. Brian Simpson*, 25 J. LEGAL STUD. 103, 106-08 (1996) [hereinafter Coase, *Law and Economics*].

40. See Coase, *Social Cost*, *supra* note 1, at 18; COASE, THE FIRM, *supra* note 1, at 25. Coase concluded that some externalities should not be remedied because total social product will decline as a result of the high transaction costs associated with the remedy. See *id.* at 26-27.

41. See, e.g., Schlag, *supra* note 5, at 928, 930, and nn.34-36, 43, 54 (describing these two options and how they have been developed by leading law and economics proponents like Richard Posner and Frank Easterbrook). I acknowledge that treating Coase's interpreters as though they were a cohesive and unanimous group is not fully accurate. See, e.g., Oliver E. Williamson, *Transaction Cost Economics Meets Posnerian Law and Economics*, 149 J. INST. & THEORETICAL ECON. 99 (1993) [hereinafter Williamson, *Posnerian Economics*] (harshly criticizing Posner in response to Posner's criticism of Williamson).

increases social product by \$30, for example. Second, if transaction costs are high, Coase's interpreters hold that legal rules may impose a solution on the parties if that solution would approximate the efficient agreement the parties would reach in costless bargaining (the "dictated solution" approach).⁴² So, if no legal rule can be found to reduce transaction costs between the railway and the farmer below \$60, the Coasean lawmaker would dictate an efficient solution that achieves the result that the parties would have reached through bargaining absent transaction costs.

The Coasean analyst assessing the efficiency of *Mackay Radio*, therefore, must judge whether it either reduces transaction costs or dictates a solution that efficiently redresses the associated externalities. The Coasean lawmaker's choice between the transaction-cost reduction approach and the dictated solution approach matters a great deal to our normative vision of government's role in addressing externalities. As this Article will show, it also matters a great deal to the suggestion that the Coase Theorem and the NLRA are compatible. In comparison to the transaction-cost reduction approach, the dictated solution approach represents the opposite pole among normative visions of the appropriate role for government decision makers in dispute resolution. The transaction-cost reduction approach trusts the parties and the market while positioning the government as a market perfecter. The dictated solution approach supplants the market and the parties in favor of a government-selected solution.

Mackay Radio is among the most derided judicial interpretations of the National Labor Relations Act.⁴³ While the legal argument over *Mackay*

42. See, e.g., Williamson, *Posnerian Economics*, *supra* note 44. See also Posin, *supra* note 1, at 806; Farber, *supra* note 1, at 419. Stewart Schwab properly warns against conflating "the positive Coase Theorem of zero transaction costs with the normative 'mimic the market' policy prescription for high transaction costs." Schwab, *Coase Defends*, *supra* note 32, at 1195. Accord Guido Calabresi, *Transaction Costs, Resource Allocation and Liability Rules—A Comment*, 11 J.L. & ECON. 67, 69 (1968). See generally Pierre Schlag, *The Problem of Transaction Costs*, 62 S. CAL. L. REV. 1661, 1662-63 (attacking the "market mimicking" approach to efficiency as inconsistent with a proper focus on transaction costs). A third approach is also possible. If transaction costs associated with the other two approaches are prohibitive, it might be best to leave the externality unaddressed. See, e.g., Farber, *supra* note 1, at 419.

43. Paul Weiler called *Mackay Radio* "the worst contribution that the U.S. Supreme Court has made to the current shape of labor law in this country." Weiler, *supra* note 17, at 201. See also, e.g., JAMES B. ATLESON, *VALUES AND ASSUMPTIONS IN AMERICAN LABOR LAW* 19-34 (1983); JULIUS GETMAN, *THE BETRAYAL OF LOCAL 14: PAPERWORKERS, POLITICS & PERMANENT REPLACEMENTS* (1998) [hereinafter GETMAN, *BETRAYAL OF LOCAL 14*]; WILLIAM B. GOULD IV, *AGENDA FOR REFORM* 185-86 (1993); Bierman & Gely, *Striker Replacements*, *supra* note 2, at 363-66; Charles B. Craver, *The National Labor Relations Act Must Be Revised to Preserve Industrial Democracy*, 34 ARIZ. L. REV. 397, 406-08, 420-23 (1992); Samuel Estreicher, *Strikers and Replacements*, 3 LAB. LAW. 897, 899-900 (1987); Matthew W. Finkin, *Labor Policy and the Elevation of the Economic*

Radio is over,⁴⁴ the policy argument is not. The *Mackay Radio* doctrine has long been a rule in search of a rationale.⁴⁵ Critics have argued

Strike, 1990 U. ILL. L. REV. 547, 551-52 [hereinafter Finkin, *Labor Policy*]; Julius G. Getman & F. Ray Marshall, *Industrial Relations in Transition: The Paper Industry Example*, 102 YALE L.J. 1803, 1877-82 (1993) [hereinafter Getman & Marshall, *Industrial Relations*]; Julius G. Getman & F. Ray Marshall, *The Continuing Assault on the Right to Strike*, 79 TEX. L. REV. 703, 716-17 (2001) [hereinafter Getman & Marshall, *Right to Strike*]; Julius G. Getman, *The Protection of Economic Pressure by Section 7 of the National Labor Relations Act*, 115 U. PA. L. REV. 1195, 1203-05 (1967) [hereinafter Getman, *The Protection of Economic Pressure*]; Karl E. Klare, *Judicial Deradicalization of the Wagner Act and the Origins of Modern Legal Consciousness, 1937-1941*, 62 MINN. L. REV. 265, 301-02 (1978); Michael H. LeRoy, *Changing Paradigms in the Public Policy of Striker Replacements: Combination, Conspiracy, Concert and Cartelization*, 34 B.C. L. REV. 257, 261-68 (1993); Michael H. LeRoy, *Employer Treatment of Permanently Replaced Strikers, 1935-1991: Public Policy Implications*, 13 YALE L. & POL'Y REV. 1, 5-6 (1995) [hereinafter LeRoy, *Employer Treatment*]; Michael H. LeRoy, *The Mackay Radio Doctrine of Permanent Striker Replacements and the Minnesota Picket Line Peace Act: Questions of Preemption*, 77 MINN. L. REV. 843, 845-46 (1993) [hereinafter LeRoy, *Picket Line Peace*]; Daniel Pollitt, *Mackay Radio: Turn It Off, Tune It Out*, 25 U.S.F. L. REV. 295, 298-305 (1991); George Schatzki, *Some Observations and Suggestions Concerning a Misnomer—'Protected' Concerted Activities*, 47 TEX. L. REV. 378, 382-92 (1969).

44. Congress has effectively ratified the decision in two amendments to the NLRA. See 29 U.S.C. § 159(c) (2001) (addressing the voting rights of economic strikers not entitled to reinstatement); 29 U.S.C. § 152(3) (2001) (stating that permanently replaced strikers remain "employees" protected by the NLRB unless they accept substantially equivalent employment). See also *Union Mfg. Co. v. NLRB*, 221 F.2d 532, 535-36 (D.C. Cir. 1955) (noting that Congress was aware of the *Mackay Radio* doctrine when it added these sections to the law); *TNS, Inc.*, 309 N.L.R.B. 1348, 1449 (1992) (same). Also, more recent Supreme Court decisions have endorsed and modified *Mackay Radio*. See *NLRB v. Curtin Matheson Scientific, Inc.*, 494 U.S. 775, 790-92 (1990); *Trans World Airlines, Inc. v. Indep. Fed'n of Flight Attendants*, 489 U.S. 426, 433-39 (1989); *Belknap, Inc. v. Hale*, 463 U.S. 491 (1983); *NLRB v. Erie Resistor Corp.*, 373 U.S. 221, 232 (1963).

45. Before the efficiency analysis critiqued in this Article debuted, Samuel Estreicher asserted that *stare decisis* and apparent congressional ratification of the *Mackay Radio* doctrine may have been the only justifications for its continuing vitality. Estreicher, *supra* note 13, at 900. Of course, *stare decisis* is applied independent of the policy merits of the legal rule it supports and, as a result, occasionally defends rules of law that later courts would certainly reject. See, e.g., *Flood v. Kuhn*, 407 U.S. 258, 278-79, 284 (1972); *Toolson v. N.Y. Yankees, Inc.*, 346 U.S. 356, 357 (1953) (upholding baseball's antitrust exemption on *stare decisis* grounds established in *Federal Baseball Club of Baltimore, Inc. v. Nat'l League of Professional Baseball Clubs*, 259 U.S. 200 (1922), despite radically changed factual circumstances that made the original decision moot). Similarly, the preemption doctrine that has protected *Mackay Radio* from presidential and state legislative attacks guards Congress' primacy in deciding which economic weapons should be preserved for use by the parties to a collective bargaining relationship. It does not otherwise endorse the wisdom of those choices. See, e.g., *Chamber of Commerce v. Reich*, 74 F.3d 1322, 1324, 1339 (D.C. Cir. 1996) (striking down Executive Order No. 12,954 prohibiting federal agencies from doing business with employers who used permanent strike replacements on preemption grounds); *Employers Ass'n Inc. v. United Steelworkers of Am.*, 32 F.3d 1297, 1310 (8th Cir. 1994) (striking down a Minnesota law on permanent strike replacements as preempted by the NLRA). See also *Charlesgate Nursing Ctr. v. Rhode Island*, 723 F. Supp. 859, 864-67 (D.R.I. 1989) (striking down a similar statute in Rhode Island); *Chamber of Commerce v. New Jersey*, 445 A.2d 353, 358-65 (N.J. 1982) (striking down a similar statute in New Jersey); *Int'l Union, United Auto., Aerospace & Agric. Implement Workers v. C.M. Smillie Co.*, 362 N.W.2d 780, 782-83 (Mich. Ct. App. 1984) (striking down a similar statute in Michigan); *City of Columbus v. Guay*, 577 N.E.2d 122, 125 (Ohio Ct. App. 1989) (striking down a municipal ordinance relating to permanent strike replacements in Columbus, Ohio); *Maine Governor Vetoes Bill to Curb Use of Permanent Striker Replacements*, 99 DAILY LAB. REP. (BNA) May 22,

persuasively for many years that *Mackay Radio* lacked any legitimate foundation when decided⁴⁶ and directly contradicted important provisions of the NLRA.⁴⁷ In 1990, George Cohen and Michael Wachter jumped into

2001), at A-4 (quoting Maine Governor Angus King as explaining that he vetoed the legislation, in part, because of an earlier state Attorney General's opinion that an effective ban on permanent replacements would violate the NLRA).

46. Commentators have interpreted the decision as relying upon some unidentified, preexisting "right" of employers to continue operating their businesses during strikes that is for some unspoken reason superior to the statutory right of workers to strike. See ATLESON, *supra* note 9, at 24 ("No explanation was given, no policy justification enunciated, no legislative history asserted to support the conclusion reached."). See *id.* at 33 ("[T]he language of the Court indicates that the right preexisted and was unaffected by the NLRA."). See generally Klare, *supra* note 9, at 302 (discussing Supreme Court decisions on the NLRA during this period and concluding that "the Court merely assumed its conclusion, presenting it as compelled by the words of the Act, or by Reason, or simply as a priori true, judgment involving debatable choices from among competing economic and political values"). Yet, hiring permanent replacement workers is not necessary to continuing an employer's operations during many, if not most, strikes. Firms may legally operate during strikes without hiring permanent replacement workers by using managerial or supervisory personnel, temporary replacements, or incumbent workers outside the bargaining unit or even the struck facility to perform the striking workers' jobs, or by contracting out the work or stockpiling inventory before the strike begins. ATLESON, *supra* note 9, at 30; Estreicher, *supra* note 13, at 899-900. The employer's willingness to rely on contracting out might be limited by the duty to bargain over that issue imposed by Section 8(a)(5) of the Act. See *Fibreboard Paper Prods. Corp. v. NLRB*, 379 U.S. 203, 214-15 (1964). *But see* *First Nat'l Maint. Corp. v. NLRB*, 452 U.S. 666, 686-88 (1981) (holding that an employer's decision to close part of its business is not subject to the duty to bargain in good faith). Some employers and courts have suggested that struck employers *must* offer prospective employees a poststrike job-security guarantee if they are to be able to recruit enough workers to operate their facility. See, e.g., *Int'l Ass'n of Machinists v. J.L. Clark Co.*, 471 F.2d 694, 696 (7th Cir. 1972) (court adopts argument); *NLRB v. Transp. Co. of Tx.*, 438 F.2d 258, 266 (5th Cir. 1971) (employer's argument); *Midwest Motor Express, Inc. v. Int'l Bhd. of Teamsters, Local 120*, 494 N.W.2d 895, 899 (Minn. App. 1993) (employer's argument); *Butterworth-Manning-Ashmore Mortuary*, 270 N.L.R.B. 1014, 1014 (1984) (adopting ALJ's finding). Even Justice Brennan, dissenting in *Belknap*, accepted this argument. See *Belknap, Inc. v. Hale*, 463 U.S. 491, 537 (1983) (Brennan, J., dissenting). Empirical work by Cynthia Gramm and John Schnell undermines the premise of this argument. Employers hiring permanent replacement workers operate at a lesser production capacity than employers who use only temporary replacement workers. See Gramm & Schnell, *supra* note 22, at 124. Regardless, the *Mackay Radio* doctrine does not require employers to make a showing of economic necessity before offers of "permanent" employment may be made to prospective replacement workers. As James Atleson put it, "the language in *Mackay [Radio]* and the current understanding of its scope is that permanent replacements can be hired even if the failure to do so would not lead to business destruction or even serious economic loss." ATLESON, *supra* note 9, at 25. See also Craver, *supra* note 43, at 423; Getman, *The Protection of Economic Pressure*, *supra* note 43, at 1203; Schatzki, *supra* note 22, at 385, 390-91; Weiler, *supra* note 17, at 390-91. Atleson also concluded, with good reason, that it is not possible to reconcile an "economic necessity" justification for *Mackay Radio* with *NLRB v. Erie Resistor Corp.*, 373 U.S. 221 (1963), which prohibited an employer from offering superseniority as an inducement to prospective replacement workers even though the employer believed that the workers would not accept its employment offers absent some premium. See ATLESON, *supra* note 9, at 26.

47. Most important, it contravenes a clear command in Section 13 that "[n]othing in this Act shall be construed so as either to interfere with or impede or diminish in any way the right to strike." Act of July 5, 1935, ch. 372, sec. 13, 49 Stat. 457 (original version of Section 13 in effect at the time *Mackay Radio* was decided). As Weiler wrote: "The bleak prospect of permanently losing his job is obviously likely to chill an employee's willingness to exercise his statutory right to engage in

the breach to offer an efficiency argument rooted in the Coase Theorem that supported *Mackay Radio*.⁴⁸ Specifically, Cohen and Wachter presented *Mackay Radio* as a classic illustration of the transaction-cost reduction approach to externalities. They argued that the *Mackay Radio* doctrine prevents opportunistic behavior that can scuttle efficient bargains between unions and employers.⁴⁹

The Cohen and Wachter analysis relied upon internal labor market theory.⁵⁰ Part II gives a fuller explanation of internal labor market theory. In brief, employers and their incumbent employees together invest in the employees' acquisition of firm-specific skills and knowledge that make the employees both more productive with their current employer than they

'concerted activities.'" Weiler, *supra* note 17, at 390; *accord* LeRoy, *Employer Treatment*, *supra* note 43, at 5-6. The Taft-Hartley Act's amendments to Section 13 do not alter this conclusion. *See* 29 U.S.C. § 163 (2001). *Mackay Radio* has also been properly assailed as irreconcilable with the jurisprudence interpreting NLRA Sections 8(a)(1) and 8(a)(3). Section 8(a)(1) defines "unfair labor practice" to include employer interference with, or restraint or coercion of, employees in the exercise of their Section 7 rights. 29 U.S.C. § 158(a)(1) (2001). Section 8(a)(3) defines "unfair labor practice" to include "discrimination in regard to hire or tenure of employment or any term or condition of employment to encourage or discourage membership in any labor organization." 29 U.S.C. § 158(a)(3) (2001). As Samuel Estreicher reasoned about the hiring of permanent replacement workers, "there is a basis for inferring improper motive from the employer's use of a bargaining tactic entailing such a negative impact on [S]ection 7 rights, when other approaches with less adverse impact are readily available." Estreicher, *supra* note 13, at 900. The proof of illicit motivation is not necessary to show a violation of Section 8(a)(3) when the employer's action is found to be "inherently destructive" of important worker protections in the Act, such as the right to strike. *See Erie Resistor*, 228 U.S. at 227. Other distinguished commentators have been less subtle: "As a practical matter, in almost all cases the *Mackay [Radio]* doctrine . . . is an invitation to the employer, if he is able, to rid himself of union adherents and the union." Schatzki, *supra* note 22, at 383. *Accord* Getman, *The Protection of Economic Pressure*, *supra* note 43, at 1204-05. LeRoy found that more than 20% of strikes involving replacement workers involved an effort by the employer to sever its collective bargaining relationship either by seeking a decertification of the union or by unilaterally withdrawing recognition from the union. Michael H. LeRoy, *Severance of Bargaining Relationships During Permanent Replacement Strikes and Union Decertifications: An Empirical Analysis and Proposal to Amend Section 9(c)(3) of the NLRA*, 29 U.C. DAVIS L. REV. 1019, 1021, 1062-63 (1996) [hereinafter Le Roy, *Severance of Bargaining Relationships*].

48. Unlike others in the law and economics movement, Cohen and Wachter did not offer their efficiency analysis as a normative basis for judging the *Mackay Radio* doctrine independent of a genuine inquiry into the intent of Congress. *See* Cohen & Wachter, *supra* note 2, at 124 ("Even if the efficiency model has greater explanatory powers than the alternative models, its can have no normative force unless it is at least consistent with the statutory intent of Congress.").

49. *See infra* text accompanying note 199.

50. The Cohen and Wachter analysis of permanent strike replacements built on their earlier work regarding labor law's role in encouraging efficient relations between employees and employers made possible by internal labor markets. *See* Wachter & Cohen, *supra* note 2; Cohen & Wachter, *supra* note 2, at 113 ("The distinction recognized in the economics literature between the external and the internal labor markets is critical to our analysis."). The larger project for Cohen and Wachter is to establish that "the efficiency model offers the most solid theoretical foundation on which to rest past decisions and to build future interpretations of the NLRA," without claiming "to provide a single, comprehensive explanation of all aspects of the law . . ." Cohen & Wachter, *supra* note 2, at 111.

would be with another employer and more productive than other workers the employer might hire. As a result, long-term maintenance of this productive relationship between incumbent employees and their employers through implicit contracts (this Article dubs them “sunk investments/delayed dividends” contracts) is Pareto optimal; that is, employees earn higher wages and employers secure higher profits. Any opportunistic behavior that interferes with these long-term relationships, particularly if one party attempts to steal the other party’s dividends, is inefficient.

Part III explains the argument advanced by Cohen and Wachter that the *Mackay Radio* doctrine prevents opportunistic behavior which interferes with efficient sunk investments/delayed dividends contracts between unions and employers. Simply, Cohen and Wachter purported to show that *Mackay Radio* prevented unions from enforcing monopolistic wage demands against employers that would redirect employers’ dividends to employees. They also argued that *Mackay Radio* prevented employers from undercutting employees’ wages and thereby appropriating employees’ dividends.

After repeating the Cohen and Wachter argument, Part III challenges its conclusion that *Mackay Radio* is efficient.⁵¹ This Article’s analysis of the *Mackay Radio* doctrine employs internal labor market theory as Cohen and Wachter, and other prominent proponents of the theory, have articulated it.⁵² But this Article does not accept the implication by Cohen and Wachter that the *Mackay Radio* doctrine illustrates the transaction-cost reduction approach.⁵³ Rather, Part III argues that the *Mackay Radio*

51. Other commentators have also criticized the Cohen and Wachter efficiency argument. *See, e.g.,* Bierman & Gely, *supra* note 2; Matthew W. Finkin, *Reflections on Labor Law Scholarship and Its Discontents: The Reveries of Monsieur Verog*, 46 U. MIAMI L. REV. 1101, 1119-22 (1992) [hereinafter Finkin, *Reflections*]. *But see* William R. Corbett, *Taking the Employer’s Gun and Bargaining About Returning It: A Reply to ‘A Law, Economics, and Negotiations Approach’ to Striker Replacement Law*, 56 OHIO ST. L. J. 1511 (1995) (criticizing Bierman and Gely). *See also* Leonard Bierman & Rafael Gely, ‘Let’s Call it A Draw’: *Striker Replacements and the Mackay Doctrine*, 58 OHIO ST. L.J. 1003 (1997) [hereinafter Bierman & Gely, *Let’s Call It a Draw*] (responding to Corbett).

52. In other words, this Article does not challenge the myriad assumptions that underlie internal labor market theory, including those relating to unions’ and employers’ propensity for rational behavior and the availability and scope of knowledge in collective bargaining. It merely accepts them as Cohen and Wachter apparently did. Only those assumptions specifically identified are subject to challenge herein.

53. Cohen & Wachter, *supra* note 2, at 118 (“The line drawn by *Mackay Radio* is consistent with the efficiency model . . . because the rule helps deter opportunistic behavior by both sides in the [internal labor market].”). Since the *Mackay Radio* doctrine constrains workers’ right to strike, Cohen and Wachter should have considered whether the *Mackay Radio* doctrine is a more effective means of reducing transaction costs/strategic behavior in collective bargaining than strikes. Strikes are more than “a means of resolving economic disputes where the parties are unable to come to agreement.”

doctrine actually exemplifies the dictated-solution approach because it does not merely authorize threats to hire permanent replacement workers calibrated to fend off unions' monopolistic wage demands. *Mackay Radio* authorizes the hiring of permanent replacement workers. The threats and the practice are inseparable.

Using internal labor market theory and empirical evidence,⁵⁴ Part III demonstrates that the practice of hiring permanent replacements for strikers is inefficient; therefore, the *Mackay Radio* doctrine dictates an inefficient solution inconsistent with the Coase Theorem. In particular, the *Mackay Radio* doctrine cannot satisfy the definition of Pareto efficiency that Cohen and Wachter adopted: a legal rule must "jointly maximize the firm's profits and the workers' net compensation."⁵⁵ Part III argues that either the striking employees, the replacement workers, or the employer suffer losses when an employer hires permanent replacement workers. Further, Part III explains that the *Mackay Radio* doctrine actually protects

Estreicher, *supra* note 13, at 898. See also HARRY C. KATZ & THOMAS A. KOCHAN, AN INTRODUCTION TO COLLECTIVE BARGAINING AND INDUSTRIAL RELATIONS 74 (2d ed. 2000) ("The simplest measure of bargaining power is the amount of strike leverage each party holds."). Strikes are an essential tool in the reduction of costs associated with collective bargaining. In the words of Harry Wellington, the threat that workers will strike "is the major force moving an employer toward settlement. And it is the occasional strike that legitimates the strike threat." HARRY WELLINGTON, LABOR AND THE LEGAL PROCESS 272 (1968), *quoted in* Finkin, *supra* note 43. See also KATZ & KOCHAN, *supra* at 190-91, 193-95; Getman & Marshall, *Right to Strike*, *supra* note 43, at 703-04 ("To motivate the parties to reach agreement, the NLRA relies on the strike weapon. The strike plays the same role in labor negotiations that warfare plays in diplomatic negotiations."). See generally *NLRB v. Int'l Union of Marine, Island, and Coastal Fishermen*, 361 U.S. 477, 489 (1960) ("The presence of economic weapons in reserve, and their actual exercise on occasion by the parties, is part and parcel of the system that the Wagner and Taft-Hartley Acts have recognized."). The approach of a strike deadline forces the parties to abandon delaying tactics and seriously address the contractual issues stalling final agreement. See DEREK BOK & JOHN DUNLOP, LABOR & THE AMERICAN COMMUNITY 229 (1970). See also *NLRB v. Erie Resistor Corp.*, 373 U.S. 221, 233-34 (1963) ("[R]epeated solicitude for the right to strike is predicated upon the conclusion that a strike . . . is an economic weapon which in great measure implements and supports the principles of the collective bargaining system."). *Accord* Pollitt, *supra* note 43, at 296 ("[S]trikes and the threat of a strike are the 'go power' of successful collective bargaining."). Thus, any rule that weakens workers' right to strike bears a heavy burden of showing that it offers a superior means of facilitating efficient agreements between unions and employers. The *Mackay Radio* doctrine cannot bear that burden.

54. The empirical data cited in this Article were developed in the decade after Cohen and Wachter first presented their efficiency analysis of the *Mackay Radio* doctrine; so, those scholars did not have the benefit of this recent research before performing their analysis.

55. Wachter & Cohen, *supra* note 2, at 1355. Any fair treatment of the Cohen and Wachter analysis must acknowledge that these scholars set a very high standard with their version of Pareto optimality. The best reading of Coase is that he also defined efficiency as Pareto optimality. See, e.g., Schwab, *Collective Bargaining*, *supra* note 2, at 259 n.55. Nonetheless, other Coasean analysts of the NLRA have adopted the Kaldor-Hicks definition of efficiency. See, e.g., Hylton, *supra* note 2, at 471 n.1. Briefly, Kaldor-Hicks efficiency "allows changes in which there are both gainers and losers but requires that the gainers gain more than the losers lose." ROBERT COOTER & THOMAS ULEN, LAW & ECONOMICS 44 (3d ed. 2000).

and encourages opportunistic behavior by employers, rather than preventing it. In sum, Part III demonstrates that the Cohen and Wachter analysis fails by its own measure.

Cohen and Wachter may have offered the only legitimate policy rationale still supporting the *Mackay Radio* doctrine. Thus, if the Cohen and Wachter analysis falls away, *Mackay Radio* will stand as naked as the emperor and, at a minimum, require a new cloak of legitimacy. It is important to note, however, that this Article does not seek to prove the obverse of the conclusion that the *Mackay Radio* doctrine is inefficient; that is, that a rule *banning* permanent strike replacements *is* efficient. Reaching that conclusion would require a further analysis, perhaps relying on some of the information contained herein, that is beyond the scope of this Article. Further, this Article does not address whether the *Mackay Radio* rule might be efficient according to the Kaldor-Hicks definition of efficiency. Specifically, it does not examine a possible argument that the inefficiency of hiring permanent replacement workers in an individual case effects greater efficiencies in other workplaces wherein the employer and union respond to the *Mackay Radio* doctrine by reinforcing their commitments to efficient internal labor market arrangements.⁵⁶ Rather, this Article addresses the Cohen and Wachter analysis and its definition of efficiency as Pareto optimality because their analysis is a leading application of the Coase Theorem to interpretations of the NLRA. Doubts about the Coase Theorem's usefulness to judging the NLRA justifiably arise if the theorem and its proponents cannot explain the *Mackay Radio* doctrine.

B. *Mackay Radio and Coase's Paradox*

This Article also issues a second challenge to the purported relationship between the Coase Theorem and the NLRA that more directly addresses the theorem. Coase's insights about the reciprocal nature of externalities and the essential role of transaction costs can be viewed as expanding the list of factors that should be considered in the calculation of social product and, therefore, efficiency.⁵⁷ Acknowledging that externalities are reciprocal requires including the costs and benefits of both parties to the

56. For the same reasons, this Article is not an argument about whether there is a "better" rule available than the *Mackay Radio* doctrine. This Article rebuts an economic analysis that drew conclusions about efficiency.

57. See generally Coase, *Social Cost*, *supra* note 1, at 34 ("When an economist is comparing alternative social arrangements, the proper procedure is to compare the total social product yielded by these different arrangements.").

externality in any calculation of social product. The transaction costs of addressing an externality must also be a part of the calculation of social product.

But Coase defined social product even more broadly than is suggested by his reciprocity and transaction costs arguments. Most commentators properly emphasize Coase's insistence that the calculation of social product also include opportunity costs.⁵⁸ Coase defined "opportunity cost," which he also called "social cost," to be "the greatest value that factors of production would yield in an alternative use."⁵⁹ For example, if a farmer stops growing crops in an effort to avoid the fires sparked by passing trains, then the factors of production that had been occupied in crop production can be employed elsewhere to benefit the farmer and, therefore, increase total social product. Similarly, if strikers are idled by the hiring of permanent replacements, then their labor can be employed in another business. These benefits, said Coase, must be included in the calculation of social product.

Part IV will argue that Coase's broad definition of social product should be applied more broadly still:

It would seem desirable . . . to compare the total product yielded by alternative social arrangements. In this article, the analysis has been confined, as is usual in this part of economics, to comparisons of the value of production, as measured by the market. But it is, of course, desirable that the choice between different social arrangements for the solution of economic problems should be carried out in broader terms than this and that the total effect of these arrangements in all spheres of life should be taken into account.⁶⁰

This definition of social product, offered in service of Coase's opportunity cost argument, extends to adding new parties to the calculus. At a minimum, Coase suggested that the parties associated with an externality and their costs and benefits are not the only relevant factors in the calculation of social product. Without stretching his definition, social product can also include something more than the mere aggregation of inputs to and outputs from those parties' production. There are potential contributors to social product beyond the parties at Coase's bargaining table.⁶¹

58. *Id.* at 40.

59. COASE, *THE FIRM*, *supra* note 1, at 158.

60. Coase, *Social Cost*, *supra* note 1, at 43.

61. Admittedly, this reading might appear to be difficult to reconcile with the examples Coase offered. He did not consider parties or issues beyond the bargaining table in the examples he offered in

The breadth of Coase's view of social product opens the door to a paradox. I will call it "Coase's Paradox." Coase suggested bargaining could be a socially optimal way to redress an externality. But Coase's definition of social product implicitly acknowledges that some bargains struck between the parties to an externality may, in turn, produce new externalities, or "secondary externalities," that affect parties beyond the bargaining table. Coase's Paradox arises from his dialectical view that externalities produce new relationships with new parties that must also be included in the calculus of social product. Part IV will consider two examples of secondary externalities arising out of the *Mackay Radio* doctrine that could require reconsideration of any efficiency analysis of that rule of law.

New research by Alan Krueger and Alexandre Mas into Bridgestone/Firestone Corporation's hiring of permanent replacement workers during a strike in the middle 1990s suggests another factor that must be taken into account in the calculation of social product. Krueger and Mas have shown that Bridgestone/Firestone's use of permanent replacement workers during a 1995 strike at its now-defunct Decatur, Illinois, facility was associated with the production of defective tires that harmed consumers.⁶² These costs imposed on consumers, as opposed to the union and employer involved in the strike, should be included in a Coasean analysis of the *Mackay Radio* doctrine's efficiency.

Taking into account the costs of the *Mackay Radio* doctrine to consumers and other parties beyond the bargaining table is not a mere mathematical enterprise, however. It is essential to understanding the irreconcilability of the Coase Theorem and the NLRA. Part IV explains the following syllogism in greater detail. If the transaction costs associated with redressing a primary externality must be part of an efficiency analysis, as Coase argued they must, then the transaction costs associated

Social Cost. See, e.g., *id.* at 2-8 (cattle rancher and farmer); *id.* at 32-34 (railroad and farmer). We should avoid reading too much into Coase's silence on this issue. Looking beyond the bargaining table in these examples was not necessary to Coase's argument. It is not necessary to draw an inference that he intended his examples to limit his very broad definition of social product. See, e.g., Schlag, *supra* note 5, at 945 (noting the dialectical nature of Coase's inquiry in that changes in the content of a legal rule will "yield changes not only with respect to the matter covered by the rule, but also with respect to matter extrinsic to the purported operation of the rule"); Simpson, *supra* note 26, at 60 ("There is a tendency to discuss the reciprocal character of the problem of social cost in terms of just two activities This can mislead; once the reciprocal nature of the problem is conceded, there is just no end to the possibilities . . .").

62. See Alan B. Krueger & Alexander Mas, *Strikes, Scabs and Tread Separations: Labor Strife and the Production of Defective Bridgestone/Firestone Tires*, Princeton Univ. Ind. Rels. Sec. Working Paper No. 461 (Jan. 2002), available at www.irs.Princeton.edu/pubs/pdfs/461revised.pdf.

with redressing a secondary externality must also be taken into account. Part IV will argue that including secondary externalities in social product calculations necessarily results in higher transaction costs. In turn, higher transaction costs mean that the Coasean lawmaker will be more likely to select the dictated-solution approach instead of the transaction-cost reduction approach to externalities. It is in these circumstances that the Coase Theorem collides unavoidably with the NLRA.

The NLRA has erected a nearly impenetrable wall that prohibits governmental intervention in the substance of collective bargaining agreements. The NLRB and courts regulate the *process* of bargaining. Substantial precedent holds that the *substance* of bargaining must be left to the parties.⁶³ A Coasean lawmaker seeking to implement the dictated-solution approach to redressing an externality would necessarily violate this fundamental labor law principle. For this reason, Part IV concludes that the Coase Theorem and the NLRA, in certain circumstances and with respect to the *Mackay Radio* doctrine in particular, are irreconcilable.

II. INTERNAL LABOR MARKETS AND EFFICIENCY

A. Internal Labor Markets and the "Sunk Investments/Delayed Dividends" Contract

Over the last five decades, labor economists have arrived at the conclusion that employers and workers form contracts in two discrete labor markets.⁶⁴ Employers recruit prospective employees from among workers seeking new jobs across firms in the "external labor market." These job-seeking workers are mobile and put on the market general skills that may benefit many employers. Employers buy those skills according to terms determined, in part, by supply and demand. Neither party makes a substantial investment in their relationship because alternatives abound. As a result, there are few transaction costs if an employer chooses one worker over another or a worker chooses one employer instead of another.⁶⁵

An employer's incumbent employees, however, constitute its "internal labor market." These incumbent employees differ from prospective

63. See *infra* notes 340-48.

64. See Michael L. Wachter & Randall D. Wright, *The Economics of Internal Labor Markets*, in *THE ECONOMICS OF HUMAN RESOURCE MANAGEMENT* 87 (Daniel J.B. Mitchell & Mahmoud A. Zaidi eds., 1990) (discussing the development of internal labor market theory).

65. Cohen & Wachter, *supra* note 2, at 113-14; Wachter & Wright, *supra* note 64, at 89. See also Douglas L. Leslie, *Labor Bargaining Units*, 70 VA. L. REV. 353, 361 (1984).

employees because they have gained firm-specific skills and knowledge that make them more productive with their present employer than otherwise qualified workers who could be hired from the external labor market.⁶⁶ The parties' "sunk investments" in an employee's firm-specific skills and knowledge generate productivity dividends that the employee and employer may share, if the relationship lasts long enough.⁶⁷ The employer benefits from greater profits attending the employee's increased productivity. The employee benefits when her wages increase along with her greater productivity.⁶⁸ As a result, the internal labor market should increase efficiency.

As a general matter, the long-term relationship that characterizes the internal labor market is self-enforcing. The employer does not discharge the employee because that discharge would deprive the employer of the dividends from its investments in the employee's skills and knowledge.

66. RONALD G. EHRENBERG & ROBERT S. SMITH, *MODERN LABOR ECONOMICS: THEORY AND PUBLIC POLICY*, 155 (7th ed., 2000); Cohen & Wachter, *supra* note 2, at 114-15; Wachter & Wright, *supra* note 2, at 90. Some legal scholars and labor economists refer to this phenomenon as types of "asset specificity," see Stewart J. Schwab, *Life-Cycle Justice: Accommodating Just Cause and Employment at Will*, 92 MICH. L. REV. 8, 13 (1993) [hereinafter Schwab, *Life-Cycle Justice*] (citing, among others, OLIVER E. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM* 52 (1985)), or "first-mover advantages." See Oliver E. Williamson et al., *Understanding the Employment Relation: The Analysis of Idiosyncratic Exchange*, 6 BELL J. ECON. 250, 251 (1985). However, Ehrenberg and Smith believe that the pay structure that is characteristic of the internal labor market—"underpayment" early in workers' careers and "overpayment" later in their careers—itsself enhances productivity by incentivizing good conduct and longevity. See EHRENBERG & SMITH, *supra*, at 400-01. Cf. Williamson et al., *supra*, at 257 ("The success of on-the-job training is plainly conditional on the information disclosure attitudes of incumbent employees. Both individually and as a group, incumbents are in possession of a valuable resource (knowledge) and can be expected to reveal it fully and candidly only in exchange for value.")

67. These investments are not limited to formal training which increases the worker's skill level. They may

reflect a wide range of acquired competencies—familiarity with firm procedures; knowing whom to call upon—and who not—when the unexpected happens; an appreciation of the strengths and weaknesses of close associates in the firm; gradually acquired knowledge about the idiosyncrasies of firm customers; and so on down the line.

Charles L. Schultze, *Has Job Security Eroded for American Workers*, in *THE NEW RELATIONSHIP: HUMAN CAPITAL IN THE AMERICAN CORPORATION* 49-50 (Margaret M. Blair & Thomas A. Kochan eds., 2000). They may include on-the-job training or superior screening during the hiring process that improve the "match" between job and worker. See Wachter & Wright, *supra* note 64, at 90-91. They may also include proficiency in the firm's process of team-based production. See Leslie, *supra* note 65, at 367. See also Williamson et al., *supra* note 66, at 253, 257. Gary Becker is widely credited with suggesting that the costs of job-specific training and monitoring are shared by employers and workers rather than assumed by one party. See, e.g., Cohen & Wachter, *supra* note 2, at 115 (citing GARY BECKER, *HUMAN CAPITAL* (1964)).

68. Empirical evidence supports the view that wages in internal labor markets are set according to different standards than those typically considered relevant to the external labor market. See, e.g., George Baker & Bengt Holmstrom, *Internal Labor Markets: Too Many Theories, Too Few Facts*, 85 AM. ECON. REV. 255, 258-59 (1995).

Similarly, the employer avoids behavior that might cause the employee to quit. The employee would not otherwise quit because no other employer would compensate her at a level equal to that paid by her current employer. In sum, the benefits derived by the parties from continuing their relationship create an implicit contract that assures the longevity of the relationship.⁶⁹

The parties' sunk investments create a bilateral monopoly attended by transaction costs, however.⁷⁰ Both the employer's labor supply pool and the employee's opportunities for alternative employment shrink. Only incumbent employees have the requisite job-specific skills to increase the employer's productivity, so these workers represent the employer's most efficient supply of labor. Absent the competitive forces of the labor market, the employer must "monitor" these employees to assure that they do not "shirk" and thereby deprive the employer of the benefits of its investments.⁷¹ On the other hand, firm-specific skills reduce employees' mobility because their skills are not transferable to other employers.⁷² An efficient relationship seeks to minimize any inefficiencies associated with this bilateral monopoly, in part, by maximizing the shared dividends made possible by the parties' extended relationship.

Cohen and Wachter offered the following graph to demonstrate how the parties should benefit from this "sunk investments/delayed dividends" contract:

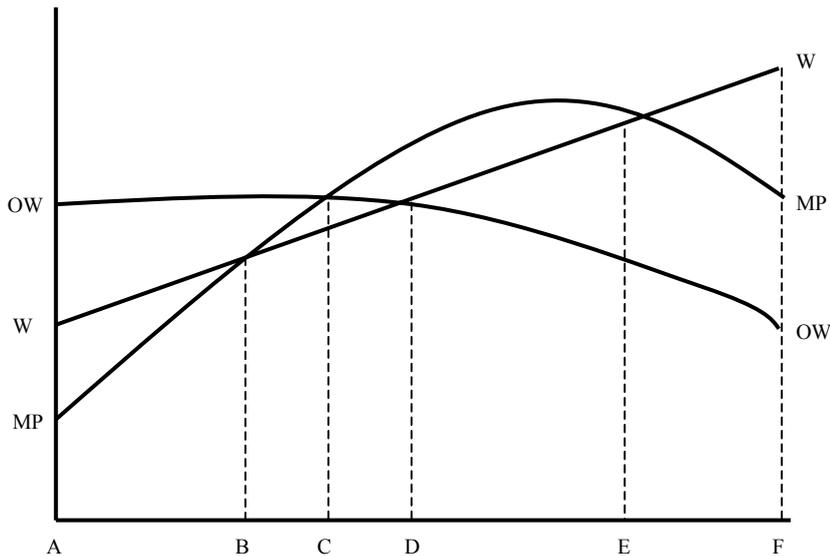
69. EHRENBERG & SMITH, *supra* note 66, at 168-70, 381-82. *See also* H. Lorne Carmichael, *Self-Enforcing Contracts, Shirking and Lifecycle Incentives*, 3 J. ECON. PERSP. No. 4 at 65, 67-68 (Fall 1989); Schwab, *Life-Cycle Justice*, *supra* note 66, at 15. *See infra* text accompanying notes 101-02 for a discussion of the nature of contracts entered into in the internal labor market.

70. *See* Williamson, *Contractual Relations*, *supra* note 35, at 241.

71. Wachter & Cohen, *supra* note 2, at 1358. "Shirking," when used in labor economics circles, is best defined as the employee's failure to contribute actively to improving firm productivity. Thus, the term can include both slothfulness, a refusal to assist the employer with problem-solving, or any omission or commission that deprives the employer of the productivity benefits of the worker's firm-specific skills. *See* Schwab, *Life-Cycle Justice*, *supra* note 66, at 21-22 and n.49 (quoting Alan Hyde, *In Defense of Employee Ownership*, 67 CHI.-KENT L. REV. 159, 183 (1991)).

72. Wachter & Cohen, *supra* note 2, at 1356-58.

Figure 1



On this graph, W (wage) represents the wage paid by the firm to its employee.⁷³ MP (marginal productivity) represents the productivity of the worker in her current job. OW (opportunity wage) represents the wage and productivity of the worker in the external labor market, or the best wage the worker could obtain in the external labor market. Age A represents the worker's entry into the internal labor market. Age F represents the employee's retirement from her career with the employer.⁷⁴

The employee makes sunk investments between Age A and Age D

73. While Wachter and Cohen use the term "wage," they must mean the worker's "total employment costs," including both cash outlays like wages and deferred compensation (e.g., pensions), and noncash costs like hiring, monitoring, and training. See EHRENBERG & SMITH, *supra* note 66, at 144-77. Accordingly, I will use the term "wage" to refer to this same panoply of employment costs.

74. Wachter & Cohen, *supra* note 2, at 1362-63. Wachter and Cohen premise their graphic representation of the sunk investments/delayed dividends contract on several plausible assumptions. First, the incumbent worker's wage will rise over the course of her career. Second, her marginal productivity (and therefore her opportunity wage, which is assumed to match her productivity because of the external labor market's presumed competitiveness) will decline with age because of increasing physical limitations and skills obsolescence. Third, marginal productivity will be lower than the opportunity wage in the early part of the worker's career while she acquires job-specific training and exceed the opportunity wage in the latter part of her career when her enhanced skills generate greater productivity. *Id.* at 1363. See also EHRENBERG & SMITH, *supra* note 66, at 409 (discussing the reasons for an upward wage stream over the course of a worker's career and its relationship to marginal productivity).

when her opportunity wage exceeds the wage she receives from her employer; that is, the employee accepts a lower wage in return for firm-specific training, among other things, during this period. After Age *D*, the worker recoups her investment and earns dividends until she retires at Age *F* because her wage exceeds both her opportunity wage and, at times, her marginal productivity.⁷⁵ As long as the present value of the difference between the employee's wage and her opportunity wage after Age *D* exceeds the present value of the difference between the opportunity wage and the wage prior to Age *D*, the employee will reap a net dividend from her sunk investments.

The employer's sunk investments are made between Age *A* and Age *B* and again between Age *E* and Age *F*. During both periods, the worker's wage exceeds her productivity. The employer recoups its investment and earns its dividends between Age *B* and Age *E* when the worker's marginal productivity, higher because of her firm-specific skills and knowledge, exceeds her wage.⁷⁶ As long as the present value of the difference between marginal productivity and the worker's wage from Age *B* to Age *E* exceeds the difference between the wage and marginal productivity from Ages *A* to *B* and the present value of the difference between Ages *E* to *F*, the employer will reap a net dividend. Thus, if the parties are able to sustain their relationship until the employee retires at Age *F*, then it should be mutually beneficial.

The sunk investments/delayed dividends contract is not always self-enforcing, however. Both parties face the danger that their sunk investments will be lost, or transformed into "sunk cost losses," in the Cohen and Wachter lexicon, if the other party behaves opportunistically so as to expropriate more than its share of the investment dividends.⁷⁷ The employee faces the greatest risk of sunk cost losses between Age *E* and Age *F* when she awaits her dividend and perhaps a portion of her recouped investment after the employer has already recouped its investment. During this period, the employer pays the employee a wage in excess of her

75. Wachter & Cohen, *supra* note 2, at 1362-63. "In practice, these higher post-training wages take the form of seniority-based wages and late-vesting pensions, which induce workers to stay with the firm after training." Schwab, *Life-Cycle Justice*, *supra* note 66, at 15. For a good explanation of why it is that workers and employers share the costs of specific training, see EHRENBERG & SMITH, *supra* note 66, at 167-68, and the sources cited therein.

76. Wachter & Cohen, *supra* note 2, at 1363-64.

77. *Id.* at 1360; EHRENBERG & SMITH, *supra* note 66, at 402. Opportunism may best be defined as "an effort to realize individual gains through a lack of candor or honesty in transactions. . . . [O]pportunism is self-interest seeking with guile." Williamson et al., *supra* note 66, at 258-59. It might also be defined as "any activity undertaken by one party to an agreement to increase its benefit from the agreement at the expense of the other party to the agreement." Dau-Schmidt, *supra* note 2, at 442.

productivity.⁷⁸ The opportunistic employer might cut the employee's wages to a level closer to her productivity in an effort to usurp some of the employee's dividend. The employer faces its greatest risk of employee opportunism between Age *B* and Age *E* when the employee's productivity exceeds her wage. If the employee "shirks," thereby reducing her productivity and increasing the employer's monitoring costs, the employer may lose the benefit of the bargain.⁷⁹ Opportunistic behavior may increase the worker's or the employer's benefit, but it decreases the total expected value of the agreement; therefore, "the individual interests of the parties in pursuing strategic behavior diverge from their collective interest in avoiding it"⁸⁰

B. Asymmetric Information and Competition in the External Labor Market

The danger that opportunistic behavior will produce sunk cost losses is heightened by two aspects of the environment in which the parties negotiate sunk investments/delayed dividends contracts: asymmetric information and the incomplete nature of the sunk investments/delayed dividends contract.

1. Asymmetric Information

Workers and employers do not have access to the same information. For example, employees are assumed to know their own effort level. The firm must monitor its employees to collect that information.⁸¹ By contrast, employers have better information about other factors determining employees' productivity: product demand, available technology, the ability to substitute capital for labor, and the resulting demand for labor.⁸²

78. Wachter & Cohen, *supra* note 2, at 1364. Accord Schwab, *Life-Cycle Justice*, *supra* note 66, at 19.

79. Wachter & Cohen, *supra* note 2, at 1364. Accord Schwab, *Life-Cycle Justice*, *supra* note 66, at 11, 32-33 n.89 (quoting Richard A. Epstein, *In Defense of the Contract at Will*, 51 U. CHI. L. REV. 947, 979 (1984)). Ehrenberg and Smith pose a slightly different problem of worker opportunism; that is, workers may extend the date of their retirement to continue receiving wages in excess of their productivity. See EHRENBURG & SMITH, *supra* note 66, at 402. In an at-will relationship, even modified by the Age Discrimination in Employment Act, the employer has tools available to protect itself from this kind of opportunism.

80. Dau-Schmidt, *supra* note 2, at 443.

81. Wachter & Wright, *supra* note 64, at 94. While Wachter and Wright assume that this information advantage and workers' presumed preference for leisure create an incentive to shirk, Schwab responds that workers' self-respect and desire for approbation creates an opposite incentive. Schwab, *Life-Cycle Justice*, *supra* note 66, at 22-24.

82. See EHRENBURG & SMITH, *supra* note 66, at 37-41; Wachter & Wright, *supra* note 64, at 94; Wachter & Cohen, *supra* note 2, at 1359.

When material information is private and there are insufficient incentives to reveal it, the risk arises that “some individuals may find it in their interest to manipulate these mechanisms in their favor by lying.”⁸³

Over time, these asymmetries adjust, but they do not disappear entirely. For example, employers learn more about each employee's effort level as they gain more experience with the worker.⁸⁴ The employee also gains information as her job tenure increases. She learns about her level of productivity, the productivity of her coworkers, and the employer's monitoring systems. She learns more about her coworkers' wages.⁸⁵ She also gains enough experience to develop a firm plan regarding the duration of her career with the employer, while she may have merely harbored a vague intent at the time of the original negotiation. Finally, she learns from her coworkers whether the employer can be trusted to live up to its contracts.⁸⁶

Workers have the least information while they are bargaining with the employer in the external labor market (i.e., Age *A* on Figure 1).⁸⁷ This does not mean that workers are wholly ignorant of the factors entering into the sunk investments/delayed dividends contract or that, in some idiosyncratic cases, informal channels may provide some information.⁸⁸ But workers' information in the external labor market is limited and comparatively less substantial than the information they will gain later in their relationships with the employer. Yet, this initial negotiation is a critical stage in the relationship. The worker chooses an employer, in large part, based on a comparison of the present values of the compensation packages she will receive from prospective employers.⁸⁹ The worker is

83. Costas Azariadis, *Employment with Asymmetric Information*, 98 Q.J. ECON., Supp. 1983, at 157.

84. See Schultze, *supra* note 67, at 50. See also EHRENBERG & SMITH, *supra* note 66, at 174 (discussing the limitations of credentials in hiring and the need for employers to observe workers to assess their productivity levels).

85. See KATZ & KOCHAN, *supra* note 53, at 168.

86. See *id.* at 75-76 (“The information gap [between employer and prospective worker] is likely to be much less a problem for incumbent employees than for new hires.”).

87. See LLOYD G. REYNOLDS, *LABOR ECONOMICS AND LABOR RELATIONS* 108 (5th ed. 1970). See also WEILER, *GOVERNING*, *supra* note 13, at 73 and n.51 (suggesting that while the worker is assumed to know her opportunity wage and certainly knows the wage being offered by the employer, she does not know a great deal about the wages being paid to incumbent workers); Carmichael, *supra* note 69, at 715. See generally EHRENBERG & SMITH, *supra* note 66, at 380-81 (discussing the role of “signalling,” rather than complete information, in the initial employment contract).

88. For example, workers may have social relationships with employees of the employer with whom the workers are negotiating. These social relationships, even acquaintanceships, may provide sources of useful information.

89. Employers “make a multiperiod ‘package’ of wage offers that is competitive with the offers being made by other employers in the market,” EHRENBERG & SMITH, *supra* note 66, at 161, because

presumed to be protected from employer opportunism at this stage by the competitive nature of the external labor market.⁹⁰ But the nature of the sunk investments/delayed dividends contract complicates this presumption substantially.⁹¹

Contracts formed in the external labor market are typically characterized by a lack of investment by the parties, thus freeing either party to abandon their relationship at low cost if a more efficient opportunity arises.⁹² The sunk investments/delayed dividends contract, on the other hand, presupposes substantial investments by both parties early in their relationship as both parties share the cost of the worker's acquisition of firm-specific skills at the beginning of the worker's career (i.e., the employer pays a wage greater than productivity from Age *A* to Age *B*, and the worker accepts a wage below her opportunity wage from Age *A* to Age *D*).⁹³ Thus, abandoning this relationship, even at a relatively early stage, imposes sunk cost losses on each party.

2. *Incomplete Contracts*

The nature and expected duration of the sunk investments/delayed dividends contract makes avoiding these sunk cost losses even more difficult. The worker in the external labor market negotiates an agreement that covers not merely the short term but the long term, and perhaps her entire career. Detailed, long-term contracts are impractical and uncommon, however.⁹⁴ A formal contract seeking to codify a complete

“[a]pplicants to, and employees of, employers with internal labor markets are concerned with the present value of their *career* compensation.” *Id.* at 400. See generally Oliver D. Hart, *Optimal Labour Contracts under Asymmetric Information: An Introduction*, 50 REV. ECON. STUD. 3, 5 (1983) (assuming that there is a competitive market for sunk investments/delayed dividends contracts in the external labor market).

90. Williamson et al., *supra* note 66, at 259.

91. Asymmetric information is a lesser problem in unionized workplaces. Unionized employees get more and better information earlier in their careers. Unions have institutional memories consisting of the collective knowledge of their members. See Leslie, *supra* note 65, at 369-70. Unions also gain substantial information about productivity and monitoring through the collective bargaining process. See, e.g., NLRB v. Truitt Mfg. Co., 351 U.S. 149 (1956) (holding that union is entitled to employer's financial records when employer has claimed that it cannot afford wage increases). See also KATZ & KOCHAN, *supra* note 53, at 187-88. Most important, the union, not the prospective worker in the external labor market, negotiates the new worker's wages, hours, and employment conditions. So, regardless of whether the new worker actually benefits from the union's substantial body of knowledge, the contract into which she enters will be informed and shaped by the union's knowledge.

92. See *infra* note 104 and accompanying text.

93. See *supra* note 69 and accompanying text.

94. See Wachter & Wright, *supra* note 64, at 96 (complex long-term contracts are uncommon in the nonunion sector); Williamson et al., *supra* note 66, at 271-72 (quoting Archibald Cox, *The Legal Nature of Collective Bargaining Agreements*, 57 MICH. L. REV. 1, 23 (1958)). See also NLRB v. F &

sunk investments/delayed dividends agreement would necessarily specify both its term (i.e., the worker's guarantee of job security throughout her career) and the worker's wages and productivity levels from the time the worker enters her employment until the time she retires. It would also provide for many or all of the contingencies that could arise during the course of the worker's career and affect the parties' investments and dividends.⁹⁵

Parties considering such an agreement face two intractable problems. First, efficiency-maximizing parties are expected to reduce transaction costs to the lowest level possible. Negotiating a formal, detailed, complex, and contingent contract is an expensive and time-consuming proposition, if it is possible at all.⁹⁶ Second, greater specificity regarding future behaviors (i.e., amount of work, amount of pay) subjects the parties to the risks associated with changing circumstances. For example, productivity is, at least in part, derivative of the demand for the employer's goods and the availability of new production technologies. Few rational actors would gamble that they could accurately predict technological advances and consumer demand years into the future.⁹⁷ Of course, the likelihood of change increases as the parties attempt to project further and further into the future. "Bounded rationality"—the parties' inability to conceive of all the contingencies that may arise—thereby causes the parties to construct a contract that permits adaptability to changing circumstances.⁹⁸ For these

A Food Sales, Inc., 202 F.3d 1258, 1260 (10th Cir. 2000) (holding that under NLRB's contract bar rule, if employer and union have a collective bargaining agreement, then the agreement constitutes a bar to a representation election for the term of agreement up to a maximum of three years); S. 1052, 107th Cong., 1st Sess., TEMP. REC. S-7131 (2001), available at <http://www.senate.gov/~rpc/rva/1071/1071211.htm> (last visited Jan. 8, 2002) (stating that 66% of collective bargaining agreements involving one thousand employees or more have terms of three to five years; 28% have terms of five to six years; and 7% have terms of six to eight years).

95. See Leslie, *supra* note 65, at 366, 368 ("The contract would have to be very complex because it would need to provide for a host of contingencies, such as the nature of managerial orders the employee would be bound to obey, the conditions of discharge and layoff, and standards of promotions and demotions, all under conditions of considerable uncertainty."). Accord Williamson et al., *supra* note 66, at 262-63. See also WEILER, GOVERNING, *supra* note 13, at 75.

96. See Wachter & Wright, *supra* note 64, at 97 ("If the parties inside the firm attempt to maximize the coalition's surplus, they must obviously attempt to reduce transaction costs as much as possible (or, more accurately, as much as it is efficient to do so). Since negotiating, writing, and enforcing contracts often incur high transaction costs, complex state-contingent contracts might not be joint profit maximizing.")

97. See Williamson et al., *supra* note 66, at 257-58.

98. See Hart, *supra* note 89, at 23. See also WILLIAMSON, *supra* note 66, at 30-32 (discussing the role of bounded rationality in contracting).

reasons, sunk investments/delayed dividends contracts err in favor of ambiguity or “incompleteness.”⁹⁹

On the other hand, less specificity and greater flexibility in the contract render the agreement difficult to enforce. For example, the employer cannot fully defend against “shirking” if it fails to specify precisely the employee’s required productivity levels. The employee cannot fully defend against an opportunistic discharge unless the grounds for discharge, including her production levels, are specified in great detail in the contract.¹⁰⁰ As a result, while sunk investments/delayed dividends contracts may be partially self-enforcing, they are not self-executing.

For example, the initial agreement between the parties will not specify the employee’s wages at every stage of the worker’s career, although it may include vague commitments to rising wages commensurate with performance and position.¹⁰¹ The employer offers only enough information about wages to permit the employee to choose between competitive offers, but not enough to put the employer at risk if conditions change. After the wage agreement specified in the initial negotiation has run its course (i.e., from Age *A* to Age *B* on Figure 1), the parties must reach a new agreement regarding the worker’s pay for the next period of her employment (i.e., from Age *B* to Age *C*). Similarly, an employer seeking to remain competitive in the external labor market would make employment offers implying an assurance of career-long job security through retirement (i.e.,

99. See EHRENBERG & SMITH, *supra* note 66, at 379. See also Leslie, *supra* note 65, at 368 (“[C]omplete, contingent contract exists only in theory because the firm and the worker would have to anticipate, bargain out, and reduce to writing a vast array of potential future events and conditions . . .”). Williamson goes so far as to say that “all complex contracts are *unavoidably* incomplete.” Williamson, *Posnerian Law and Economics*, *supra* note 41, at 102 (emphasis added).

100. See Schwab, *Life-Cycle Justice*, *supra* note 66, at 19-20. See also Wachter & Wright, *supra* note 64, at 91-92, 103. It is not literally impossible to enforce ambiguous contracts; rather, enforcing these contracts requires substantial transaction costs. For example, litigation may be required in which a third-party fact-finder attempts to glean what occurred from little available evidence. See Carmichael, *supra* note 69, at 67.

101. Empirical studies have shown that increases in workers’ post-entry wages are determined, at least in part, by whether they receive promotions. See ROBERT GIBBONS & MICHAEL WALDMAN, A THEORY OF WAGE AND PROMOTION DYNAMICS IN INTERNAL LABOR MARKETS (Nat’l Bureau of Econ. Research, Working Paper Series No. 6454, 1998) (collecting several studies). Promotions are not typically events planned at the time of the worker’s hiring. Rather, they depend upon a number of variables—including the worker’s productivity in a lower-level job—that are unknown at the time of hiring, although seniority appears to play a substantial role in many promotions. See generally Williamson et al., *supra* note 66, at 273-74 (discussing the role of promotions in the internal labor market). See also Katharine G. Abraham & James Medoff, *Length of Service and the Operation of Internal Labor Markets*, 1983 PROCEEDINGS 35TH ANN. MEETING, INDUS. REL. RES. ASS’N, 308, 312-14 (discussing the role of seniority and productivity in promotions). Thus, promotions and the wage increases that attend them are contingencies that require and reflect renegotiation of the sunk investments/delayed dividends contract.

through Age *F*), but sufficiently vague to assure itself the desired level of flexibility to discharge unproductive, expensive employees (i.e., at Age *E*). The prospective worker's calculation of the present value of her career compensation would take into account the assurance of long-term employment, but subsequent negotiations would reinterpret that job-security commitment and thereby determine the assurance's effectiveness.

In sum, after the worker becomes employed in the internal labor market, the parties must reinterpret the nonspecific and often unwritten terms of the deal they struck in the external labor market. To accomplish this task, they engage in rolling renegotiations at various stages of their relationship to recalibrate the distribution of investments and dividends.¹⁰² So, even if competition in the external labor market protects the worker from opportunism in the initial negotiation, the sunk investments/delayed dividends contract formed in the external labor market does not protect the employee from employer opportunism arising out of information asymmetries during later renegotiations.¹⁰³ The so-called "enforcement" problem—that is, the inability to protect against opportunistic behavior—remains.¹⁰⁴ As we will see, asymmetric information and the enforcement

102. See Hart, *supra* note 89, at 23 ("In reality, there exist few contracts between firms and workers containing the amount of detail which [may be] appropriate. . . . [C]ontracts tend to be in force for limited periods of time, and are then renegotiated."); Williamson, *Contractual Relations*, *supra* note 35, at 240 (recognizing that long-term contracts are "successively adapted to unfolding events and as periodic contract-renewal agreements are reached."). See also Williamson et al., *supra* note 66, at 268 (describing a model of an incomplete employment contract in which the parties do not agree to all terms *ex ante*, but agree to decide specific terms at a later stage in their relationship). Accord Erich Schanze, *Failure of Long Term Contracts and the Duty to Re-Negotiate*, in *FAILURE OF CONTRACTS: CONTRACTUAL, RESTITUTIONARY AND PROPRIETARY CONSEQUENCES* 155 (Francis Rose ed., 1997); WILLIAMSON, *ECONOMIC INSTITUTIONS*, *supra* note 35, at 29. My use of "renegotiations" may leave the inaccurate impression that the parties enter into formal discussions attended by high transaction costs. The negotiations may be quite informal and need not produce a written contract. The negotiation may amount to nothing more than an essentially costless offer and acceptance of a promotion and an attendant pay increase. See *supra* note 101. Since efficiency requires the minimization of transaction costs, the parties' willingness to enter into an agreement that presupposes serial renegotiations may depend upon their calculation of whether the transaction costs attending these negotiations exceed the costs associated with specifying terms in the initial negotiation that may be made obsolete, or excessively expensive, by changing circumstances.

103. Williamson et al., *supra* note 66, at 259-60. See also Carmichael, *supra* note 69, at 67 (suggesting that promises made in the external labor market will be kept only if it is in each party's interest to keep its promises). See also generally Hart, *supra* note 89, at 7-15, 20-21 (discussing the incentives to lie arising out of asymmetric information after the initial contract is made and how those incentives operate, including in multiperiod contracts like the sunk investments/delayed dividends contract).

104. H. Lorne Carmichael goes so far as to say that promises made in the external labor market are not legally enforceable and that opportunistic behavior by employers "can be prevented only if the benefits the firm expects to get from a continuation of the contract are at least as great as what it can get by firing the worker." Carmichael, *supra* note 69, at 68. He may be overstating the case. Some parties may legally bind themselves to particular promises made in the external labor market. See *infra*

problem become important players in a Coasean efficiency analysis of the *Mackay Radio* doctrine.

III. *MACKAY RADIO*, THE INTERNAL LABOR MARKET, AND THE EXTERNAL LABOR MARKET

A. Mackay Radio: *Unmasking Underlying Assumptions*

Cohen and Wachter relied on the external labor market to prevent opportunistic behavior that might undermine the sunk investments/delayed dividends contract.¹⁰⁵ First, Cohen and Wachter posited that the availability of permanent strike replacements in the external labor market would deter a union from using its monopoly power to bargain for wages that expropriate the employer's share of the dividend from the sunk investments/delayed dividends contract. The external labor market is presumed to operate competitively; therefore, if an employer's wages increase due to the union's monopolistic wage demands, the supply of labor should also increase: "the higher the premium, the greater the attractiveness of those jobs to replacement workers. Replacements would find such jobs better than those they could obtain elsewhere"¹⁰⁶ In sum, the hoard of prospective replacement workers gathering outside the employer's place of business waiting to take the union members' jobs at monopoly wages inhibits the union's opportunistic behavior, according to Cohen and Wachter.¹⁰⁷

Second, Cohen and Wachter argued that the external labor market deters the employer from an opportunistic use of permanent replacement workers to deprive workers of their investment dividend. If the employer seeks to use its monopsony power in the internal labor market to bargain for lower wages in incumbent workers' later years (i.e., from Age *E* to Age *F*), argued Cohen and Wachter, striking workers would have little to fear from replacement workers, because these replacements would not

notes 176-77 and accompanying text. Carmichael's point may be better narrowed to state that sunk investments/delayed dividends contracts need not necessarily include legally enforceable promises.

105. Bierman and Gely argued that this reliance on the purported disciplining power of the external labor market's competitive forces is conceptually "troubling . . . when it is the inability of the external labor market to deal with firm specificity that is the main factor underlying the creation of internal labor markets. Were it not for the need for firm-specific training, firms would be better off making *all* employment transactions in the external labor market." Bierman & Gely, *Striker Replacements*, *supra* note 2, at 375 (emphasis added) (footnote omitted).

106. Cohen & Wachter, *supra* note 2, at 119. See also EHRENBERG & SMITH, *supra* note 66, at 53-54.

107. See Cohen & Wachter, *supra* note 2, at 119.

accept jobs that offer a stream of future wages below competitive levels. Alternatively, any replacement workers who accepted jobs would be reluctant to make sunk investments in a firm that had developed a reputation for opportunistic behavior.¹⁰⁸ Thus, according to Cohen and Wachter, the external labor market will not permit employers to hire permanent replacement workers efficiently at a subcompetitive wage, so these employers will not act opportunistically.

Before critiquing the Cohen and Wachter analysis, it is necessary to expose and examine three important assumptions underlying the analysis. The first assumption is actually a distinction that Cohen and Wachter implied between the *threat* to hire permanent replacement workers and the *practice* of hiring permanent replacement workers. Cohen and Wachter premised their efficiency analysis on a theory of prevention. Disincentives arising from the external labor market, they suggested, would prevent opportunistic behavior by unions and employers; therefore, employers should never find it necessary to hire permanent replacement workers.¹⁰⁹ The threat of hiring permanent replacements should be sufficient to deter unions' opportunism, while the threat of inefficiency should deter employers' opportunism.¹¹⁰ In other words, Cohen and Wachter represented the *Mackay Radio* doctrine as an example of the transaction-cost reduction approach to the problem of permanent strike replacements. The *Mackay Radio* doctrine effectively prohibits the parties from engaging in opportunistic behavior. Absent other disabling transaction costs, therefore, it facilitates bargaining between the union and the employer to reach an efficient agreement that preserves the efficiencies of the internal labor market, or so goes the Cohen and Wachter argument.

Although we will shortly see that this argument misrepresents the *Mackay Radio* doctrine's role in collective bargaining, it is worth noting briefly that threats to hire permanent replacement workers may be inefficient, without more, even if they deter opportunistic behavior in the manner suggested by Cohen and Wachter. Threats require investments of resources that detract from employer profitability and worker productivity.¹¹¹ Even more important, these particular threats may bring costs by altering the tenor of a collective bargaining relationship. Unionized employees angered by an employer's threat to hire permanent

108. Cohen & Wachter, *supra* note 2, at 118.

109. *Id.* at 118-19.

110. *Id.*

111. See generally Schwab, *Collective Bargaining*, *supra* note 2, at 269-72 (discussing threats as a potentially costly form of strategic behavior).

replacement workers may engage, whether consciously or unconsciously, in preemptive shirking. If so, the employer will suffer sunk cost losses. Monitoring costs will increase. Productivity will decline, perhaps substantially. The dividends to be earned from the internal labor market's efficiencies may be undermined by the very threats that are supposed to preserve them.

Research performed by Alan Krueger and Alexandre Mas on the Bridgestone/Firestone strike, to be discussed more fully in Part IV, discloses one important case in which this outcome apparently resulted. Krueger and Mas found a dramatic increase in the number of defective tires produced by unionized employees at Bridgestone/Firestone's Decatur, Illinois, plant between January 1994, when the employer's collective bargaining agreement with the United Rubber Workers (URW) expired, and July 1994, when the URW commenced its strike against Bridgestone/Firestone.¹¹² It may not be possible to disaggregate the effects of Bridgestone/Firestone's threats to hire permanent replacement workers from the effects of other aspects of the contentious bargaining relationship between the parties. Nonetheless, the conclusion reached by Krueger and Mas that contentious labor relations have negative productivity effects plainly encompasses the potential, and probably real, consequences of threats to displace unionized employees with permanent replacement workers.¹¹³

But this discussion need not delay us for long. The *Mackay Radio* doctrine does not merely facilitate efficient bargaining by deterring opportunistic behavior in the manner of the transaction-cost reduction approach. Like threats to strike, threats to hire permanent replacement workers are meaningless unless occasionally carried out.¹¹⁴ Imagine a different rule emerging from *Mackay Radio* that permitted employers to threaten that they would hire permanent replacement workers, but did not authorize the actual hiring of permanent replacements. Common sense dictates that no union would change its bargaining behavior to avoid an

112. Krueger & Mas, *supra* note 62, at 29.

113. See *infra* text accompanying note 331.

114. "Weapons grow rusty if unused . . . The most able Trade Union leadership will embark on strikes occasionally, not so much to secure greater gain upon that occasion . . . but in order to keep their weapon burnished for future use, and to keep employers thoroughly conscious of the Union's power." J.R. HICKS, *THE THEORY OF WAGES* 146 (2d ed. 1963), *quoted in* Schwab, *Collective Bargaining*, *supra* note 2, at 269 n.93. Accord Donald H. Regan, *The Problem of Social Cost Revisited*, 15 J.L. & ECON. 427, 429 (1972) ("[T]hreats will be ineffective if they are not believed, and it is unlikely that threats will be generally believed unless they are occasionally carried out."). See also *supra* note 53 and accompanying text (Harry Wellington making a similar argument about the need to carry a strike to make the strike threats effective).

employer's empty posturing.

Unions that have a collective bargaining history with an employer know a great deal about the employer's wage rates and its levels of productivity.¹¹⁵ The union can calculate, at least roughly, the inefficiencies resulting from the employer hiring permanent replacement workers at a premium wage. Should the employer respond to a union's monopolistic wage demand by pleading poverty, then the employer is legally obligated to disclose even more information to support the legitimacy of its plea.¹¹⁶ In sum, unions generally know that hiring permanent replacement workers at a premium wage is inefficient for the employer. The mere threat to hire permanent replacement workers alone should be ineffective in preventing unions' opportunism. It is the employer's willingness to engage in the practice, perhaps at the expense of its own efficiency, that would change the union's behavior.

Hiring permanent replacement workers has been a regular and longstanding practice among struck employers, albeit an alternative not frequently chosen. Strikes involving permanent replacement workers have occurred continuously since the NLRA was enacted.¹¹⁷ The incidence of strikes involving permanent replacements increased beginning in 1975 to the point where strikes in which employers hired permanent replacement workers represented a substantial minority of all strikes.¹¹⁸ In sum, a fair assessment of the *Mackay Radio* doctrine's efficiency cannot stop with the employer's threat. The *Mackay Radio* doctrine dictates a result to the employer and the union. The employer may hire permanent replacement workers, with a few restrictions, and the workers retain limited

115. See *supra* note 91.

116. See *NLRB v. Truitt Mfg. Co.*, 351 U.S. 149 (1956).

117. Michael H. LeRoy, *Regulating Employer Use of Permanent Striker Replacements: Empirical Analysis of NLRA and RLA Strikes 1935-1991*, 16 BERKELEY J. EMP. & LAB. L. 169, 185 (1995) [hereinafter LeRoy, *Regulating Employer*].

118. *Id.* at 189-91 (establishing the existence of a historically large number of permanent replacement strikes during the period from 1975 to 1991). See also U.S. GEN. ACCOUNTING OFFICE, LABOR-MANAGEMENT RELATIONS: STRIKES AND THE USE OF PERMANENT STRIKE REPLACEMENTS IN THE 1970S AND 1980S, GAO/HRD-91-2 (1991) (reporting that 16% to 17% of all strikes in the time period studied involved the hiring of permanent replacement workers); Cynthia Gramm, *Employers' Decisions to Operate During Strikes: Consequences and Policy Implications*, in EMPLOYEE RIGHTS IN A CHANGING ECONOMY (William Spriggs ed., Economic Policy Institute, 1991) (reporting that 20% of strikes in a sample involved the hiring of permanent strike replacements); Peter Cramton & Joseph Tracy, *The Use of Replacement Workers in Union Contract Negotiations: The U.S. Experience, 1980-89*, 17 J. LAB. ECON. 667, 674 (1998) (reporting that 14% of all strikes involving employers with 1,000 or more workers during the 1980s involved the hiring of permanent replacement workers); Gramm & Schnell, *supra* note 22 (confirming the 20% calculation); John F. Schnell & Cynthia L. Gramm, *The Empirical Relations Between Employers' Striker Replacement Strategies and Strike Duration*, 47 INDUS. & LAB. REL. REV. 189 (1994) (same).

entitlements to reinstatement, among other things.¹¹⁹ The *Mackay Radio* doctrine is a straightforward application of the dictated solution approach.

Since the *Mackay Radio* doctrine dictates a bargaining outcome to the parties, the Coasean lawmaker's burden is to establish the dictated solution's efficiency. According to Cohen and Wachter's own standard, proponents of the *Mackay Radio* doctrine must prove that benefits accrue to one or more parties—that is, the employer, the replacement workers, and the strikers—while the other parties either benefit or are left no worse off. This part will argue that this standard cannot be satisfied.

The second assumption underlying the Cohen and Wachter analysis is that permanent replacement workers are hired from the external labor market. This assumption is true in some circumstances. It is certainly not true in all circumstances. Permanent replacement workers have been recruited from struck employers' internal labor markets. Employers use two means to recruit these incumbent employees. First, employees working in another part of the employer's operation may be invited to change locations and work in a struck location. *Mackay Radio* illustrates this point, as the employer moved employees from offices around the country to help operate its San Francisco office.¹²⁰ International Paper used a similar tactic in 1987.¹²¹ Second, employers may lure striking incumbent employees across the picket line. Trans World Airlines used this tactic successfully in the mid-1980s.¹²² Using incumbent employees as permanent strike replacements solves important problems for the employer, as this part explains.¹²³

Unlike the first assumption, however, it would not be appropriate to abandon this second assumption completely because it can be true with respect to some employers and some permanent replacement workers. Accordingly, this part will analyze the efficiency of hiring permanent replacement workers from both the internal labor market and the external labor market.

The third assumption is most important. Cohen and Wachter argued that a union's monopoly wage demands—that is, those to be prevented by the *Mackay Radio* doctrine—would raise the struck employer's wages

119. See *supra* text accompanying notes 9-22 (discussing the basics of the *Mackay Radio* doctrine).

120. See *supra* text accompanying note 10.

121. See, e.g., GETMAN, BETRAYAL OF LOCAL 14, *supra* note 43, at 72-73; Harris v. Int'l Paper Co., 765 F. Supp. 1509, 1516 (D.Me. 1991).

122. Trans World Airlines, Inc. v. Indep. Fed'n of Flight Attendants, 489 U.S. 426, 429-30 (1989).

123. See *infra* text accompanying notes 180-81.

above the wages paid by other employers in the same labor market.¹²⁴ This argument appears to presuppose that the *Mackay Radio* doctrine operates in an environment where struck unionized employers pay the same wages as other employers in the labor market.¹²⁵ Again, this assumption may be true in some cases. It is not true in all cases. Employers often pay premium wages to their unionized workers as a product of collective bargaining. This is the “union wage effect.”

The leading studies estimate that the union wage effect accounts for ten to fifteen percent-higher wages for unionized workers compared with similarly situated unorganized workers.¹²⁶ The union wage is itself a premium wage when compared with nonunion firms hiring in the same external labor market. Thus, one response to Cohen and Wachter could be that the hoard of prospective replacement workers they expect to seek employment because of the union's monopoly wage demands may already be encamped outside the unionized plant's gates because of the union wage effect.

This response has its limits, however. First, the union wage effect may be accompanied by a substantial union productivity effect.¹²⁷ Unions facilitate the internal labor market's efficiencies.¹²⁸ In part, this is a consequence of the lower level of turnover in unionized workplaces. Other causes include changed managerial structures as a result of the union's role in giving voice to workers' grievances and greater selectivity in hiring to justify the higher wages generally paid to unionized workers.¹²⁹ So, the union wage effect may not reflect a premium but a return to increased productivity.¹³⁰ Second, the union wage effect is most important when the struck employer is the sole unionized employer hiring in the external labor

124. Cohen & Wachter, *supra* note 2, at 119.

125. Cohen and Wachter also appear to assume that the wage stream negotiated by the parties prior to the union's monopolistic wage demand—that is, through earlier collective bargaining—is an efficient wage stream. Cohen & Wachter, *supra* note 2, at 118-19. For simplicity's sake, this Article accepts this assumption as true.

126. See Dau-Schmidt, *supra* note 2, at 426 (collecting studies).

127. See RICHARD B. FREEMAN & JAMES L. MEDOFF, *WHAT DO UNIONS DO?* 162-69 (1984). See also Dau-Schmidt, *supra* note 2, at 472-73 (collecting additional studies, some of which show the same results).

128. See Williamson et al., *supra* note 66, at 277.

129. FREEMAN & MEDOFF, *supra* note 127, at 174-80 (citing ALBERT O. HIRSCHMAN, *EXIT, VOICE, AND LOYALTY* (1971)). See also Dau-Schmidt, *supra* note 2, at 431-34.

130. Kenneth Dau-Schmidt has suggested nonproductivity-related rents that might also be sources for union wage and benefit increases. See Dau-Schmidt, *supra* note 2, at 426-31. These rents would become sources of profits if collective bargaining did not require the employer to pay them as wages, so Dau-Schmidt's suggestions do not undermine this argument. See generally FREEMAN & MEDOFF, *supra* note 127, at 181-84.

market or when other unionized firms are not hiring any workers from the external labor market. Otherwise, unionized firms other than the struck employer would offer wages similarly enhanced by a union wage effect. Since the union wage effect is greatest in those industries where unions have organized the largest proportion of the workers or where unions bargain for an entire industry sector, the union wage effect will be relevant to some, but not all, employers who might seek to hire permanent replacement workers.¹³¹

Nonetheless, like their second assumption, the assumption by Cohen and Wachter regarding the comparative wages of unionized and nonunion employers cannot be wholly rejected. This part will first analyze the efficiency of hiring permanent replacement workers assuming, like Cohen and Wachter, that the *Mackay Radio* doctrine operates in an environment where there is no union wage effect and will later change this assumption to take the union wage effect into account.

This part will offer two arguments. The first argument assumes, as Cohen and Wachter did, that permanent replacement workers are hired from an external labor market where there is no union wage effect. Inefficiencies arise in these circumstances because strikes involving permanent replacement workers make the struck employer substantially less desirable to prospective employees than its competitors in the external labor market. As a result, struck employers must offer some premium to prospective replacement workers to lure them across a picket line. This part will argue that bribing workers to become permanent replacement workers cannot be accomplished in a Pareto optimal manner. This part will then introduce the union wage effect into the equation and, as a result, temporarily abandon the conclusion that employers must pay an additional premium, in addition to the union wage, to recruit permanent replacement workers. This part will show that the conclusion that hiring permanent replacement workers is inefficient does not change with the assumption about the union wage effect.

After reinstating the premium premise, this part will explain that the *Mackay Radio* doctrine effectively prohibits employers from offering most types of premiums to prospective replacement workers. As a result, struck employers recruit replacement workers without offering a true premium; rather, they opportunistically exploit information asymmetries by luring prospective replacement workers with a “false premium” made possible by *Mackay Radio*. Ironically, the *Mackay Radio* doctrine facilitates

131. See FREEMAN & MEDOFF, *supra* note 127, at 51.

opportunistic behavior, rather than preventing it.

The second argument dispenses with the assumption that all permanent replacement workers are recruited from the external labor market. This part will argue that, as with the external labor market, recruiting permanent replacements from within the struck employer's internal labor market cannot be undertaken in a Pareto optimal manner.

B. An Inefficient Premium for Replacement Workers in the External Labor Market

Cohen and Wachter's conclusion about the efficiency of the *Mackay Radio* doctrine begins with two assumptions: (1) permanent replacement workers are hired in the external labor market, and (2) there is no union wage effect. For the time being, we will accept these assumptions. The struck employer's job offers to replacement workers must, therefore, satisfy the competitive conditions of the external labor market.¹³² In addition, the efficiency-minded employer would seek to preserve the benefits of the internal labor market by offering replacement workers a sunk investments/delayed dividends contract. Thus, the prospective replacement workers would make their employment decisions by comparing the sunk investments/delayed dividends contract offered by the struck employer with similar contracts offered by other employers.¹³³

1. The Need for a Premium

Struck employers seeking to hire permanent replacement workers are not similarly situated with their competitors in the external labor market, however. They are more akin to the employer who offers dangerous and unpleasant work to wary prospective employees. Strikes involving permanent replacement workers tend to be ugly, emotional affairs. Deep and long-lasting cleavages in personal lives and communities can result. Permanent replacement workers can face substantial social and physical risk.

Throughout the 1991 strike against Caterpillar Corp., for example, the citizens of Decatur, Illinois, isolated themselves: "They avoided the local diner, the bowling alley, the hardware store, the church parking lot, the

132. See *supra* notes 106-07 and accompanying text. See also Wachter & Wright, *supra* note 64, at 91 ("[T]he ILM is disciplined *ex ante* by the usual market forces . . .").

133. See *supra* note 89 (explaining that employers make a multiperiod package of wage offers that is competitive with the offers being made by other employers in the market because applicants from the external labor market are concerned with the present value of their career compensation).

traditional picnics. They stayed out of town, they simply withdrew.”¹³⁴ Jay, Maine, suffered a similar experience during the International Paper strike: “The strike inevitably changed the Jay-Livermore Falls community. It brought some people closer together, but it also created sharp, angry divisions, financial insecurity, and a dizzying feeling of change to a community once defined by connectedness, continuity, and general well-being.”¹³⁵ The International Paper strike affected everyone. Town businesses were categorized as prounion or procompany.¹³⁶ Schoolchildren identified themselves either as a striker or a scab.¹³⁷ When asked how the community had changed, Town Manager Charles Noonan stated: “[T]he strike has torn the community apart. Friendships that existed for lifetimes are gone; people who went to high school together and grew up together will not speak to each other.”¹³⁸ According to scholar Julius Getman,

[i]t is not, however, financial loss that Jay and Livermore Falls residents mention most when they discuss the strike’s impact on the community. Most speak instead of the transformation of relationships. A former striker wrote to [Getman] “It has put brother against brother, friend against friend, and neighbor versus neighbor. It will take many generations before the hurt and anger will heal.” Another striker stated, “This generation will never see a complete healing.”¹³⁹

Hiring permanent replacement workers can represent a fundamental attack on strikers’ economic security and lifestyles. As a result, some strikers suffer acute physical and mental health problems,¹⁴⁰ marriages dissolve, friendships end, and communities are split.¹⁴¹ Others turn to

134. STEPHEN FRANKLIN, *THREE STRIKES: LABOR’S HEARTLAND LOSSES AND WHAT THEY MEAN FOR WORKING AMERICA* 173 (2001).

135. GETMAN, *BETRAYAL OF LOCAL 14*, *supra* note 43, at 113.

136. *Id.* at 118.

137. *Id.* at 120.

138. *Id.* at 211.

139. *Id.*

140. Stephen Franklin, *For Caterpillar Workers, Scars Are Deep Within*, CHI. TRIB., Feb. 11, 1996, at 1 (Bob Griffin had two heart attacks, one in 1992, a few months after the strike began, the second on his sixth day back at work, January 1996; he “hit a button to start a machine, stepped back and blacked out . . . his heart had failed again . . . ‘Maybe I was due for another heart attack,’ ‘[b]ut I think things at the plant sure helped it along’”). *See also* FRANKLIN, *supra* note 134, at 244-45; GETMAN, *THE BETRAYAL OF LOCAL 14*, *supra* note 43, at 214.

141. Franklin, *For Caterpillar Workers*, *supra* 140 (At Caterpillar, “[t]hough the human toll will likely never be totaled, it’s clear that marriages collapsed or foundered, friendships tore apart, workers lost faith in one another, lives took troubling turns and, in a few instances, they ended in despair”);

violence against the replacement workers and line crossers, commonly known to strikers as “scabs.” Incidents have ranged from death threats to physical confrontations, and even gunshots have been fired at the replacement workers’ homes or cars. The International Paper strike again offers one example. When the company hired permanent replacements, the strikers made crossing the line as uncomfortable as possible; “[t]hey cursed, threatened, shoved, sometimes punched, and often threw rocks. They placed on the road ‘super striker nails’ that were drilled and tack welded to a washer.”¹⁴² Replacement workers would add fuel to the fire by driving across the picket lines, waving their checks, and making obscene gestures at the strikers.¹⁴³ The most violent night of the strike was August 12, 1987, when the strikers filled the road during a shift change at the plant.¹⁴⁴ The strikers were chanting slogans, beeping their horns, and shouting insults at the replacement workers.¹⁴⁵ Several confrontations occurred, including threats, property attacks, and physical assaults.¹⁴⁶ In one case, the strikers grabbed a replacement worker out of his car and began kicking him.¹⁴⁷

Reports of violence also arose during the Caterpillar strike when the company began hiring permanent replacement workers and union members began to cross the line. Within days, several of the workers who crossed the union’s picket lines claimed that dead animals were left on their doorsteps, death threats were made over the phone, and tire tracks were left in their yards, right to their front doors.¹⁴⁸ One replacement worker reported being shot at as he drove by the picket lines.¹⁴⁹ Some line crossers filed lawsuits alleging that they were stalked after work and at

Donald W. Nauss, *Who Will Strike Out?: Detroit Newspaper Walkout Has Become a Test of Wills*, L.A. TIMES, Nov. 21, 1995, at D1 (“The [Detroit newspaper] dispute has become a subject of Sunday sermons and an issue in local elections. It has divided friends and families. Subscribers have posted signs in their front yards: ‘No Free Press or News wanted here.’ ‘Subscriber on strike.’”); Jacques Steinberg, *Nurses’ Strike Leaves a Town in Need of Healing; Relatives Aren’t Speaking, Hospital Workers Are Taunted and Patients Go Elsewhere*, N.Y. TIMES, Dec. 27, 1994, at B1 (“The strike has divided this working-class community on a far more intimate level than it would in a big city, with family members and longtime friends in opposing camps. ‘You get people who worked together for years and now they’re fighting each other,’ said Carman Prisco, a retired carpenter who has lived in Orange County most of his life.”). See also FRANKLIN, *supra* note 134, at 1; GETMAN, BETRAYAL OF LOCAL 14, *supra* note 43, at 215.

142. GETMAN, BETRAYAL OF LOCAL 14, *supra* note 43, at 47-48.

143. *Id.* at 50.

144. *Id.* at 49.

145. *Id.*

146. *Id.*

147. *Id.*

148. FRANKLIN, *supra* note 134, at 128-29.

149. *Id.*

their homes, gunshots were fired at their homes, and their trucks and cars were vandalized.¹⁵⁰

Also in Decatur during that period, replacement workers at A.E. Staley and Bridgestone/Firestone reported experiencing the same kind of treatment:

Shots had been fired through the windows of the homes of union workers who had deserted their unions. Pipes had been thrown Rocks and sharp objects and planks of wood with nails driven through them were laid down on the driveways of company officials, strikebreakers, and the union deserters, and in front of the factories.¹⁵¹

Several homemade bombs were allegedly “tossed onto Staley’s grounds.”¹⁵²

The Detroit News strike began on July 13, 1995, and lasted until February 1997.¹⁵³ There were reports by some newspaper delivery carriers that newspapers were stolen off their trucks, while others reported that their cars were vandalized.¹⁵⁴ At least one carrier filed a report for assault and others reported that the strikers were calling their homes and threatening them and their families.¹⁵⁵ Eventually the violence spread into the community, newspapers were stolen from businesses, and clerks in stores were cursed at for selling the newspapers.¹⁵⁶

The Greyhound Bus Line strike offers another unfortunate example. In the first four months of the strike, fifty-two sniper attacks on buses carrying passengers were reported.¹⁵⁷ One Greyhound striker was killed when the rear wheels of a bus driven by a trainee crushed him.¹⁵⁸

The hiring of permanent replacement workers can affect the community, the strikers, the replacement workers, and the employer for years after the strike has been resolved. Within the workplace, returning

150. *Id.* at 131-32.

151. *Id.* at 171.

152. *Id.*

153. Detroit Newspaper Agency, 2000 N.L.R.B. LEXIS 144 (Mar. 13, 2000).

154. *Strike*, DETROIT NEWS, July 17, 1995, at 1A. *See also* Doug Durfee & Tim Weller, *Paper Carriers Are Innocents Caught in Strike’s Cross Fire; Trying to Earn a Living, They Are Taunted as Scabs. Threats Make Delivering Papers Risky Business*, DETROIT NEWS, July 18, 1995, at 1A.

155. *See* Durfee & Weller, *supra* note 154.

156. *Id.*

157. David Gonzalez & James C. McKinley Jr., *Violence and the News Strike: Anger, Blame and Distrust*, N.Y. TIMES, Mar. 2, 1991, § 1, at 1.

158. The Associated Press, *Greyhound Strikers Accept Pact; Immediate Return to Work Urged*, N.Y. TIMES, Dec. 20, 1983, at A1.

strikers can be forced to work with permanent replacements and line crossers,¹⁵⁹ even though powerful tensions remain between them.¹⁶⁰ Distrust of the union and the employer may abound.¹⁶¹ Anger and animosity can build up among the workers.¹⁶² Years after the Caterpillar strike ended, reporter Stephen Franklin returned to Decatur, Illinois, to speak with the former strikers. He found that “[b]eing back at work changed nothing. The Caterpillar workers were still miserable, still angry. They didn’t like being losers, didn’t like facing continued uncertainty, didn’t like the feeling of always being watched by their bosses, didn’t like working next to scabs.”¹⁶³ Franklin described workers still living in fear:

a fear fed by the recent labor disputes, a fear that the good times are over for some, a fear that not everyone clearly shares the same vision, a fear that not everyone benefits from the same payoff. Some workers are uneasy, unsure, and unnerved about the scenarios they see. They sense that long-term stability may no longer be an asset. It has turned into a burden, a mark of a lack of flexibility. They see how pensions have been curtailed, how benefits have been trimmed back. They watched as layoffs are no longer synchronous with the bad times, but come and go as their companies change directions or need to bleed themselves to keep profits up. They watch as older workers are pared from the payrolls through massive cutback schemes.¹⁶⁴

Franklin found the community in Decatur had changed and seemed to be split forever.¹⁶⁵

159. See, e.g., Steven Franklin et al., *Back on job, strikers wonder: Was it all worth it?*, CHI. TRIB., Sept. 10, 1992 (Where Jan Firmand, a Caterpillar striker, tells how she was forced to work with the “number one line crosser,” Dick Owens). See also FRANKLIN, *supra* note 134, at 248.

160. See e.g., Steven Franklin et al., at 1 (“To Jimmie Toothman, [another Caterpillar striker] by-gones are not by-gones. He still feels personally betrayed by those who crossed, and he makes his feelings clear.”). See also GETMAN, *BETRAYAL OF LOCAL 14*, *supra* note 43, at 184.

161. See e.g., Franklin et al., *supra* note 159, at 1 (“[The strikers] were angry with the union for a failed strike that cost some of them \$20,000 in wages. They were angry with their union brothers and sisters who had bowed to Caterpillar’s threat rather than honor their own picket line. They were angry at those in the Peoria community who stood not with them but with Caterpillar as the company vowed to replace the striking workers. But most of all they were angry with Caterpillar itself for moving to hire outsiders to take their jobs . . .”). See also FRANKLIN, *supra* note 134, at 263.

162. See, e.g., Franklin et al., *supra* note 159, at 1. See also, GETMAN, *BETRAYAL OF LOCAL 14*, *supra* note 43, at 185-87.

163. FRANKLIN, *supra* note 134, at 248.

164. *Id.* at 263.

165. See also *Diamond Walnut Growers, Inc. v. NLRB*, 80 F.3d 485, 487-88 (D.C. Cir. 1996) (finding that strike was marked by violence such that the employer placed returning strikers in lower and highly visible positions to avoid any violence between the returning strikers and the replacement

The labor economics literature explains that employers offering undesirably dangerous jobs must provide a premium if they are to recruit successfully in the external labor market.¹⁶⁶ For the same reason, employers seeking to hire permanent replacement workers may also be required to offer a premium in some form.¹⁶⁷ Otherwise, the employers' recruitment efforts will necessarily fail in the competitive conditions of the external labor market. Inducing a replacement worker to voluntarily insert herself into the potentially violent eye of a protracted storm requires some additional, perhaps substantial, compensation.

As this part explains, "premium" need not be synonymous with a higher nominal wage than the employer pays to its incumbent, unionized employees. In fact, pursuant to internal labor market theory, it would be surprising if a prospective permanent replacement worker were offered a nominal wage higher than that paid to incumbent employees. New entrants into sunk investments/delayed dividends contracts (i.e., workers at Age *A* on Figure 1) should be paid substantially less than incumbent employees with anything more than zero job tenure (i.e., any age above Age *A*).¹⁶⁸

workers); *Harris v. Int'l Paper Co.*, 765 F. Supp. 159 (D. Me. 1991) (finding hostile work environment where the African-American permanent replacement workers were repeatedly subjected to racist statements by co-workers and supervisors); *Brown & Sharpe Mfg. Co.*, 299 N.L.R.B. 586, 590 (1990) (citing two large demonstrations in which people were injured and property was damaged and incidents in which some replacement workers were harassed at their homes and assaulted where they met to car pool); *Gloversville Embossing Corp.*, 297 N.L.R.B. 182, 194 (1989) ("[N]onstriking employees and replacement workers must be prepared to contend with some unpleasanties in a strike situation A strike is essentially a battle waged with economic weapons. Engaged in it are human beings whose feelings are stirred to the depths. Rising passions call forth hot words. Hot words lead to blows on the picket line. The transformation from economic to physical combat by those engaged in the contest is difficult to prevent even when cool heads direct the fight."); *Illinois v. Fed. Tool & Plastics*, 62 Ill. 2d 549, 556 (Ill. 1975) (striking down Illinois statute requiring employer to state when advertising for replacement workers that there is an ongoing strike, "[a]lthough it was probably motivated by a desire to protect prospective employees from unwittingly becoming involved in a potentially hostile situation"); *LeRoy, Employer Treatment*, *supra* note 43, at 25-26 (describing violent conditions associated with the strike at Pittston Coal Group); *LeRoy, Picket Line Peace*, *supra* note 43, at 844, 854-56 (describing almost identical violent and emotionally and economically wrenching conditions arising out of the permanent replacement strike by United Food and Commercial Workers' Local P-9 against Geo. A. Hormel & Co. in Austin, Minnesota).

166. See, e.g., EHRENBERG & SMITH, *supra* note 66, at 43-44; Peter Dorman & Paul Hagstrom, *Wage Compensation for Dangerous Work Revisited*, 52 INDUS. & LAB. REL. REV. 116 (Oct. 1998); Morley Gunderson & Douglas Hyatt, *Workplace Risks and Wages: Canadian Evidence from Alternative Models*, 34 CAN. J. ECON. 377 (2001) (collecting studies); W. Kip Viscusi, *The Value of Risks to Life and Health*, 31 J. ECON. LIT. 1912 (Dec. 1993).

167. It is possible, at least in theory, that some strikes involving permanent replacement workers would not result in the kinds of unpleasantness described in this part. If so, the struck employer would not be required to pay a premium to recruit permanent replacement workers in the external labor market. Those struck employers' situation would be analyzed in the same manner as that described *infra* in Part III.B.3.

168. See, e.g., *infra* note 256 (permanent replacement workers at Bridgestone/Firestone offered

The relevant concept when considering whether a premium has been offered is the present value of the prospective replacement worker's career compensation. As noted above, workers in the external labor market make their choices between prospective employers, in part, by comparing the present value of career compensation offered by each employer. The struck employer must measure up against this yardstick.

2. *Legal and Economic Risks of Paying a Premium*

Mackay Radio's progeny limit struck employers' ability to offer premiums to prospective replacement workers. An employer that pays permanent replacement workers more than it has offered to unionized workers at the bargaining table commits an unfair labor practice under Sections 8(a)(1), (3), and (5) of the Act.¹⁶⁹ An employer providing permanent replacement workers with additional vacation days also commits an unfair labor practice.¹⁷⁰ Employers cannot offer permanent replacement workers many types of superseniority without committing an unfair labor practice.¹⁷¹

30% less than wages paid to striking incumbent employees).

169. See, e.g., *Burlington Homes, Inc.*, 246 N.L.R.B. 1029, 1032 (1979); *Soule Glass & Glazing Co.*, 246 N.L.R.B. 792, 806 (1979), *enfd in part and denied in part*, 652 F.2d 1055 (1st Cir. 1981); *Glazers Wholesale Drug Co.*, 211 N.L.R.B. 1063, 1060 (1974), *enfd* 523 F.2d 1053 (5th Cir. 1975). See also *Belknap, Inc. v. Hale*, 463 U.S. 491, 494-95 (1983) (noting that NLRB's Regional Director issued a complaint against employer on the grounds that a unilateral wage increase for permanent replacement workers violates Sections 8(a)(1), (3), and (5)). A premise of the decision resting on Section 8(a)(5) is that the employer imposed the wage increases unilaterally rather than through bargaining with the union. Since it is virtually certain that a union would not agree to higher wages for replacement workers than for incumbent unionized workers, a failure to bargain in good faith must be subsumed in any wage premium paid to replacement workers. An employer may unilaterally change existing terms and conditions of employment if, and only if, the "changes [are] reasonably comprehended within [its] final proposal . . ." *Brady-Stannard Motor Co.*, 273 N.L.R.B. 1434, 1435 (1985).

170. See *NLRB v. Great Dane Trailers, Inc.*, 388 U.S. 26 (1967) (holding that employer may not provide vacation benefits to replacement workers that it did not provide to strikers simply on the grounds that the replacement workers were employed on the date when the vacation benefits became available).

171. See *NLRB v. Erie Resistor Corp.*, 373 U.S. 221 (1963). *Trans World Airlines, Inc. v. Independent Federation of Flight Attendants*, 489 U.S. 426 (1989) [hereinafter *TWA v. IFFA*] appears to limit the holding in *Erie Resistor* by concluding that an employer may apply the existing seniority provisions of the collective bargaining agreement to allow "crossover" replacement workers (i.e., incumbent workers who cross the picket line to return to work before the end of the strike) to retain the jobs they filled during the strike, even though strikers' seniority would have otherwise entitled the strikers to those jobs. It is important to note, however, that *TWA v. IFFA* was decided pursuant to the Railway Labor Act (RLA) rather than the NLRA. The *TWA* Court reminded that courts "have read the RLA to provide greater avenues of self-help to parties that have exhausted the statute's 'virtually endless' dispute resolution mechanisms than would be available under the NLRA." *Id.* at 439 (citation omitted).

The risks are greater than any penalties associated with the instant unfair labor practice. Economic strikes can be transformed into unfair labor practice strikes. If so, the employer sacrifices its ability to hire permanent replacement workers at all. Employers may not permanently replace strikers protesting an unfair labor practice.¹⁷² Since unfair labor practice cases can take years to adjudicate, employers illegally hiring permanent replacement workers may expose themselves to substantial back pay liability.¹⁷³ Thus, employers face powerful disincentives to launching recruitment efforts that include offering prospective permanent replacement workers wage premiums or many kinds of superseniority.

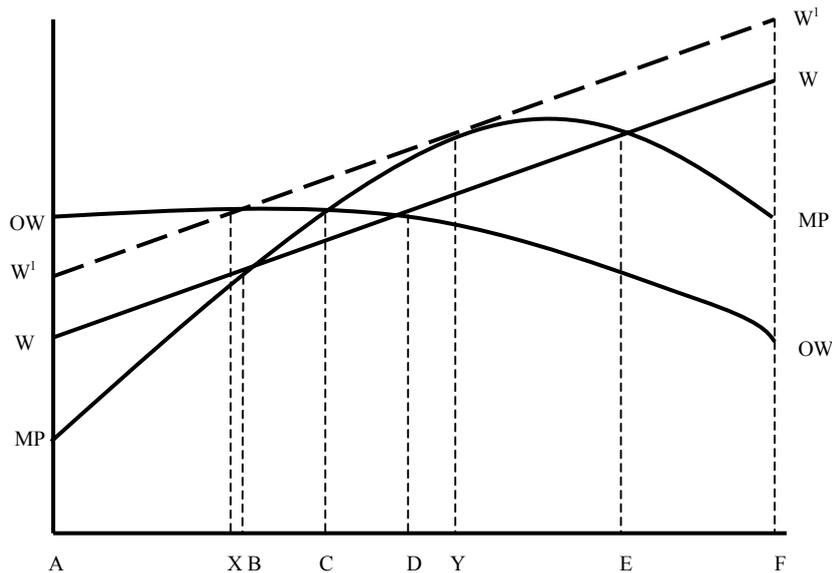
Even for employers willing to bear the risk of the legal remedies that attend an unfair labor practice, actually paying permanent replacement workers a premium wage is not efficient. Figure 2 illustrates this point. W represents the wage path agreed upon by the parties that maximizes their shared benefits from the sunk investments/delayed dividends contract. W^1 represents the monopoly wage demanded by a union seeking to expropriate the employer's dividend.¹⁷⁴

172. Refusing to reinstate an unfair labor practice striker violates Sections 8(a)(1) and (3) of the Act. *NLRB v. Fleetwood Trailer Co.*, 389 U.S. 375, 378 (1967); *Mastro Plastics Corp. v. NLRB*, 350 U.S. 270, 286 (1956); *United Steelworkers of Am. v. NLRB*, 983 F.2d 240, 247 (D.C. Cir. 1993); *NLRB v. Charles D. Bonnano Linen Serv., Inc.*, 782 F.2d 7, 10-11 (1st Cir. 1986) (holding that conversion from an economic strike to an unfair labor practice strike gives the strikers the ability to secure reinstatement).

173. *NLRB v. Int'l Van Lines*, 409 U.S. 48, 50-51 (1972); *Mastro Plastics Corp.*, 350 U.S. at 278. See Douglas E. Ray, *Some Overlooked Aspects of the Strike Replacement Issue*, 41 U. KAN. L. REV. 363, 372-81 (1992). Ray suggested that this looming penalty creates a powerful incentive for employers eager to preserve the permanent replacement weapon to avoid committing unfair labor practices. See *id.* at 365-66 ("Eliminating the employer's ability to hire permanent replacements when its unfair labor practices cause or prolong the strike is currently a more effective deterrent to bad faith bargaining than other Board remedies. Legally questionable behavior will either reduce the employer's bargaining leverage by possibly disallowing the option of hiring permanent replacements or expose it to years of uncertainty and risk of substantial back pay liability to unreinstated strikers as the issue is litigated.").

174. W^1 need not be set at this high level in order for this analysis to prove true. If W^1 were set at a level closer to W , the employer would recoup some of its investment and the worker would experience a lesser windfall, but the difference is quantitative, not qualitative.

Figure 2



If the employer were to promise and actually pay permanent replacement workers wages tracking W^1 , the employer could not recoup its investments. There would be no time during the worker's career at which marginal productivity would exceed W^1 . On the other hand, the permanent replacement worker would invest less and for a shorter period in return for a far greater dividend. Figure 2 nicely illustrates the source of the employer's unwillingness to agree to the union's monopolistic wage demand. The employer does not derive its portion of the dividends from the internal labor market's efficiencies if it employs permanent strike replacements at a premium wage. Since hiring permanent replacement workers at a premium wage causes the employer to lose returns on its investments, it is not Pareto optimal.

The employer might try to recoup its investment by breaching its wage deal with the permanent replacement workers. For example, the employer might offer the prospective replacement worker a wage premium and, consistent with that offer, pay the replacement worker a higher wage at the start of their relationship. At some point, the employer would stop increasing the replacement's pay. Productivity would rise and, at some point thereafter, exceed the wage. The employer would recoup its investment. A shrewd employer seeking to keep that replacement worker

in its employ would assure that the postbreach wage exceeded the employee's opportunity wage so that the employee derived some benefit, albeit a smaller benefit than expected, from remaining in her job. This small benefit might be sufficient to keep the replacement worker from quitting, or so the employer would hope.

Figure 3

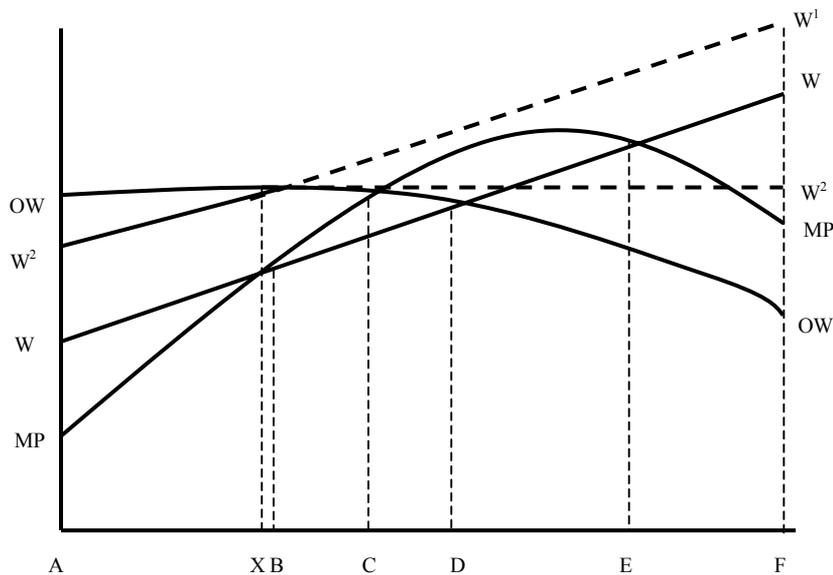


Figure 3 illustrates this breach-of-contract strategy. W^2 represents the monopoly wage demanded by the union. The replacement worker receives a premium wage from Age A to Age X . At Age X , the employer halts all wage increases and holds wages constant through Age F rather than paying the promised wage stream W^1 . Compared with the Pareto-optimal sunk investments/delayed dividends contract that produces wage stream W , the replacement worker makes a smaller investment from Age A to Age X in order to reap a smaller dividend from Age D until Age F . The employer makes a larger investment from Age A to Age C but reaps a larger dividend beginning at Age C and continuing to Age F or thereabout. Thus, the breach-of-contract strategy is not Pareto optimal because the employer's profits increase at the expense of the replacement workers' compensation.

Mackay Radio's progeny have further complicated the breach-of-contract strategy. After *Belknap, Inc. v. Hale*,¹⁷⁵ an employer that does not fulfill its promises to replacement workers may be liable under state law for breach of contract or fraudulent misrepresentation.¹⁷⁶ An employer found liable may be required, at a minimum, to reimburse the replacement worker for the difference between the wage promised (W^1) and the wage paid (W^2). The employer would be returned to the non-Pareto-optimal conditions graphed in Figure 2.

Sunk cost losses await even the employer who is able to evade state contract or tort liability after breaking its promises to the replacement workers.¹⁷⁷ When compared with wage stream W , wage stream W^2 substantially increases the likelihood that the replacement workers would quit at some point after Age X . As the level of the employee's investment in its relationship with the employer declines and the amount of deferred dividend from that investment shrinks, the employee's commitment to a long-term relationship with the employer justifiably fades. Replacement workers are particularly likely to quit early in their careers when their real wage approximates their opportunity wage (i.e., from Age X to about Age D). Of course, the premature departure of the employee transforms both the employee's investment in firm-specific skills and the employer's investment in the employee into sunk cost losses. In sum, an employer's decision to offer a wage premium to permanent replacement workers, even if the employer attempts an efficient breach of its contract with the workers, is not efficient.

Superficially, it might appear that rapid turnover of permanent replacement workers would generate productivity benefits. Strikers may, at least in theory, return to work when the permanent replacement workers

175. 463 U.S. 491 (1983).

176. See *id.* at 512 (holding that the NLRA did not preempt replacement workers' state law breach-of-contract and misrepresentation claims against an employer who assured the replacements that it would not terminate them to reinstate strikers and later did exactly that). This issue may arise, for example, when the employer settles the strike with the union and agrees to reinstate the striking workers. Reinstating strikers by breaching an agreement with permanent replacement workers does not constitute an unfair labor practice. See Michael D. Moberly, *Striking Bargains: The At-Will Employment of Permanent Strike Replacements*, 18 HOFSTRA LAB. & EMP. L.J. 167, 185-91 (2000).

177. While some replacement workers have found success bringing state law contract claims against employers who breach their agreements for "permanent" employment, the record is decidedly mixed. Compare Moberly, *supra* note 176, at 204-16 (collecting cases in which workers' claims were successful) with *id.* at 192-98, 218-22 (collecting cases in which workers' claims were unsuccessful). These results are not surprising given the wide latitude employers have to condition their employment offers to replacement workers without threatening the workers' status as "permanent" replacements. See *infra* note 196 and accompanying text.

quit.¹⁷⁸ These striking incumbent workers already possess the firm-specific skills necessary to achieve the internal labor market's promise of heightened productivity. If the strikers return quickly, then the employer's production losses and the strikers' loss of wages will be limited. But evidence suggests that strikes involving the hiring of permanent replacement workers last longer than other strikes.¹⁷⁹ Thus, even if an employer breaches its contracts with the "permanent" replacement workers and avoids incurring any contract or tort liability from the resulting lawsuits, the striking workers would return to work more quickly if the employer hired temporary replacements or used only managers, supervisors, and incumbent workers employed outside the bargaining unit. The seeming efficiencies of the *Mackay Radio* doctrine are illusory in this instance, as well.

3. *The Premium Premise Abandoned*

At this point, we will abandon the premise that the struck employer must offer prospective permanent replacement workers a premium to recruit them from the competitive environs of the external labor market. Abandoning the premium premise serves two purposes. First, it allows for the existence of a union wage effect in the labor market in which the struck employer is seeking to recruit permanent replacement workers. In the presence of a union wage effect, the struck employer may not need to offer an additional premium because the union wage is itself a premium. Second, it leaves open the possibility, slim given the evidence, that a strike involving permanent replacement workers does not devolve into unpleasant and dangerous conditions for the prospective permanent

178. There is excellent reason for skepticism that this theory plays out in practice. See *supra* note 22.

179. See, e.g., Schnell & Gramm, *supra* note 117, at 189 (offering one study and collecting others showing that the hiring of permanent strike replacements is associated with longer strike duration). Studies analyzing Canadian provincial legislation have shown that legislative bans on replacement workers increase the duration and incidence of strikes. See, e.g., John W. Budd, *Canadian Strike Replacement Legislation and Collective Bargaining: Lessons for the United States*, 35 INDUS. REL. 245 (1996); Peter Cramton et al., *Impacts of Strike Replacement Bans in Canada*, 50 LAB. L.J. 173 (1999); Morley Gunderson et al., *The Effects of Canadian Labour Relations Legislation on Strike Incidence and Duration*, 40 LAB. L.J. 512 (1990) (summarizing studies); however, most Canadian legislation on this subject effectively prohibits employers' use of *all* replacement workers, not merely permanent replacement workers. See John W. Budd & Yijang Wang, *The Ambiguity of Strike Replacement Legislation and Wages: A Sequential Investment-Bargaining Model*, in David Lewin & Bruce E. Kaufman, 9 ADV. INDUS. LAB. REL. 239 (1999) (collecting the relevant Canadian provincial statutes). Struck Canadian employers in provinces governed by this kind of law may be effectively prohibited from operating at all during a strike. As a result, unions are empowered and employers are disempowered to a far greater degree than they would be if the *Mackay Radio* doctrine were reversed.

replacement workers. It is theoretically possible that no premium would be required in these circumstances, as well.

Assume that the struck employer can recruit permanent replacement workers in sufficient numbers by offering prospective employees either the same prestrike wage it pays to its unionized workforce or its last wage offer at the bargaining table. In Figure 1, this is wage stream W . By definition, workers newly hired from the external labor market have not yet acquired any firm-specific skills and knowledge. Internal labor market theory teaches that the striking workers have already acquired these skills and, as a result, are more productive than their replacements.¹⁸⁰

Figure 1 illustrates that this proposition should be true regardless of the job tenure of the strikers, as long as the strikers have job tenure greater than zero. Incumbent workers' marginal productivity never falls below the marginal productivity of workers newly hired from the external labor market. The average job tenure of the striking workers merely discloses the size of the productivity differential between the strikers and their replacements. Since unionized workers enjoy a long job tenure, on average, compared with nonunion workers,¹⁸¹ the productivity differential between unionized workers and their replacements should typically be very substantial, even though the replacement workers' wages track wage stream W . So, the employer is worse off after hiring permanent replacement workers from the external labor market because its aggregate

180. See *supra* text accompanying notes 66-68 (discussing the productivity advantage of workers in the internal labor market).

181. John T. Addison & Albert C. Castro, *The Importance of Lifetime Jobs: Differences Between Union and Nonunion Workers*, 40 INDUS. & LAB. REL. REV. 393, 402 (1987). See also Marleen A. O'Connor, *The Human Capital Era: Reconceptualizing Corporate Law to Facilitate Labor-Management Cooperation*, 78 CORNELL L. REV. 899, 907 n.21 (1993) (supporting Addison and Castro's findings that the union workers' higher tenure might be due to an informational advantage over nonunion workers); Schwab, *Life-Cycle Justice*, *supra* note 66, at 12 n.15 (supporting Addison and Castro's findings regarding higher tenure for union workers over nonunion workers, but also recognizing that nonunion workers also "enjoy considerable lifetime tenure after the job shopping years"). See Marion G. Crain, *Feminizing Unions: Challenging the Gendered Structure of Wage Labor*, 89 MICH. L. REV. 1155, 1210 n.305 (1991) (using Addison and Castro's findings regarding increased job tenure to support her own assertion that women benefit from union organization); Martin H. Malin, *The Distributive and Corrective Justice Concerns in the Debate Over Employment-At-Will: Some Preliminary Thoughts*, 68 CHI.-KENT L. REV. 117, 136 (1992) (positing that unionized workers find "career-length" employment earlier than nonunionized workers); Marleen A. O'Connor, *Restructuring the Corporation's Nexus of Contracts: Recognizing A Fiduciary Duty to Protect Displaced Workers*, 69 N.C. L. REV. 1189, 1204 n.89 (1991) (also supporting Addison and Castro's findings that the union workers' higher tenure might be due to an informational advantage over nonunion workers). This proposition is true for two principal reasons: (1) workers are better able to exercise "voice" through grievance and arbitration systems than "exit" as a strategy for redressing their employment-related concerns; and (2) collective bargaining agreements generally contain seniority provisions. FREEMAN & MEDOFF, *supra* note 127, at 94-101, 103-07.

productivity declines substantially. The premium premise, while a reasonable assumption, is not necessary to the conclusion that hiring permanent replacement workers is inefficient.

4. *Opportunity Costs*

Coase warned that efficiency analyses must include consideration of opportunity costs.¹⁸² In the case of the *Mackay Radio* doctrine, striking employees are idled by the hiring of permanent replacement workers; therefore, the relevant opportunity cost is the strikers' productivity and wages in new jobs.¹⁸³ If the strikers were more productive at new jobs than in the jobs they lost to permanent replacement workers, and the strikers thereby earned higher wages in the new jobs, then opportunity costs might transform an otherwise negative social product resulting from the hiring of permanent replacement workers into a positive social product.

Internal labor market theory teaches, however, that strikers will be less productive and earn lower career compensation if they seek jobs in the external labor market rather than remaining with their current employer; in fact, this is the premise for internal labor markets' efficiency.¹⁸⁴ Referring back to Figure 1, incumbent employees older than Age *D* would suffer a nominal wage and productivity cut if they sought jobs in the external labor market. Incumbent employees younger than Age *D* have a higher nominal opportunity wage than their present wage, but the present value of all workers' career compensation with their present employer far exceeds the present value of their opportunity wage stream. Similarly, the present value of incumbent employees' marginal productivity in their current jobs exceeds the present value of their opportunity wage.

Some empirical evidence supports the conclusion drawn from internal labor market theory that strikers would not benefit or become more productive in new jobs. Charles Schultze has shown that workers with long job tenures suffer a substantial loss of earnings—in the vicinity of 25% of former earnings—after being displaced from a job for an extended period after the displacement occurs.¹⁸⁵ An employee might be more

182. See *supra* text accompanying notes 33-36.

183. This scenario assumes the employer carries out a decision to hire permanent replacement workers. A struck employer who has not made such a decision may choose from several responses to a strike. See *supra* text accompanying note 118. Several of these responses may also entail opportunity costs.

184. See *supra* text accompanying notes 66-68 (explaining why internal labor markets are more efficient for workers and employers).

185. Schultze, *supra* note 67, at 52-59.

productive and earn less in a new job; however, these conditions would not satisfy the Cohen and Wachter definition of Pareto optimality since the worker would suffer a loss. In addition to these wage problems, Paul Weiler correctly explained that

a new job is not fungible with an old job even if the jobs are virtually the same in type, pay, and conditions. An employee who has worked his way up the seniority ladder with one firm and now enjoys all the perquisites that long service provides loses this major advantage when he leaves his current job.¹⁸⁶

So, adding opportunity costs to the efficiency calculus for permanent replacement of striking workers does not require changing the conclusion that the *Mackay Radio* doctrine is inefficient. In fact, it strengthens that conclusion.

C. The External Labor Market and the "False Premium"

Because some empirical evidence supports it, I will reinstate the premise that struck employers must offer some premium to prospective replacement workers to lure them into employment.¹⁸⁷ *Mackay Radio* is best understood as the first of several Supreme Court decisions defining the permissible contents of agreements reached between struck employers and replacement workers in the external labor market.¹⁸⁸ In essence, *Mackay Radio* authorized employers to offer prospective replacement workers a premium consisting of a promise that they would have job security after the conclusion of the strike that inspired their hiring.¹⁸⁹ Since employers cannot efficiently or legally pay a wage premium to permanent

186. WEILER, GOVERNING, *supra* note 13, at 66. See also FREEMAN & MEDOFF, *supra* note 127, at 122-31 (discussing the effects of seniority provisions).

187. LeRoy found circumstantial evidence that supports the premium premise. Employers offered prospective replacement workers illegal employment preferences in 33.6% of the strikes involving permanent replacement workers that occurred between 1935 and 1963. Even after the Supreme Court's decision in *NLRB v. Erie Resistor Corp.* prohibited employers from offering these inducements, employers still illegally offered the employment preferences in almost 25% of the permanent replacement strikes that occurred between 1964 and 1991. LeRoy, *Employer Treatment*, *supra* note 43, at 19. This evidence suggests that employers felt they needed to offer prospective recruits some premium, even an illegal premium that put the employers' legal position at risk, before the recruits would cross into unpleasant and potentially dangerous work as permanent replacement workers. See also *supra* note 169 (listing cases in which employers made this argument).

188. Among the other decisions are *TWA v. IFFA*, 489 U.S. 426 (1989); *Belknap, Inc. v. Hale*, 463 U.S. 491 (1983); *NLRB v. Erie Resistor Corp.*, 373 U.S. 223 (1963).

189. These promises of poststrike job security secure the replacement workers' legal status as "permanent." See *supra* note 15.

replacement workers, the question remains whether the job-security premium sanctioned by *Mackay Radio* is efficient, or even genuine.

Answering this question requires an understanding of how the *Mackay Radio* doctrine helps employers induce workers in the external labor market to enter into sunk investments/delayed dividends contracts that include replacing striking workers. Prospective replacement workers have even less information about their prospective employer when negotiating an employment contract than do other job seekers in the external labor market, as otherwise available informal channels of information are likely to be closed to them.¹⁹⁰ In particular, they have the least information about the factors that enter into a sunk investments/delayed dividends contract: their productivity in their prospective jobs, the wages they will earn beyond an initial period and a generally stated promise regarding subsequent wages, and the duration of their employment. In a typical negotiation over a sunk investments/delayed dividends contract, the employer would not reveal its knowledge regarding these factors.¹⁹¹

The employer would prefer not to reveal its specific intentions regarding the duration of the worker's employment with the firm. During the initial negotiation, the employer seeks to preserve flexibility so that it may discharge unproductive workers. The employer would prefer to keep this information private until it knows more about the worker's productivity level, propensity for shirking, and, therefore, its monitoring costs.¹⁹² For example, the employer might be willing to give a specific assurance of a term of employment during a renegotiation that occurs at Age *B* in Figure 1 if it has concluded from the experience gained between Age *A* and Age *B* that the worker will sustain the required level of productivity (*MP*).

An employer's invocation of *Mackay Radio* (or a promise inspired by *Mackay Radio*) appears to the prospective employee to constitute a revelation of otherwise private information: that is, the employer's assurance that employment will extend beyond the end of the strike. This is material information to the worker in her calculation of the employment offer's value. The present value of career compensation is the discounted product of tenure and wages. A seemingly firm commitment on the part of the employer to long-term employment increases the value of that employer's offer of career compensation. Thus, the *Mackay Radio* doctrine authorizes struck employers to offer an apparent career-

190. See *supra* text accompanying notes 87-89. See also *infra* text accompanying note 262.

191. See *supra* text accompanying notes 87-89.

192. See *supra* text accompanying notes 101-02.

compensation premium to workers if they agree to serve as permanent replacements for striking workers.

This apparent premium delivers substantially less than it promises, however, for two reasons. First, internal labor market theory presupposes that the profit-maximizing employer will seek and assure a long-lasting, even career-long, relationship with a productive worker.¹⁹³ Productive permanent replacement workers who enter into a sunk investments/delayed dividends contract are no better off if they receive the promise of poststrike job security authorized by the *Mackay Radio* doctrine than they would have been after accepting another employer's offer. Their job security comes not from *Mackay Radio* and its progeny, but from the employer's self-interest in deriving the sunk investments/delayed dividends contract's benefits. Productive workers should not fear a pink slip, at least until the latter stages of their careers.¹⁹⁴ Workers whose productivity is so low that retaining them would deprive the employer of its investment dividends might benefit from *Mackay Radio*'s job-security promise, if it can be enforced. For productive workers, the *Mackay Radio* doctrine creates a fiction. The employer appears to offer replacement workers a substantial premium when it actually offers no premium at all.

Second, workers who have been promised a *Mackay Radio* premium face the same enforcement problem that generally attends sunk investments/delayed dividends contracts. The magical incantation that transforms a replacement worker into a "permanent" replacement worker has been the subject of some controversy.¹⁹⁵ It is clear, nonetheless, that *Mackay Radio*'s progeny do not require an employer to pledge career-long fealty to a "permanent" replacement. In fact, replacement worker-litigants have found it difficult to enforce even very specific employer promises of "permanent" employment for two reasons: inability to show adequate consideration and the wide latitude given employers to condition their offers of "permanent" employment.¹⁹⁶

Merely revising *Belknap, Inc. v. Hale* to provide for the strict enforcement of employers' job-security promises would not solve the

193. See *supra* note 69.

194. See *supra* note 78.

195. See Finkin, *supra* note 43, at 552; Moberly, *supra* note 176, 216-18.

196. *Belknap, Inc. v. Hale*, 463 U.S. at 505-06 n.9, permitted employers to qualify their offers of "permanent" employment to replacement workers, within certain broadly defined boundaries, without threatening the workers' legal status under the NLRA. See Moberly, *supra* note 176, at 226-42 (discussing cases in which conditions placed on offers of "permanent" employment have not affected workers' status under the NLRA). See also Finkin, *supra* note 43, at 552-53.

efficiency problem that lurks behind the *Mackay Radio* false premium, however. At Age *A* (in Figure 1), the employer makes an offer to the worker in the external labor market that includes a promise of job security. The worker accepts. Like most aspects of the sunk investments/delayed dividends contract, the promise is sufficiently ambiguous and incomplete as to be unenforceable by legal means. At Age *B* or thereabouts, the replacement worker and the employer enter into a renegotiation to recalibrate the employer's promise regarding job security. In this renegotiation, the employer possesses private information: specifically, the status of the employer's collective bargaining with the striking union on the question of whether the employer will agree to reinstate the striking workers. As a consequence of this asymmetric information, the replacement worker is at risk of employer opportunism against which the sunk investments/delayed dividends contract, including the *Mackay Radio* premium, offers no protection.

The question of whether the employer will live up to its promise to the replacement workers of "permanent" employment will be answered not by *Mackay Radio*, but by the employer's calculus of its most profitable option.¹⁹⁷ From the employer's perspective, permitting the striking workers to return to work recaptures most of the sunk cost losses associated with the unavailability of the strikers' firm-specific skills and knowledge and their resulting greater productivity. On the other hand, discharging the permanent replacement workers to make room for the strikers incurs the sunk cost loss of the employer's investment in the replacement workers' firm-specific skills and knowledge. There may also be costs associated with the occasionally successful state law breach-of-contract or tortious misrepresentation claim brought by a replacement worker.

The third, and perhaps most important, factor in the employer's calculus is the compensation agreement it reaches with the union in return for the strikers' return to work. The profitability of the firm's decision to allow the strikers to return to work increases if the employer is able to drive down the aggregate cost of its compensation agreement with the union. Any reduction in the compensation paid to returning strikers offsets the sunk cost losses associated with discharging the permanent replacement workers and the work days lost by the striking workers. As a result, there is a substantial incentive for the employer to adjust its use of

197. See *supra* note 103 (Carmichael explaining that parties to a sunk investments/delayed dividends contract live up to their promises because it is in their self-interest, not because they are bound to do so).

permanent replacement workers in a manner that will cause the union to agree to the lowest wages possible.¹⁹⁸ If the compensation “saved” by the employer is greater than the sunk cost losses, then the use of permanent replacement workers will have been profitable for the employer.

This result is not Pareto optimal, however. The employer's increased profits are made possible only by the replacement workers' and the striking workers' losses. The replacement workers suffer the sunk cost loss of their investment in the acquisition of firm-specific skills and knowledge with this employer. The striking workers suffer the loss of wages during the time of the strike and the portion of their expected wages that the union has been forced to give back in its negotiation with the employer in return for the strikers' reinstatement. By the terms of the Cohen and Wachter gloss on Pareto optimality, which holds that efficiency requires greater profits for the employer and higher compensation for workers, the use of permanent strike replacements is inefficient. The *Mackay Radio* doctrine, because it facilitates the hiring of permanent replacements by authorizing a false premium and thereby employer opportunism, is also inefficient.

D. Reputation as an Ineffective Deterrent to Opportunism

Cohen and Wachter argued that reputation in the labor market would prevent employers from exploiting any advantage given them by asymmetric information in the manner described in the preceding part. Specifically, Cohen and Wachter predicted that an employer's reputation among prospective employees would be affected by its opportunistic use of permanent strike replacements. Prospective employees would learn of the employer's reputation for opportunism, and, as a result, they would refuse any job the struck employer might offer.¹⁹⁹ The struck employer would not use permanent replacement workers for opportunistic reasons because they would want to avoid rejection by prospective employees in the external labor market, according to Cohen and Wachter.²⁰⁰

In the best of labor market conditions, reputation is a weak disincentive, if any at all. Workers newly hired from the external labor market, sometimes called “marginal workers,” tend to be younger than incumbent or “inframarginal” workers. Perhaps because they have not

198. The Bridgestone/Firestone strike offers one apparent example of this type of opportunistic behavior by the employer. See *infra* text accompanying notes 318-20.

199. Cohen & Wachter, *supra* note 2, at 118.

200. *Id.*

finally decided whether they will commit their remaining careers to their next employer, marginal workers are less concerned with job security and less likely to value or recognize a firm's reputation.²⁰¹ Prospective replacement workers also may conclude that the employer's current treatment of unionized workers does not accurately predict how newly hired nonunion workers may be treated, perhaps decades down the road.²⁰²

All of these problems arise in the best market conditions where information flows freely. The heated struggles that characterize strikes involving permanent replacement workers block otherwise open information channels.²⁰³ First, the incumbent union will not bargain for the replacement workers as it would for other new employees.²⁰⁴ Although permanent replacement workers' "wages, hours, and other terms and conditions of employment" would otherwise be mandatory subjects of bargaining pursuant to Section 8(d) of the Act, the NLRB has held that unions are not legally compelled to bargain on behalf of permanent replacement workers.²⁰⁵ The striking union is thereby freed from the irreconcilable conflict of interest inherent in a duty to represent both the striking workers, who would like to return to their jobs, and the replacement workers who have taken those jobs.²⁰⁶ Absent a legal mandate to represent the replacement workers, politically sensitive union leaders surely will not volunteer any assistance to them. The union membership—read, the union leadership's electorate—simply would not permit it.²⁰⁷

Second, and for the same reason, the prospective replacement worker cannot turn to otherwise available sources of information about the *Mackay Radio* "false premium" and other workplace conditions. Any informal advice new recruits might ordinarily get from incumbent employees would not be available when the incumbent workers are striking and the new recruits are considering filling their jobs. As a result, the prospective replacement worker cannot turn to the union or prospective

201. See Schwab, *Life-Cycle Justice*, *supra* note 66, at 32. Accord WEILER, GOVERNING, *supra* note 13, at 74-75 and n.53.

202. See Bierman & Gely, *Striker Replacements*, *supra* note 2, at 377.

203. See *supra* text accompanying notes 134-66 (discussing the dangerous and unpleasant conditions associated with strikes involving permanent replacement workers).

204. See *supra* text accompanying note 91.

205. See *Serv. Elec. Co.*, 281 N.L.R.B. 633, 637 (1986); 29 U.S.C. § 158(d) (2001).

206. The question of whether a union would face an irreconcilable conflict if asked to represent both strikers and their replacements is qualitatively different from the question of whether replacement workers are necessarily opposed to the union. See *NLRB v. Curtin Matheson Scientific, Inc.*, 494 U.S. 775, 791 (1990) (upholding the NLRB's conclusion that replacement workers are not necessarily opposed to the union and may agree to cross the picket line for unrelated reasons).

207. See generally KATZ & KOCHAN, *supra* note 53, at 131-32 (discussing the political nature of local unions' leadership).

coworkers for the truth about the employer.

Third, and most important, struck employers work hard to avoid any effects that their labor relations strategies might have on their reputations. They typically undertake substantial propaganda efforts to justify their collective bargaining position to the community, to stockholders, to politicians, and even to workers they hope will replace the strikers. At most, an opportunistic employer's reputation would be muddled in the mind of the prospective replacement worker. The strikes against International Paper, Greyhound, the *Detroit News*, Diamond Walnut, and Bridgestone/Firestone nicely illustrate how employers seek to protect their reputations in the context of a labor dispute involving permanent replacement workers.

1. International Paper

The International Paper (IP) strike began in June 1987 in the Androscoggin mill in Jay, Maine, when Local 14 of the United Paperworkers International Union would not agree to the company's requests for lower wages, job reductions, and increased managerial flexibility.²⁰⁸ Throughout the seventeen-month strike, IP campaigned extensively through television and newspaper advertising to convince the public that the union and its members were irresponsible.²⁰⁹ It also engaged in a direct mail campaign to the strikers to convince them that their cause was hopeless.²¹⁰ According to a leading analyst of this strike, IP's advertisements and statements to the press convinced "many people in the area that the strike was caused by the desire of highly paid employees to obtain even higher wages and benefits."²¹¹ This caused a split within the community between the strikers' families and the families of permanent strike replacements hired by the company.²¹²

When IP began hiring replacement workers, the disgruntled strikers began resorting to violence.²¹³ The newspapers and other media sources highlighted the violence, thereby further tilting public opinion in IP's favor.²¹⁴ IP used this press coverage to its advantage and continuously

208. GETMAN, BETRAYAL OF LOCAL 14, *supra* note 43, at xi.

209. *Id.* at 65.

210. *Id.*

211. *Id.* at 65.

212. *Id.* at 117-18.

213. GETMAN, BETRAYAL OF LOCAL 14, *supra* note 43, at 47-54.

214. *Id.* at 65.

blamed the union for vandalism on its property.²¹⁵ Ultimately, IP's media strategy was successful in helping bring the company a successful end to the strike and an apparent victory in the public relations arena.²¹⁶

2. *Greyhound*

The Greyhound Corp. strike began November 3, 1983, when the Amalgamated Council of Greyhound Local Unions would not agree to Greyhound CEO John W. Teets's proposal for wage cuts.²¹⁷ Throughout the seven-week strike, Teets issued statements to the public detailing why wage cuts for unionized employees were necessary: "Greyhound must pay employees less for the same work if it is to beat the competition from upstart bus lines and discount air carriers"²¹⁸ because Greyhound's "current wages are 30 to 50 percent above those of competitors and . . . Greyhound no longer can compete with other bus companies and discount airlines that have lower labor costs."²¹⁹ According to Teets, "[e]ven with cuts . . . Greyhound will have to pay higher wages than some rival carriers."²²⁰ Teets hired permanent replacement workers and succeeded in operating the bus line throughout the strike. Wall Street analysts took favorable notice of both the company's continued operation during the strike and its extensive advertising campaign regarding the strike.²²¹ On December 21, 1984, the strike ended with workers voting to accept a contract that cut wages by 7.8% and initiated a 4% employee contribution to the pension plan.²²²

3. Detroit News

Perhaps the most extensive campaign to influence public opinion during a strike involving permanent replacement workers was launched by the *Detroit News*, in part because the employer was able to use its newspaper to promote its viewpoint. On July 13, 1995, the International

215. *See id.* at 66.

216. *Id.* at 65-66, 76.

217. *Greyhound Shuts Down as Bus Workers Strike*, WASH. POST, Nov. 3, 1983, at A7.

218. Eleanor Johnson Tracy et al., *Greyhound Confronts Its Union*, FORTUNE, Dec. 26, 1983, at 8.

219. *Greyhound Shuts Down*, *supra* note 217, at A7. *See also Greyhound Collides Head On with Its Union*, BUS. WK., Nov. 21, 1983, at 47; *Strike Over Pay Cuts Halts Intercity Buses of Greyhound Line*, N.Y. TIMES, Nov. 3, 1983, at A1; Leslie Wayne, *Steering Greyhound Through the Strike*, N.Y. TIMES, Dec. 18, 1983, § 3, at 6.

220. *Greyhound Collides Head On with Its Union*, *supra* note 219, at 47.

221. Wayne, *supra* note 219, at 6.

222. The Associated Press, *supra* note 158, at A1.

Brotherhood of Teamsters struck when the company failed to agree to the union's demands for wage increases.²²³ Instead, the company sought to cut seventy-five Teamsters jobs and use the savings for pay increases and employee severance payments. The employer stated that its proposal would generate an \$11 million savings over three years. The employer announced that it had refused the Teamsters' offer because it "would put the company back into the red after two years of profits."²²⁴

On the first day of the strike, the employer published in the *Detroit News* several statements by company officials. President and Chief Executive Officer Frank Vega proclaimed: "I am deeply saddened by this turn of events. We felt we made one of the best offers that's been made to any union around the country."²²⁵ Labor Relations Vice-President Tim Kelleher argued that the strike occurred because "[t]he union misrepresented [the Company's] position. [The Company is] very willing to give the unions their share in exchange for the job reductions and work-rule changes. But they wanted more. And [management] is not going to put this company back in a money losing position."²²⁶ The company also publicized its offer to share the savings achieved from job reductions and work-rules changes with Teamsters members.²²⁷ In the weeks after the strike began, the *Detroit News* regularly published articles informing the public about additional benefits the employer offered to its unionized employees: paid medical leave extended beyond contract provisions, paid leaves of six to twelve months to write books, time off for family emergencies, college tuition reimbursements, and bonuses for exceptional work, for example.²²⁸

The *Detroit News* also published articles offering personal stories told from the perspective of workers allegedly victimized by the union's intransigence. One article was written by a union employee who refused to strike.²²⁹ Other articles offered the viewpoint of delivery workers allegedly

223. Nolan Finley, *Newspaper Workers Strike: Talks with Archer Fail to Restart Bargaining*, DETROIT NEWS, July 14, 1995, at 1.

224. David A. Markiewicz, *Newspapers, Unions Meet with Archer; Both Sides Far Apart as Negotiators Continue in Bid to Reach Agreement and Avert a Strike Tonight*, DETROIT NEWS, July 13, 1995, at 1.

225. Finley, *supra* note 223, at 1.

226. *Id.*

227. *Newspaper Strike Is a Battle for Control, Company Seeks Efficiencies; Unions Want Jobs and Past Practices*, DETROIT NEWS, July 16, 1995, at 1.

228. *See, e.g., id.*

229. Nickie McWherter, *A Veteran of '60s Strikes Knows: Workers and Papers Both Lose*, DETROIT NEWS, July 16, 1995, at 1A.

caught in the crossfire of strikers' violence.²³⁰ Still others told the heroicized story of workers and management struggling side-by-side to get the news out to the public.²³¹

The company also accused the union of blocking its efforts to achieve diversity in the workforce: "Those jobs get filled by friends, neighbors, and relatives of union leaders, regardless of whether they are suited for the job," said Vega.²³² The *Detroit News* strike ended in victory for the employer after nineteen months on February 19, 1997.²³³ A six-month legal battle followed over the striking workers' reinstatement rights. In August 1997, Judge John Corbett ruled that Detroit Newspapers Inc. would not be forced to rehire the striking workers.²³⁴

4. *Diamond Walnut*

The strike against Diamond Walnut began on September 4, 1994, when the International Brotherhood of Teamsters and Diamond Walnut executives could not come to terms on a new collective bargaining agreement. Diamond Walnut reported that it had been in financial trouble for several years.²³⁵ In 1985, its employees had agreed to cut their wages in order to save the company.²³⁶ Diamond Walnut's success grew after 1985. When the collective bargaining agreement expired, the Teamsters sought to have the workers' pre-1985 wages reinstated.²³⁷ Diamond Walnut countered that it would restore some, but not all, of the pre-1985 wages and asked the workers to contribute twelve dollars per month to their health plan.²³⁸ The workers struck instead, and Diamond Walnut hired permanent replacements for the strikers.²³⁹

Sandra McBride, a spokeswoman for Diamond Walnut, made several

230. See, e.g., *Strike*, *supra* note 154, at 1A; Durfee & Weller, *supra* note 154.

231. George Bullard, *Amid the Name-Calling and Worse, We're Just Getting the News Out*, DETROIT NEWS, July 17, 1995; Editors, *Managers Must Pitch In to Get the Newspaper Out*, DETROIT NEWS, July 17, 1995.

232. John Wilson, *Union Cronyism Thwarts Efforts to Diversify Papers' Workforce*, DETROIT NEWS, July 18, 1995.

233. Iver Peterson, *Detroit Papers' Rehiring Policy Angers Unions*, N.Y. TIMES, Feb. 20, 1997, at A16.

234. *Digest*, WASH. POST, Aug. 15, 1997, at D01.

235. Mark Arax, *Strikers Reap Harvest of Bitterness; Labor: In Tough Times Walnut-Plant Workers Took Pay Cuts. But When Profits Grew, They Wanted Their Old Wages Back. The Firm Said No, Sparking a Long, Rancorous Walkout*, L.A. TIMES, May 10, 1994, at A3.

236. *Id.*

237. *Id.*

238. *Id.*

239. *Id.*

public statements to justify the employer's bargaining position: "More and more workers are asking for employee participation in the face of rising health costs."²⁴⁰ "But it was a brand-new concept for our workers, and they rejected it."²⁴¹ McBride also explained that the workers' high compensation interfered with the employer's competitiveness: "This was a restructuring that was long overdue, and even with the cuts we were still paying 35% more in wages than our competitors were paying."²⁴² The employer, which operated as a cooperative for California walnut growers, also justified hiring permanent replacement workers with reference to its obligation to the "2,000 walnut growers up and down the San Joaquin Valley who make up the 82-year-old cooperative[, and g]rowers would have lost millions of dollars if the crop had failed to get to market."²⁴³ The permanent replacement workers labored "under the worst possible circumstances and saved the 1991 harvest," she said.²⁴⁴ "Our commitment is to the new work force."²⁴⁵ McBride said hiring permanent replacement workers was a necessity: "These farmers and their families work all year and depend upon this income from this harvest, this one-time window of opportunity that comes in, and we had no choice but to hire workers to process that crop."²⁴⁶

5. *Bridgestone/Firestone*

The strike by United Rubber Workers Local 138 (URW) against Bridgestone/Firestone began in July 1994.²⁴⁷ The URW sought a contract based on the pattern it had set with other tire manufacturers.²⁴⁸ Bridgestone/Firestone refused to engage in pattern bargaining and countered with a new system of twelve-hour shifts, hourly wage cuts for new hires, fewer vacation days, employee copayments for health insurance, and cost-of-living increases linked to plant productivity.²⁴⁹ In the words of company spokesman Trevor Hoskins: "A Goodyear-style

240. Rose DeWolf, *Diamond Tough Nut for Boycott to Crack*, CHI. TRIB., Dec. 27, 1992, at 8.

241. *Id.*

242. *See* Arax, *supra* note 235.

243. *Id.*

244. *Id.*

245. *Id.*

246. *California Case Epitomizes Battle Over Striker Bill*, NAT'L PUB. RADIO, June 25, 1993.

247. FRANKLIN, *supra* note 134, at 117.

248. Lindsay Chappell, *Tire Strike Shows That Japanese Can Play Hardball with Unions: Seven Years of Losses Flatten Once-Harmonious Relationship*, AUTO. NEWS, Feb. 13, 1995, at 3.

249. *See id.* *See also* FRANKLIN, *supra* note 134, at 123.

contract would not allow us to be competitive.”²⁵⁰ On January 4, 1995, Hoskins offered the following justification for Bridgestone/Firestone’s decision to hire permanent replacement workers: “We never imagined we would have had a strike for six months. . . . There was no alternative after this length of time. The whole organization was threatened. We would have lost customers.”²⁵¹ When a URW spokesman claimed publicly that the employer had spent months preparing for a strike, a company representative dismissed the claims as baseless:

We found it very sad that so much time was spent issuing emotional rhetoric that does not address the issues. The fact remains that Bridgestone/Firestone made its last, best, and final offer to the URW, which refused to accept it and went on strike. Justifying their action by pointing fingers at our company ownership doesn’t achieve anything except to incite emotions.²⁵²

Throughout the seven-month strike, company spokesmen issued statements supporting their position in the bargaining and their reasoning for hiring permanent replacements. Bridgestone/Firestone Chief Executive Officer Masatoshi Ono conducted several press interviews to explain the company’s objectives.²⁵³ Among other things, this public relations effort highlighted several facts relating to competitiveness. For example, the company claimed that it spent five dollars more than competitors to make each tire.²⁵⁴ Bridgestone/Firestone also alleged that similar rules and compensation changes had been made in competitors’ plants.²⁵⁵ Bridgestone/Firestone hired replacement workers for about 30% less than the wage that had been paid to unionized workers before the strike.²⁵⁶ The strike ended on May 8, 1995, with another victory for the employer. The URW made an unconditional offer for its members to return to work under the contract that Bridgestone/Firestone had implemented in July.²⁵⁷

250. Bill Koenig, *Replacement-Worker Hirings Reopen Union Wounds; Bitter Firestone Feud Reignites Controversy About Replacing Workers Who Are Striking Legally*, INDIANAPOLIS STAR, Jan. 27, 1995, at E01.

251. *See id.*

252. Bruce Meyer, *Coss Lofts Volley in ‘War of Words’*, RUBBER & PLASTICS, Aug. 8, 1994, at 1.

253. *See* Yoshinori Omura, *Tire Maker Defends Strike-Busting Action*, *Bridgestone Presses U.S. Workers for New Contract*, NIKKEI WEEKLY, Mar. 6, 1995, at 9.

254. Zachary Schiller, *Skid Marks at Bridgestone*, BUS. WK., Aug. 22, 1994, at 30. *See also* Chappell, *supra* note 248.

255. *See* Schiller, *supra* note 254, at 30.

256. Stephen Franklin, *Permanent Replacements Being Hired for Strikers at Bridgestone-Firestone*, CHI. TRIB., Jan. 5, 1995, at 1.

257. FRANKLIN, *supra* note 134, at 260.

It is not necessary to conclude that all of these propaganda efforts by struck employers persuaded workers in the external labor market that the employers were faultless in their decisions to permit (or even force) a strike and replace the strikers. Rather, it is sufficient to conclude that these employers' efforts balanced any derogatory information workers obtained about the causes of the strikes and the employers' reasons for hiring permanent replacement workers.

A worker, whether or not she is able to counter the employer's propaganda efforts with alternative information sources, is by no means certain to refuse any offer of employment from that employer, as Cohen and Wachter posited. Instead, the uncertain prospective replacement worker might require a premium in the form of a higher wage or some assurance of job security to protect her from the employer's purported penchant for premature dismissal of incumbent employees.²⁵⁸ In these circumstances, the *Mackay Radio* doctrine serves as a cleanser for the employer's muddied reputation. The employer can point to the job-security protections guaranteed by the Supreme Court as a means to persuade recruits that their jobs will be secure if they become permanent replacement workers. The *Mackay Radio* doctrine thereby aids the inefficient plans of the opportunistic employer, rather than defending the sunk investments/delayed dividends contract.

E. The "False Premium" and the Internal Labor Market

It now becomes necessary to put aside the assumption by Cohen and Wachter that permanent replacement workers are hired exclusively from the external labor market. Using incumbent employees as permanent strike replacements solves important problems for the employer. The employer is freed from the sunk investments of training and monitoring new workers hired from the external labor market. The employer also avoids the sunk cost losses attending these incumbent employees' separation from employment.²⁵⁹ Depending upon the duration of the employees' prestrike

258. See Carmichael, *supra* note 69, at 69 ("[I]f a firm has a reputation for firing a lot of workers, it may find it has to pay workers more in order to attract them away from their alternative jobs."). See also EHRENBERG & SMITH, *supra* note 66, at 382 (suggesting that firms that lose their good reputation might be required to pay more for a good quality worker or accept lower quality workers if they pay the same wage as other employers).

259. Corbett criticized Bierman and Gely on the grounds that the struck employer is least able to spare the most skilled workers because "the replacements must be trained, and that training involves both cost and time." Corbett, *supra* note 51, at 1522 (citing Bierman & Gely, *Striker Replacements*, *supra* note 2, at 379-80). Of course, this is not true for incumbent workers who agree to work as replacement workers. But it is also not entirely true with respect to workers hired from the external

tenure, the employer may have been in the process of recouping its investments from these employees when the strike commenced.²⁶⁰ A rapid return of these striking employees to their jobs makes further dividends possible. Since incumbent replacement employees already possess the firm-specific skills that enhance the firm's productivity, recruiting these employees to cross the picket line also permits the employer to minimize the production losses associated with the replacement workers' lower productivity.²⁶¹ More incumbent employees with firm-specific skills means more and better outputs.

The difficult question is, why do incumbent employees agree to become permanent strike replacements? Unlike prospective replacement workers in the external labor market, employees in the internal labor market have good information about wages, productivity, and other matters relevant to the sunk investments/delayed dividends contract.²⁶² They should not be susceptible to the employer's opportunistic use of the *Mackay Radio* false premium. They also know of the employer's propensity to abide by or abrogate its contracts. Unionized employees have the additional resource of the union's institutional memory. In fact, when they are on strike, incumbent employees face substantial pressure from their fellow strikers and the union not to "scab."²⁶³

Two economic factors may drive employees in the internal labor market to become permanent strike replacements. First, a point is reached in the career of an employee who is party to a sunk investments/delayed dividends contract when the dividends the employer will recoup from its investment equal the loss it will suffer because the employee will be paid a wage in excess of her productivity at the very end of her career.²⁶⁴ The employer faces a choice during this period. It can fulfill its obligations and continue its relationship with the worker, or it can engage in opportunistic behavior that assures the employer a more profitable outcome.

On Figure 4, the point at which the employer faces this choice, Age *O*, could be reached beginning any time after Age *D*, but certainly not later than Age *E*.

labor market. New workers are presumed to subsidize a portion of their training costs in the form of the investment that occurs at the beginning of her career.

260. See *supra* text accompanying note 76.

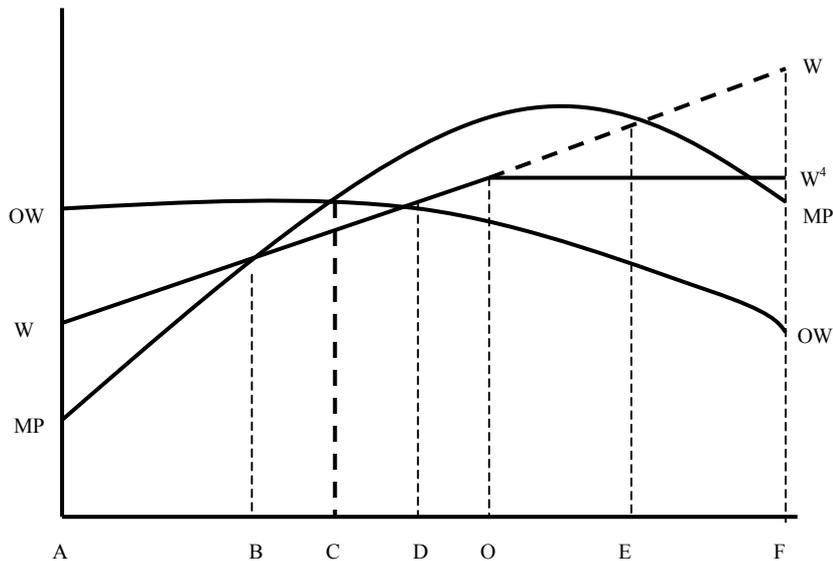
261. See *supra* text accompanying note 66 (discussing the productivity differential between striking workers and replacement workers).

262. See *supra* text accompanying notes 85-89.

263. See, e.g., GETMAN, BETRAYAL OF LOCAL 14, *supra* note 43, at 51-54, 89-96; FRANKLIN, *supra* note 134, at 127-32.

264. See *supra* text accompanying notes 75-76.

Figure 4



Once the employee has reached Age O , the employer might opportunistically cut the employee's wage in an effort to expropriate a portion of the worker's investment dividend.²⁶⁵ For example, as illustrated on Figure 4, the employer might impose wage stream W^4 beginning at Age O such that the employee's productivity exceeds the worker's wage stream almost to the end of the worker's career. This strategy yields substantially greater returns on the employer's investment at the expense of the employee.

The employee's options at this stage are limited and undesirable in contrast to the employer's alternatives. The employer's decision to cut wages for workers older than Age O will yield increased dividends derived from either the worker's lower wages or the worker quitting in protest over the wage cut. If the lesser wage stream imposed by the employer exceeds the older employee's opportunity wage stream, however, the employee faces a Hobson's choice. She can accept the lower wage stream, or she can quit. If she quits, she must seek employment in the external labor market and accept a job from a different employer that pays less, probably substantially less, than the job with the employee's current

265. I note that this strategy might violate the Age Discrimination in Employment Act if applied to an individual worker. See 29 U.S.C. § 261 *et seq.* (2001).

employer.²⁶⁶ This condition exists from Age *O* through the end of the employee's career.

The same analysis that applies to an individual employee can be generalized to a group of strikers. If the strikers' average job tenure exceeds Age *O*—that is, the point at which the employer's remaining dividends equal its coming losses—then the employer has little incentive to secure an early return of these employees to their jobs.²⁶⁷ Rather, the employer will benefit most if the older employees either do not return to work or agree to lower wages. The opportunistic employer might structure its bargaining proposals to inspire a strike and to decrease the likelihood that older incumbent employees will cross the picket line. For example, the employer might insist on a flatter wage stream resembling W^A for employees older than Age *O*. As with the individual employee, the employer reaps a larger dividend and the union faces the Hobson's choice of accepting the lesser wage stream or forcing its older members to seek even lower wages in the external labor market. In sum, older incumbent employees are left with lower wages regardless of the choice they make.

Under the same circumstances, some older incumbent employees may agree to move from another of the employer's facilities to work in the struck location. The struck employer's hard bargaining with the union may signal to older employees throughout the employer's enterprise that they face a great risk of effective discharge and the unappealing alternative of a substantially lower wage after they reach Age *O*.²⁶⁸ If these older employees are able to obtain some promise of post-strike job security pursuant to the *Mackay Radio* doctrine, then they may be willing to make the move. As long as the employer's offer to the union, and therefore the wage it can pay to its replacement workers, exceeds the older employees' opportunity wage stream, the employees have an incentive to move to a new facility and become permanent replacement workers even if they will not secure all of the promised dividends from the sunk investments/delayed dividends contract. Nonetheless, since the employer

266. See *supra* text accompanying notes 183-86 (discussing the striking worker's alternatives in the external labor market).

267. It is likely that the average age of workers in a unionized workplace will far exceed this hypothetical average compared with the average age in a nonunion environment. See *supra* text accompanying note 181 (discussing job tenure of unionized workers). This is an unsurprising result since seniority protections, while present in some nonunion workplaces, predominate in union workplaces. See WEILER, GOVERNING, *supra* note 13, at 65-66.

268. See generally *Textile Workers Union of Am. v. Darlington Mfg. Co.*, 380 U.S. 263, 273-74 (1965) (acknowledging that some antiunion employer behavior directed to one group of workers is designed to instill fear in employees working in other parts of the employer's operation).

benefits only because the older employees lose wages, these circumstances are not Pareto optimal.

The efficiency-minded employer would prefer that some employees younger than Age *O* return to work quickly. Many of these employees' productivity exceeds their wages (i.e., employees between Ages *B* to *E*), so the employer would continue to recoup its investments from these incumbent employees if they returned to their jobs. Some struck employers would be willing to bear the sunk cost losses associated with these employees' separation from employment if the losses did not exceed the aggregate dividends of avoiding older workers' high wages. Rather than bearing the losses associated with idled younger incumbent workers, however, other employers might recruit these employees to become permanent replacements with the promise of promotional opportunities, as the *Mackay Radio* doctrine permits.²⁶⁹ The employer can use the same tactics to lure younger employees to move to the struck location. The employer's decision would differ depending upon the circumstances.

Promoting younger incumbent employees who serve as permanent replacement workers can, but does not necessarily, produce an efficient result for these employees and the struck employer. Katharine Abraham and James Medoff demonstrated that promotions are largely, although not exclusively, based on seniority rather than productivity.²⁷⁰ The opportunity to serve as permanent replacements may allow younger employees to break this cycle and advance their careers regardless of seniority. These employees receive higher wages as a result.²⁷¹ The employer benefits by retaining productive employees in an efficient relationship, but only if the employees it lures across the picket line are highly productive and deserve promotion. If the employer invites all strikers to cross the picket line regardless of productivity, then the employer may reduce the dividend it earns between Ages *B* and *E* by paying wages in excess of wage stream *W*

269. See, e.g., *TWA v. IFFA*, 489 U.S. 426, 429-30 (1989).

270. See Abraham & Medoff, *supra* note 101, at 308, 312-14.

271. The strength of the incentive for younger workers increases with the length of the period during which the worker has received only strike benefits well below her wage level. See WEILER, GOVERNING, *supra* note 13, at 129 (“[Strikes are] a two-edged sword. A strike inflicts reciprocal economic costs on the union members, which they can avoid only by having the union representatives moderate their wage demands at the bargaining table. Although individual employees are always free to look for jobs in other firms, it is rare that any significant proportion of a sizable bargaining unit will be able to find temporary jobs elsewhere during a strike of their regular employer.”). See generally KATZ & KOCHAN, *supra* note 53, at 75-80 (discussing the parties' comparative leverage reflected in their ability to undertake or withstand a strike). As a general matter, unions cannot discipline members who cross the union's picket line to become permanent replacement workers. See *Pattern Makers' League of N. Am. v. NLRB*, 473 U.S. 95, 104-09 (1985).

in return for productivity below MP . There is no assurance that selecting employees for promotion based on their willingness to cross the picket line better rewards productivity than a seniority-based system.

Regardless, the older employees who remain on the picket line do not increase their wages if younger employees cross the picket lines in return for promotions. Instead, they suffer the sunk cost loss of their investments in firm-specific skills and lower wages over an extended period of time, perhaps extending for the remainder of their work lives.²⁷² Further, this group of strikers grows larger if the employer uses selective criteria, such as productivity, to reduce the number of employees who will be invited to return to work. In sum, luring younger striking employees across the picket line to serve as permanent replacement workers with promises of promotions does not satisfy the Cohen and Wachter gloss on Pareto optimality if the condition of all striking workers is taken into account.

IV. REPLACEMENT WORKERS AND COASE'S PARADOX

The preceding part argues that *Mackay Radio*'s dictated solution to the externalities associated with hiring permanent replacements for striking workers is not Pareto optimal. This argument does not constitute, and is not intended to be, a full frontal assault on the Coase Theorem. It does not purport to disprove the Coase Theorem or any of its moving parts. Rather, it suggests that the Coase Theorem, as interpreted by Cohen and Wachter, cannot explain or justify the *Mackay Radio* doctrine. Specifically, it argues that the *Mackay Radio* doctrine does not maximize social product as Coase indicated that efficient legal rules should.

The *Mackay Radio* doctrine also informs our understanding of the concept of social product that lies at the heart of the Coase Theorem. In particular, it permits an examination of the role that Coase's Paradox plays in defining social product. Pierre Schlag argued that Coase's approach to externalities exposed a dialectical relationship between legal rules and the conditions surrounding those rules: "A change in the specific content of a legal rule could, according to Coase, be expected to yield changes not only with respect to matters covered by the rule, but also with respect to matters extrinsic to the purported operation of the rule."²⁷³ It is this dialectic that produces Coase's Paradox.

Coase's interpreters would address externalities either through

272. See generally *supra* text accompanying note 185 (discussing empirical evidence regarding the effects of displacement on experienced workers).

273. Schlag, *supra* note 5, at 945. Cf. Regan, *supra* note 114, at 435-36.

bargaining between the parties, if transaction costs can be reduced to zero, or, if transaction costs are irreducible, a dictated, efficient solution that mimics the deal that would be negotiated absent transaction costs. The paradox is that these methods of redressing externalities produce new costs and benefits, and even externalities, that must be included in any calculation of efficiency. Any Coasean lawmaker who has dictated a solution to one externality involving one set of parties may have also created secondary externalities imposing new costs on or creating new benefits for the instant parties and, potentially, new parties.

Acknowledging the existence of secondary externalities, therefore, requires issuing the same challenge to proponents of the Coase Theorem that Coase issued to the Pigouvian tradition. Just as Coase would require accounting for all costs and benefits for both parties to an externality in the calculation of social product, the costs and benefits of the parties to a secondary externality must also be included in that calculation. Coase's own broad definition of social product suggests that he would agree. This part uses the *Mackay Radio* doctrine to illustrate how this multifaceted analysis of social product might proceed.

This is no mere accounting argument. Secondary externalities may have two important effects on any Coasean efficiency analysis. First, negotiated agreements and dictated solutions that appear Pareto optimal when taking only primary externalities into account may become inefficient when the costs associated with secondary externalities are injected into the efficiency calculus.²⁷⁴ This part of the article will illustrate this effect, again with reference to the *Mackay Radio* doctrine.

Second, if efforts to redress primary externalities are attended by transaction costs, then efforts to redress secondary externalities may also involve positive transaction costs. Bargaining or other methods that would resolve secondary externalities therefore add transaction costs to the calculation of total social product. These new transaction costs have profound implications for the Coasean lawmaker's choice between the transaction-cost reduction approach and the dictated solutions approach and, therefore, our normative vision of government's role with respect to externalities. This part compares this vision of government's role with the NLRA's definition of the government's role in collective bargaining and concludes that they are incompatible.

274. Some secondary externalities may also bring benefits that are not included in the Coasean efficiency analysis. So, it is possible that some seemingly inefficient agreements may be made Pareto superior by looking beyond the bargaining table. This part is concerned only with negative secondary externalities.

A. Coase's Paradox and Opportunity Costs

1. Coase's Example: Railroads and Farmers

Responding to Pigou's view that forced internalization of costs best served the goal of maximizing social product,²⁷⁵ Coase sought to prove in *The Problem of Social Cost* that social product and private product do not diverge.²⁷⁶ He used an example that, although often repeated, serves this discussion well. A railway runs trains that spark fires in crops that border the railroad tracks. It runs two trains per day. The first train earns \$150 in annual income at a cost to the railway of \$50 for a net private product of \$100. The first train destroys \$60 worth of the farmer's crops each year. The net social product, therefore, is \$40. The second train adds \$100 in annual income at a cost to the railway of an additional \$50 per year. The net private product of the second train is \$50. The second train also destroys \$60 worth of crops per year; so, the net social product of the second train is negative \$10.²⁷⁷ According to Coase, "[t]he conclusion that it would be better if the second train did not run is correct"; however, "[t]he conclusion that it is desirable that the railway should be made liable for the damage it causes is wrong."²⁷⁸

Coase supported his conclusion as follows. Coase assumed that a Pigouvian system would hold the railway liable for the damages caused to the farmer's crops. The farmer is indifferent as to whether she receives damages in the amount of the market price of her crops or market price by sale of the crops. As a result, the farmer is likely to increase the amount of land she cultivates if the railway is subject to damages because she will receive market price for all of her destroyed crops.²⁷⁹ This observation required Coase to adjust his arithmetic. After the farmer has changed her behavior, each train causes fires that destroy \$120 worth of crops.²⁸⁰ Thus, if liability is imposed on the railway, its net private product would represent a loss of either \$90 for two trains or \$20 for one train. The railway will not run any trains if it is held liable for damages to the farmer's crops, Coase concluded.²⁸¹

275. See *supra* note 26 (discussing Coase's rendering of Pigou's views).

276. Coase, *Social Cost*, *supra* note 1, at 28-32.

277. *Id.* at 32.

278. *Id.*

279. *Id.*

280. *Id.* at 32-33. This changed assumption arises out of Coase's expectation that imposing liability on the railway creates incentives for the expansion of crop production.

281. *Id.* at 33.

Coase suggested that a different and more efficient outcome would result if the railway were not held liable for damages. The railway's transportation services produce \$250 in value (\$150 for the first train and \$100 for the second train) by employing \$100 in production factors (\$50 for each train); therefore, the net private product for the railway is \$150. Running two trains destroys \$120 worth of crops. Coase posited that another \$160 in crop cultivation on land bordering the railroad would be abandoned; therefore, the farmer's net private product is a loss of \$280. Absent any other considerations, the net social product (the railway's gain minus the farmer's loss) is negative \$130 if the railway is not held liable for damages.

Coase reminded his readers, however, that there is an opportunity cost to the farmer's crop cultivation. The production factors employed in crop cultivation could be shifted to another productive use. The social product calculation above does not take into account the opportunity cost of using the factors of production in crop cultivation rather than in some other productive use. In his example, Coase assessed the value that would be produced by shifting these inputs to some other use at \$150. He arrived at this value by assuming that the farmer, as a rational economic actor, would invest in farming only if she earned a positive net private product from that investment of her resources. Since the farmer produces \$160 worth of crops, the farmer's investment must have been less than \$160. Coase selected \$150 and generated a net private product of \$10 for the farmer.

Taking these opportunity costs into account produces a different outcome in the calculation of social product. If the railway continues to run two trains without being held liable for the fires set by its engines, the net social product (the railway's gain minus the farmer's loss plus value produced by alternative use of factors of production) will be \$20.²⁸² If the railway is forced to stop running trains and the farmer continues her cultivation, the net social product will be negative \$20.²⁸³ In sum, the social product is greater if liability is not imposed on the railway for the crop fires sparked by its engines.

In his argument, however, Coase confined his calculation of social product to comparisons of the value of production, "as is usual in economics."²⁸⁴ He considered only the bargaining parties and the subjects

282. *Id.* at 33, 40-43.

283. \$280 in crop cultivation minus \$150 in inputs resulting in a net private product for the farmer of \$130, minus \$250 in lost transportation services but plus the reinvestment of \$100 in factors of production from the operation of the railway.

284. Coase, *Social Cost*, *supra* note 1, at 43.

of their bargain that related directly to production. In this hypothetical case, the calculation involved the railway, its trains, and the inputs that made them run; along with the farmer, her crops, and the inputs that made them grow. But Coase also issued a challenge: “the choice between different social arrangements for the solution of economic problems should be carried out in broader terms than this and that the total effect of these arrangements in all spheres of life should be taken into account.”²⁸⁵ The narrow focus of Coase’s argument regarding the railway and the farmer does not satisfy the standard established by his broad definition of social product. The following parts discuss two possible addendums to Coase’s railway-farmer illustration.

2. *The Cost of Opportunity Costs*

Accepting the argument illustrated in Coase’s railway example as true, Coase’s definition of social product tells us that his analysis in the railway example is not complete. Total social product, at a minimum, must include all aspects of production.²⁸⁶ The railway’s costs are as relevant as its profits. The farmer’s profits are as relevant as her costs. Opportunity costs are as relevant as the railway’s costs and benefits and the farmer’s costs and benefits. Similarly, any costs associated with shifting factors of production from one use to another must be taken into account.

Let us return to the railway and farmer example. The Coasean bargain struck between the railway and the farmer permits the railroad to run two trains, incinerate a portion of the farmer’s crops, and cause her to pull a portion of her remaining cultivatable land out of crop production. The farmer’s total cost is \$280. She does not receive damages from the railway. This loss is made up to the farmer from two sources: the railway’s net private product of \$150 and the opportunity cost of \$150 for the farmer’s factors of production. If the farmer reaps a \$150 return from alternative uses of her factors of production, then the railway need only compensate her in the amount of \$130 to hold the farmer harmless.

Shifting factors of production to new uses is not necessarily frictionless, however. Assume that the farmer’s labor is one of the factors of production that her bargain with the railway presupposes will be turned to an alternative use. The agreement contemplates the farmer obtaining a new job consistent with her skill set; for example, she might become a farm labor foreperson at an agribusiness-owned farm distant from the

285. *Id.*

286. *See supra* text accompanying note 60 (Coase’s definition of social product).

railway tracks. This job pays her \$50. The other factors of production she had employed in cultivating her now fallow land—land, irrigation systems, tractors, harvesters—have been leased in return for \$100. So, the opportunity cost of the factors of production is \$150, as Coase suggested.

When she labored on her own farm, where she also lives, the farmer did not incur any transportation costs. Assume, however, that the agribusiness farm on which the farmer works after striking her Coasean agreement with the railway is 100 miles away from her home. Her round-trip commute takes four hours per day, plus the costs of gasoline, automobile maintenance, and increased automobile insurance. As a result, the farmer incurs \$30 in transportation costs, taking into account the opportunity cost of her time and her out-of-pocket travel expenses. Viewed in isolation, the new job makes economic sense for the farmer. Her net private product is \$20.

Putting the costs of the farmer's new job into the context of her Coasean agreement with the railway, however, changes the outcome of the efficiency analysis. The net social product of the railway-farmer agreement, without taking these transportation costs into account, was \$20. The net social product after considering the transportation costs is negative \$10 (the railway's net private product of \$150 minus the farmer's loss of \$280 plus the farmer's net private product from alternative uses of \$120). So, the agreement between the railway and the farmer is not efficient in these circumstances. The difference comes from taking into account the costs of the opportunity costs. Since these are direct costs of production, they fit comfortably within Coase's definition of social product.

3. The Cost of Strikers' Opportunity Costs

Part III demonstrated that employers could not hire permanent replacement workers without suffering losses themselves or imposing costs on the replacement workers or the strikers. It also concluded that taking into account the opportunity costs of strikers' labor actually reduced total social product and disclosed an even more inefficient result. Assume that this latter conclusion is incorrect and that strikers would be more productive and earn higher wages if their labor was turned to alternative uses by the hiring of permanent replacement workers. Assume further that this increased productivity transforms the negative net private product of the employer and the replacement workers into a positive net social product. Even with these assumptions, the analysis would not be complete until the costs of shifting the strikers' labor to alternative uses

are taken into account.

Labor supply is not perfectly elastic in many circumstances. Workers who enter into and remain in sunk investments/delayed dividends contracts invest in ways other than the acquisition of firm-specific skills and knowledge. They purchase homes near their workplaces and their spouses take jobs near their homes. The workers put down roots in their communities, enroll their children in local schools, help older children find jobs nearby or with the same employer, and establish friendships at work and in their community.²⁸⁷ If strikers are forced to leave their communities because they have been permanently replaced, then these sunk investments would be transformed into sunk cost losses. They must sell their homes and buy new homes in a new city. Spouses and children may be forced to change jobs. School-age children may be uprooted and friendships may be lost.²⁸⁸

As with the farmer's transportation costs, these sunk cost losses are directly related to production, although they might not be characterized as production costs themselves.²⁸⁹ Unless the permanently replaced strikers incur these costs, they will be unable to accept new employment and thereby increase their productivity and earn higher wages. Since the central enterprise of the "transaction cost economics" movement Coase helped create is to move away from an exclusive focus on production toward a greater emphasis on transaction costs, it seems unlikely that a loyal Coasean would protest that these transaction costs are insufficiently connected to production to be considered valid factors in the calculation of social product.²⁹⁰ As a result, all of these costs must be deducted from any

287. See WEILER, *GOVERNING*, *supra* note 13, at 64, 143 ("Work is not merely an economic function For the employee work is also a major source of personal identity and satisfaction, of his sense of self-esteem and accomplishment, and of many of his closest and most enduring relationships.")

288. See Schwab, *Life-Cycle Justice*, *supra* note 66, at 25. See also Hart, *supra* note 89, at 4 ("[Workers suffer sunk cost losses] in the absence of firm-specific skills if the workers have to incur mobility costs to work in the firm, e.g., they have to move nearby. A separation . . . will again be costly since it means that further mobility costs must be incurred.")

289. Of course, every new job does not entail these sunk cost losses. Some strikers may be fortunate enough to find equivalent employment in the labor market in which they live or commute at lower comparative cost to employment in a nearby labor market. In the latter case, transportation costs would again be a relevant consideration.

290. See, e.g., WILLIAMSON, *ECONOMIC INSTITUTIONS*, *supra* note 35, at 2 ("Transaction cost analysis supplants the usual preoccupation with technology and steady-state production (or distribution) expenses with an examination of the *comparative costs of planning, adapting, and monitoring task completion under alternative governance structures.*") (emphasis in original).

Some law and economics scholars might argue that some portion of these costs of opportunity costs should not be included in a calculation of social product because they have not been valued by the market. See, e.g., POSNER, *ECONOMIC ANALYSIS*, *supra* note 3, at 12-15 (defining "value" and

benefits to be derived from shifting the strikers' labor to an alternative productive use. Thus, even if the opportunity costs of strikers' labor could improve the efficiency of hiring permanent replacement workers, the costs of those opportunity costs must lead any analysis even further away from the conclusion that the *Mackay Radio* doctrine is efficient.

B. Coase's Paradox and Looking Beyond the Bargaining Table

1. The Railway, The Farmer, and Their Neighbors Beyond the Bargaining Table

Let us return again to Coase's railway and farmer example. The Coasean bargain struck between the railway and the farmer permits the railroad to run two trains and incinerate a portion of the farmer's crops. Assume that this bargain, despite taking into account the costs of the opportunity costs, proves to be efficient (e.g., the farmer finds alternative employment near her home requiring only negligible transportation costs). The net social product after considering the transportation costs is \$20 (the railway's net private product of \$150 minus the farmer's loss of \$280 plus the farmer's net private product of \$150 from alternative uses of production factors). But the fires set by the railway trains (with the assent of the farmer) combine with the residue of chemical fertilizer previously employed in crop cultivation to create toxic suet. Assume further that the suet becomes easily airborne and, depending upon the winds, the weather, and the train schedules, is distributed in unpredictable patterns over a large area. The suet kills some portion of other farmers' crops and harms individuals' home gardens.

If the total cost of these secondary externalities affecting other farmers and homeowners are taken into account, and they exceed \$20, then the Coasean bargain struck between the railway and the farmer cannot be considered efficient. Should these externalities of the bargain between the railway and the farmer be included in the calculation of social product? The answer with respect to any distant farmers whose crop cultivation is affected by the suet must be "yes." Since Coase's Theorem is not interested in issues of liability, it does not seek to answer questions of reasonable foreseeability such as might be found in traditional conceptions of tort law.²⁹¹ Coasean lawmakers should seek to maximize social product.

"utility," but acknowledging that his definitions impose upon consideration of efficiency "limitations as an ethical criterion of social decisionmaking").

291. See, e.g., *Palsgraf v. Long Island R.R. Co.*, 248 N.Y. 339 (1928) (establishing "reasonable

A farmer's land located five miles from the railroad tracks is the same factor of production and makes the identical contribution to social product (in kind, if not quantity) as the farmer's land that borders the tracks. There is no economic or normative difference between the farmer at the bargaining table and the farmer beyond the bargaining table for the purposes of Coase's Theorem.

The homeowner's garden is less directly analogous, but only slightly so, even if we stipulate that the home garden produces flowers only to be enjoyed by the homeowner and her family. Strictly speaking, this is not production of the sort seen in crop cultivation. As noted above, transaction-cost economics is not concerned with rigid definitional limitations.²⁹² To the contrary, Coase specifically disclaimed a narrow focus on production: "In this article, the analysis has been confined . . . to comparison of the value of production, as measured by the market. But it is, of course, desirable that the choice . . . should be carried out in broader terms than this . . ." ²⁹³ Both production costs and property values are contributors to the common economic weal and indistinguishable for the purposes of the Coase Theorem.

This argument should not be read to suggest that the mere presence of secondary externalities leads inevitably to a conclusion that a particular rule of law is efficient or inefficient, or even good policy or bad policy. The presence of secondary externalities merely signals to the Coasean analyst that the formula by which they are calculating total social product and, therefore, efficiency, must be expanded.

The Coasean lawmaker's first response to the emergence of secondary externalities would be to suggest the same efficient approach that redressed the primary externality: bargaining. But adding the secondary externalities to the bargaining agenda between the railway and the farmer cannot succeed. The railway and the first farmer, or the Coasean lawmaker imagining herself as their representative, are not agents for other affected farmers or homeowners. In fact, their interests may oppose those of the parties injured by the secondary externalities flowing from the primary agreement. The railway and the first farmer would not address these new costs in their agreement. The solution, it would seem, is to construct a new bargaining relationship between the parties to the primary agreement and

foreseeability" as the standard for the "proximate cause" element of a negligence claim). *See also* William L. Prosser, *Palsgraf Revisited*, 52 MICH. L. REV. 1 (1953) (discussing the negligence concept of "proximate cause").

292. *See supra* text accompanying note 290.

293. Coase, *Social Cost*, *supra* note 1, at 43.

the parties bearing the costs of the secondary externalities created by the primary agreement.

This new bargaining relationship necessarily brings added transaction costs, however. Transaction costs increase to some extent each time a new party enters a bargaining relationship. The new party must be identified and informed that other parties seek to bargain with her, negotiations must be scheduled and otherwise arranged, a new contract must be negotiated and reduced to writing, and new enforcement mechanisms must be constructed and implemented.²⁹⁴ All of these added costs attend the introduction of only one new party. When more than one new party joins the negotiations, transaction costs increase at an even greater rate per new participant.²⁹⁵ This may be especially significant in the context of collective bargaining where transaction costs associated with the parties at the bargaining table, absent strategic behavior, are generally understood to be quite low.²⁹⁶

Numerosity alone creates an increased danger that some number of the new parties will seek to improve their position by refusing to agree when others would.²⁹⁷ But this prospective negotiation faces even greater challenges than “holdout” and “free rider” problems. The new parties are geographically dispersed, unorganized, and resistant to easy classification. Merely identifying and verifying the claims of the farmers and homeowners suffering from the secondary externalities produced by the toxic suet would be a Herculean task. Given the uncertain path of the airborne suet, other neighboring landowners who find suet on their property might also be brought to the bargaining table. Determining how these disparate landowners might bargain and what result best serves all these prospective parties given their differing situations poses an equally great difficulty. Transaction costs in these circumstances are almost certainly too high for the parties to bargain to an efficient result.

294. See *supra* text accompanying note 35 (Coase's illustration of “transaction costs”).

295. See POSNER, *ECONOMIC ANALYSIS*, *supra* note 3, at 56.

296. See Dau-Schmidt, *supra* note 2, at 473, 476-77.

297. POSNER, *ECONOMIC ANALYSIS*, *supra* note 3, at 69 (discussing the so-called “holdout” problem).

2. *The Parties Beyond the Collective Bargaining Table: The Troubling Case of Bridgestone/Firestone*

On March 8, 1995, President Bill Clinton signed Executive Order No. 12,954, essentially prohibiting federal agencies and departments from entering into contracts valued in excess of \$100,000 with employers who had permanently replaced their striking workers.²⁹⁸ The executive order was premised on the view that consumers suffer when a company with which they are doing business hires permanent replacement workers pursuant to the *Mackay Radio* doctrine. Among other reasons, said the President, “[b]y permanently replacing its workers, an employer loses the accumulated knowledge, experience, skill, and expertise of its incumbent employees. These circumstances then adversely affect the businesses and entities, such as the Federal Government, which rely on that employer to provide high quality and reliable goods or services.”²⁹⁹ Efficient and economical procurement by the federal government is thereby threatened, according to the executive order.³⁰⁰ This executive order, and its self-conscious focus on efficiency beyond the bargaining table, tested the boundaries of Coase’s definition of social product.

Clinton’s executive order, issued a few months after Bridgestone/Firestone permanently replaced its striking workers, proved prophetic. Alan Krueger and Alexandre Mas have produced evidence that Bridgestone/Firestone’s hiring of permanent replacement workers to replace strikers from its Decatur, Illinois, plant in 1994 is associated with consumers being injured and killed by defective tires produced in that plant.³⁰¹ Tires are produced in a labor-intensive process, so the hiring of replacement workers and the reaction of striking workers had important consequences for Bridgestone/Firestone’s customers.³⁰²

Using data derived from customer claims about defective tires made to Bridgestone/Firestone and customer complaints about Bridgestone/

298. See “Ensuring the Economical and Efficient Administration and Completion of Federal Government Contracts,” Exec. Order No. 12,954, 3 C.F.R. 329 (Mar. 8, 1995), *reprinted in* 40 U.S.C. § 486 (1996 Supp. II). Executive Order No. 12,954 was struck down on preemption grounds in *Chamber of Commerce v. Reich*, 74 F.3d 1322 (D.C. Cir. 1996). The court’s decision was premised on the conclusion that the NLRA preempted the executive order. The court’s decision did not require consideration of the efficiency grounds upon which the executive order was premised.

299. “Ensuring the Economical and Efficient Administration and Completion of Federal Government Contracts,” Exec. Order No. 12,954, 3 C.F.R. 329 (Mar. 8, 1995), *reprinted in* 40 U.S.C. § 486 (1996 Supp. II).

300. *Id.*

301. See Krueger & Mas, *supra* note 62.

302. Krueger & Mas, *supra* note 62, at 10.

Firestone tires made to the National Highway Transportation Safety Administration, along with other data,³⁰³ Krueger and Mas analyzed the defect rates among Bridgestone/Firestone's ATX, ATX II, and Wilderness P235/75R15-sized tires.³⁰⁴ These tires were produced in six Bridgestone/Firestone plants, although 88% of the tires produced between February 1991 and March 2000 came from three plants: Decatur, Illinois; Joliette, Quebec; and Wilson, North Carolina.³⁰⁵ During this period, both the Joliette plant and the Decatur plant experienced strikes, but Bridgestone/Firestone hired permanent replacement workers only in the Decatur plant.³⁰⁶ Overall, Krueger and Mas found that the rates of tread separation claims and consumer complaints relating to the P235/75R15-sized tires produced in Decatur during the labor dispute were substantially greater than either the rates in Decatur before and after the labor dispute or the rates in the Joliette and Wilson plants.³⁰⁷ They also found a substantially higher rate of fatal accidents involving tires produced in Decatur during the strike years than tires produced in other plants or in Decatur in nonstrike years.³⁰⁸ Krueger and Mas concluded that "[t]he evidence we have assembled suggests that the strike and associated labor strife in Decatur was a major contributing factor to the production of defective tires."³⁰⁹

Krueger and Mas also disaggregated the data to assess when the defective tires were being produced in relation to Bridgestone/Firestone's employment of permanent replacement workers and reinstatement of its striking employees. The relevant four-year time frame for the Krueger and Mas inquiry began in the months preceding the expiration of Bridgestone/Firestone's collective bargaining agreement with the URW on April 1, 1994, and ended one year after the parties reached a new and final

303. The internal claims data, which would otherwise be private and proprietary, became available through congressional hearings and private lawsuits arising out of accidents involving Bridgestone/Firestone's tires. See Krueger & Mas, *supra* note 62, at 2, 12-13.

304. *Id.*

305. *Id.* at 4, 52 (Table 1).

306. *Id.* at 13, § 2.

307. *Id.* at 15-16, 45 (Figure 1), 46 (Figure 2). For example, "[f]our years after production, tires that were made in Decatur during the labor dispute were eight times more likely to have a tread separation claim than were tires manufactured in other plants." *Id.* at 16. Further, "[a]lmost half of the failed P235 tires were produced in Decatur during the period of the labor dispute (1994-96); by comparison, only 8.8 percent of all P235 tires manufactured from 1991 to 1999 were produced in Decatur during this period." *Id.* at 20. Bridgestone/Firestone's own internal testing confirms Krueger's conclusions. See *id.* at 26-28.

308. *Id.* at 17, 48 (Figure 4).

309. *Id.* at 4.

agreement in December 1996.³¹⁰ There are three discrete periods within this four-year span during which the Decatur plant produced an excessively large number of defective tires.

The first period began when negotiations commenced in January 1994 and continued through the expiration of the then-effective collective bargaining agreement in April 1994 until the start of the union's strike in July 1994.³¹¹ In their negotiations, the union proposed that Bridgestone/Firestone continue its five-decade-long practice of adhering to the industry-wide pattern for collective bargaining agreements. In 1994, the industry pattern called for no wage increases beyond cost-of-living adjustments.³¹² Instead, Bridgestone/Firestone demanded expansion of existing eight-hour shifts to twelve-hour shifts, with a requirement that workers rotate between day and night duty; expansion of the work-week to seven days; 30% pay cuts for new hires; worker contributions to health care costs; and a reduced number of vacation days for senior workers.³¹³ The unionized employees continued working beyond the April 1994 expiration of their contract until their strike began on July 12, 1994.³¹⁴ Bridgestone/Firestone began hiring permanent replacement workers immediately thereafter.³¹⁵ Krueger and Mas found a substantial increase in the number of defective tires produced in the Decatur plant during this first period before any replacement workers were hired.³¹⁶

The second period began with the hiring of permanent replacement workers beginning in July 1994 and continued through December 1996 when the parties signed a collective bargaining agreement that included recalling all striking workers.³¹⁷ In May 1995, the union sought to block Bridgestone/Firestone from hiring any additional replacement workers by making an unconditional offer to return to work.³¹⁸ By that time, however, Bridgestone/Firestone had hired 1,048 replacement workers, and 371 union members had crossed the picket line.³¹⁹ Bridgestone/Firestone

310. *Id.*

311. *Id.* at 6.

312. *Id.* "Pattern bargaining" is an effort by a union representing employees in a number of companies within an industry to negotiate a common contract with all of the companies in an effort to take wages out of competition between those companies. See KATZ & KOCHAN, *supra* note 53, at 160, 167.

313. See *supra* text accompanying note 249; Krueger & Mas, *supra* note 62, at 6.

314. Krueger & Mas, *supra* note 62, at 6.

315. *Id.* at 7.

316. *Id.* at 29.

317. *Id.* at 7-9.

318. *Id.* at 7.

319. *Id.* at 4, 7.

informed the union in May 1995 that it intended to retain the permanent replacement workers. It also unilaterally imposed its final offer at the bargaining table, including wage cuts and lower pay for new hires.³²⁰ The union launched a boycott and eventually broke off negotiations.³²¹ Nonetheless, a large number of strikers eventually exercised their reinstatement rights and returned to work in the Decatur facility.³²² These returning strikers worked side-by-side with the permanent replacement workers who had taken their jobs, including line-crossing union members.³²³

Krueger and Mas reviewed anecdotal evidence that “replacement workers were less skilled tire makers, and perhaps more prone to build defective tires.”³²⁴ But they also concluded that “faulty workmanship by novice replacement workers is not the sole source of problem tires.”³²⁵ There was a low level of complaints regarding tires built in the early part of the second period—that is, from July 1994 through May 1995—when replacement workers predominated in the Decatur plant.³²⁶ Production levels declined substantially during this period, but lost production does not fully explain the second period’s increased defect rate, according to Krueger and Mas.³²⁷ The complaint rate increased when the strikers were legally able to exercise their reinstatement rights after their unconditional offer to return to work. The complaint rate peaked *in the third period* beginning after a significant number of strikers began returning to their jobs and continuing after the execution of the new contract between the union and Bridgestone/Firestone in December 1996 that guaranteed and effected most strikers’ return to their jobs.³²⁸

As Krueger and Mas concluded regarding these second and third periods in the Bridgestone/Firestone dispute: “It appears likely to us that something about the chemistry between the replacement workers and recalled strikers, or the cumulative impact of labor strife in general, created conditions that led to the production of many defective tires.”³²⁹

320. Krueger & Mas, *supra* note 62, at 7-8.

321. *Id.* at 8.

322. *Id.* at 9.

323. *Id.*

324. *Id.* at 10-11.

325. *Id.* at 30.

326. See Krueger & Mas, *supra* note 62, at 29-30, 50-51 (Figures 6, 7, and 8).

327. *Id.* at 29.

328. *Id.* The new contract included a small wage increase that left the returning strikers’ pay lower than the pay earned by unionized employees working for one of Bridgestone/Firestone’s leading competitors. *Id.* at 8.

329. *Id.* at 30. Krueger and Mas later described this evidence as “circumstantial but suggestive,”

The hiring of permanent replacement workers alone did not cause the increased defect rates, particularly during the first period when the union members remained at work and before any replacement workers had been hired. Rather, the contentious relationship between the union and the employer, of which the hiring of permanent replacement workers was an important part, apparently explains the large number of defective tires produced in Decatur, Illinois, from January 1994 to December 1996.

It is, of course, possible to have contentious labor relations without the involvement of permanent strike replacements. Nonetheless, hiring permanent strike replacements pursuant to the *Mackay Radio* doctrine very likely sparks or contributes to contentious labor relations.³³⁰ These contentious labor relations have productivity effects that, in turn, generate secondary externalities for parties beyond the bargaining table.³³¹

The secondary externalities arising out of the Bridgestone/Firestone case included defects in the Wilderness P235/75R15-sized tires that may have cost forty lives in resulting auto accidents, according to Krueger and Mas.³³² Bridgestone/Firestone paid millions of dollars in settlements to consumers and others injured by their defective tires.³³³ The century-old

and “more persuasive and comprehensive than that in favor of alternative hypotheses that have been proposed.” *Id.* at 32. It is worth noting that Michael Wachter and his coauthors predicted two decades ago that this kind of phenomenon could undermine the efficiency of internal labor markets: “Problems with coworkers arise if . . . the consent or active cooperation of workers who interface with the task in question must be secured each time an adaptation is proposed.” Williamson et al., *supra* note 66, at 267.

330. See generally *supra* text accompanying notes 134-65 (discussing some of the destructive effects hiring permanent replacement workers can have on a collective bargaining relationship).

331. While the Krueger and Mas study analyzed the effects of only one strike involving permanent replacement workers and its effects on one employer’s products, their conclusion is consistent with a larger body of labor relations and economics literature that supports the view that contentious labor relations have negative productivity effects. See, e.g., Brian Becker & Craig Olson, *Labor Relations and Firm Performance*, in HUMAN RESOURCES AND THE PERFORMANCE OF THE FIRM 64-68 (Morris Kleinen et al. eds., Indus. Relations Research Ass’n 1987) (focusing on the effects of strikes on firm performance); Joel Cutcher-Gershenfeld, *The Impact on Economic Performance of a Transformation in Workplace Relations*, 44 INDUS. & LAB. REL. REV. 241 (1991); Morris M. Kleiner et al., *How Industrial Relations Affects Plant Performance: The Case of Commercial Aircraft Manufacturing*, 55 INDUS. & LAB. REL. REV. 195 (2002). See also Harry Katz et al., *Industrial Relations Performance, Economic Performance, and QWL Programs: An Interplant Analysis*, 37 INDUS. & LAB. REL. REV. 3 (1983) (discussing the effects of cooperative labor relations practices on firm performance); Saul A. Rubinstein, *The Impact of Co-Management on Quality Performance: The Case of the Saturn Corporation*, 53 INDUS. & LAB. REL. REV. 197 (2000). Cf. Casey Ichniowski et al., *The Effects of Human Resource Practices on Productivity: A Study of Steel Finishing Lines*, 87 AM. ECON. REV. 291 (1997) (illustrating the positive impact of innovative human resources practices on firm performance).

332. Krueger & Mas, *supra* note 62, at 33. Apparently, the number of deaths caused by the defective tires would have been higher if not for an April 2000 recall of these tires.

333. See *Bridgestone/Firestone Settles Tire Case in Texas: Closely Watched Suit First of 400 to Reach Settlement*, NAT’L POST, Aug. 25, 2001, at C08; Danny Hakim, *Firestone Said to Reach Tire*

business relationship between Bridgestone/Firestone and Ford Motor Co. ended in vitriol.³³⁴ Bridgestone/Firestone's stock market valuation declined from \$16.7 billion to \$7.5 billion in the four months after an April 2000 recall of its defective tires.³³⁵ The URW, effectively bankrupted by its struggle with Bridgestone/Firestone, was forced to merge with the United Steelworkers of America.³³⁶ Finally, Bridgestone/Firestone closed its Decatur plant on December 14, 2001, displacing 1,500 workers—former strikers and replacement workers alike—who were still employed there.³³⁷

3. *The Coasean Lawmaker, the Mackay Radio Doctrine, and the NLRA*

The question remains, again assuming that the *Mackay Radio* doctrine is efficient after taking into account the primary externality's costs and benefits, how should a Coasean lawmaker redress the secondary externalities that may arise from an employer's hiring of permanent replacement workers?³³⁸ Plainly, asking the union and the employer to address the costs imposed on consumers will not succeed. Neither party can represent consumers and others who might be injured by defective tires produced as a result of contentious labor relations. Neither the union nor Bridgestone/Firestone had interests identical to those of the

Settlement, N.Y. TIMES, Nov. 8, 2001, at C12; Caroline E. Mayer & Carrie Johnson, *Firestone, States Reach Settlement*, WASH. POST, Nov. 8, 2001, at E01; Richard A. Oppel, Jr., *Bridgestone Agrees to Pay \$7.5 million in Explorer Crash*, N.Y. TIMES, Aug. 25, 2001, at C1.

334. Christopher Bowe, *Firestone Cuts Ties with Ford Over Tire Recall*, FIN. TIMES (London), May 22, 2001, at 36; Keith Bradsher, *Firestone to Stop Sales to Ford, Saying it Was Used as Scapegoat*, N.Y. TIMES, May 22, 2001, at A1; Robert Manor, *Decatur Tire Plant to Close; Bridgestone Move Costs Jobs of 1,500 Workers*, CHI. TRIB., June 28, 2001, at 1N; Miki Tanikawa, *Bridgestone Split from Ford Is Seen as Most Un-Japanese*, N.Y. TIMES, June 2, 2001, at C2; *Text of Letter to Ford from Bridgestone*, N.Y. TIMES, May 22, 2001, at C4.

335. Krueger & Mas, *supra* note 62, at 33; see also STEPHEN SLEIGH ET AL., UNION BUSTING IS BAD FOR BUSINESS (Ctr. for Labor-Mgmt. Pol'y Studies, Occasional Papers No. 12, 1992) (detailing similar corporate losses arising out of other strikes in which permanent replacement workers were hired).

336. FRANKLIN, *supra* note 134, at 233.

337. See David Barboza, *Bridgestone/Firestone to Close Tire Plant at Center of Huge Recall*, N.Y. TIMES, June 28, 2001, at C1; Peter T. Kilborn, *An Illinois Tire Plant Closes and a Way of Life Fades*, N.Y. TIMES, Dec. 14, 2001, at A24; Manor, *supra* note 334; Jason Strait, *Firestone Closes Illinois Tire Plant*, CHATTANOOGA TIMES/CHATTANOOGA FREE PRESS, Dec. 25, 2001, at C1; Mark Truby, *Firestone to Close Illinois Plant, Firms Oldest, Largest Facility Falls Victim to Tire Controversy; 1,500 Workers to Lose Jobs*, DETROIT NEWS, June 28, 2001, at 1.

338. There may be some instances when an employer's hiring of permanent replacement workers does not result in any secondary externalities or it produces only positive externalities that benefit thirds parties. The analysis in this part would not apply to those circumstances.

consumers. Would the union have been willing to subject its members to rotating twelve-hour shifts in order to protect consumers? Would Bridgestone/Firestone have paid the industry wage to prevent prospective threats to consumers' safety? As with the railway-farmer-neighbor problem, the better answer is to construct a new bargaining relationship between the union, Bridgestone/Firestone, and consumers who might be harmed by defective tires.

Transaction costs will inhibit or eliminate the possibility that these negotiations can produce an efficient result, however. Like the distant farmers and homeowners in the railway-farmer example, the parties to these secondary externalities are geographically dispersed, unorganized, and resistant to easy classification. Owners of Bridgestone/Firestone's ATX, ATXII, or Wilderness tires of the correct size are not the only relevant parties. Passengers in vehicles using the defective tires would have to be included. Bystanders to accidents caused by the tires' defects would probably have a legitimate claim to a seat at the bargaining table. Ford Motor Co. would have a legitimate basis for arguing that it bore costs arising out of Bridgestone/Firestone's hiring of permanent replacement workers. Other suppliers and end users of the tires might also seek representation in any negotiation over secondary externalities associated with the defective tires.

In these circumstances, prospects for reducing transaction costs to zero or near-zero such that bargaining can produce an efficient result are dim. The new transaction costs would include identifying all of these prospective bargaining parties, informing them that they are invited to negotiate over permanent strike replacements and defective tires, assessing the parties' interests, sharing sufficient information with all of the involved parties to permit genuine bargaining, defining the procedural and substantive terms on which negotiations might proceed, bargaining to agreement between all of the parties, drafting the agreement, and establishing enforcement mechanisms to assure compliance with the agreement. The transaction costs in this case would be excessive to the point of irremediability.

The Coasean lawmaker, therefore, faces little choice in her selection of tools for resolving these secondary externalities. Pursuing the transaction-cost reduction approach appears futile. Secondary externalities must be taken into account in the social product calculation. Transaction costs must increase to some extent whenever secondary externalities are taken into account. As transaction costs increase, the Coasean lawmaker becomes

less likely to employ the transaction-cost reduction approach and more likely to employ the dictated solution approach.³³⁹ Since the heart of Coase's endeavor was to focus greater attention on the role of transaction costs in parties' decision making, particularly with respect to externalities, these costs cannot be ignored. So, if the consequent transaction costs cannot be ignored and are unlikely to be reduced, then taking secondary externalities into account increases the likelihood that the Coasean lawmaker will eschew the transaction-cost reduction approach in favor of the dictated solution approach.

Of course, this conclusion is limited in many respects. Some efforts to redress primary externalities will not produce secondary externalities and, therefore, will not add transaction costs to the social product calculation. Some secondary externalities may require very low transaction costs for their resolution. Other secondary externalities may bring benefits to third parties as well as costs.

Nonetheless, in circumstances made possible by the *Mackay Radio* doctrine and some number of additional cases involving collective bargaining, secondary externalities will be substantial, and the transaction costs required for their resolution will alter the Coasean efficiency analyst's calculus. Bridgestone/Firestone is not an idiosyncratic case. Many strikes that do not involve permanent replacement workers may also produce significant secondary externalities, perhaps including layoffs among suppliers' employees and loss of retailers' sales. These secondary externalities would similarly become factors in any calculation of total social product, as would the transaction costs associated with redressing them. As a result, the Coasean lawmaker would be inclined to employ the dictated solution approach and impose an outcome on striking unions and struck employers.

When these circumstances arise, the Coase Theorem collides with a basic premise of the NLRA: the substance of bargaining is the near-exclusive domain of the parties. Coase and the NLRA's sponsors shared an interest in efficiency and a belief that bargaining can be a means to achieve it.³⁴⁰ Section 8(d) of the NLRA imposes a duty on "the employer

339. It is not necessarily true that every Coasean analysis leads to inefficiency when these added transaction costs are taken into account. Many secondary externalities will not manifest themselves in the same form as those arising out of the *Mackay Radio* doctrine.

340. See 29 U.S.C. § 151 (2001) ("The denial by some employers of the right of employees to organize and the refusal by some employers to accept the procedure of collective bargaining lead to strikes and other forms of industrial strife or unrest, which have the intent or the necessary effect of burdening or obstructing commerce by (a) impairing the efficiency . . . of the instrumentalities of commerce Experience has proved that protection by law of the right of employees to organize and

and the representative of the employees to meet . . . and confer in good faith with respect to wages, hours, and other terms and conditions of employment”³⁴¹ But the NLRA does not permit regulation of the collectively bargained agreement’s substantive terms,³⁴² and the NLRB, the NLRA’s principal administrator, “may not, either directly or indirectly, compel concessions or otherwise sit in judgment upon the substantive terms of collective bargaining agreements.”³⁴³ Similarly strict limits have been imposed on judicial intervention in the substance of collective bargaining agreements.³⁴⁴ The government has generally regulated only the process of bargaining and relied on private negotiation between the parties to establish “their own charter for the ordering of industrial relations.”³⁴⁵

The protective wall guarding collective bargaining parties’ substantive choices from government interference includes tight restrictions on the

bargain collectively safeguards commerce from injury, impairment, or interruption, and promotes the flow of commerce”).

341. 29 U.S.C. § 158(d) (2001).

342. *See* NLRB v. Am. Nat’l. Ins. Co., 343 U.S. 395, 402 (1952). *See also* NLRB v. Ins. Agents’ Int’l Union, 361 U.S. 477, 485-86, 488 (1960) (“Congress was generally not concerned with the substantive terms on which the parties contracted. . . . [T]he policy of Congress is to impose a mutual duty upon the parties to confer in good faith with a desire to reach agreement, in the belief that such an approach from both sides of the table promotes the over-all design of achieving industrial peace.”). Other statutes establish minimum labor standards that the parties may not agree to violate. *See, e.g.*, Fair Labor Standards Act (FLSA) 29 U.S.C. § 701 *et seq.* (2001); Occupational Safety and Health Act (OSHA) 29 U.S.C. § 651 *et seq.* (2001). These statutes cannot be fairly described as government dictation of bargaining results; rather, they were designed to supplant bargaining in circumstances where Congress was skeptical that bargaining between an employer and an individual worker would achieve a socially optimal result. *Cf.* Harris, *supra* note 9, at 34-38.

343. NLRB v. Am. Nat’l Ins. Co., 343 U.S. at 404, 408-09 (“Congress provided expressly that the Board should not pass upon the desirability of the substantive terms of labor agreements.”)

344. Airline Pilots Ass’n, Int’l v. O’Neill, 499 U.S. 65, 78 (1991) [hereinafter *ALPA v. O’Neill*] (“Congress did not intend judicial review of a union’s performance to permit the court to substitute its own view of the proper bargain for that reached by the union. Rather, Congress envisioned the relationship between the courts and labor unions as similar to that between the courts and the legislature. Any substantive examination of a union’s performance, therefore, must be highly deferential, recognizing the wide latitude that negotiators need for the effective performance of their bargaining responsibilities.”). Courts may inquire into the substance of collective bargaining agreements to “search for evidence that a union did not fairly and adequately represent its constituency.” *Id.* at 74. However, even this inquiry is subject to a strict limitation: “A wide range of reasonableness must be allowed a statutory bargaining representative in serving the unit it represents” *Ford Motor Co. v. Huffman*, 345 U.S. 330, 338 (1953).

345. *ALPA v. O’Neill*, 499 U.S. at 74 (quoting *Local 24 of Int’l Brotherhood of Teamsters v. Oliver*, 358 U.S. 283, 295 (1959)). *See also* 499 U.S. at 74 (quoting *NLRB v. Ins. Agents’ Int’l Union*, 361 U.S. 477, 488 (1960)) (Congress “intended that the parties should have wide latitude in their negotiations, unrestricted by any governmental power to regulate substantive solution of their differences.”).

NLRB's ability to intervene in the parties' use of economic weapons that might influence the outcome of the substantive negotiations:

[T]he Board in the guise of determining good or bad faith in negotiations could regulate what economic weapons a party might summon to its aid. And if the Board could regulate the choice of economic weapons that may be used as part of collective bargaining, it would be in a position to exercise considerable influence upon the substantive terms on which the parties contract. . . . Our labor policy is not presently erected on a foundation of government control of the results of negotiations.³⁴⁶

The NLRA even protects the collective bargaining process from the conduct of the parties, on occasion. For example, an employer's unilateral change of employment conditions under negotiation is a breach of the duty to bargain in good faith and, therefore, a violation of Section 8(a)(5) of the Act because it forecloses future negotiations.³⁴⁷

In sum, the NLRA constructed a virtually impenetrable wall around the substance of bargaining to keep the government out. Government's role is strictly limited to regulating the process of bargaining.³⁴⁸ Coase's Paradox, on the other hand, suggests that efficiency proponents delving into some parts of labor law's realm must seek an increasingly large role for government in the substance of collective bargaining. Coasean lawmakers must dictate solutions to parties who are blocked by transaction costs from reaching an efficient bargain. The apparent reconcilability of the Coase

346. *NLRB v. Int'l Union of Marine, Shipbuilding and Shiprepairers*, 361 U.S. at 490. The substance of collective bargaining is not entirely free of regulation. Certain subjects enumerated in Section 8(d) (i.e., wages, hours, and other terms and conditions of employment) are "mandatory subjects" of bargaining. Other subjects are "permissive." The parties may employ the full range of economic weapons to support their bargaining positions on mandatory subjects, while employing the same weapons in relation to permissive subjects can constitute an unfair labor practice. *See, e.g., NLRB v. Wooster Div. of Borg-Warner Corp.*, 356 U.S. 342, 349-50 (1958) (holding that parties' insistence on permissive subjects of bargaining constitutes failure to bargain in good faith on the mandatory subjects). Since the availability and effectiveness of economic weapons largely determines the substance of a collective bargaining agreement, this statutory categorization influences the parties' substantive choices.

347. *NLRB v. Katz*, 369 U.S. 736, 737-39 (1962).

348. One superficially appealing answer to this criticism is to emphasize the distinction between process rules, a domain in which government may intervene under the NLRA, and substance rules, where government should not intervene, and thereafter to defend each government intervention on the grounds that it seeks to address a process issue. *Cf. Wachter & Cohen, supra* note 2, at 1367-74. Even if it were possible to draw this distinction cleanly, *see supra* note 346, it is irrelevant to any discussion of the *Mackay Radio* doctrine. Effective discharge of unionized employees is undeniably a "term and condition of employment" and, therefore, a mandatory subject of bargaining. *See* 29 U.S.C. § 158(d) (2001).

Theorem and the NLRA proves as illusory in this case as the *Mackay Radio* premium offered to permanent strike replacements.

The Coasean lawmaker might seek to ignore any secondary externalities (and those beyond) arising from collective bargaining and the legal rules that govern it. In other words, she might adopt a restrictive view of social product that encompasses only the costs and benefits, including the transaction costs and opportunity costs, of the parties to the primary externality. But this would represent a normative preference, not economic analysis. With respect to secondary externalities arising as a consequence of the *Mackay Radio* doctrine, her argument would have to be that workers' costs, whether the costs of opportunity costs or the costs arising from secondary externalities, and consumers' costs from secondary externalities are less cognizable than employers' and producers' costs.³⁴⁹ This judgment cannot be justified using Coase's own definition of social product. In fact, this constricted definition of social product necessarily abandons any claim to public policy. Absent consideration of secondary externalities and their attendant transaction costs, the purported "social product" calculation amounts to nothing more than the net aggregate private product of the parties to the primary externality. This is not *social* product. It is mere political preference.

The Coasean lawmaker might also argue that collective bargaining parties' private preferences may not produce the most efficient result. In this, she might be correct. High transaction costs might make efficient resolution of secondary externalities, or even primary externalities, too difficult for a union and employer bargaining free of government influence. But the protective shield guarding the private realm of collective bargaining from government intervention has not been justified on the basis that a union and employer are best able under this arrangement to produce an efficient result. Other values also play a role. Most important, the NLRA permits the parties to construct and manage their own system of workplace self-governance and representative democracy.³⁵⁰ To the extent that the value of efficiency clashes with the value of democracy, the NLRA has long opted for democracy.

349. Stewart Schwab offered a better explanation of the Coase Theorem's import: "[T]he costless Coase Theorem implies that efficiency arguments are irrelevant in countering a proposal to give initial legal entitlements to the needy or the deserving." Schwab, *Coase Defends*, *supra* note 32, at 1195.

350. *See generally* Cox, *supra* note 94.

V. CONCLUSION

The *Mackay Radio* doctrine dictates a solution to the externalities associated with an employer's hiring of permanent replacement workers. The Coasean analysis performed in this Article argues that the solution dictated by the *Mackay Radio* rule is not efficient. This conclusion is true whether or not Coase's Paradox, and the costs associated with the secondary externalities that may arise from the hiring of permanent replacement workers, are included in the calculus. Employers hiring permanent replacement workers suffer losses, impose losses on the replacement workers or the striking workers, or impose costs on consumers. In some circumstances, the decision to hire permanent replacement workers harms all of these parties.

The Coase Theorem effectively focuses attention on barriers to bargaining that would produce efficient results. Strategic bargaining is one such barrier. Rather than deterring strategic behavior, the *Mackay Radio* doctrine actually facilitates strategic behavior by struck employers recruiting permanent replacement workers in the external and internal labor markets. For this reason alone, the *Mackay Radio* doctrine cannot be reconciled with the Coase Theorem.

This conclusion raises doubts about the efforts by some law and economics scholars to represent the Coase Theorem as a universal explanation for law of all sorts. The *Mackay Radio* doctrine holds a central place in NLRA jurisprudence. The Coase Theorem's inability to explain it suggests that there is some question as to whether the theorem can be an effective tool for explaining American labor law.

But this Article has gone further in using the *Mackay Radio* doctrine to assess the compatibility of the Coase Theorem and the NLRA. Coase's Paradox is a natural outgrowth of the dialectical approach to externalities that Coase adopted in *The Problem of Social Cost*. Solutions to externalities may themselves generate new costs and new externalities that also require redress. But each effort to address a secondary externality necessarily brings new transaction costs. As transaction costs increase, the Coasean lawmaker's willingness to leave the parties to negotiate their own substantive agreements decreases. The NLRA cares little about the Coasean lawmaker's willingness to refrain from intervention in the substance of parties' agreements. Courts interpreting the NLRA have constructed a protective wall around the substance of collective bargaining agreements that does not allow the government to intervene. When rising transaction costs or spreading strategic behavior inspire the Coasean lawmaker to seek efficient substantive results, she will crash into the wall

erected by the NLRA. In this way, at least, the Coase Theorem and the NLRA are incompatible.

To their great credit, Cohen and Wachter disclaimed any intention to impose an efficiency-based normative standard on the NLRA absent compelling evidence that Congress intended its law to be interpreted in this way.³⁵¹ Congress cared about economic efficiency when it enacted the NLRA, but not to the exclusion of other values. In the struggle over government's proper role in collective bargaining, it appears that Coase's interpreters and their push toward government intervention in the substance of bargaining cannot be reconciled with the NLRA's abiding respect for the private preferences of unions and employers. Efficiency, while relevant, does not reign supreme in American labor law. As a result, perhaps the Coase Theorem and its dialectical approach are not well-suited to the explanation and justification of many aspects of the NLRA, including the *Mackay Radio* doctrine.

351. Cohen & Wachter, *supra* note 2, at 124. Cf. Thomas J. Campbell, *Labor Law and Economics*, 38 STAN. L. REV. 991, 992-93 (1986) (acknowledging that Congress did not intend efficiency to be the paramount value served by the NLRA).