ENTRY AND EXIT

An Economic Analysis of Statutory Changes in Rail Carrier Entry and Exit

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I. INTRODUCTION

Rail carriage provides an interesting example of how changes in technology and government policy toward entry and exit affect competitiveness in the transportation industry. In 1830, only 23 miles of rail trackage were operational in the United States.[1] By 1916, the American rail net had reached an all-time high of 254,037 miles.[2] Today, less than 200,000 miles of track are left in this country,[3] a reduction of twenty percent in the 67-year period of 1916 to 1983. This diminution occurred as America's gross national product (GNP) increased nearly tenfold in real terms[4] and its population more than doubled.[5] The period of decline in rail trackage, spanning two-thirds of a century, featured changing technology during which increasing competition from air, motor and water carriers led rail companies to consolidate lines, discontinue service, abandon trackage and lose large amounts of business and revenue.[6] Whereas railroads carried nearly three-fourths of all domestic U.S. intercity freight traffic in 1930, they hauled less than two-thirds of such shipments in 1979.[7] Moreover, in the forty years between 1939 and 1979, total commercial carriage by rail dropped from 23 billion to 11 billion passenger miles.[8] Competition from air, motor and water carriers has been responsible for this decline of rail business.[9]

After seventy-five years of increasing entry between 1830 and 1916, subsequent years marked an exit out of the rail industry. What effect has government policy had on entry and exit? The era of overexpansion and of destructive intramodal competition, fostered by speculative entry into the industry, has been replaced by a period of decline and debilitating intermodal competition, culminating in exit from the industry.

Most railroads have been organized by private interest, although government subsidies, franchises and protectionism were provided at local, state and federal levels. The continuous concern over competition in our economy led government policy makers to foster minimized competition at one point in time and enforced competition at another. The key to competi-

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1. U.S. DEP'T OF COMMERCE, HISTORICAL STATISTICS OF THE UNITED STATES, COLONIAL TIMES TO 1970, H.R. DOC. NO. 78, 93d Cong., 1st Sess. 731 (1975) [hereinafter cited as HISTORICAL STATISTICS].

2. *Id.* at 728.

3. BUREAU OF THE CENSUS, U.S. DEP'T OF COMMERCE, STATISTICAL ABSTRACT OF THE UNITED STATES 626 (1982) [hereinafter cited as STATISTICAL ABSTRACT].

4. *Id.* at 418-22.

5. *Id.* at 6.

6. Detailed data in HISTORICAL STATISTICS, *supra* note 1, at 728-34 bear out these contentions.

7. ASS'N OF AMERICAN RAILROADS, YEARBOOK OF RAILROAD FACTS 36 (1980).

8. *Id.* at 32.

9. W. TALLEY, INTRODUCTION TO TRANSPORTATION 171-74 (1983).

tion is ease of industry entry and exit. The railroad industry, tightly regulated, has seen overexpansion (too much entry) and financial difficulties (prevention of exit). Today, a new approach to competition, air and motor transportation deregulation, is being promulgated. The immediate purpose of this approach is to foster additional entry into the marketplace. However, such deregulation may detrimentally affect railroads.

The primary purpose of this paper is to trace changes in transport law with respect to entry and exit experiences of railroads during nearly a century of government regulation. Specific objectives are: (1) to review major economic provisions in important pieces of transportation legislation affecting rail carriers; (2) to review how entry and exit are analyzed in economic terms; (3) to consider selected legislative acts affecting rail carrier entry and exit provisions; and (4) to provide an economic evaluation of entry and exit in rail transportation.

The following question is considered at each statutory juncture: What economic interpretation can be given to various changes occurring in major rail carrier entry and exit legislation during the past century? Criteria for evaluating these changes will be based on entry and exit analysis from industry economics. Legal aspects of rail carrier entry and exit regulation are described by selected statutory provisions.

II. Entry And Exit In Transport Law and In Economics

Entry and exit are parallel concepts in law and economics. However, the terms used in each discipline vary significantly.

A. Entry And Exit In Transport Law

In the United States, various segments of transportation have been regulated for nearly a century.[10] As a result, free-market forces are not a primary determinant of entry into and exit out of a particular mode of transport. Statutes govern entry and exit. They establish procedures to follow, applications to file, criteria to meet, justifications to make, reviews to hold, and decisions to render by administrative agencies and by the courts. Free-market forces operate only on buyer demand and production economies, which, in turn, induce carriers to come into or go out of the industry. These reactions, however, only constitute an initial step. Once the inducement motivates action on the part of a carrier, the determining step is a petition to the appropriate regulatory agency for permission to enter or to exit via certification, consolidation, discontinuance or abandonment.

10. Act of Feb. 4, 1887, ch. 104, 24 Stat. 379 was the first real comprehensive attempt at the national level.

1. CERTIFICATION AS ENTRY

In the regulation of rail carriers, entry into the industry may be closely monitored by requiring potential entrants to apply for a certificate of public convenience and necessity (PC&N).[11] Generally, criteria used to secure the PC&N certificate stress the need for additional transport services, adequacy of existing service, and the impact of the new entry on competition among existing carriers, on interstate commerce, and on the public interest.[12] In order to qualify for and obtain such a certificate, a carrier must meet certain conditions promulgated by the regulatory agency.[13] Criteria tend to vary over time because economic, social and political conditions change and because policy views as to what constitutes the public interest and the general welfare are not static.

2. CONSOLIDATION AS ENTRY

Consolidation refers to bringing together existing productive units into an industry which is serving a market. Consolidation ordinarily occurs through the mechanisms of merger and acquisition.[14] Whenever two or more firms join together, not only is the number of separate, independent competitive forces in a market reduced, but the level of concentration is also increased in the industry.

A market can be entered on either a small or a large scale.[15] Since entry affects the nature of competition in a market, the scale of operation characterizing entry is an important consideration. If new firms enter a market, additional competitive units are brought into play and the market tends to become increasingly competitive in the technical sense.[16] If entry by already established firms occurs, however, the market moves away from competition and toward an oligopolistic form of market organization.[17] But if mergers occur between existing market participants in a line of commerce, there is at the same time an exit of one of the competitive forces in the market as well as entry of an oligopolistic force in that market.

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11. *E.g.*, 49 U.S.C. § 10901(a) (Supp. V 1981).

12. Dempsey, *Entry Control Under the Interstate Commerce Act: A Comparative Analysis of the Statutory Criteria Governing Entry in Transportation*, 13 WAKE FOREST L. REV. 729, 732-34 (1977).

13. *E.g.*, 49 U.S.C. § 10901 (Supp. V 1981).

14. It is common usage in economics and law to refer to merger, acquisition, combination and consolidation as being synonymous. *See* E. KINTNER, PRIMER ON THE LAW OF MERGERS 110, 133-35 (1973); E. SINGER, ANTITRUST ECONOMICS 242-54 (1968).

15. That is, an entrant firm can *attempt* entry with a small-size plant or a large-size one. *See* J. BAIN, BARRIERS TO NEW COMPETITION 9-15 (1956).

16. G. STIGLER, THE THEORY OF PRICE 180-87 (1966).

17. J. KOCH, INDUSTRIAL ORGANIZATION AND PRICES 102-04 (1980).

3. *DISCONTINUANCE AS EXIT*

If a rail carrier desires to cease operating a particular train along a given route, it is contemplating discontinuance. This particular cessation of service along a route is not a total exit from the market, but only a partial exit in a market sub-group. The Interstate Commerce Commission (ICC) presently considers applications for discontinuance of service and requires that the following criteria be met: (1) public convenience and necessity not be harmed; (2) financial conditions of the carrier not be impaired; (3) adequacy of service not be disrupted; (4) existing carriers not be burdened; and (5) public interest not be hurt.[18] However, discontinuance is based on the old section 13a of the Interstate Commerce Act (ICA) and has a very limited application because it now applies primarily to non-Amtrak passenger trains.[19]

4. *ABANDONMENT AS EXIT*

Abandonment is a complete exit from a market area rather than a mere withdrawal from one or more market sub-groups.[20] Abandonment criteria usually are more rigid and detailed than discontinuance criteria. The former include: (1) giving public notice; (2) providing opportunity for purchase; (3) identifying applicant's other lines and financial conditions; (4) calculating costs and revenues emanating from abandonment; and (5) determining whose interest will be protected by allowing or not allowing abandonment.[21] In addition, standards for PC&N, competitive effects and the public interest are also applied when evaluating abandonment proposals.[22]

B. *ENTRY AND EXIT IN INDUSTRY ECONOMICS*[23]

A key factor affecting the extent of competition in any line of commerce is the number and size distribution of firms. In a free enterprise and market economy, easy entry and exit, coupled with the profit motive and the price mechanism, interact to sustain a sufficient number of firms so that prices are lowered by competitive forces toward the average cost of production. As a result, remaining profits are sufficient to retain the most efficient firms in that particular line. In some cases, where entry is too easy or exit too difficult, destructive competition may develop over time as the in-

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18. *See* Dempsey, *supra* note 12, at 732-34.
19. See 45 U.S.C. § 564 (1976 & Supp. V 1981).
20. R. SAMPSON & M. FARRIS, DOMESTIC TRANSPORTATION 113 (1979) [hereinafter cited as SAMPSON & FARRIS].
21. Dempsey, *supra* note 12, at 732-34.
22. *Id.*
23. A good example of how entry and exit are evaluated from the standpoint of industry economics can be found in R. PETERSON & C. MACPHEE, ECONOMIC ORGANIZATION IN MEDICAL EQUIPMENT AND SUPPLY 45-49 (1973).

dustry becomes clogged with excessive supply relative to demand at competitive prices.

Industrial organization economics examines the structure, conduct and performance of firms in an area of commerce to determine the extent of competition therein. The structure of the market refers to the economic environment in which rival firms produce and distribute, challenging each other for sales revenue. This environmental setting—structural conditions—embodies the nature of the product, buyer characteristics, extent of concentration and conditions of entry and exit into and out of the industry and its market. Whereas market conduct refers to sellers' behavior for pricing, production and distribution practices, market performance refers to the economic end results of structure and conduct (such as profit rates, selling costs, progressiveness and efficiency). The structure of a market affects the forms of conduct in which firms can engage. Structure and conduct, both interacting, result in a unique set of market performance characteristics for each industry. In this milieu, the extent of entry and exit shape the prospects for competitiveness in the market served by that industry.

The ease with which new firms can enter an industry is a vital element of market structure and is important to competitiveness. Easy entry into an industry helps to create a large number of sellers in a market. Difficult entry into an industry helps to limit the numbers of firms and to reduce competitiveness. Several conditions tend to limit the numbers of firms in an industry: (1) technical requirements for production which necessitate large size or scale; (2) differences in costs of production which exclude potential producers; and (3) opportunities for product differentiation which limit the number of customers a firm might serve. The extent to which these conditions limit entry is dependent on the overall size of the market. A large and growing market provides opportunities for new firms.

1. *Economies of Scale*[24]

A plant which produces an output of some good or service can ordinarily be built with a relatively large or small capacity. Generally, the greater the amount of equipment, the larger the plant size and the greater its capability for output. If costs per unit of output, i.e., average costs, become smaller as plant size is increased, economies of scale probably exist in that line of commerce. The extent of economies of scale is measured by the shape of the firm's long-run average cost (LRAC), which traces the behavior of unit cost of production as plant capacity is increased. If the LRAC is U-shaped, it means that the average cost of production decreases as plant size is expanded, then reaches some low-cost point of relatively constant costs, and rises as diseconomies of scale take over. If LRAC is L-shaped, it

24. *See generally* 4 R. CAVES, AMERICAN INDUSTRY 23-30 (1977).

suggests that economies of scale occur but no diseconomies cause average production costs to rise as plant size increases.

Scale economies probably occur in railroading. Suppose a rail company was established, complete with track, stations, and rolling stock, between two points ten miles apart. The cost per ton-mile of shipment would undoubtedly be higher for that company than for a rail firm which constructed track, stations and rolling stock between two points 500 miles apart. The ability of the latter entity to carry freight the longer distance would allow the company to spread its costs allocated to fixed facilities over a larger number of miles.

If the LRAC for a firm is so U-shaped or L-shaped that costs per unit of output, such as cost per ton-mile, do not reach their trough until plant size is extremely large, then economies of scale become a barrier to entry into that industry. If these barriers exist, it means that it is difficult for a prospective competitor to enter the industry at a relatively small size. Significant economies of scale may even trap existing companies in an industry. Indeed, the cost of going out of business may be so high that firms consider tactics to prevent additional entry or even try to drive existing rivals from the market.

2. Absolute Costs[25]

Often, regardless of the size of a plant of an already established enterprise—whether large or small—a company may be able to purchase necessary inputs at lower costs than prospective firms. If this situation occurs, then a certain plant size not only provides a cost advantage, but there are also benefits of being established in business. Existing firms, compared with new firms, are usually able to buy raw materials at cheaper prices, pay lower interest rates on borrowed funds and hire more productive labor than striving, entrant firms. Established companies, compared with entrants, may already be profitable, face lower risks and enjoy keen business relations with suppliers. These situations are known as absolute-cost advantages for established firms.

Consider railroading as an illustration of absolute costs. An existing rail carrier company may have the best pass through a mountain range; other carriers are at a disadvantage because to tunnel through the mountains elsewhere can only be done at a much higher cost than the carrier with the preferred route. In this respect, the cost of investing in capital may be greater for the new than for the established firm, although both may be of the same plant size and capacity along the LRAC path.

Absolute cost differences operate as a barrier to entry in certain industries. Established firms may set prices above their own costs yet below the costs of potential competitors. As with scale economies, the difference be-

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25. *See generally* 2 J. Bain, Industrial Organization 252-75 (1968).

tween price and cost, as it affects profitability (or unprofitability), is a primary determinant of entry conditions (and ultimately of the number of firms in an industry and resulting prospects for competitiveness).

3. *Product Differentiation*[26]

In a perfectly competitive market there are few strong buyer preferences for the output of any one of many firms because the product is standardized. Substitution of one product for another would normally occur in this situation. One important result of competition is that a common price is established by the market forces of supply and demand rather than being under the control of individual firms. Whenever one company, however, is able to distinguish its output from that of rival firms the prospects for noncompetitive behavior arise. In such a context, a seller may possess the ability to establish a price for its output which is based on product differences. Product differentiation not only causes a market to be imperfectly rather than perfectly competitive, but it often operates to the benefit of established firms and to the detriment of entrants.

Product differentiation becomes a barrier to entry whenever buyer preferences for the output of existing companies are so strong that a potential competitor is unable to charge as high a price for a similar good or service as established firms. Suppose that a hopeful businessman decides to set up a motor launch service between Oakland and San Francisco to transport workers to their jobs. If there are stronger passenger preferences for the Bay Area Rapid Transit (BART) trains than for the water carriage, then the launch operator may not have very many fares and will be destined to an unprofitable business venture.

If consumers prefer one mode of transport, although its price is higher, a product differentiation barrier to entry may occur in an industry. A form of price-cost squeeze can develop for entrants if these barriers are significant. Either the new enterprise must spend vast sums for promotion to try to overcome buyer preferences or it must lower prices significantly below that of existing firms in order to entice customers to its counters. Both tactics result in prices being close to (or even below) cost. In turn, profits will be low (or possibly even nonexistent).

Product differentiation is probably more feasible in the market for passenger service than in the market for freight. Passengers are ultimate consumers, obtaining satisfaction directly and personally from their rides. The general subjective nature of personal human behavior ordinarily makes the ultimate consumer somewhat susceptible to design, style, feature, comfort and other aspects of non-price conduct. Freight, however, is generally a

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26. *See generally* F. Scherer, Industrial Market Structure and Economic Performance 99, 320 (1970).

business service purchased by managers of firms who largely evaluate alternatives according to objective factors such as price, delivery time and condition, and reliability. A carrier may be able to differentiate its freight service from another rail carrier, but the opportunity to do so, and thereby impress business buyers, is probably less than for consumer passenger services.

4. *A Digression on Exit*

A necessary factor for a functioning competitive market is relative mobility of resources.[27] This means that few impediments restrict productive capital from going into or out of a line of commerce. For a market to be price competitive, resources allocated to the creation of productive capacity must bring forth additional competitive units. If there are barriers to entry or exit in a line of commerce, competitiveness is hampered whenever additional capital infusions do not increase the number of sellers.

Although industry economists have frequently analyzed entry, exit has received scant attention. Entry is of vital concern because of the desire to foster competitiveness by increasing the number of separate economic units in a market. Exit attracts attention whenever large firms drive out smaller ones through a variety of predatory tactics, such as below-cost pricing.[28] In regulated industries, however, the situation is different because freedom of entry is not generally allowed. Once permitted, entry becomes fixed because exit can only be accomplished by applying and meeting certain rigid criteria.

III. An Act To Regulate Commerce, 1887

The great era of industrialization in America occurred during the period of reconstruction following the Civil War.[29] While industry and commerce were being revitalized in the East and South, the development of the West began in earnest during the 1860's.[30] The construction of our now vast rail network continued from its meager start in 1830, especially beyond the Mississippi River, to augment the settlement of the Western Frontier.[31] In fact, between 1860 and 1890, the amount of railway in the United States

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27. A. Marshall, Principles of Economics 540-41 (1920).

28. P. Asch, Industrial Organization and Antitrust Policy 314-16 (1983).

29. Whereas the Industrial Revolution settled in England around 1750, it did not arrive in the United States until a century later. R. Heilbroner, The Economic Transformation of America 42-43 (1977).

30. R. Vedder, The American Economy in Historical Perspective 122-26 (1976).

31. S. Ratner, J. Soltow & R. Sylla, The Evolution of American Economy 118-20 (1979) [hereinafter cited as Ratner].

increased from 30,626 miles to 163,597 miles, or by more than five-fold.[32]

A. Background To The Act

A compatibility of interests supported the iron horse as it pushed across our land in the mid-1800's: "The public wanted railroads [and] the companies wanted to build them."[33] However, by 1870, a conflict of interests appeared: "The public wanted the lowest possible rates; the railroads wanted to earn as large profits as possible."[34] Farmers in the Midwest and the Great Plains were angered by high railroad rates and rate discriminations among types of commodities, shippers and routes. The Granger Movement of the early 1870's sparked some state control over the railroads, but such attempts were generally ineffective.[35]

In less than ten years, three significant events finally induced Congress to do something about the perceived problems in rail transportation: the Windom[36] and Cullom[37] Senate reports, and the U.S. Supreme Court decision in *Wabash*.[38] The report of the Senate-appointed Windom Committee identified "insufficient facilities, unfair discrimination, and extortionate charges"[39] as national transportation problems. The Committee recommended government ownership of one or more railroads. "The Cullom report differed from the Windom report . . . in that more emphasis was placed upon the evils of discrimination than upon the level of rates . . . [and] . . . favored a system of mild regulation."[40] In *Wabash*, the U.S. Supreme Court held that a state (Illinois) could not impose its regulation upon the intrastate part of an interstate shipment.[41] This ruling made federal legislation necessary if rail rates were to be controlled. Rail transport was thereby declared to be an interstate phenomenon. High and discriminatory rail rates could not be corrected by separate state legislation because coordination among states is impractical, if not virtually impossible. The result was An Act to Regulate Commerce, passed in 1887.[42]

B. Purpose And Major Provisions

The 1887 Act was a clear attempt to solve some of the problems addressed in the Windom and Cullom reports, and to respond to the *Wabash*

32. Historical Statistics, *supra* note 1, at 727-28.
33. D. Locklin, Economics of Transportation 211 (1972).
34. *Id.*
35. H. Norton, Modern Transportation Economics 225 (1971).
36. S. Rep. No. 307, Part 1, 43d Cong., 1st Sess. (1872).
37. S. Rep. No. 46, 49th Cong., 1st Sess. (1874).
38. Wabash, St. L. & Pac. Ry. v. Illinois, 118 U.S. 557 (1886).
39. R. Westmeyer, Economics of Transportation 109 (1952).
40. D. Locklin, *supra* note 33, at 224.
41. *Id.*
42. Act of Feb. 4, 1887, ch. 104, 24 Stat. 379.

decision. Rail rates were believed to be excessively high and unevenly applied to shippers in the same class. Before 1887, rail rates were established within a framework involving subjective, on-the-spot determinations, overt collusion and special agreements from negotiations based on status. The Act was designed to control high and discriminatory rates, selective ratemaking, pooling and combinations. Collectively, by its provisions, the Act had the purpose of begetting fair and just rail shipment rates in interstate commerce. The following sections appeared in the original Act:

> Sec. 1 All charges for any service rendered . . . shall be reasonable and just.
> Sec. 2. [A]ny common carrier imposing any special rate, rebate, drawback, or other device . . . shall be deemed guilty of unjust discrimination . . . .
> Sec. 3. [I]t shall be unlawful . . . to give . . . unreasonable preference or advantage to any particular person . . . or any particular . . . traffic, to any undue or unreasonable prejudice . . . .
> Sec. 4. [I]t shall be unlawful . . . to charge or receive any greater compensation in the aggregate for the transportation of passengers or of like kind of property, under substantially similar circumstances and conditions, for a shorter than for a longer distance over the same line, in the same direction . . . .
> Sec. 5. [I]t shall be unlawful . . . [to contract] for the pooling of freight of different and competing railroads, or to divide between them . . . the net proceeds of the[ir] earnings . . . .
> Sec. 6. No advance shall be made in rates, fares, and charges which have been established and published . . . except after ten days' public notice . . . .
> Sec. 7. [I]t shall be unlawful . . . to enter into any combination, contract, or agreement . . . to prevent . . . the carriage of freights from being continuous . . . .[43]

C. Entry/Exit Provisions

The 1887 Act failed to address adequately the problem of entry and exit. Indeed, there were no entry/exit provisions in the Act. It was no secret at the time that entry was rampant, that duplication of trackage and routes existed, and that predatory pricing was being used to force exit from the industry.[44] These problems can be traced to free and speculative entry and to a lack of reasonable efficiency standards for effecting exit. But in that era, private enterprise, competition and assumption of risk were characteristics of an economic system dedicated to freedom and democracy, not to the rigors of government controls.[45]

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43. *Id.* at §§ 1-7, 24 Stat. 379-82.
44. H. Scheiber, H. Vatter & H. Faulkner, American Economic History 266-67 (1976) [hereinafter cited as Scheiber].
45. R. McCloskey, American Conservatism In The Age of Enterprise, 1865-1910, at 72-84 (1951).

D. *Economic Evaluation*

It is surprising that Congress failed to make a vital economic connection when the 1887 Act was drafted, debated and passed. The document itself addresses primarily the matter of rates: high rates, discriminatory rates, and subjective ratemaking.[46] The vital economic connection missed was that of excessive entry and its consequences: too much supply in relation to then-present demand so that profitable prices could be charged. Whenever this occurs in an industry where capital equipment is long-lived and immobile it inevitably leads profit seeking firms to capture the limited market. Unprofitable prices inevitably lead some firms to failure and exit. Accordingly, it was reasonably foreseeable that pooling, collusion conspiracies, discrimination, predation and other unfair practices would develop to destroy competitiveness and to waste society's resources. Unfair and unjust rates, to the extent that they existed, were only behavioral manifestations of a deeper underlying structural condition—that of excessive entry and contrived exit via the non-technical economic factor of pricing below cost.

IV. Transportation Act, 1920

Within ten years after passage of the Act to Regulate Commerce in 1887, a series of events had emasculated that statute. In some cases witnesses refused to testify; in others, court delays handicapped the activities of the ICC.[47] Moreover, Court decisions in 1896[48] and 1897[49] reduced the authority and importance of the ICC. These cases challenged the rate-making power of the ICC and rendered ineffective the long-haul/short-haul clause in section 4 of the 1887 Act, which allowed railroads to practice rate discrimination. In the first decade of the twentieth century, however, three statutes were passed to strengthen the rate-making powers of the ICC: the Elkins Act (1903);[50] the Hepburn Act (1906);[51] and the Mann-Elkins Act (1910).[52] Respectively, these acts made both carriers and shippers guilty for illegally granted preferential rates, gave the ICC power to fix maximum rates and restored the provision prohibiting higher charges for short versus long hauls to deal with discriminatory rates.

46. *See, e.g.*, ch. 104, §§ 1-2, 24 Stat. 379.
47. R. Westmeyer, *supra* note 39, at 113-14.
48. Cincinnati, N.O. & Tex. Pac. Ry. v. ICC, 162 U.S. 184 (1896).
49. ICC v. Alabama M. Ry., 168 U.S. 144 (1897); ICC v. Cincinnati, N.O. & Tex. Pac. Ry., 167 U.S. 479 (1897).
50. Elkins Act, ch. 708, 32 Stat. 847 (1903) (codified as amended in scattered sections of 49 U.S.C.).
51. Hepburn Act, ch. 3591, 34 Stat. 584 (1906) (codified in scattered sections of 49 U.S.C.).
52. Mann-Elkins Act, ch. 309, 36 Stat. 539 (1910) (codified as amended in scattered sections of 49 U.S.C.).

A. Background To The Act

The United States entered World War I in April of 1917 and the federal government took over the railroads in December of that year.[53] The takeover was accomplished because the railroads were unable to acquire the necessary equipment to handle the increased volume of wartime traffic.[54] The U.S. Railroad Administration was created for this purpose and operated the railroads until March 1920.[55] During the nearly two years and four months of federal operation of the rail system, each railroad was guaranteed a yearly rental payment no greater than a company's average annual operating income for three years (1914 to 1917). Also, railroad facilities were to be maintained in order to return them in similar shape as the time of take-over.[56] Efforts were also applied to utilize equipment efficiently, to coordinate rail and ocean shipping facilities, to avert a breakdown in railroad service and to increase wages and rates.

The immediate impetus for passing the Transportation Act of 1920, also known as the Esch-Cummins Act,[57] was to remove the railroads from direct government operation. Congress also seized the opportunity to review the entire transport regulatory policy and to modify it where necessary and possible.[58]

B. Purpose And Major Provisions

The main purpose of the 1920 Act was to overcome several inadequacies in railroad regulation. Among these shortcomings were a lack of control over railroad capitalization and service, and labor troubles.[59] Other problems were also recognized in the rail transport system: "First, the policy of enforced competition . . . was a mistake; and second, the system of regulation was too restrictive."[60] For one thing, too much entry had occurred; for another, rail rate regulation was beginning to cause the rails to be less profitable.[61] Moreover, the motor car had been introduced, highways were being built, and additional intermodal competition was threatening.

Broadly, the Act contained five key provisions: (1) a new rule of rate making; (2) encouragement of railroad consolidations; (3) rules for issuing

53. *See* Ratner, *supra* note 31, at 442.
54. Scheiber, *supra* note 44, at 322.
55. *Id.* at 323.
56. R. Westmeyer, *supra* note 39, at 128.
57. Transportation Act of 1920, ch. 91, 41 Stat. 456 (codified as amended in scattered sections of 49 U.S.C.).
58. D. Locklin, *supra* note 33, at 240.
59. *Id.* at 240-41.
60. *Id.* at 241.
61. *Id.* at 240-42.

Peterson: An Economic Analysis of Statutory Changes in Rail Carrier Entry a

railroad corporate securities; (4) orderly resolution of rail labor disputes; and (5) control of rail service.[62] The first provision provided for rates of return on rail investment of five to six percent, a recapture of earnings clause for excessive profits to be turned over to the ICC, Commission power to prescribe minimum shipping rates via rail, and some ICC control over intrastate rail rates. The second provision was aimed at alleviating a weak-strong road problem by having the ICC prepare tentative consolidation and routing plans to preserve rail resources, to reduce costs and to create operating efficiencies. The third provision "brought issuance of securities by railroad companies under the control of the Commission"[63] and gave the ICC additional power over railroad affairs. The fourth provision established a Railroad Labor Board of nine members to decide controversies involving wages. The Board was an arbitration group which could not render binding decisions. It was superseded by the Railway Labor Act of 1926.[64] The fifth provision pertained to car supply and to extensions of or abandonments of a carrier's rail line. It gave the ICC control over new construction (entry) and over abandonment of line (exit).[65]

C. Entry/Exit Provisions

The Transportation Act of 1920 was the first statute to deal specifically with entry and exit affairs in the rail industry. Senator Cummins, a major sponsor of the original bill which culminated in the 1920 Act, defended its entry/exit provisions by stating that the "transportation system . . . is now suffering . . . from the unguided, uncontrollable right of owners to build railroads wherever they may see fit."[66] He argued essentially that speculative entry had created a competitive problem which needed to be corrected.

The ICC needed power to remedy this destructive situation. Section 402 of the Act added twelve paragraphs to section 1 of the 1887 Act to Regulate Commerce (Interstate Commerce Act by virtue of title 1, section 1 of the 1920 Act). Of special importance are the following paragraphs:

> (18) [N]o carrier . . . shall undertake the extension of its line of railroad, or the construction of a new line of railroad . . . until . . . first have been obtained from the Commission a certificate that the present or future public convenience and necessity require or will require the construction . . . and no carrier . . . shall abandon all or any portion of a line of railroad . . . until there shall first have been obtained from the Commission a certificate [of public convenience and necessity].

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62. *See, e.g.*, Transportation Act of 1920, ch. 91, § 402, 41 Stat. 476-78.
63. D. Locklin, *supra* note 33, at 249.
64. Railway Labor Act, ch. 347, § 5, 44 Stat. 577, 580-82 (1926) (codified as amended in scattered sections of 18, 28 and 45 U.S.C.).
65. M. Fair & E. Williams, Economics of Transportation and Logistics 389 (1975).
66. T. MacVeagh, The Transportation Act, 1920, at 221 (1923).

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> (21) The Commission may . . . authorize or require . . . any carrier . . . to provide itself with safe and adequate facilities . . . and to extend its line or lines . . . [if] . . . it is reasonably required in the interest of public convenience and necessity . . . .
>
> (22) The authority of the Commission . . . shall not extend to the construction or abandonment of spur, industrial, team, switching or side tracks, located to or to be located wholly within one State . . . .[67]

Section 407 of the Transportation Act of 1920 further amended section 5 of the ICA, as follows:

> (4) The Commission shall as soon as practicable prepare and adopt a plan for the consolidation of the railway properties of the continental United States into a limited number of systems.
>
> (6) It shall be lawful for two or more carriers by railroad . . . to consolidate their properties . . . into one corporation . . . .[68]

D. Economic Evaluation

Congress ostensibly recognized economies of large-scale operations in railroading when it included a provision in the 1920 Act for consolidation. Failure among the rails had already begun to occur.[69] Direct encouragement and aid from the ICC, coupled with rules for issuing securities, were attempts to allow carriers to achieve efficient size, thereby enabling them to become going concerns. The relation between easy entry, overexpansion and destructive competition was apparently known, for Congress gave the ICC specific power to evaluate applications for permits to construct new rail lines. In addition, one view is that exit was already in its infancy because public policy makers were becoming increasingly interested in preventing society's scarce resources from leaving the industry. The mechanism of an exit barrier was contained in ICC control over discontinuance and abandonment.[70]

Technological forces were already at work in the economy, culminating in the Great Depression (i.e., the slowdown in the rate of investment) and affecting the field of transportation (i.e., the development of air and motor carriage), which would eventually obviate certain goals of the 1920 Act. New modes of transport injected an element of product differentiation into a sector which lacked a variety of services. Rather than operating as a barrier to entry, however, shipper and passenger preferences for different forms of intermodal transport facilities intensified competition.

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67. Transportation Act of 1920, ch. 91, § 402, 41 Stat. 477-78 (current versions at 49 U.S.C. §§ 10901(a), 10902, 10907(a) (Supp. V 1981)).

68. *Id.* at § 407(4),(6), 41 Stat. 481 (current version of § 407(6) at 49 U.S.C. § 11343(a) (Supp. V 1981)).

69. J. Lansing, Transportation and Economic Policy 195 (1966).

70. T. Van Metre, Transportation in the United States 335 (1939).

V. Emergency Railroad Transportation Act, 1933

During the 1920's and early 1930's, at least thirty-eight specific pieces of federal transport legislation were passed.[71] Most of these statutes made minor changes in the 1887 Act and the 1920 Act. Several provisions focused on water transport, safety, and special conditions of carriage. One in particular provided for temporary financial assistance to railroads during the early part of the depression.[72]

A. *Background To The Act*

When a downturn in the business cycle occurred between 1929 and 1933, GNP fell from $316 billion to $222 billion in real terms (i.e., in constant 1972 dollars), labor unemployment rose from eight percent to twenty-five percent, and the Federal Reserve Board's Index of Industrial Production fell by fifty percent.[73] In 1930, approximately seventy-five percent of all commercial domestic freight and passengers was carried by rail.[74] When business activity slowed down, so did the need for and use of rail transport facilities. As a result, many railroads declared bankruptcy and were placed into receiverships for corporate reorganization.[75] Franklin Delano Roosevelt assumed the Presidency on March 4, 1933, and subsequently persuaded Congress to pass emergency and relief programs to aid ailing businesses, financial institutions and consumers. The Emergency Railroad Transportation Act of 1933[76] was one of these pieces of legislation.

B. *Purpose And Major Provisions*

The explanatory headnote to the 1933 Act states that it is: "An act to relieve the existing national [transportation] emergency in relation to interstate railroad transportation, and to amend . . . the Interstate Commerce Act."[77] The Act created an office within the ICC called the Federal Coordinator of Transportation. The Coordinator himself was not to be a member of the ICC.[78] The Coordinator had two main responsibilities: (1) to help railroads cooperate among themselves to achieve cost-economies; and

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71. These are listed and contained in G. Udel, Laws Relating to Interstate Commerce and Transportation iii-iv (1971).

72. Act of Jan. 22, 1932, ch. 8, 47 Stat. 5.

73. C. McConnell, Economics i-ii (1978).

74. D. Pegrum, Transportation 328-29 (1978).

75. R. Westmeyer, *supra* note 39, at 149.

76. Emergency Railroad Transportation Act, 1933, ch. 91, 48 Stat. 211 (codified as amended in scattered sections of 49 U.S.C.).

77. *Id.*

78. Commissioner Joseph B. Eastman headed this office until it was abolished in 1936. D. Locklin, *supra* note 33, at 261.

(2) to determine various means of improving national transportation conditions given their poor financial shape.[79] The 1933 Act amended the 1887 Act by establishing a different rule of ratemaking and by repealing the recapture clause of the 1920 Act. The effect of the first was to give the ICC power to control, and hence to prevent, the use of holding companies for creating combinations and consolidations. The effect of the second was to increase the flexibility by which the ICC regulates rates—to allow consideration of the public interest, adequate and efficient service and the movement of traffic. The intended effect of both was to provide railroads suffering from inadequate earnings with some financial relief.

C. *Entry/Exit Provisions*

The main posture of the 1933 Act was to prevent or forestall exit (via failure and bankruptcy) and to promote, or preserve entry (via mergers among existing carriers). Both title 1 and title 2 of the 1933 Act contained provisions supporting combinations and consolidations. Title 1 pertains to the Federal Coordinator's role; title 2 amended the 1887 Act to include specific provisions authorizing the ICC to control rail mergers.

The policy of promoting and assisting combinations and consolidations among the beleaguered railroads was designed to prevent impending exit and to preserve existing entry. One mechanism to achieve this goal enabled the rails to elect representatives who worked with the Federal Coordinator to develop merger plans. The provision is expressed as follows:

> Sec. 3. The Coordinator shall divide the lines of the carriers into three groups . . . eastern . . . southern . . . western . . . and may . . . make such changes . . . as he may deem to be necessary . . . .
> Sec. 4 [T]o encourage and promote or require action . . . of the carriers . . . which will (a) avoid unnecessary duplication of services and facilities . . . and permit the joint use of terminals and trackage . . . [but] . . . no routes . . . shall be eliminated except with the consent of all participating lines or . . . the Coordinator . . . .[80]

Another key part of title 2 addressed the question of a mechanism by which rail combinations and consolidations were to be made:

> It shall be lawful, with the approval and authorization of the Commission . . . for two or more carriers to consolidate or merge their properties . . . into one corporation for the ownership, management, and operation of the properties theretofore in separate ownership . . . .[81]

In addition, the title contained precise but complicated language to ensure that the type and form of combinations and consolidations used by merging railroads were subjected to administrative and judicial review for

79. *Id.*
80. Emergency Railroad Transportation Act, 1933, ch. 91, §§ 3-4, 48 Stat. 211, 212-13.
81. *Id.* § 202, 48 Stat. 217.

both approvals or disapprovals. These sections required that the merger of one railroad with another must be with actual, existing rail carriers and not with bogus holding companies.[82]

D. Economic Evaluation

By 1933, the notion of the public interest was firmly established as a goal of overall national policy. With the depression and railroad failures, both Congress and the Administration wanted to protect the rail network. At the time, national concern focused on preserving private enterprise and its competitive market system. Actual and potential exit from the industry was a problem handled by encouraging rails to combine and consolidate—to merge. But any merger or acquisition was expected to result in larger, more efficient size carriers, not speculative entry by those unfamiliar with the railroading business. The Coordinator was in a key position to reach these ends. His duty was to assist in organizing combinations and consolidations which would enable the railroads to achieve the necessary size to be cost-efficient and thereby remain in the industry rather than falter and fail. It was believed that larger carrier size would beget cost efficiencies while preserving competition, but it actually promoted the creation of an oligopolistic structure.[83] Fostering entry via combination was essentially a prevention-of-exit policy which would have the ultimate effect of raising the level of seller concentration in the industry. The frantic effort to cope with the depression apparently caused public policy makers to try to save capitalism at the expense of competitiveness.

IV. Transportation Act, 1940

The Great Depression lasted the entire decade of the 1930's.[84] By 1939, President Roosevelt's administration was facing the possibility of entering another world war.[85] Rising military expenditures expanded business activity. Due to the impending armed conflict in Europe and the Pacific,[86] Congress recognized that an adequate transportation system had become a national priority.

82. *Id.*, § 202, 48 Stat. 217-22.

83. The number of separate decision making units is reduced when companies merge. *See* D. Needham, Economic Analysis and Industrial Structure 157-60 (1969).

84. Although income, output and employment fell four straight years beginning in 1929, an economic recovery began in 1933. However, another contraction occurred in 1937-38. L. Valentine & C. Dauten, Business Cycles and Forecasting 36 (1983).

85. War with both Germany and Japan was contemplated in 1938 and 1939. *See* R. Barnet, Roots of War 26-28 (1972).

86. *Id.*

A. Background To The Act

Both the depression and technological advances in motor and air carriage created financial difficulties for the railroads. In particular, intermodal competition diminished the prospects for future profitable rail operations. During the 1930's, the number of operating railroads decreased from 775 to 574 and the railroad industry as a whole showed a deficit of nearly a hundred-million dollars.[87] In 1938 and 1939, several ICC reports called for additional transportation laws: (1) to regulate water carriers, (2) to change the policy encouraging consolidations and combinations, (3) to recognize the suitability of specific transport modes for certain purposes, and (4) to eliminate the provision for land-grant rail rate reductions.[88]

In response to the intermodal competition problem, Congress passed the Motor Carrier Act in 1935[89] to place highway transport under ICC control, and the Civil Aeronautics Act of 1938[90] to place air transport under control separate from the ICC. Passage of both acts was designed to equalize the regulatory constraint under which the rails were operating. Highway and air transportation, as well as rail transport, became controlled. But the railroad industry needed more help than merely relegating its main competitors to government control.

B. Purpose And Major Provisions

Air, motor, water and even pipelines were alternative modes of transportation used by an increasing number of shippers in the 1930's. Public policy makers expected that these modes would be further developed and perfected during the 1940's and 1950's.[91] A primary focus of the Transportation Act of 1940[92] was to establish a basis for coordination among the forms of transport within a total regulatory context. The major provisions of the 1940 Act reflected this concern by containing features: (1) to subject a limited segment of water transportation to ICC jurisdiction; (2) to promulgate a National Transportation Policy; (3) to eliminate the old predetermined ICC plan of railroad consolidation; (4) to tighten rate-making procedures; (5) to release land-grant railroads from the obligation to haul government mail at reduced rates; and (6) to establish a temporary board of rail transport investigation and research.[93]

The initial three provisions merit special attention. The first set up a

87. Historical Statistics, *supra* note 1, at 728.
88. R. Westmeyer, *supra* note 39, at 158.
89. Pub. L. No. 74-255, 49 Stat. 548 (1935).
90. Pub. L. No. 75-706, 52 Stat. 973.
91. R. Westmeyer, *supra* note 39, at 160-61.
92. Pub. L. No. 76-785, 54 Stat. 899 (codified as amended in scattered sections of 49 U.S.C.).
93. R. Westmeyer, *supra* note 39, at 156-65.

regulatory procedure for water transport patterned after rail and motor carrier controls. A result of this maneuver was to protect and benefit the railroads by placing water carriers under conditions similar to the rails. The second feature created a general overall policy to be followed by the ICC as it regulated various modes of transportation. Congress, through a National Transportation Policy, recognized that rail, motor and water carriage all had inherent advantages to be preserved. Henceforth, ICC regulation of each mode of carriage had to consider its effect on the other modes. The third provision made significant changes in ICC provisions for rail consolidation and unification. Mergers were to be consistent with the public interest; the specific concerns of labor, and other rail carriers, as well as financial requirements had to be considered in an ICC merger evaluation.[94]

C. ENTRY/EXIT PROVISIONS

The 1940 Act did not treat the matter of entry and exit according to traditional mechanisms for certification and abandonment. The Act did, however, make a significant contribution to rail policy for entry and exit of already established firms by addressing combination and consolidation plans.[95] Basically, the fixed-plan idea for consolidations from the 1933 Act was eliminated and the following new procedures were promulgated: (1) rail carriers would be allowed to combine via their own plans, subject to ICC approval; (2) the ICC could require one or more willing railroads to become part of a proposed merger plan in the same geographical area; and (3) the ICC was given power to prevent holding companies from being used as a form of corporate organization in rail consolidations and combinations.[96] The 1940 Act also raised the possibility of rail and motor carriers combining their transport operations.[97]

D. ECONOMIC EVALUATION

Congress and the ICC did not fully understand the tendency of competitive problems in the railroad industry to exist largely because of entry and exit factors. The Transportation Act of 1940 confronted some basic competitive problems in the railroad industry with indirect and incomplete considerations of entry and exit.

By 1940, Congress and the ICC had learned one lesson regarding the nature of entry and exit: it is not practical for government to design overt plans for private enterprise or to expect designated firms to follow those

94. D. PEGRUM, *supra* note 74, at 328-29.
95. Transportation Act of 1940, § 7, 54 Stat. 899, 905-10 (amending § 5 of the Interstate Commerce Act).
96. *Id.* at 905-06.
97. *Id.* (amending § 5 of the Interstate Commerce Act).

plans. By allowing some freedom for rail companies to propose their own plans, from the bottom up rather than from the top down, Congress and the ICC moved toward increasing freedom of entry. However, the ICC could require, as a condition for merger of two or more lines, the inclusion of other lines in the same section of the country. Moreover, provisions for labor protection may have been a significant economic disincentive to merge.

The statement in the 1940 Act which contemplated rail and motor mergers is interesting because it considers using service differentiation and diversification to protect a carrier from changes in consumer preferences for alternate modes of transport.[98] It also opened the door for cross-coordination of governmental control of various modes of transportation. The ICC could use its authority to control certification and abandonment of separate economic units within one mode subject to their competitive effects on entry and exit in other modes.

VII. Transportation Act, 1958

After World War II, two pieces of important legislation were passed which affected the ability of railroads to survive and to compete: the Railroad Modification Act of 1948[99] and the Reed-Bulwinkle Act.[100] The former created a procedure for allowing the financially troubled railroads to alter the terms of their outstanding corporate securities as a means of avoiding receivership and trusteeship. The latter legalized railroad rate bureaus by exempting them from the antitrust laws. These two statutes, however, were not a panacea for the nation's troubled rail transport system and the continuing problems of previous excessive rail entry as well as subsequent entry by intermodal competitors.

A. Background To The Act

During the fifteen years after the 1940 Act was passed, the railroads prospered because of increased freight traffic generated by World War II and the Korean War. By 1956-57, the railroads began to fare poorly as intermodal competition mushroomed from highway and air carriage.[101] During the 1940's and 1950's, rail problems were discussed frequently by government agencies and by Congress. In 1954, President Eisenhower appointed the Secretary of Commerce, Sinclair Weeks, to chair a special committee on transport policy. The committee's 1955 report suggested changes in the ICA but Congress failed to carry out those recommenda-

98. Sampson & Farris, *supra* note 20, at 403-20.
99. Act of April 9, 1948, ch. 180, 62 Stat. 162.
100. Ch. 491, 62 Stat. 472 (1948).
101. H. Norton, *supra* note 35, at 242.

tions.[102] Next, the Senate Committee on Interstate and Foreign Commerce created a Sub-Committee on Surface Transportation in 1958 to study the rail situation.[103] Several months of hearings were held and several thousands of pages of testimony were published. Persons from government, the rail industry, other transport modes and the academic world all testified about serious problems in railroading.[104] Two U.S. Supreme Court decisions in 1958 raised the prospect of restricting ICC control over rail rates.[105] Congress moved quickly to enact the Transportation Act of 1958[106] to provide aid to financially distressed railroads.

B. *Purpose and Major Provisions*

The Transportation Act of 1958 was passed to assist the railroads with difficulties they experienced in adjusting their rates and services to the changing conditions caused by the growth of other modes of competitive transport.[107] The 1958 Act provided for: (1) temporary loan guarantees to railroads; (2) liberalized rules for controlling intrastate rail rates; (3) possible discontinuance of rail service; and (4) a change in rate-setting procedures for rails. Two additional provisions pertained to motor carriers.

Nearly all of the provisions of the 1958 Act focused on promoting or clarifying ICC control over intermodal transportation.[108] The railroad loan program did not involve direct federal aid but created a mechanism by which the government guaranteed payment of interest and principal to private lenders to railroads. Section 13 of the ICA was amended to provide that rates and fares could be declared too low without a rail company having to show their relation to the costs and revenues of its intrastate line operations.[109] In addition, the Act streamlined the timing for ICC investigations and decisions concerning proposals to increase rail rates. For additional relief from destructively low rates and fares, the rule of rate making was amended to provide that the ICC should not hold carrier rates up to a certain level to protect the rates of other modes.[110] A provision was also added to the ICA relating to a rail carrier's notice of discontinuance of spe-

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102. D. Locklin, *supra* note 33, at 270.

103. H. Norton, *supra* note 35, at 242.

104. *Id.*

105. In essence, the entire business activity of a rail company, costs and revenues from interstate as well as intrastate operations, had to be considered by the ICC whenever approving rail rates. Chicago, M., St. P. & Pac. Ry. v. Illinois, 335 U.S. 300 (1958); Public Serv. Comm'n of Utah v. United States, 356 U.S. 721 (1958).

106. Pub. L. No. 85-625, 72 Stat. 568 (codified as amended in scattered sections of 49 U.S.C.).

107. D. Locklin, *supra* note 33, at 270.

108. Sampson & Farris, *supra* note 20, at 359.

109. D. Pergrum, *supra* note 74, at 306-09.

110. *Id.*

cific service and ICC investigation of that carrier's application: "[T]he Commission may by order require the continuance or restoration of operation of service of such train . . . for a period not to exceed one year . . . ."[111]

C. ENTRY/EXIT PROVISIONS

Before 1958, the ICC had no authority over passenger train service. Most states controlled passenger routes but were usually reluctant to allow unprofitable passenger trains to discontinue their service. The 1958 Act gave the ICC jurisdiction over discontinuance or change of the operations or service of passenger trains and railroad ferries.

The new ICA section dealt separately with trains that operated across state lines as compared to those that operated entirely within a state. The Act contained these provisions:

> [C]arriers . . . with respect to the discontinuance or change . . . from a point in one State to a point in any other State . . . may . . . file with the Commission . . . notice at least thirty days in advance . . . . Upon the filing . . . the Commission shall have authority . . . to enter upon an investigation . . . . [T]his paragraph shall not supersede the laws of any State . . . .
>
> Where the discontinuance or change . . . of the operation or service of any train or ferry operated wholly within the boundaries of a single State is prohibited by the constitution or statutes of any State . . . the Commission [may] effect such discontinuance or change.[112]

The 1958 Act was essentially emergency legislation.[113] Section 13a of the ICA was amended to give the ICC power to prevent discontinuance or change of service for no more than one year if public convenience and necessity existed or if interstate commerce was not unduly burdened. The ICC was also given power to conduct investigations for discontinuance or change of service.[114]

D. ECONOMIC EVALUATION

In economic analysis, exit usually involves the removal of a competitive force from the market. If the firm makes a marginal adjustment downward to reduce its output because the extent of market demand cannot justify a larger level of production, it is a rational economic decision to reduce output, but not necessarily to cease operating altogether.[115] Prior to 1958, railway exit by abandonment was allowed for freight operations. The 1958 Act included a provision for discontinuance of passenger service. As such,

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111. Transportation Act of 1958, § 5, 72 Stat. 568, 572 (current version at 49 U.S.C. § 10908(c) (Supp. V 1981)).
112. *Id.*, 72 Stat. 571-72 (current version at 49 U.S.C. §§ 10908-10909 (Supp. V 1981)).
113. D. PEGRUM, *supra* note 74, at 306.
114. D. LOCKLIN, *supra* note 33, at 272.
115. C. MCCONNELL, ECONOMICS 513-14 (1981).

it did not deal with entry policy but only with a form of partial exit policy. The nature and extent of that exit is not akin to withdrawal from the industry.

Conspicuously absent from the 1958 Act was a refinement of previously amended merger policy. In prior years, notably in the 1933 and 1940 acts, consolidations and combinations were considered as a possible means of salvaging failing railroads. Congress and the ICC apparently believed in 1958 that merger and acquisition were no longer as desirable as other policy alternatives. Instead, the merger approach toward adjusting entry and exit, which tended to result in an oligopolistic structure, was rejected. Congress may have believed that direct financial aid from private loans, guaranteed by the federal government, would improve the financial conditions of rail companies already operating under ICC-approved mergers.

VIII. 4R ACT, 1976

After the 1958 Act was passed, the rail situation still did not improve. Although the 1960's were a period of increasing prosperity, due primarily to government spending on the war on poverty and the war in Southeast Asia, as well as to government monetary and fiscal policies,[116] the venerable twin problems of intermodal competition and excessive trackage could not be overcome. Transportation continued to be a vital national concern as evidenced by the creation of a cabinet-level agency. The Department of Transportation (DOT) Act[117] of 1966 was passed in order to develop, improve, and coordinate national transportation policy. Its goals included stimulating technological advances in transport facilities and, of course, fostering the public interest and the national defense. The 1966 Act created, among its various agencies within DOT, the Federal Railroad Administration and a National Transportation Safety Board. DOT received no regulatory powers over rails, except for safety. The ICC maintained nearly all of its previous regulatory authority over rates, entry, exit, mergers and service.

A. *BACKGROUND TO THE ACT*

Between 1958 and 1969, many passenger trains discontinued their service under the new provisions of the 1958 Act.[118] Indeed, during that twelve-year period the number of operating railroad companies decreased from 412 to 351.[119] Passenger services deteriorated badly and Congress sought to upgrade their quality.

116. *See* W. PETERSON, INCOME, EMPLOYMENT AND ECONOMIC GROWTH 459-62 (1978).

117. Pub. L. No. 89-670, 80 Stat. 931 (1966).

118. SAMPSON & FARRIS, *supra* note 22, at 113, 359. *See supra* text accompanying notes 112-14.

119. HISTORICAL STATISTICS, *supra* note 1, at 727.

In the latter part of the 1960's, several rail companies filed for protection under the bankruptcy laws.[120] In mid-1970, the well-known Penn Central went into receivership. In fact, six railroads, making up most of the rail system for seventeen northeastern states, and carrying about twenty percent of the nation's freight, were in receivership at that time.[121] Unfortunately, previous merger policies had not prevented these rail failures.

In the early 1970's, two more acts were passed to try to solve the country's rail problems: the Rail Passenger Service Act of 1970[122] and the Regional Rail Reorganization Act of 1973 (3R Act).[123] The former created what is now called AMTRAK (for AMerican TRavel trAcK) to deal with rail passenger service problems. The latter created CONRAIL (for CONsolidated RAIL Corporation) to deal primarily with freight traffic. In both cases track was abandoned, trains were discontinued and rail services were combined. Congress allocated hundreds of millions of dollars toward these efforts.[124]

There were some successes resulting from the 1970 Act and the 1973 Act. Once again however, chronic rail problems persisted. Regulation is a continuous process and additional aid and arrangements were needed for rails to be able to serve those shippers and passengers who preferred that mode of transportation. In response to these continuing problems, Congress passed the Railroad Revitalization and Regulatory Reform Act of 1976—the 4R Act.[125]

B. *Purpose and Major Provisions*

The 4R Act is approximately 150 pages in length and contains nine titles. In addition to the usual declaration of policy, there are provisions involving rail rates, ICC reform, mergers, financial assistance for improvements, an overall rail system plan, a northeast corridor project, continuation of local rail service, and studies of various rail matters.[126] The 4R Act has been referred to as a deregulation statute for railroads. Although only a small part of this legislation addressed regulatory reform, it did authorize conducting deregulation studies.[127]

A primary purpose of the 1976 Act was to augment previous legislation of the early 1970's, notably through specific and detailed provisions for

120. D. Locklin, *supra* note 33, at 276.
121. Sampson & Farris, *supra* note 20, at 377.
122. Pub. L. No. 91-518, 84 Stat. 1327.
123. Pub. L. No. 93-236, 87 Stat. 985 (1974).
124. Sampson & Farris, *supra* note 20, at 374, 378.
125. Pub. L. No. 94-210, 90 Stat. 31 (codified as amended in scattered sections of 45 and 49 U.S.C.)
126. *Id.*
127. *Id.*, title IX, 90 Stat. 148-49.

timing of rate changes, mergers, and abandonments, and with specified dollar and percentage allocations of aid to the troubled rails. The Act distributed vast amounts of federal funds to the rails. For example, government aid was to amount to $360 million during the first five years (1977-1982).[128] The federal share started at 100% and was to be decreased to 70% in the last year.[129] Via this act, Congress allocated $1.75 billion to AMTRAK to buy and improve track in the northeastern corridor of the United States, $2 billion to CONRAIL so it could purchase facilities from northeastern rail owners, and a fund of $1 billion in loan guarantees and $600 million in redeemable shares to assist national rail revitalization.

The 4R Act attempted to improve certain aspects of rail rate making. Railroads were given increased freedom to raise or lower their rates, particularly with respect to variations in seasonal and regional demands of shippers. In addition, the Act tried to encourage separate pricing methods for different rail services.

C. Entry/Exit Provisions

The 4R Act gives the Secretary of Transportation a key role in approving rail merger applications, including negotiation and ICC testimony. An alternative set of merger procedures is also established by section 403. The section states that the Secretary should consider several factors whenever studying a rail merger proposal: (1) geographic rail needs; (2) effect on rail and intermodal competition; (3) environmental impact; (4) effect on employment; (5) cost of modernizing rail facilities; (6) rationalization of the rail system; (7) impact on shippers, consumers and rail employees; (8) effect on communities; and (9) prospects for improving service.[130]

The 4R Act provided that a railway must submit a diagram of its system to the ICC to identify those lines which are potentially subject to abandonment. No line is allowed to be abandoned until it is included on the list for a duration of four months. The ICC must postpone abandonment if any financially responsible entity, including a state government, offers sufficient monetary aid to continue the service which will contribute to a line's revenue less its avoidable costs, including a reasonable profit on the line's value.[131]

The 4R Act required the ICC to expedite its processing of merger and abandonment applications to determine if they are in the public interest. In the case of abandonments, the ICC must first find that the PC&N will permit the abandonment or discontinuance before any offer of subsidy may even

128. Sampson & Farris, *supra* note 20, at 374-75.
129. *Id.*
130. 4 R Act, § 403, 90 Stat. 65 (current version at 49 U.S.C. § 11350 (Supp. V 1981)).
131. *Id.* § 802, 90 Stat. 129 (current version at 49 U.S.C. §§ 10904-10905 (Supp. V 1981)).

be considered. In abandonment applications the burden of proof as to PC&N is on the applicant. The procedure and times are shown in Table 1.

Table 1
TIME LIMITS FOR ENTIRE ABANDONMENT PROCESS, 4R ACT

	Step	Time limit
(1)	Notice of Intent to Abandon	Published and posted at least 30 days prior to filing of application. Served at least 15 days prior to filing of application.
(2)	Application filed	60 days prior to proposed effective date.
(3)	Commission's order to investigate	During the 55-day period subsequent to filing.
(4)	Issuance of certificate in unopposed case	By 60th day of filing.
(5)	Effective date of certificate in unopposed case	Possibly 90 days after filing of applications if no offer of subsidy received or longer if certificate is so conditioned.
(6)	Evidentiary proceedings in opposed case	180 days from time evidentiary proceeding is designated
(7)	Initial Decision	120 days after completion of evidentiary proceeding.
(8)	Publication in *Federal Register* of findings of PC&N	When initial decision is administratively final.
(9)	Offer of subsidy	Within 15 days of publication in *Federal Register* of findings, if not made earlier.
(10)	Commission's determination whether offer meets statutory criteria	Within 30 days of publication of findings in *Federal Register*.
(11)	If offer meets statutory criteria	Issuance of certificate postponed for up to six months for negotiation of offer.

Source: Johnson, *The Railroad Revitalization and Regulatory Reform Act of 1976*, 45 ICC Prac. J. 27, 49 (1977).

D. Economic Evaluation

The 4R Act of 1976 is a continuation of previous policy toward entry and exit, although its provisions are more specific than prior, looser legislation. A sense of frustration and urgency can be noted from the various sections, such as the three distinct sections designed to expedite ICC decision making regarding rate changes, mergers and abandonments. A dual

policy is pursued by Congress, one which preserves entry of established firms while permitting the exit of only sufficient trackage to allow for the public interest to be served. It is a policy of careful calculation, albeit by non-mathematical means, to prevent absolute monopoly power from developing and to maintain the appearance of competition. The design of Congress in passing the 4R act, with respect to entry and exit, was apparently an attempt to solve the age-old dilemma for the rails: how can the nation have a viable competitive rail system in the face of excessive rail facilities at a time when economies of scale, the level of absolute costs, and shipper-passenger preferences for rival transport modes dictate that a tight oligopolistic structure is inevitable as opposed to a partial oligopoly of a few large carriers with a competitive fringe of smaller carriers? Congress chose to spend massive amounts of taxpayer dollars to encourage some marginal private funding and to allow additional concentration, via merger and abandonment, as a hoped-for solution to the rail transport dilemma.

IX. Staggers Rail Act, 1980

Unfortunately, the three rail acts of the 1970's did little to solve the financial problems of the railroads. Of the three traditional modes of moving people and freight—air, motor and rail—the latter is the cheapest on a direct-cost basis.[132] As a result of the actions of the OPEC oil cartel in 1973, the United States began an era of serious energy conservation. Efficiencies in heating, producing, distributing and transporting were promoted as national goals in order to control the consumption of petroleum. Transportation is a major user of fossil-fuel energy, so reducing petroleum consumption for carriage became extremely important in the late 1970's.

A. Background To The Act

After nearly a century of government control of transportation, serious talk began to surface in the mid-1970's about deregulating various modes of carriage. The Airline Deregulation Act of 1978[133] was enacted. Its alleged successes led to passage of the Motor Carrier Act of 1980,[134] which reduced ICC controls over the trucking industry. Results of both statutes caused further difficulties for railroads. Congress, by its partial deregulation of air and motor carriers, fostered additional entry, lower rates and fares, and increased usage of these two not-so-relatively fuel efficient modes at a time when rational energy policy dictated a reduction in their use.

Several urgent problems arose in the late 1970's. Railroads were still considered an essential mode of transportation, but intermodal competition

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132. H. Norton, *supra* note 35, at 99-118.
133. Pub. L. No. 95-504, 92 Stat. 1705.
134. Pub. L. No. 96-296, 94 Stat. 793.

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was strong and increasing. Congress undoubtedly realized that many regulations promulgated by government had become costly and burdensome. At a time when rail transport was needed to help combat energy shortages and inflation, the rail system continued to deteriorate and rail companies earned low rates of return on their investments in equipment. Congress predicted that the railroads would need increased earnings to modernize their facilities in light of an expected $20 billion capital shortfall. Given this situation, a dilemma arose: in a time of energy shortage, transport by rail is desirable because of its relatively low fuel cost per ton mile; however, with low earnings and deteriorating trackage and rolling stock, how can a viable rail system be restored and maintained? The Staggers Rail Act of 1980[135] attempted to answer this question with a rational rail policy.

B. Purpose and Major Provisions

The headnote to the Staggers Rail Act states that it is "[t]o reform the economic regulation of railroads."[136] Broadly, the Act had two main purposes: to provide financial assistance to the railroads, and to eliminate unnecessary regulation. Congress hoped that rail corporations would earn revenues sufficient to allow them to refurbish their operating facilities and to provide continued service to the shipping and traveling public.

The Act has seven titles.[137] The first title announces a rail transportation policy to promote competition and deregulation, safety and efficiency, sound economic conditions for carriers, reasonable rates and fair wages, energy conservation, and accurate cost accounting. The second title calls for vast changes in the way individual rail carriers establish their rates, chiefly by allowing, within bounds, some rate-setting freedom by carriers. Certain entry/exit provisions are also contained in title II. The third title constitutes an attempt to set up a uniform cost accounting system for railroads by establishing a Rail Road Accounting Principles Board, with a life of three years, to develop, implement and certify rail carrier accounting procedures. The fourth title addresses the matter of railroad modernization assistance by speeding up the abandonment procedure and by providing financial assistance for restoration, maintenance and upgrading of track and facilities. The fifth title amends the 3R Act of 1973 to provide for labor protection within the CONRAIL system, especially for fair treatment of displaced workers and their transfer and training. The sixth title also amends the 3R Act to allow a transfer of CONRAIL properties in Connecticut and

135. Pub. L. No. 96-448, 94 Stat. 1895 (codified as amended in scattered sections of 45 and 49 U.S.C.).

136. *Id.*

137. *Id.* § 1, 94 Stat. 1895-96.

Rhode Island. The seventh title contains provisions dealing with properties and employees of the now defunct Rock Island and Milwaukee railroads.

C. ENTRY/EXIT PROVISIONS

Although the 1980 Act treats rail regulatory reform mainly through the mechanism of changes in rate-making procedures, it contains several important entry and exit provisions. First, section 221 deals with railroad entry by increasing the difficulty for a competing railroad to deny track crossover permission whenever the ICC issues a certificate of PC&N for new rail line construction.[138] Second, a provision in section 228 offers merger language to the ICC consistent with existing antitrust rules for evaluating mergers. Another provision allows the ICC to approve the application of a railroad to provide motor carriage prior to or subsequent to transport by rail in order to provide service to small communities. The main thrust of section 228 is its provisions for accelerating the time requirements for notice, evaluation, hearings and actions on rail carrier applications for consolidation, merger and acquisition. For example, the ICC must now evaluate and act on a merger proposal no later than 270 days after the initial notice is filed and published.[139] Third, section 402 is aimed at streamlining the rail abandonment process. Procedures are established for accommodating outside financial assistance, though subsidy or sale, of prospective lines to be abandoned.[140] The time period for filing, investigating and deciding a proposed abandonment proceeding is also shortened. Fourth, section 405 amends the 1976 4R Act by substantially increasing the amount of federal funding, possibly in excess of $3 billion, to be allocated to restoring and upgrading specific portions of the country's rail system.[141]

D. ECONOMIC EVALUATION

The 1980 Act is a rather comprehensive approach toward saving America's rail network, at least those parts which might serve a significant share of shipping needs. The two primary features, infusing financial aid and streamlining abandonment procedures, interact to allow for entry of additional capital and for exit of redundant facilities. The net effect will undoubtedly be to create an even tighter oligopolistic rail industry structure than currently exists. Congress apparently believes that the benefits from technical efficiency, continued rail service to the public and energy conservation outweigh the disadvantages of decreased competition and increased concentration.

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138. 49 U.S.C. § 10901(d)(2) (Supp. V 1981).
139. *Id.* § 11345.
140. *Id.* § 10905.
141. Staggers Rail Act of 1980, § 405, 94 Stat. 1945-47.

Entry and exit involve much more than the mere coming in and going out of a line of commerce. Among rails, not only is previous entry of existing firms preserved when exit is prevented, but some exit is facilitated when the entry of larger, more efficient units is allowed by merger, consolidation and acquisition. The 1980 Act allocates approximately $3 billion to the rail system, and invites additional funding from both private and public (state/local) sources where exit is imminent. These financial efforts, if successful, may prevent some exit but that in itself does not preserve present competitiveness because through merger any exit prevented could possibly be channeled into "entry" to create larger, more potentially powerful market participants.

The 1980 Act may have opened the door to a new sort of merger policy for carriers, namely, intermodal entry. Specifically, section 228 addresses the matter of motor transport prior or subsequent to rail carriage. Ostensibly, the purpose of this section is to serve shippers and the public interest in cases where merger and abandonment eliminate transportation services to small communities. In the face of continuing deregulation efforts, however, multi-modal carriage diversification may be the next step in the never-ending saga of the concentration of the nation's transport industries.

X. Conclusions

The nations' railroads have been in trouble for more than a century. Public sentiment against them began in the 1870's for exercising monopoly power over rates. By the 1970's, the shipping and traveling public had already been rejecting their services for many decades in favor of cheaper, faster or more convenient modes of transport. Part of the problems can be traced to entry and exit conditions in the industry itself.

A. *Summary*

Federal regulation over the railroads did not begin until 1887 when "An Act to Regulate Commerce" was passed.[142] The chronic financial conditions in the rail industry over the last fifty years is due to the excessive entry which occurred during the fifty year period prior, which in turn may be traced back to the misdirected regulatory effort begun in 1887. Congress created the ICC by the 1887 Act but gave it no specific powers over entry and exit. Although nearly two-thirds of the all-time high in rail track mileage that existed in 1916 had already been built in 1887, an entry-monitoring provision was not enacted. The only statement in the 1887 Act close to an entry or exit provision is a brief reference giving the ICC power to serve the

142. Title changed to "Interstate Commerce Act" by the Transportation Act of 1920. *See supra* text accompanying notes 29-46.

public interest. Although this ostensible license to control rail carrier entry and exit existed, it was not until thirty-three years later that Congress gave specific attention to these two matters.

Entry into railroading was not regulated by the federal government until the Transportation Act of 1920 was enacted.[143] That legislation required a certificate of PC&N to be obtained from the ICC before new interstate rail lines or extensions could be constructed. This provision was ineffective because most of the track had been laid in this country by 1916. Since 1920, approximately 69,000 miles of track have been abandoned while less than 10,000 miles have been constructed.[144] This new construction has usually been for very short distances and mainly to serve the establishment of new businesses. Entry control has not been a prominent feature of rail carrier legislation in this country since 1920.

An interesting twist to entry is given by the consummation of mergers, acquisitions, consolidations and combinations. The uniting of two already established rail companies is a unique aspect of entry insofar as it creates a newer but larger enterprise. The 1920 Act encouraged the polygamous marriage of smaller carriers into large companies, albeit at the behest of ICC design and coordination, but this feature was later discarded. Congressional action and ICC concern over mergers have continued throughout the years. Every major piece of rail legislation since 1920 has contained either a corrective or a creative provision concerning mergers. Each time Congress has passed a statute dealing with rail mergers, additional provisions have been included in order to encourage, subsidize, regionalize and reorganize mergers so that efficient, viable and adequate rail transport companies would be created. The result, however, has been to systematically create over time an oligopolistic structure through the allocation of billions of taxpayer dollars, rather than achieve the competitive ends sought.

The 1920 Act gave the ICC control over abandonment of tracks; thus, the entire provision of service by an existing railroad line was placed under ICC control. This power applied to interstate as well as intrastate abandonment. The ICC has permitted abandonment when its balancing test indicates that losses to carriers would be greater than benefits to the public if the lines were kept in operation. This test has been used through the years, although the specific factors considered for losses and benefits have varied. The abandonment process has suffered because of lengthy delays, but it has been accelerated by ICC practices,[145] a court ruling,[146] and the 4R Act of 1976.

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143. *See supra* text accompanying notes 47-70.

144. HISTORICAL STATISTICS, *supra* note 1, at 728-29.

145. Allen, *ICC Behavior on Rail Abandonments*, ICC PRAC. J. 553, 554-55 (1974).

146. Pennsylvania v. United States, 361 F. Supp. 208 (M.D. Pa.) (abandonment procedure rules within statutory authority of ICC), *aff'd*, 414 U.S. 1017 (1973).

The Great Depression spawned additional legislation to avert rail failures by amending rate-making procedures and by encouraging mergers. The emergency 1933 Act[147] was another step in the creation of an oligopolistic tendency in railroading. In fact, that legislation created a structure which brought rail companies together with government to create mergers and to divide markets. The scheme was confined to rails, however, and non-rail holding companies were discouraged from participating in such combinations. Fortunately, these features did not work as planned. The coordination provision expired in 1936 and the Transportation Act of 1940[148] provided additional merger freedoms for rail carriers and gave the ICC additional powers to ascertain that mergers occurred among legitimate railroad companies.

With the Transportation Act of 1958,[149] Congress and the ICC began to focus on another form of exit—discontinuance of rail passenger service. Mergers apparently were not considered to be an important policy alternative at the time because the 1958 Act said little about them. What was important, however, was the strengthening of ICC powers over rates and intermodal competition. In this regard, Congress continued to perpetuate its earlier policy from the 1940 Act of trying to achieve competitiveness via large numbers of intramodal carriers in separate industries, rather than looking at all modes of transportation as a sector of interdependent industries. Nevertheless, the new policy allowing rails to discontinue already approved passenger service ushered in an era of concern and action.

Three key legislative acts in the 1970's[150] dealt firmly, but incompletely, with entry and exit. By combining ratemaking, mergers, abandonment, governmental coordination and financial assistance provisions in these three acts, Congress was able to increase rail carrier size, provide funding for rail renovation, reduce inefficient rail operations and create a centrally monitored (but segmented) regional rail system. AMTRAK and CONRAIL may be harbingers of the path to follow: entry of oligopolistic firms by government-sponsored merger; exit of duplicative, inefficient lines by abandonment and discontinuance; and entry of additional rail capital with taxpayer dollars to augment the oligopolistic structure.

Finally, via the Staggers Rail Act of 1980,[151] by relaxing rail carrier rate-making procedures, and by accelerating time requirements for rail carrier requests to ICC concerning mergers and abandonments, Congress is

147. *See supra* text accompanying notes 72-83.

148. *See supra* text accompanying notes 84-98.

149. *See supra* text accompanying notes 99-115.

150. Rail Passenger Service Act of 1970, Regional Rail Reorganization Act of 1973 and the Railroad Revitalization and Regulatory Reform Act of 1976. *See supra* text accompanying notes 116-31.

151. *See supra* text accompanying notes 132-41.

proceeding toward the end suggested above. It is not a competitive and private-enterprise market solution, but it is also not true socialism. Whenever a federal government sponsors, subsidizes and coordinates largely private operations, government ownership and operation are not involved. Mercantilism and fascism characterize these kinds of relations.[152]

B. Industry Economics Appraisal

Entry and exit concepts from industry economics can be used to explain their counterparts in transport regulation. Economies of scale, absolute costs and product differentiation relate indirectly to the use of certificates of PC&N, mergers, abandonment and discontinuance for rail transportation.

1. Economies of Scale

Scale economies exist in rail transportation. Apparently, the LRAC is L-shaped in railroading. The limitation of certificates of PC&N to only very short distances fosters scale rather than inhibits it by allowing a given carrier to add to its existing line, rather than by creating separate carriers for short routes. Mergers, including combinations, consolidations and acquisitions, also foster economies of scale by creating larger companies. Abandonments and discontinuance aid scale economies only to the extent that marginal adjustments downward in plant size tend to lower overall costs of operation, but do not create larger, more efficient units per se. Probably the most scale-inducing policy has been that of allowing mergers. Not until recently, however, have previously restricted merger policies been relaxed so that economies of scale could be experienced more fully. This hesitancy by Congress and the ICC has been costly to both the railroads, causing them to operate at high costs, and to society by causing higher rates to cover costs, lost usage of facilities and wasted resources. Economies of scale may even have been a barrier to exit in the railroad industry because the high fixed costs of a railroad, compared to its variable costs, cause a company to remain in the industry as long as out-of-pocket expenditures can be recovered.

2. Absolute Costs

Absolute costs do not refer to the extremely high costs of entry. Absolute costs refer to whether an entrant's costs are significantly higher than those of existing firms even when both entrant and established firm are of the same capacity. Except for selected commuter lines, no important entry

152. *See* Peterson, *Views of Fascism and Modern American Capitalism*, 11 J. Behav. Econ. 1, 155-89 (1978); Peterson, *Is There Neomercantilism in America?* 10 J. Contem. Bus. 2, 97-111 (1980).

of a completely new extensive interstate railroad has occurred for more than fifty years. Most of the new entry of capital has been by established firms in the form of extensions or construction of track for short distances. As a result, it is difficult to compare the absolute cost advantages of existing rail companies with the absolute cost disadvantages, if any, for potential competitors.

During the period of rapid entry into railroading in the 1880-to-1916 period, few absolute cost disadvantages for entrants apparently existed. Absolute costs are analyzed as an entry barrier if their presence operates to deter prospective firms from coming into an industry. Wherever entry is rapid, and few barriers exist, economists ordinarily conclude that entry conditions are not encumbered by technical economic factors. In some lines of commerce, absolute costs for entrants might be higher than for established firms if patents and permits are needed to become viable in the market. The certificate of PC&N may be evaluated as an absolute cost entry barrier to the extent that the costs of applying and paying for the permit would place the entrant at a significant cost disadavantage compared with existing firms. This cannot be evaluated, however, in the rail industry because there are no long, or even short, lines of investors eagerly applying to get into the business. This same reasoning can apply to exit in terms of the costs of applying for and obtaining permission to abandon or discontinue service. For acquisitions, there is no doubt that legal, accounting and other fees make merging costly, and therefore burdensome, for the combining parties. Whereas the cost-lowering efficiencies of a merger probably more than offset any special costs of merging, many factors other than cost reduction may motivate mergers.

3. *Product Differentiation*

Product differentiation as a barrier to entry implies that consumer preferences for the output of established firms are so strong compared to what entrants have to offer that an entrant company finds it difficult to sell its output at profitable prices. A steady growth in shipper and passenger preference has occurred for air and motor carrier transport to the detriment of railroads for several decades. Even if there had not been excessive entry into railways prior to 1916, product differentiation barriers to entry most likely would deter investors from entering the railroad business today. The shift of shipper/passenger preferences away from rail carriage toward air and motor carriers helps to explain the fact that more track has been abandoned and more service discontinued than new lines constructed and new service offered by the rails in the past sixty years. Abandonment and discontinuance are a direct, but not the only result of product differentiation as an economic factor in the rail industry. Air and motor carriers are able to differentiate their services significantly from rail carriers on the basis of con-

venience, speed, comfort and special services. Even if the fares and rates per ton-mile were the same for all modes, rails would be at a product differentiation disadvantage compared to air and motor carriers. Because of a partial, relative product differentiation disadvantage for rail service, the business of those carriers has decreased, thereby leading to petitions to abandon, discontinue, and merge in order to combat the increasing consumer preferences for air and motor transport.

C. IMPLICATIONS

Controlling entry via permit or operating certificate is not new. Indeed, it is an old mercantilist practice used in the sixteenth and seventeenth centuries in England, France and Spain.[153] It can be traced back in elemental form to the guilds of the feudalist era.[154] Its avowed purpose has always been, usually under the guise of health, safety and well-being, to thwart free and open competition and to protect established firms from the erosion of their custom from upstart potential entrants. American public policy makers have retained this impediment to competition for more than a century. It is encountered every day by people in the ordinary walk of life, chiefly in the form of occupational licensure. Barbers, dentists, lawyers, physicians, real estate agents, stock brokers and public accountants are but a few examples of the dozens of licensed occupations operating in our economy.[155] It was not until 1920 that Congress allowed the mercantilization of transport by passing special legislation. Since that time, additional statutes have been passed to correct the mistakes and abuses of previous laws and their administration. In the 1970's, the United States entered into an internal self-styled revolution, similar to its reaction against the mercantilist excesses of King George III, by deregulating some of what it has regulated for fifty to one hundred years.

Although air, motor and rail carriers have all been subjected to deregulating legislation, the future is unclear as to which ideological mold the railroad industry might be placed. Classical competition is probably unworkable because of economies of scale and product differentiation. Mercantilism has not worked because the industry continues to suffer after decades of governmental regulation, subsidy, franchise and protectionism. Perhaps socialism is the answer: allow for entry of a giant nationalized rail company with the exit of all duplicative and excessive trackage, equipment and rolling track. Alternatively, perhaps the trackage should be nationalized and private rail carriers bid on and pay rental fees for its use. The U.S. is ideologically committed to free enterprise and the competitive market.

153. W. MINCHINTON, MERCANTILISM vii-xii (1969).
154. E. GOLOB, THE "ISMS" 69-73 (1954).
155. C. WILCOX, PUBLIC POLICIES TOWARD BUSINESS 4-13 (1966).

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This commitment will probably cause public policy makers to continue to provide piece-meal subsidization of private rail companies from the public largesse rather than radically restructuring the tired, worn-out railroads.