Economics of Ex Parte 162

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UMI
ECONOMICS OF EX PARTE 162

by

William Hayton Thompson

A Thesis Submitted to the Graduate Faculty
for the Degree of

DOCTOR OF PHILOSOPHY

Major Subject: Industrial Economics

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CHAPTER I
INTRODUCTION TO THE PROBLEM

An important objective of railroad regulation is to prevent exploitation of the public through rates, fares, and charges, which yield amounts in excess of the revenue needs of carriers. Not only should regulation be directed toward elimination of monopoly profits, but from time to time it must be concerned with the question of whether or not railroad earnings are sufficient to maintain adequate transportation services to the public, and are fair to those who have invested funds in the industry. When rates are adjusted on particular traffic movements so as to maximize income, it would seem that little could be accomplished further if resulting revenues prove inadequate. However, changes in operating expenses, in fixed charges, in volumes of traffic, or in demand for transportation, individually or severally, may render revenues insufficient to meet operating costs or furnish a return on invested capital. Under such circumstances, it becomes necessary to recexamine railroad rates and to raise or lower the general rate level in order to increase railway earnings.

Most, if not all of the above factors were present during the early postwar period, when the nation's railroads on April 15, 1946, asked the Interstate Commerce Commission for permission to increase their freight rates by 25 per cent,
on short notice. The petition, if granted, would have meant an advance in freight charges by a percentage higher than any single rate increase proposal made by the carriers over a period of 25 years. The subsequent proceedings were in the nature of a general rate level or revenue case. This was known as the Ex Parte 162 case, an analysis of which is the main concern of this dissertation.

The substantial increases proposed by the carriers in 1946 presented the regulatory authority with separate though related problems of rate control. One was concerned with the statutory requirement of reasonableness of the increased charges in the absolute sense, while the other involved a determination of the effects of rate advances upon the financial structure of the carriers. From a negative viewpoint, the task of the Commission was to prevent the carriers from charging too much for transportation, which indirectly meant restricting the earnings that could have been realized from the users of the railway service. In a positive sense, the problem was one of approving such rate advances as would not only protect constitutional guarantees against confiscation but would tend through the resulting operating income to sustain railroad credit and attract the necessary capital to maintain an adequate transportation system.

To establish railway charges at proper levels in 1946 required a forecast of the probable trends of operating expenses and traffic volume, and as instruments for this purpose,
a reasonable determination of the rate base and rate of return. Thus, the extent of the rate increases allowed the rail carriers in the Ex Parte 162 case would determine their contribution in the expansion of national economic activity during the transition period.

Nationwide freight rate advances of the magnitude involved in the 1946 litigation cannot help but have important repercussions on economic, social, and political activity throughout the country. For that reason, a detailed analysis would be most desirable and extremely significant. However, the complex business interrelationships inherent in a dynamic economy make a precise investigation very difficult, and thus the immediate study has as its purpose a discussion of the rate level proceedings on a rather broad basis. The author fully realizes that a general treatment of so important a topic leaves many questions unanswered, and solves few of the economic problems arising from rate level case. Yet, it is believed that a report of this type may serve as a foundation upon which future research pertaining to the railroad rate level may be developed. As such, the study should be considered as an effort to present some of the issues which lead to freight rate level controversies, and in a limited manner, as a survey of the general economic effects of decisions in such cases. In no sense should it be thought of as representing a complete or final analysis of the subject.
Since the Ex Parte 162 case was primarily concerned with the freight rate level, the study will center upon rates on freight carried by the Class I railroads. These are the major railway carriers of the nation, so classified because as individual roads they receive gross operating revenues in excess of one million dollars annually. Excluded from the discussion are statistics relating to passenger fares, express charges, or rates for other services, except where it has been impossible to segregate them from data pertaining to freight traffic and revenues.

Chapter II presents a historical review of the railroad freight rate level under early common law, and emphasizes the events which led to State and Federal regulation. A brief summary of legislation affecting rates between the years 1887 and 1940 is given in conjunction with an analysis of the great freight rate cases in the period 1910 through 1938.

Railroad performance during the second World War is the topic examined in Chapter III. First to be introduced are the operations of the carriers in the period between the two great wars with specific attention directed to a discussion of the rate level during the depression years. A major part of the chapter is devoted to the contributions made by the railways during the war emergency, and the effects of a World War upon such items as revenues, traffic volume, expenses, and competition. Issues leading to the Ex Parte 148
rate level case, decided in 1942, and later suspended, concludes the inquiry.

Problems facing the nation's rail carriers during the early postwar years are analyzed in Chapter IV. It opens with a short introduction of national economic trends, and follows with a discussion of the economic forces which resulted in the Ex Parte 162 rate level petition. Following, the suspended 1942 rate case is analyzed. The remainder of the chapter is devoted to a comprehensive examination of the Ex Parte 162 proceedings, and its disposition by Commission action.

The three succeeding chapters attempt to trace the effects of the rate-level decision on certain segments of the national economy. Generally, the period of time covered approximates six months, beginning January 1, 1947, at which date the Ex Parte 162 rate advances were effective, to July 1, 1947, when the railroads again petitioned the Interstate Commerce Commission for higher rates. The first area to be examined pertains to railway finances. Secondly, the decision is discussed in terms of the interterritorial freight rate problem of the nation. Finally, the rate level decree is analyzed for its probable effects on producers, consumers, and agencies competitive with railroads.

A description of the characteristics and significance of railway finance introduces the reader to financial problems of the rail carriers. Stressed in this chapter are
questions relating to the need of the railroads for adequate revenues, problems of valuation as a rate base, the aggregate rate of return, and railroad credit. The Ex Parte 162 decision is discussed in terms of these topics.

The effect of increased rates on the interterritorial freight rate problem of the nation is the subject presented in the second of the chapters analyzing the rate level decision. Information is given to show how carriers operating in each of the various freight rate territories were affected financially through the proceedings. Regional wartime and postwar changes in marketing activity are then discussed in order to point out the effect of higher freight rates on future economic development of these areas. Attempts have been made to predict the effect of rate advances upon future traffic moving within and between the several territories or regions.

The last discussion chapter analyzes the decision from the point of view of certain producers, consumers, and railroad competitors. Four broad classes of commodities have been selected for a study of the rate increases upon their distribution. Those so chosen are Products of Agriculture, Lumber and Products, Products of Mines, with special attention given to the coal industry, and the production and distribution of Steel. A section is devoted to the possible reaction of consumers to higher freight rates, while another briefly analyzes the possible effects upon
competitors of the railways. Summaries and conclusions will be found in Chapter VIII.

In addition to the discussion chapters, three appendices are presented in the report. Appendix A consists of two charts. One outlines geographically the Freight Classification Districts. The other shows the major Freight Class Rate Territories of the nation. Appendix B includes 12 tables of statistical data covering certain aspects of railroad performance over periods of time, comparative figures on levels of national economic activity in war years as compared with prewar years, railroad financial data, and tables relative to the effect of freight rate advances on the coal and steel industries. Appendix C presents a summary of the interterritorial freight rate problem of the United States, and gives a brief description of the Class Rate Investigation instituted by the Interstate Commerce Commission in 1939 and decided in 1945. These are included for the purpose of giving a reader some background material for the chapter pertaining to interterritorial rates.

Two general methods of investigation were used in approaching the research problem. One involved a survey of the available relevant literature. The other attempted to gather data through personal correspondence and contact with private industries, such as those operating in the fields of coal, steel, lumber and agriculture; Federal agencies, particularly the United States Department of Agriculture,
United States Department of Commerce, United States Department of the Interior and Interstate Commerce Commission, and certain State agencies including the Iowa Commerce Commission.

As mentioned previously, this report is intended to open a path for those who may wish to pursue further investigation of the effects of railroad rate level decisions upon the national economy. If, through the discussion which follows, a better appreciation of general freight rate level issues is developed among students of transportation, or those simply interested in the subject, the author will feel well repaid for his time and effort.
CHAPTER II
A BRIEF HISTORICAL SUMMARY OF RAILROAD RATE
REGULATION AND A REVIEW OF THE GREAT FREIGHT
RATE LEVEL CASES

The influence of improved means of transportation upon
the rapid expansion of industry and commerce of the United
States during the latter half of the nineteenth century led
historians to describe the period as the "Railway Age."¹

passin.

In a basically agrarian economy, the swift extension of rail­
roads to all sections of the nation furnished the key to a
new industrialism, and developed a new coordination between
extractive, manufacturing, and agricultural industries. Con­
struction of railway lines into hitherto unexplored commercial
areas opened new markets, greatly accelerated the tempo of
production, and enlarged the processes of exchange between
productive and distributive agencies. As a consequence, there
arose a marketing system which today has become of immeasurable
significance in the economic life of the nation.

Railroads pioneered in the development of complex cor­
porate organization and resulting monopolistic practices led
finally to government regulation.

Beginning with the period before the passage of the Act
to Regulate Commerce, this chapter will briefly attempt to
examine rate level problems and regulatory changes which af­
fected rate-making policies. The first section will describe early methods of control, and following sections will trace rate regulation from 1887 to 1910; through the great rate cases prior to and during the war period; in the twenties; and during the thirties.

Rate Regulation Before 1887

The earliest form of transport regulation was based upon common law, which provided that adequate service be furnished to all, without discrimination, and under reasonable charges. Common law failed, however, to achieve effective regulation. Powerful railroad corporations with their vast resources of financial and legal strength made difficult the position of the average shipper as he attempted to prove discriminatory practices or unreasonable rates. Under common law the only recourse for damages arising from injury was the law suit, but few users of carrier services could afford litigation as such cases passed from court to court. Pressure for changes in regulation arose from the inequities developed under this regulatory procedure.²


Regulation independent of common law was attempted through charters voted to the railroads by state legislatures.
Under their provisions corporations were granted the right to construct the roads, and as an incentive were given many concessions to facilitate expansion. As a regulatory medium the charter possessed only a temporary advantage. Two basic weaknesses appeared. First, each state became the agency issuing contracts, the provisions of which in many cases were conflicting and controversial. Charters could not prevent corporations from operating in states other than the one originally issuing the contract. Second, the acceptance of the legal doctrine which stated that corporations were citizens of the state creating them, and as such "shall be entitled to all Privileges and Immunities of Citizens in the several States," narrowed the effectiveness of charter control. Charters were held by the courts to be contracts, amendable only by the consent of both parties. In addition,

3. Section 2, part 1, Article IV of the United States Constitution.


the increasing growth of population and industry accompanied by public enthusiasm for railroad expansion led most people to forget their desire for regulation. Rail construction, it was felt, could be achieved more rapidly through the removal of restrictions, and ultimately the issuance of charters
became a routine matter under the laws of incorporation with little influence upon regulatory control.

Following the failure of charter regulation, control was attempted by means of State Commissions first established in Massachusetts in 1869. These commissions were advisory in character with little power of enforcement, but they had the full support of the state in investigating and publishing criticisms of railroad practices, in the hope that forces of public opinion would require the carriers to revise their policies. However, abuses continued in spite of publicity.

In the West corporate expansion, the depression of 1873, falling agricultural prices, and losses from the collapse of railroad securities spurred a feeling of discontent among farmers. Anger mounted against alleged unfair treatment by the railroads, and engendered formation of an organized protest known as the Granger movement, encompassing farm interests in Illinois, Iowa, Minnesota, Wisconsin, Missouri, Nebraska, and Kansas. Working through state legislatures, the Grange obtained constitutional amendments which declared the railroads to be public highways, subject to this new form of state control; in securing statutes which fixed rates and prohibited discriminations, particularly that which granted lower rates for a longer carriage of

5. For the most complete work on the subject, see Buck, S. J. The Granger Movement. Cambridge, Harvard University Press. 1923.
traffic than for a shorter haul over the same route and in the same direction. To be certain that these practices were controlled, the commissions were given full powers of enforcement.

Railroads refused to recognize the right of the states to regulate their activities and fought the legislation through every court, finally losing in the crucial case against Illinois in 1876. The Supreme Court in the "Granger cases" ruled that the railways were affected with a public interest, and the states had the power to regulate them.6


However, with the return of prosperous conditions, the farm groups directed their attention to other matters, leaving the railroads free to intensify their efforts for repeal or modification of the legislation.

By 1872 these problems received attention by the Federal Government. The Windom Committee, appointed by the Senate in this year, presented its report in 1874, emphasizing "insufficient facilities, unfair discrimination, and extortionate charges."7 In the following 12 years several bills

7. Transportation Routes to the Seaboard, 43d Congress, 1st Session, Senate Report 307, part 2, p. 71. 1874. To protect the public, major reliance was placed upon competition as the chief means of abolishing abuses.
calling for regulation were presented to the Congress, but none was successfully passed. Continued abuses resulted in an investigation of the transportation problem by the Cullom Committee, whose report in 1886 brought with it a bill providing for a permanent administrative commission. In the


same year the Supreme Court handed down a decision in the Wabash case, reversing in part its rulings in the Granger cases. It declared that regulation of interstate commerce was a right restricted exclusively to the Federal Government.

9. "A statute of a State intended to regulate (transportation) from one State to another is not within the class of legislation which the States may enact (even) in the absence of legislation by Congress." Wabash, St. Louis, and Pacific Railway Co. v. Illinois, 118 U.S. 557, 558. 1886.

In the face of this decision, legislation was speedily enacted and the Act to Regulate Commerce was signed into law on February 4, 1887.

10. 24 Statutes at Large, pp. 379-387. 1887.

The Act was intended to protect shippers and communities from unfair practices and unduly high rates. Administration was to be effected through the Interstate Commerce Commission,
whose jurisdiction originally extended over common carriers "engaged in the transportation of persons or property wholly by railroad, or partly by railroad and partly by water, when both are used under a common control, management, or arrangement for continuous carriage or shipment." The first section laid down one of the principles of common law -- "rates shall be just and reasonable." Section two covered the area of unjust discrimination, while the third declared unlawful the practice of "undue preference or undue prejudice." The so-called "long and short haul principle" was defined in section four, and the fifth covered aspects of "pooling." Sections six to ten introduced the concept of "legal" and "lawful" rates. Rates required for publication under section six were required to be charged to all shippers alike. It was considered a criminal offense and a civil wrong for roads to deviate from the published rates, and such procedures could result in an action to recover damages by the injured shipper. While the rate to be charged was defined by the statute as legal, it was lawful only if it was reasonable. The shipper had to pay the legal rate, but could recover damages if he could prove it unreasonable.11

Rate Level Problems From 1887 to 1910

One of the significant weaknesses of the original mandate was the lack of express authority for rate-making power. Outside of the provision calling for "reasonableness," Congress made no attempt to establish a guiding formula for determination of rates. However, the Commission from its origin interpreted the Act to assume this responsibility, and for a decade following 1887 the authority to prescribe rates was exercised without serious challenge on the part of the carriers and courts. But assumptions of such power were rudely shattered in 1897. In handing down an opinion in the Maximum Freight Rate Case, the Supreme Court declared that the power to designate rates in the future was not among those granted to the Commission by Congress. 12 Following

12. Interstate Commerce Commission v. C. N. O. & T. R.R. Co., 167 U. S. 479. 1897. In delivering the opinion, Justice Brewer concluded: "First, the power to prescribe a tariff of rates for carriage by a common carrier is a legislative and not an administrative or judicial function. Second that Congress has transferred such power to any administrative body is not to be presume or implied from any doubtful and uncertain language . . . if the Congress had intended to grant such power to the Interstate Commerce Commission, it cannot be doubted that it would have used language open to no misconstruction, but open and direct. Third, incorporating into a statute the common law obligation resting upon the carrier to make its charges reasonable and just, and directing the Commission to execute and enforce the provisions of the Act does not by implication carry to the Commission or invest it with the power to exercise the legislative function of prescribing rates which shall control in the future . . .
the power to prescribe rates or fix any tariff for the future is not among the powers granted to the Commission."

ing the decision, the Commission ceased issuing orders regarding rate relationships and discrimination. Since they had no power to establish reasonable rates, they had no authority to administer the sections of the Act covering discriminatory practices. This situation was to continue until partly corrected by the Hepburn Act of 1906.13

15. 34 Statutes at Large, part 1, pp. 584-595. 1906.

A number of forces combined to cause the passage of this legislation. First, the growth of railroad combinations, following the outlawing of pools in 1887, had reached huge proportions. Second, rates had shown a general upward movement since 1900, due partly to the rising prices of labor and materials, and partly by the restriction of competition by the carriers. In the third place, there was a large degree of financial manipulation among carriers in the various sections of the nation. However, the legislation was not enacted without a struggle. Railroads bitterly opposed it and set up one of the most highly organized campaigns of propaganda and lobbying in the railway history.

The most important provision of the Act was that which authorized the Commission, upon complaint and after hearing, to prescribe maximum rates. Such power was to be exercised
only after existing rates had been found unlawful, and extended to joint rates and through routes. Through routes could be established when the carriers refused to do so. Maximum joint rates and their division between participating carriers could be prescribed. Orders were to be effective upon 30 days notice. It should be noted that the law did not give the Commission authority to prescribe rates on their own initiative, but only when existing charges were found unreasonable or unlawful. Since the power of the Commission was strictly limited to the prescription of maximum rates, neither an exact nor a minimum charge could be fixed.¹⁴


The position of the Supreme Court on cases arising after 1906 differed considerably from that of former periods. No longer did the Court pass upon the wisdom of the Commission's orders, but set them aside only when there was a violation of the Constitution, or when the regulatory body had gone beyond the powers conferred by the Congress. Review of facts was made only to the extent of determining lawfulness of orders.¹⁵ The Court also ruled that cases would not be

¹⁵. In Interstate Commerce Commission v. Illinois Central R.R., 215 U.S. 452, 1910, the Court stated (p. 470): "Beyond controversy in determining whether an order of
the Commission shall be suspended or set aside, we must consider, (a) all relevant questions of constitutional power or right; (b) all pertinent questions as to whether the administrative order is within the scope of the delegated authority under which it purports to have been made. . . . Power to make the order and not the mere expediency or wisdom of having made it, is the question": This doctrine was further followed in Interstate Commerce Commission v. Union Pacific R.R., 222 U. S. 541. 1912.

accepted for ruling until a finding had been made by the Commission -- that all matters of original jurisdiction were in the hands of the Commission. These principles have held generally down to the present.

The absence of organized pressures by the carriers for increases in rates, and by shipper interests for rate decreases, seemed to indicate that the rate level during the first twenty odd years of regulation was reasonably satisfactory. Rate adjustments in isolated instances had taken place sporadically, but for the most part these could not be classed as rate level proceedings.

The Great Rate Level Cases, 1910 to 1920

Petitions in the first general rate level case were filed in the summer of 1910.16 Carriers operating in Official

Territory requested increases in all class rates and in many commodity rates. Western carriers presented claims for increases in commodity rates only. Advances were to approxi-

17. For a description of the three major freight classifications see Chart 1, Appendix A. Freight is classified through grouping into limited numbers of "classes" the many different articles which are carried by the railroads. The purpose of this practice is for ease and convenience in quoting rates on a limited number of groups of articles rather than on each individual commodity separately. Ratings assigned to commodities depend upon the method of packing, the type of container, and whether or not they are shipped in carload or less-than-carload lots.

Commodity rates are difficult to describe because of the wide diversity of rate-making practices. Some commodity rates are tied to the class rate structure by use of column rates; that is, by making rates on commodities a certain percentage of class rates. Other commodity rate structure are entirely related to class rates.

The freight classification does not show the rates, but only the group to which certain commodities have been assigned. Rates on various classes are published in tariffs, which may be class tariffs, or commodity tariffs. See Locklin, D. P. "Rates and Rate Structure." National Resources Planning Board Report. Transportation and National Policy. Washington, D. C., Govt. Print. Off. 1942. pp. 87-90. Further description will be found in "Summary of the Interterritorial Freight Rate Problem." Appendix C.

mate 10 per cent, and were to become effective within 30 days. However, since the Congress at this time was debating additional amendments to the Act to Regulate Commerce, the railroads voluntarily postponed the effective dates of their new tariffs until the reasonableness of the proposed rates could be determined in light of the prospective legislation.

Passage of the Mann-Elkins Act in 1910 brought additional
power to the Commission. One of its important features was that of suspension and investigation of rates. It was now possible for the Commission to delay the effective dates of proposed rates until investigation could satisfy them of the validity of rate changes. The burden of proof as to the reasonableness of new rates was placed upon the carriers, and such proof was made applicable to the increased rates rather than the proposed rate increases. Another important provision gave the Commission authority to initiate inquiries at their discretion as to the appropriateness of existing rate levels.

The first general rate cases were essentially of a revenue nature, based primarily upon alleged increases in the operating costs of the carriers. While consideration was given to increased costs in the decision, the Commission felt that these would be absorbed by an expanding volume of traffic. The requests were denied, although the door was left open for a rehearing on the petition if and when changing economic conditions made it necessary.

19. "We do not say that the carriers may not increase their income. We trust that they may, and confidently believe they will. If the time does come when through changed condition it may be shown that their income fears are realized, or approaching realization, and from a survey of the whole field of operations there is evidence of a movement which makes against the security and lasting value of legitimate investment and adequate return on the value of these properties, this Commission will not hesitate to give its sanction to increases which will be reasonable." Western Case, op. cit., p. 379.

During the next two years marked increases occurred in the operating expenses and capital charges involving taxes, installation of safety devices, grade crossing elimination, compliance with state "full crew" laws, etc. The carriers maintained that as costs increased, the existing rate structure did not provide enough revenue to enable them to earn a fair return on the fair value of the property used in the public service. 20 Eastern carriers in 1913 petitioned for

20. The Fifth and Fourteenth Amendments to the Constitution declared in part that "no person shall be deprived of life, liberty or property without due process of law; nor shall private property be taken for public use without just compensation." Reasonable rates to the shipper meant charges which would allow for the easy movement of his traffic, but to the carriers, rates considered reasonable might be so low as to involve the confiscation of property without due process of law. In the case of Smyth v. Ames, 169, U. S. 466-546, 1898, the first attempt was made to establish criteria of rate reasonableness pertaining to the use of carrier property. The decree of the Court dealt with the basis upon which rates should be fixed so as to avoid confiscation, and introduced the doctrine of "fair return on the fair value of property used." See Chapter V. pp. 150-157.
a reopening of the Eastern Case, proposing a general 5 per cent increase in rates in Official Territory. The powers of rate suspension were invoked immediately, and an investigation was undertaken to determine the validity of the carrier claims. After hearings lasting almost six months, the increases were granted as requested. Originally, these were applied to the western part of Official Territory but later were extended to the entire area.

To measure the concept of "fair return on fair value" the Commission accepted book value figures of the railroads although fully aware of the shortcomings of these records. Their valuation project, only recently initiated, could not be used for the determination of a reasonable rate base at this time.

Approval of the

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22. Ibid., pp. 404-405.

increases was based largely upon revenue considerations, although the decision was by no means unanimous. Commissioners Harlan and Clements, in dissenting, attacked the majority ruling on the grounds that revenue needs should have been only one factor among many considered. They concluded that the issue was one of "reasonableness of rates;" for as long as the carriers would not cooperate in instituting certain internal economics, and in correcting maladjustments and discriminatory practices, it was morally wrong to allow the increases purely on the basis of financial needs.24


Almost immediately petitions for advances on bulk carload commodities were filed by Western carriers.25 An examination of their financial position clearly showed a downward trend in operating income. Claims of the carriers that the decline in earnings had an adverse effect on the flow of new capital into the industry, while recognized by the Commission and borne out by the facts, did not seem to receive the attention it merited. The application for relief was denied.26

25. Western Rate Advance Case, 35 T.C.C. 497. 1915.
26. Commissioner Daniels, dissenting, declared: "It is believed that such comparison (with the Five Per Cent Case) will not show a single important ground on the basis of which the carrier revenues were declared inadequate, and on the basis of which increases were first allowed in one area of Official Territory and later extended to other areas within this classification, where the same or even stronger reason is not found for similar conclusions here." Ibid., p. 655.

Between 1914 and 1916, the United States was actively engaged in supplying food and materials to the belligerents in the European War. As a result, traffic and income of the carriers sharply increased, but rising costs of materials and labor plus the uncertainty of the period of war traffic caused the railroads to hesitate in making improvements in plant and equipment. Revenues were favorable during 1916, but by the date of the nation's entrance into the War, the carriers were in serious financial condition. Commenting on the situation, W. D. Hines stated:

Our entry into the War forshadowed a tremendous increase in railroad traffic, although the railways had not been able to satisfactorily handle the traffic already demanding their services; it forshadowed further serious shortages of labor, materials and supplies, and further increases in the cost of capital, and increased difficulty in dealing with the labor situation.27


These problems were brought to the attention of the Commission
when the carriers, coincident with our entry into the War, requested nation-wide increases in rates. 28


Because of the emergency existing the railroads suggested that the Commission waive the suspension and investigation procedure and allow the rates, in the form of general horizontal percentage increases, to become effective on less than statutory notice. This proposal was denied. No emergency of national scope was found to justify a general increase, but Eastern carriers were given increases in class rates.

The controlling factor in the decision was that of revenue needs. In finding adversely, the Commission examined earnings during the last quarter of 1916, and the first quarter of 1917. In their opinion, the trend of revenues did not justify immediate relief. 29

29. "The complexities of the war economy were almost entirely disregarded; the general trend toward greatly increased costs, under pressure of largely uncontrollable forces was measured solely by its month to month effects; the relative absence of protests against the proposed advances, reflecting a widespread recognition of the necessity for stimulating adequate transportation service was deemed to possess only slight relevancy." Sharfman, I. L., op. cit., Vol. 3-B, p. 80.

Voluntary coordination of the carriers during the first
nine months of the war period did not produce the efficiency necessary for the movement of war traffic, and President Wilson ordered the government to control and operate the carriers as of December 26, 1917. Legal support for the move was given in the Federal Control Act of March 21, 1918, which declared


in part that just compensation should be given to the owners for the use of their property, and, in addition, conferred rate-making powers upon the government agency in charge of operations. To direct the activities of the carriers, the Secretary of the Treasury, William C. McAdoo, was selected as Director-General, later succeeded by Walker D. Hines.

From the beginning of the Federal control period, it had been recognized that rate increases were inevitable, and on May 25, 1918, the level of rates was increased through the issuance of General Order No. 28. The new tariffs called for an advance of 25 per cent on all class rates, interstate and intrastate; from 15 to 75 cents per ton on commodity rates covering iron, coal, and coke; an advance of 25 per cent on all other commodity rates. Since the increases were made on a general basis for the nation as a whole, and on the theory that the railroads were being operated as a single unit, there was little or no consideration of their effect on any particular carrier or groups of carriers.
The advances were expected to prevent an operating deficit for 1918, but proved inadequate by approximately $200 million. Operating costs, particularly wages, had risen rapidly during the entire year while the increases were made effective for only the last six months. The advances had no precedent in the history of regulation. They were exempt from the established customs of rate-making procedures of the Commission; exempt also from the 30 day publication notice as required by statute; not subject to investigation, suspension, nor approval by the Commission; and their reasonableness was not an issue to be questioned. The Commission reverted to an advisory board, operating under the direction of the Railroad Administration, deprived of its traditional dominance in the field of regulation.\textsuperscript{31}

\textsuperscript{31} Sharfman, I. L., \textit{op. cit.}, Vol. 1, pp. 164-166. "The net cost to taxpayers of government operation from December, 1917, to March, 1920, amounted to more than $1,600 million . . . . From an operating point of view, the Administration accomplished much, especially during the period of active conflict, and the financial deficit is to be explained primarily by the deliberate policy of keeping the level of rates low so as to check inflation. In clearing up congestion the government succeeded where the companies failed. Although rates should probably have been increased more than they were, the failure to do so did not increase the cost of transportation to the country as a whole, and in times of war, profit may not be the best standard of rate making. Railroads were operated at a loss in England and France as well as in America," Bigham, T., \textit{op. cit.}, p. 573. See also Hines, W. D., \textit{op. cit.}, pp. 237-239.

The war experiences of the railroads marked the end of
the period of negative or restrictive regulation. Policies, formulated and practiced, were those which prohibited railroad abuses, rather than those which would have led to constructive programs of equitable relationships between carriers and the public. Omission of legislative standards for the protection of carrier credit was one of the outstanding weaknesses of the Congressional directives. A tremendous burden was placed upon the Commission when it was requested to interpret "fair return and fair value;" concepts which were far from definite when stated by the Courts. The conflict between the States and the Federal authority caused much confusion in the attempt to stabilize the rate level.³²


Finally, the lack of authority over the issuance of securities made more difficult the operation of rate-making policies, and allowed unsound financial programs to be followed by individual railroads, thus further accelerating a weakened credit position. War brought these problems to the attention of the nation, and the turning point in the philosophy of regulation came with the Transportation Act of 1920.
The Period of the Nineteen Twenties

Congress passed the Transportation Act in February, 1920. It was designed to rehabilitate carrier credit for


the purpose of maintaining and expanding the nation's transportation system. Power to prescribe minimum rates was added to the authority to fix maximum rates granted by the Hepburn Act of 1906. Incorporated also were controls over security issues, and a modification of the rate suspension powers of the Commission.34 But the section which has been described

34. Authority to regulate securities was made through the addition of Section 20a. Rate suspension procedure was amended by shortening the suspension period from 120 days plus 6 months to 120 days plus 1 month, the change being made in the interests of the carriers. Since carrier losses during suspension proceedings could not be recovered, it was hoped that this change would help reduce deficits.

as the heart of the Act provided for the famous rule of rate-
making, which declared that "in the exercise of its power to prescribe just and reasonable rates, the Commission was to initiate or adjust these rates in such a manner that the carriers as a whole or as a whole in such territories as may be designated will earn on the aggregate an annual net operating income equal as nearly as may be to a fair return on the aggregate value of the property used in the service of transportation." 35 The Commission was further directed to make use of the results of its valuation project in the determination of the values of carrier property; also to give due consideration "to all of the elements of value recognized by the law of the land for rate making purposes." 36

35. Section 422, amending the Interstate Commerce Act by inserting Section 15a. The territories set up for this purpose were Eastern, Western, Southern, and Mountain-Pacific. See Chart 2, Appendix A.

36. Ibid., Paragraph 4.

In determining the rate of return, consideration further was to be given to the transportation needs of the nation and to the probable demands for increased facilities.

The return deemed fair was fixed at 5.5 per cent by Congress for a period of two years following March 1, 1920. In addition one half of one per cent could be used at the
discretion of the Commission for capital expenditures by the carriers. There was no guarantee of the percentage of return to individual railroads or to railroads in the groups designated by the Commission. Since the provisions were designed to support the credit needs of the carriers it was felt that Commission response to the directive might easily result in a condition of surplus earnings by certain individual railroads. Because of this, a novel feature in American regulatory legislation was introduced. The recapture clause provided for the limitation of earnings over a particular return, and the disposition of any surplus. A carrier receiving in any year earnings in excess of six per cent was to divide it into two equal funds, one of which was to be used in paying fixed charges in years of depressed revenues. The other was to be controlled by the Commission for the purpose of making loans to carriers to meet capital expenditures, to meet maturing obligations, or to be used by the Commission for the purchase of equipment and facilities for lease to the carriers. Only when the carrier reserve reached five per cent of the value of the property of the railroad could the fund be used for other lawful purposes. 37


Further provisions of the Act dealt with the relationship between the Interstate Commerce Commission and State
Commissions in matters of rate policy. These new sections recognized the dominance of the Federal rate-making authority even when applied to intrastate rates, so that such authority was necessary to the effective regulation of interstate commerce. Under these provisions, whenever the Commission

38. Section 416, paragraph 5 and 4, amending Section 13 of the Interstate Commerce Act.

after hearing had found rates on intrastate traffic to be unduly discriminatory as against persons and places in intrastate commerce on one hand and against interstate commerce on the other, they could prescribe the rate to be charged in order to remove the maladjustment caused by state action.

39. Before the passage of the Transportation Act of 1920, the exact or minimum rate, or the specific method thought necessary to remove the undue discriminations, could not be prescribed by the Commission. Rather, the carriers were allowed to adjust their rates in accordance with the Act not to exceed the maxima authorized. In the elimination of undue prejudice, they could lawfully reduce the interstate rates to the basis of the state rates, or increase the latter to the level of the former, or equalize the two in such a manner as to do away with the undue preference. See Annual Report of the Interstate Commerce Commission, 1916, pp. 80-81. The effects of this practice are outlined in Railroad Commission of Louisiana v. A. T. & S. F. R. R. Co., 41 I.C.C. 83, 121-122. 1916.

In view of the establishment of the new rate policy incorporated into Section 15a, the extension of Federal power over state rate-making procedures was of far reaching im-
portance. For example, substantial limitations of carrier revenues as a result of rates authorized by state bodies have been held to constitute discrimination against interstate commerce, and to justify the jurisdiction of the Commission over intrastate rates. Thus, powers of rate regulation on the Federal level became highly centralized, for rate structures as well as rate levels, even though directly applicable only to intrastate commerce, could be brought under dominant control of the Commission.

Termination of Federal control brought new agitation for rate advances from the carriers. It was generally agreed that the deficits incurred under Federal operation justified the petition. The first problem confronting the Commission was the determination of the valuation figures as a base for the proposed increases. With no guide yet

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40. See Intrastate Rates Within Illinois, 59 I.C.C. 350, 1920; also Wisconsin Passenger Fares, 59 I.C.C. 391, 1920. It was found in these cases that the rates and fares established by state commissions which were lower than those authorized in Increased Rates, 1920, 58 I.C.C. 220, 1920, were unduly prejudiced against interstate commerce. Exercise of the Commission's authority in the Wisconsin Passenger Fares case was fully sustained by the Supreme Court in Wisconsin R.R. Commission v. C. B. & Q. R.R. Co., 257 U. S. 563. 1922.

given for the judgment of fair value, they proceeded to use the data of their valuation project. The carriers argued for book value as the base for the calculation of fair return, asserting that investment figures, admittedly difficult to ascertain, were at least as comprehensive as the Commission's data, not yet complete for a single railroad. The issue was resolved by the establishment of an aggregate value of $18,900 million, some $1,100 million less than the book value estimates. The significance of the procedure was not so


much in the mechanics used in reaching the valuation amount as it was in the fact that valuation figures were used for the first time in the processes of rate control, and that those figures adjusted for new investment and accrued depreciation have largely served as the basis for computing fair return in all subsequent general rate level cases.

The petition called for horizontal increases of 30 per cent for the Eastern carriers, 31 per cent for the Southern, and 24 per cent for those in Western Territory. Increases awarded amounted to 40 per cent to Eastern carriers, 25 per cent for those in Southern Territory, 35 per cent for the Western railroads, and 25 per cent for those in Mountain-Pacific Territory. Rates between territories were to be increased by 33.3 per cent. All increases were effective
upon five days' notice. 43

43. Ex Parte 74, op. cit., pp. 246-247.

For a few months carrier revenues increased to such an extent that financial problems appeared to be solved. However, maladjustments in the nation's post war economy brought unemployment and declining consumer purchasing power. Traffic volume dropped and by the end of 1920 many of the railroads had been unable to earn their operating expenses. Particularly hard hit were those carrying a heavy volume of agricultural traffic. The decision was made on the assumption that the national economy could afford the increased costs of transportation but under changed economic conditions it was necessary to appraise the rate level from the viewpoint of the shipper interests.

The first indication of discontent came from shippers of livestock and grain, and gave emphasis to two significant phases of rate control. 44 First, charges which were remunera-


tive to carriers must be reasonable to shippers; second, adequate revenues might be more effectively realized under certain conditions through reductions rather than through
increases in rates. The livestock petition was denied, the Commission fearing that the loss in revenues through the proposed reductions would be a serious blow to the finances of the carriers involved. However, it was found that grains and hay were carrying a disproportionate share of the transportation burden, but it was also pointed out that the carriers handling this traffic had not yet earned their fair return. In the hope of stimulating traffic and increasing carrier revenues, and at the same time attempting to solve the problem of "unreasonableness" of rates, the Commission ordered rates reduced on these products.

The experiment of decreasing charges on limited types of commodities did not prove successful. As the price level of the nation declined, transportation rates remained rigid, and it was the contention of shipping groups that the rate level was a barrier to business recovery and the return to normal traffic conditions. They argued that rate reductions were necessary, and the Commission on its own motion instituted a general rate level investigation late in 1921, which resulted in the general rate decreases of 1922. 45 Rate reductions were made effective throughout the nation after July 1, 1922, amounting to 14 per cent in the East, 12.5 per cent in the South, 5 per cent in the West, 12.5 per cent in

45 Reduced Rates, 1922, 68 I.C.C. 676. 1922.
the Mountain-Pacific area, and 13.5 per cent interterri-
torially.

46. Ibid., pp. 734-737.

One more rate level case during the twenties needs com-
ment. In 1925, claiming financial necessity, carriers in
the Western and Mountain-Pacific territories requested hori-
zontal rate increases. Some 15 months later the petition was
denied. 47 The nation by 1926 was in the midst of an indus-

47. Revenues in Western District, 113 I.C.C. 3. 1926.

trial boom but agriculture remained in a depressed condition,
a fact which was responsible for most of the shipper com-
plaints concerning rates. Groups who shipped commodities
long distances to markets, and had benefited by the rigidities
modifying the rise in freight rates during two preceding
decades, now suffered from that same rigidity when the situ-
ation was reversed, despite the efforts of the Commission
to extend special aid. 48

48. The most serious situation was found in the areas pro-
ducing cotton and wheat, and raising livestock. These
were the products whose abnormal demand during the war
years had resulted in large surpluses as competing nations
throughout the world slowly increased production. As
farm prices declined because of decreased demand and
rising world supplies, farmers costs failed to fall in proportion. Wages, interest payments, taxes, and transportation were rigidly fixed by conditions over which the farmer had no control. See Wright, C. W. Economic History of the United States. New York, McGraw-Hill Publishing Co. 1941. pp. 980-981.

The "fair return" doctrine incorporated into the Act of 1920 became a weapon of the Western carriers. The rate of return had been less than the percentage decided upon by the Commission in 1922, but showed a definite improvement from 1922 to 1925. This trend seemingly negated the claim of financial emergency, and neither increases nor decreases were authorized. However, the Commission expressed a willingness to examine proposals for an upward revision of class rates in Western Trunk-Line Territory. There can be little doubt that the decision was influenced, at least partially, by enactment of the Hoch Smith Resolution of January 30, 1925. Attempting to relieve the depression in the agricultural areas, the advocates of the ability principle of rate-making succeeded in having their ideas embodied into a law which stated that the "true policy in rate making to be pursued by the Interstate Commerce Commission in adjusting freight rates should take into consideration the conditions which might at any time prevail in our several industries, insofar as this is legally possible to do, to the end that commodities may freely move." In a later section, the Commission was directed to adjust rates particularly in the interest of the
"freedom of movement . . . of the products of agriculture . . . at the lowest possible lawful rates compatible with the maintenance of an adequate transportation system." 49

49. 43 Statutes at Large, part 1, pp. 801-802. 1925. The ability principle of making rates may be interpreted to mean the ease with which some commodities can bear high rates and not result in the destruction of the traffic. Some types of traffic move only on rates which are so low, but still fall within the minimum requirements of the Commission, as to assure that the traffic will be tied to the rails. "It was the common belief that Congress was attempting to make the railroads a sort of balance wheel in the national economy. Prosperous industries were to support the railroads through higher rates, while the railroads were to come to the rescue of depressed industries by charging lower rates for the movement of their products. Depressed commodities were to be carried at rates which were considerably higher than the cost of service justified. The idea received short shrift in the Supreme Court, which declared in Ann Arbor R.R. v. U.S., 231 U.S. 658, 1930, that if Congress had really intended to establish a rule of rate making under which the commodities of depressed industries should be carried at rates below cost, it had failed to employ language necessary to convey such a meaning. If Congress had adopted a rule stating explicitly that the commodities should be transported at less than cost, it was implied that the rule would have to be declared unconstitutional. In other words, it was the opinion of the Court that legislative authority could not make rates on individual commodities which were below a standard necessitated by the nature and cost of transportation service." Van Metre, T. W. Transportation in the United States. Chicago, The Foundation Press. 1939, pp. 264-265. For an enlightening discussion of the meaning of the Hoch Smith Resolution see the opinion of Commissioner Eastman in Grain and Grain Products, 164 I.C.C. 619, 718. 1930.

Railroad problems of this decade were accelerated through development of the motor carrier industry, and not only did the rail carriers suffer losses in passenger traffic, but
much of the short haul freight traffic was diverted to trucks. Because of the flexibility of operation the new industrial giant offered a more serious competitive challenge to the railways than had the waterways. Motor carrier rate regulation was under the jurisdiction of the individual states and proved very unsuccessful. To meet the rising competition, railroads were forced to adjust to the rates quoted by motor carriers, leading to decreased revenues where the competition existed. The significance of truck competition in the transportation industry was not fully realized until the early thirties; and finally with the passage of the Motor Carrier Act of 1935, the agency was brought under control of the Commission. 50

50. 49 Statutes at Large, part 1, pp. 543-567. 1935. The Act was made Part II of the Interstate Commerce Act.

The Period of the Nineteen Thirties

By 1931, the industrial depression had adversely affected every section of the nation. In terms of carloadings, railroad freight volume dropped 30 per cent under the 1929 levels, while revenues showed a decline of 32 per cent in the same period. 51 Part of the depressed condition could

be attributed to the rising trend of competition; most of it resulted from the general business depression. In the situation, there were two courses for the railroads to follow. One involved a program of substantial retrenchment in operating and capital expenditures which probably would have intensified the depression; the other would continue a normal operating policy in the hope that the depression would be short lived. During 1930, the latter course was followed unsuccessfully. Economies in expenditures piled up deferred maintenance charges; dividend payments were suspended; wages could not be reduced without a long period of conference, mediation, and arbitration; and rates could not be increased unless approved by the Commission. Employees could be discharged, expenditures for supplies and materials could be curtailed, but it was considered to be economically unsound and socially inexpedient to pursue these policies too far. 52


Accordingly, the carriers requested on June 16, 1931, a general increase of 15 per cent in freight charges, with exceptions on certain types of traffic. 53 The sole objective

of the proposed advances was to increase the net operating income sufficiently to relieve the emergency threatening their finances. After a review of the railway situation prior to 1930, the Commission readily agreed that the carrier income had declined, and that credit showed a tendency toward impairment, but did not agree that the solution lay in rate increases. Contrasting the position of the railroads in 1931 with that in 1921, the Commission declared that "freight rates constitute a greater relative burden upon industry than ever before, and at a time when industry has gravely impaired stamina to sustain the burden."54

54. Ibid., pp. 573-573.

Note was made of the possible effect of the proposed increases on diversion of traffic to other agencies. The fear that a 15 per cent increase might make the position of the carriers even more precarious through loss of traffic led the Commission to conclude that "it is our contention that the increase in freight rates and charges would increase revenues, if at all, only temporarily, and that its ultimate effect, not long postponed, could be to harm rather than help the railroads . . . that such an increase would raise the rates on many kinds of traffic above a just and reasonable level."55
In denying the petition, the Commission pointed to possibilities of Government assistance, and to economies which might result through carrier cooperation. It was felt that the recapture clause should be repealed because of its complicating effects on rate-making procedures; that regulation should be extended to all competitive agencies in the industry of transportation; and that railway management should adjust their policies to the changing requirements of the transportation field. However, even though the general increases were adjudged unnecessary, some immediate relief was effected through small temporary advances in specific commodities. 56

Few industries suffered greater economic devastation than did the railroads during the period from 1929 to 1933. Business volume was cut in half. Half of the railroad employees had been laid off. The great majority of carriers had ceased paying dividends; many were insolvent; others escaped the bankruptcy courts only through the leniency of their creditors. Legislation designed to relieve the acute financial condition was passed in June, 1933, and consisted

55. Ibid., pp. 576-577.

56. Ibid., pp. 587-590.
of temporary measures for immediate relief and permanent amendments to the Interstate Commerce Act. 57 Emergency provisions hoped to eliminate unnecessary expenditures arising from the failure of the carriers to coordinate their operations, and had as its objectives the encouragement of carrier action to avoid wasteful duplication of services; the promotion of financial reorganizations so as to reduce fixed charges; and provision for an immediate study of methods of improving the general transportation position.

To carry out these objectives, the Act created a Federal Coordinator of Transportation, who with the assistance of regional coordinating committees was to study means for accomplishing economies of operation. 58

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58. Appointed as Coordinator was Commissioner Joseph B. Eastman. Although the carriers were relieved from the antitrust laws to the extent necessary in the promotion of coordinating plans, the project itself was severely restricted. The Act provided that the number of employees in the service of a carrier could not be reduced, by reason of coordinating plans, below the number in service during May, 1933; and further, that no employee could be placed in a worse position by proceedings under the Act; also that the railroad was to reimburse employees for expenses incurred in moving from one place to another.
under changed working conditions. While these restrictions were designed to protect the position of employees, they substantially prevented any coordinating plans, for programs which would result in important economies usually required some savings in expenditures for labor.

visions were to remain in effect for one year, but were extended by the President to June, 1935, and by joint resolution of Congress until June, 1936. Permanent provisions related to railroad combinations and the rule of rate-making. One repealed the Recapture Clause retroactively, while another amended the Valuation Act by permitting the Commission to collect data upon which valuations could be made current rather than making it mandatory to keep valuations up-to-date as a matter of course. 59

59. On the question of combinations, the Act attempted to remedy defects in the consolidation provisions of the Transportation Act of 1920. The legislation eliminated the distinction between consolidations and acquisitions of control; brought holding companies under the jurisdiction of the Commission; and gave the Commission authority to approve any consolidations, mergers, purchases, leases, operating contracts, or acquisitions of control which it found (1) to be in harmony with the plan of consolidation as drawn up in the Act of 1920, and (2) that they promote the public interest. Rate provisions were designed to make the rule of rate-making more flexible. Eliminated was the provision that the Commission was to establish rates so as to provide for the carriers as a whole or in groups a fair return on the fair value of their property. The new rule was stated as follows: "In the exercise of its power to prescribe just and reasonable rates the Commission shall give due consideration, among other factors, to the effect of rates on the movement of traffic; to the need, in the public interest, of adequate and efficient railway transportation service at the lowest cost consistent with the furnishing of such service; and to the need
of revenues sufficient to enable the carriers, under honest, economical, and efficient management, to provide such service." 48 Statutes at Large, 220 amending Section 15a of the Interstate Commerce Act. June 16, 1933. The new rule made no mention of the fair return doctrine and listed factors other than revenue needs to be taken into consideration. For further discussion see Bigham, T., op. cit., pp. 184-185; Daggett, S., op. cit., p. 565.

In view of the severe and continuing decline in the commodity price level without a corresponding decline in the rail freight rate level, the Commission in 1933 initiated on its own motion a general rate level investigation. The proceedings centered around the question of rate reductions. Shippers claimed that the value of the transportation service had declined because of the high relative rate level and the unavailability of competing carriers, and that the existing level of rates was preventing the movement of traffic. Such claims contained a good deal of truth, for the evidence conclusively showed the disastrous effects of the depression upon industry in general, although an equally gloomy picture was presented in regard to the financial condition of the railways.

In attempting to follow the new rule of rate-making, the Commission pointed out that both value of service and revenue considerations were involved in their investigation.
They decided, in view of the Congressional mandate, that the existing rate level was not unreasonable. Professing to see an upward trend in the price level of the nation, the Commission dismissed the argument of the shippers, and agreed with railway management that any general reduction of rates would not increase the absolute volume of traffic. In regard to the stimulating effects of lower rates upon traffic volume, it was noted that during the depression, prices had been reduced much lower than rates could have possibly been reduced without further financial stress, and yet no great volume of business had resulted. It was therefore concluded that further rate reductions would lead only to further losses in earnings; that the inevitable result would be to throw more carriers into receivership or reorganization.

A further discussion on the Rate Level Investigation of 1933 will be found in Chapter III, pp. 61-69.
the railroads on January 15, 1935. It requested permission to "file upon short notice blanket supplements to existing rates effecting general increases in freight rates and charges." In many respects, the decision in the case paralleled that of the Fifteen Per Cent Case.\textsuperscript{63} There was perhaps more weight attached to revenue factors, a fact which called forth dissenting opinions from four of the Commissioners. They argued for greater consideration of the elements of "reasonableness, diversion of traffic, and the assumption of managerial discretion by the Commission."\textsuperscript{64} No uniform horizontal increases had been requested; rather a 10 per cent advance in the nature of flat increases on commodities carried on a long-haul basis was proposed. The decision granted a seven per cent emergency increase to remain in effect until June 30, 1936, later extended to December 31, 1936. In an effort to offset the loss of revenues expected upon termination of the advances, the railroads in October, 1936, petitioned for permission to increase carload rates on a large number of so-called "basic heavy commodities."\textsuperscript{65} Many
of the proposed advances were voluntarily withdrawn by the carriers during the hearings as they came under attack of the opposition in regard to reasonableness. As in previous cases, revenue considerations were paramount. "The justification offered by the applicants for the increased rates is, in the last analysis, very largely a revenue justification — in other words, they need the money and these are the places where it can be got." The fact that the advances were to be used as substitutes for the emergency increases carried much weight in the decision to grant the requests.

The final rate level case of the thirties was instituted in November, 1937, and decided in March, 1938.
riers requested 15 per cent increases to be permanent upon all freight rates and charges, "including those granted in the emergency cases." The basis of the requests lay in the increases in costs, particularly wages, payroll and retirement taxes, materials and fuels; and in a declining volume of traffic as represented by statistics of revenue carloadings, and net railroad operating income. However, while accepting the arguments of the carriers relating to the necessity of the proposed increases, the Commission considered 15 per cent to be larger than necessary. Advances of 10 per cent on industrial commodities with exceptions, and five per cent on agricultural commodities were granted. 69

69. Ibid., p. 139.

The Ex Parte 123 advances did not check the trend of the carriers toward bankruptcy, a fact which brought additional requests for assistance from the Federal government. In 1938, upon the request of President Roosevelt, two committees were formed to study and make recommendations on the railroad situation. One drawn from the Commission made suggestions covering measures of immediate relief; extension of government loans; elimination of land grant rates; and establishment of new machinery for railroad reorganization. Long range suggestions dealt with the necessity for greater
internal economies and the promotion of efficient coordination between all transportation agencies to eliminate wasteful competition.\textsuperscript{70} The other was composed of representatives of railway labor and railway management. On at least five points the two reports were in agreement.\textsuperscript{71} As a direct consequence, the Transportation Act of 1940 became law.\textsuperscript{72}

\textsuperscript{70} \textbf{Immediate Relief for Railroads.} House Document No. 583, 75th Congress, 3d Session. 1938.

\textsuperscript{71} Bigham, T. C., op. cit., pp. 187-189.


The Act of 1940 was fundamentally an outcome of the business depression and the severe competitive situation in the transportation industry. Its most important accomplishment was the transfer of the inland water carriers from the jurisdiction of the Maritime Commission to the Interstate Commerce Commission. Amendments were made to Part I of the Interstate Commerce Act, one of the most significant being that of the declaration of a national
transportation policy. Another liberalized the Commission's authority over combinations and omitted the requirement relative to the preparation of a plan of consolidation. Any voluntary plan of coordination seemed to be doomed by inclusion of the provision which stated that, during a period of four years from effective date, the employees of carriers directly concerned shall not be placed through unification in a worse position with respect to employment. A Research and Investigation Board was authorized for a period of two years, and could be extended for a similar period by Presidential proclamation. Its function was to study relative economy and fitness of rail, motor, and water transportation; the question of public aids to each of the agencies; and the problem of taxation in each area. Full commercial rates for railroad transportation were required to be paid by the government for the carriage of persons or property for civil purposes. The need for continued study on the problem of greater possible economies in the railroad industry was made evident through the amendments covering unifications, mergers, control acquisitions, and pooling. No significant changes took place in the rule of rate-making.

Before many of the provisions of the Act could be tested, the nation was suddenly plunged into its second major war within 25 years, and the carriers were called upon to carry the major share of wartime traffic. Problems relating to war transportation will be discussed in the chapter which follows.
CHAPTER III
THE PERIOD OF UPHENAVAL, 1940-1945

Modern warfare demands a highly efficient transportation system. Domestically, the greatest responsibility for the wartime movement of men and materials is placed upon the railroads. The importance of the railroads in a war economy naturally tends to direct public attention to many of their problems. While the War did not solve any of the vital issues facing them in peacetime operation, it did contribute toward an easing of financial burdens which had plagued the industry for many years. At the same time, however, the industry was confronted with new and more difficult operational problems which threatened to destroy its effectiveness as an instrument in the successful prosecution of the war.

As a basis for comparison, it is necessary briefly to survey the general status of the railroads during the period between the great wars. This is the objective of the first section of the chapter. Following, an attempt is made to analyze the rate level problems of the early depression years. The third section will discuss railroad operations during the war years, while those following are devoted to an appraisal of the effect of the War on agencies competitive with the rail carriers; and the War as it affected operating expenses. The chapter will close with an analysis
of the only rate level proceeding of the period.

The General Status of the Railroads in the Interwar Period

Developments which occurred within the industry between the years 1921 to 1940 are summarized in Table 1, Appendix B. Four representative years have been chosen to measure trends in physical operations and revenue factors. The year 1921 has been selected because it portrays the first complete year of private operation, following the period of Federal control during the first World War. The year 1926 has been included since peak performance was reached in such items as freight cars available, number of employees, tons of revenue freight carried, rail operating revenues, and rail operating expenses.

In 1929, maximum levels were attained in net revenues from operations, in net railway operating income, in net income after charges, and in the number of miles of track operated. Also in this year, a record low was established for the number of railroads in the hands of receivers. The final year of normal peacetime operation before the second World War was 1940.1

1. Omitted from this analysis are statistics for the early depression years. These will be compared with operating data of the twenties in the second section of this chapter.
There were 27,000 miles more of track operated in 1929 than in 1921. By 1940, however, mileage had been reduced to approximately seven per cent under that of 1929. Fewer locomotives were used in 1940 as compared with 1921, while the number of cars in use reached a peak in 1926, and declined thereafter. The decrease in numbers was more than offset, however, by an increase in the aggregate tractive power of locomotives; and by an increase in the aggregate capacity of freight cars. By 1940, the number of locomotives in use had declined some 36 per cent under those used in 1921, but the average tractive effort, measured in pounds, had increased approximately 54 per cent. The decline in available freight cars over the period averaged about 33 per cent, while the decline in the aggregate capacity in tons was roughly 17 per cent.

Employment in the railroad industry showed a general upward trend between the years 1921 and 1926, but declined over 44 per cent between the latter year and 1940. Reduction in labor costs as a result of decreasing employment during the period was partially offset by rising wage rates, especially during the late thirties. The influence of labor-saving machinery and more efficient operating methods may be indicated by the fact that employment figures were approximately equal in 1921 and 1929, but the tons of freight carried over the nine year period increased by almost 50 per cent.
Tonnage of freight originated in 1940 was slightly higher than that of the year 1921. Freight traffic increased considerably throughout the twenties, rising from 940 million tons in 1921, to 1,339 million tons in 192. By 1932, however, the tonnage originated was less than half that of 1929. The trend reflected the increasing competition offered by other transportation agencies, and the depressed position of the national economy in that year. A gradual improvement was noted through 1937, when the billion ton level was reached for the first time since 1929. Although tonnage declined again in 1938 and 1939, the carriers transported more than a billion tons again in 1940. By comparison, the traffic carried in the latter year averaged less than 25 per cent of that carried in 1929.

Gross revenues from operations amounted to $5,516 million in 1921, rose to $6,332 million in 1926, and remained practically constant for the next three years. Between the years 1929 and 1937, revenues decreased at a rapid rate, reviving somewhat during 1937, but afterward declining to 1940. Military preparations during 1940 carried total revenues to the highest point in a decade of operations, but the level was only 67 per cent of the revenues received in 1926. Operating expenses amounted to 82.7 per cent of the operating revenues in 1921, the highest ratio of any year in the interwar period. The ratio fell to 73.1 per cent
by 1926, and declined further to 71.7 per cent at the end of 1929. Throughout the thirties, it ranged from a 1931 high of 77.1 per cent to a 1936 low of 72.3 per cent. The 1940 operating ratio of 71.9 per cent was approximately equal to that of 1929, despite the fact that operating revenues for 1940 were but 68.4 per cent of those of 1929. Although the ratio in the former year was lower than it had been at any time during the thirties, it was generally considered to be above the level which would allow the railroads to prosper under normal operating conditions.2

2. "The ratio must be kept down to less than 70 per cent if the railroads . . . are to have net revenues that will enable them to pay the high taxes levied on them; to improve their facilities as they must to meet competition and to serve the public efficiently; to meet fixed charges and to pay stockholders a fair rate of dividends that must be paid if new capital is to be secured without unduly increasing the funded debt." Johnson, E. R. The Railroads and Public Welfare. New York, Simmons-Boardman Publishing Corp. 1944, p. 40.

No item listed in the table illustrates more clearly the depressed condition of the industry than the carriers in the hands of receivers or trustees throughout the period. The low point was reached in 1929 with 29 roads in receivership. This figure represented 39 fewer railways than in 1921, and 16 less than in 1926. By the end of 1940, however, 103 carriers were either in the process of reorganization or had been declared insolvent and were petitioning for
reorganization. This represented an increase of 74 railroads in receivership over a period of 12 years.\(^3\) Tax

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3. The carriers in receivership in 1929 operated a total of 5,703 miles of track. By 1939, 108 carriers with a total of 77,013 miles were in bankruptcy. In 1940, 103 carriers representing 75,270 miles were in receivership. Interstate Commerce Commission. *Statistics of the Railways of the U.S. 1940*. Washington, D. C., Govt. Print. Off. 1941. Table 151, p. 149.

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payments in 1921 took five cents of every dollar of operating revenue; by 1939, the amount had increased to about nine cents; and in 1940, it was over nine cents.

The total net operating income, after taxes and rentals, was somewhat higher in 1940 than in 1921, but was only 52 per cent of that earned in 1929. The rate of return on investment in 1929 was almost five per cent; in 1940, it had declined to two and one half per cent. Net income by 1940 had fallen by more than $700 million under that of 1929.

For all roads, the average rate of dividends paid to stockholders in 1921 was four per cent; in 1929, six per cent; while in 1940, it had been reduced to two per cent. In both 1939 and 1940, almost two-thirds of the amount distributed as dividends was taken from reserves, not from current income. The larger share of distributed dividends came from a smaller number of railroads having surplus funds upon which to draw.

Net operating income for any given year depends on the
extent to which carrier expenditures must be increased, or may be decreased or postponed. A sharp fall in traffic and revenue, as was experienced during the depression, will usually force a reduction in expenses to as low a level as possible consistent with operations. Maintenance and equipment expenditures are particularly affected in a period of depressed activity, and postponement in one period ultimately results in abnormally high expenses and lower rates of return in future periods. The revenue and income position of the carriers at the end of 1940 may be summarized by reference to the railroad petition presented in 1941 for rate increases: "Average annual operating revenues during the 1931-1940 period ... were less by 37.6 percent than during the 1921-1930 period; average annual net railway operating income was less by 48.1 percent, while net income after fixed and contingent charges was lower by 93.5 percent."


The Rate Level Problem in the Depression

In view of the severe decline in the commodity price level between the years 1929 and 1932, certain producers and shippers sought to obtain relief from the relatively high
level of freight charges. To support their contentions,

5. Primarily responsible for the petitions filed January 25, 1933, were producers of farm, coal, and lumber products. However, since the economic factors involved applied generally to all commodities, the Commission on its own motion decided to expand the investigation to include all interstate freight. The case was taken under consideration on March 31, 1933, and decided on July 31, 1933. General Rate Level Investigation, 1933, 195 I.C.C. 5, 1933, supra at p. 8.

the following arguments were presented: First, the value of railroad service had declined by reason of the decreased level of commodity prices and the cheaper service afforded by motor and water carriers; second, the existing level of rates had reduced the radius of distribution, thus tending to injure or destroy industries which competed in distant markets; third, the value of the service to the shipper based upon the value of the commodity and the availability of a cheaper means of transportation should take precedence over cost of service, plus a reasonable return.6

6. Ibid., p. 12.

A considerable amount of data was offered as evidence of the adverse effect of the depression upon industry in relationship to the railroad rate level. Based upon revenues per ton-mile, the existing level of rates was found to be about 24 per cent below the peak of 1921, and 13 per cent
below the level authorized in 1922. Against this, factory employment in March, of 1933, was 57 per cent and factory payrolls 37 per cent of the 1923-1925 levels, while wholesale commodity prices stood at 60 per cent of the 1926 level. Gross income from agricultural products in 1932 was 57 per cent below that of 1929. "Using 1910-1914 prices as 100, those paid for commodities purchased (by the farmer) ranged between 54 and 59 per cent higher than prewar in the years 1924 to 1929, were 46 percent higher in 1930, 26 percent higher in 1931, 9 percent in 1932, and 1 percent in March, 1933. At the latter date, therefore, the commodities which the farmer bought cost him substantially what they did before the war, while his own selling prices have been reduced one half. The ratio of the two sets of prices gives what is commonly designated as the purchasing power of farm products. The ratio ranged between 85 and 92 in the years 1923 to 1929, fell to 80 in 1930, to 63 in 1931, 53 in 1932, and 48 in February, 1933."  

It was argued that the proposed reductions would tend to hold or return diverted traffic to the rails and thus
lessen the disorganizing effect on their businesses of the increasing competition made by cheaper forms of transportation.

However, an equally gloomy picture was presented by the carriers. The net railway operating income in 1932 amounted to $326 million as compared with $603 million in 1921, and $1,252 million in 1929. Earnings in 1932 failed to cover fixed charges by more than $152 million, and 60 companies with a total mileage of 41,560 were in the hands of the receivers or in the process of reorganization. Operating expenses in 1932 were lower than in any year since 1921. The reduction was due not only to decreasing demands for service, depressed material prices, lower wages, and increased efficiency, but also to the postponement of maintenance expenditures. The number of revenue ton-miles in 1932 was approximately half the number of 1926. A poor financial record had virtually destroyed the credit of the railroads, despite the continued need for capital to provide adequate service.9

9. Ibid., pp. 45-56.

Basic to the proceeding was the legal question of whether or not the revenue needs of the carriers or the value of service to the shipper should be the controlling factor in determining the reasonableness of the general rate level.
Shipping interests contended that there was no possibility of carriers earning a fair return unless industry recovered from its depressed state, thus revenue considerations were irrelevant. They declared further that Supreme Court decisions had recognized value of service as the paramount factor in judging the reasonableness of rate levels. The railroads, on the other hand, argued that revenue considerations should be the controlling element in deciding the investigation and they pointed also to Supreme Court decisions to support their position. Furthermore, in view of the fact that they failed to earn their fixed charges in 1932, the carriers claimed that no general reduction on rates was legally permissible. The Commission faced the issue by declaring that it considered both revenue and value of service considerations legally pertinent under its statutory authority. It decided that the prevailing level of rates

10. Supreme Court cases used by the opposing parties will be found discussed in Sharfman, I. L. The Interstate Commerce Commission. Vol. 3B. New York, The Commonwealth Fund. 1936. pp. 202-203. See also General Rate Level Investigation, 1933, op. cit., pp. 59-60.

11. In deciding the 1931 case, the Commission had stated that section 15a enacted in 1920 "had not made revenue needs the 'paramount and controlling factor' in the determination of a reasonable general level of rates" but that "factors which theretofore were relevant and entitled to consideration, notwithstanding the revenue
needs of individual carriers, are still relevant and entitled to consideration, notwithstanding the revenue needs of the carriers in the aggregate or by groups." Fifteen Per Cent Case, 1931. 178 I.C.C. 539. 1931. p. 564. Attention was also directed to the amended rule of rate making enacted June 16, 1933, which ordered the Commission to give consideration among other factors, "to the effect of rates on the movement of traffic; to the need, in the public interest, of adequate and efficient railway transportation service at the lowest cost consistent with the furnishing of such service; and to the need of revenues sufficient to enable the carriers under honest, economical, and efficient management, to provide such service. Public Law No. 68, 73d Congress. Section 205. had not been found unreasonable.

The decision was influenced partly by the upward trend in the volume of business during the first and second quarters of 1933. In addition, the Commission professed to see a further general improvement in the price level through the government's recovery program. In denying the rate reductions, they attacked the position of the shipping groups by declaring that "... while the value of the service to the shipper when measured solely by the decline in commodity prices and by the depressed condition of industry has been lowered ... a general reduction in rates at this time would threaten the possibility of furnishing adequate service to the public. The benefits which accrue to the average shipper from a general reduction in rates would be small compared with the disastrous effects on respondents revenues and credit."12
It was thought that rate reductions would not increase the total volume of business or increase rail freight traffic except possibly through the recovery of some tonnage previously lost to motor and water carriers. Despite the admitted relevancy of both value of service and revenue needs in determining rate level reasonableness, in the end the controlling emphasis was placed on revenue considerations.

Dissenting from the majority decision were Commissioners Atchison, Lee, and Porter. Their conclusions were based on the fact that rates since 1922 had been kept on an equal or generally rising level in spite of significant declines in operating expenses and a sharp fall in commodity prices during the period. They maintained that new competition could be met effectively only if the basic rate level was lowered at this time; furthermore, they were convinced that rates which had not been reduced through competitive pressure were unreasonably high.13

13. Ibid., pp. 72-81.

Maintaining the basic level of rates in the face of the convincing evidence presented by the shippers was tantamount to permitting the railroads to exploit their position with
respect to non-competitive traffic. Shippers who could not avail themselves of alternative means of transportation not only had a heavier burden imposed upon them, but also were subject to discriminatory practices as compared with those who benefited through voluntary competitive rate reductions. Whether or not rate reductions of a general nature would have enhanced the financial position of the carriers is impossible to determine. However, it may be suggested that many of the depression ills could be traced to extreme rigidity in parts of the price structure; and furthermore that railroad rates comprise one of the important rigid forces. In view of the relatively high level of freight charges, the 1933 proceedings resulted in official endorsement to continue the maladjustment.

To the extent that the maintenance of a rigid rate level obstructed economic recovery, it contributed unfavorably toward the long-run financial position of the railroads. Also, the decision when viewed against the expanding sphere of competition tended not only to preserve current rate-making practices, but endangered the non-competitive traffic, and thus threatened the flow of railway earnings. By its conclusions, the Commission apparently hoped that preservation of the status quo would result in increased carrier revenues, and thus support the efforts of the Government to reverse the forces of deflation. However, there appears to be evidence to warrant a conclusion that the Commission did
not correctly analyze the economic situation then existing. While some question may be raised as to the amount of financial aid provided through the decision, one fact clearly emerged from the investigation. Revenue was considered of such importance that the purpose of the amended rule of rate-making was interpreted to mean that everything possible should be done in the interests of making carrier operations reasonably self-supporting.

American Railroads in the Second World War

For two years preliminary to the entrance of the nation into the War, the defense program gave the railroads some preparation for the greatly increased services to be expected of them for the duration of the emergency. As war industries were developed, the carriers were suddenly confronted with demands which threatened to become greater than existing facilities could fulfill. Equipment held idle was gradually brought back into service. Orders for new rolling stock were placed for delivery as soon as was possible. Had it not been for this degree of preparation, it is difficult to see how the carriers could have performed as well as they did during the following period.

By its nature, transportation was more important to the belligerents of the second World War than in any other in history. Every war, from the beginning of time, has been
one of movement, but the hostilities of 1939-1945, fought on five of the six continents and all of the seven seas gave a new meaning to the term. Not only did it involve rapid movement of raw material to the combat areas, but it required the production and use of larger and more powerful weapons, greater masses of men, speedier transportation, and tremendous volumes of war supplies carried over longer distances.

The emergency which struck America in December, 1941, was huge and immediate, but within a matter of weeks hundreds of thousands of troops and equipment were being moved by rail in every direction. At the same time the carriers were called upon to transport the major part of the rising war production; to take over services formerly supplied by inter-coastal shipping; and to multiply the tank-car movement of oil into the eastern states more than 70 times over. All of these developments doubled the demands on the railroads between 1939 and 1942, then doubled them again between 1942 and 1944.

Government policy largely dictated the place of the railroads in the national economy during the war. Administrative procedures, however, were substantially different from those followed during 1917-18. Eleven days after the attack on Pearl Harbor, President Roosevelt issued an executive order establishing the Office of Defense Transportation, to be headed by a director who would "discharge and perform
his responsibilities under the direction and supervision of the President." The order applied to domestic transportation, including railroads, motor carriers, inland waterways, pipe lines, air transport, and intercoastal shipping. The Office of Defense Transportation was to have supervision over these agencies and was to work with the Maritime Commission in the matter of rates, routes, and services; and with the War and Navy Departments with regard to movement of troops, supplies, and materials. To direct the activities of the Office, the President selected Joseph B. Eastman, a member of the Commission, and formerly Coordinator of Transportation during the depression period. It was generally agreed that no better choice could have been made.

**Railway operation and service**

Turning now to a discussion of the operational trends between 1941 and 1946, the reader is referred to Table II, Appendix B, which presents statistical data showing developments in general traffic and service efficiency of the carriers. In round numbers, tons of freight originated in—
creased from 1 billion in 1940 to almost 1.5 billion in 1944. A new all-time high was reached in 1942, again in 1943, and once more in 1944. Freight ton mileage by the latter year had practically doubled over the prewar average.

Almost twice as many revenue ton-miles of freight were handled in 1944 as in 1940, with only 1,600 more locomotives and 116,000 additional cars. Longer trains averaging more miles per day were handled in larger numbers than ever before. The average haul per-ton in miles showed an increase of about 21 per cent in 1944 and 1940, while the net ton-miles per freight car increased by nearly 68 per cent over the same period. Freight cars accommodated more tons per trip, and the improvements in construction allowed more miles per car and required a fewer number of stops along the route. The vastly increased freight load was carried with approximately one-third fewer locomotives and cars than were operated at the peak of the first World War. To function in this manner required a highly efficient operating plant, efficient operating methods, a high level of planning, coordination, and cooperation, not only among the railroads, but among the shippers and receivers of freight, and between all and the government agencies which were concerned directly with transportation.

While it is impossible to analyze in any one index overall carrier performance from the standpoint of operating
efficiency, the one coming closest to so doing is that of average ton-miles per freight-train hour. It is highly significant since it combines the various load and speed factors and shows the unit output of the average hour of freight train operation. Table II will show this average to be computed on two bases: gross ton-miles of cars and contents per freight-train hour, and net ton-miles per freight-train hour. Compared with the year 1940, gross ton-miles in 1944 increased by 11 per cent, but if contrasted with 1921, the average increased by almost 151 per cent. Net ton-miles per freight-train hour increased between the years 1940 and 1944 by almost 24 per cent. When compared with 1921, the increase would be 141 per cent. Due to reduced volume in 1945, both averages showed slight declines, but the reduction was less than one per cent below the 1944 averages.

Another important set of operating statistics are those of daily mileage of locomotives and freight cars. Here, as in other performance aspects, all previous records were broken. Locomotive mileage averaged a gain of 16 per cent in 1943 over 1940, while the increase in actual average miles covered per day was 17. Freight cars averaged 12 miles more on a daily basis in the same period, a gain of 34.3 per cent. During 1945, reduced traffic volume resulted in a decline in equipment mileage. On a daily basis loco-
motive averaged 4.3 miles less than in 1944, while cars showed a decrease of 2.6 miles.

Maximum freight loads per-car and per-train were necessary to meet war demands. Since new equipment was not forthcoming, some adjustment in the load factor was necessary in order to meet the split-second schedules of train operation. Minimum load orders were issued by the Office of Defense Transportation, and the cooperation of shippers and the various governmental agencies in holding to these minima made possible the record movement of freight. Net tons per-train and net tons per-car reached a peak in 1944. On a per-train basis, the net gain was 260 tons in this year as compared with 1940, which represented over a 33 per cent increase. Net tons per-day increased an average of 5.1 tons during the period, a 20 per cent increase over the level of 1940. Slight recessions in all averages occurred in 1945. The movement of traffic required an increase in the number of trains on the rails, and because of this fact, average speed on a per-hour basis between terminals showed a decline. Average speed in 1940 was 16.7 miles per-hour, dropping to a low of 15.4 miles per-hour in 1943, then showing a slight improvement in 1944.

Railroad finance

Next to be discussed is the financial record of the carriers during the war period. Statistical trends in
revenues and earnings between 1940 and 1945 are compiled in Table III, Appendix B. The large volume of freight handled brought proportionate increases in the gross operating revenues of the railroads. From somewhat over $4 billion in 1940, revenues almost doubled by 1943, and reached a peak in the following year. However, between 1940 and 1945, operating expenses more than doubled and continued to rise by over $750 million during 1945, while in the latter year, revenues showed a decided decline as compared with 1944. Over the period covered in Table III, revenues increased by 107 per cent, but operating expenses increased by 131 per cent.

While gross earnings were at their maximum level in 1944, net income after charges reached its highest point in 1942. In comparison with 1940, a gain of nearly 400 per cent was recorded, topping 1929, the previous year of maximum earnings by some $15 million. Increased operational costs and heavier wartime taxes were responsible for this development. The anomaly of successive increases in gross revenues with successive declines in net income continued to operate in 1943 and 1944, giving rise to a major postwar financial problem. For the first time in seven years, operating revenues in 1945 declined to a point which led to an appreciable loss in net income. Between 1944 and 1945, gross revenues decreased 5.7 per cent, net railway operating income decreased
23.1 per cent, while net income after charges declined 32.8 per cent. Operating expenses, however, increased over 13 per cent.

Serving to offset the wartime gains in revenues were increased wages, increased material prices, and higher taxes. Taxes on property, and on personal and corporate incomes were made extremely heavy during the war years, but their burden upon the railroads seemed particularly oppressive. In 1940, tax accruals amounted to $396 million. By 1943, taxes had increased more than fivefold. Throughout 1944, they remained constant, and declined substantially by the end of 1945. Between the years 1940 and 1943, carrier tax liability increased by $1,455 million, and during the four years of war, railroads paid a total of nearly $6,271 million to the Federal Government. This is a vastly different picture from that of the first World War, when the cost of Federal operation to the Government exceeded by a wide margin the taxes paid by the railroads into the Federal Treasury. The high tax liability was largely due to the heavy income tax program of the nation, but railroads also paid large amounts in property taxes, and in contributions toward pensions, annuities, and unemployment compensation to the increased labor force.

Operating ratios and the rate of return on property investment followed closely the trends of revenues, operating
expenses, and net income. The operating ratio in 1940 had stood at 71.9, dropped to 61.6 in 1942, rose gradually throughout the next two years, and jumped substantially between 1944 and 1945. Even with an increase of over 100 per cent in revenues between the years 1940 and 1945, the ratio at the end of the latter year was some 7.3 per cent higher than that of the former. The high point of the aggregate rate of return was 5.50 per cent in 1942. It represented the highest average over a period of 25 years, slightly over the 5.45 per cent earned in the year of 1926. By the end of 1945, the return was slightly higher than that of 1940. Both averages were influenced by the increases which had occurred in operational expenses over the period. War earnings brought 31 carriers out of receivership. Percentage dividend payments showed little increase, for most of the earnings were used to retire nearly $2 billion of debt.

Wartime effects on competition

Transportation service in the United States is rendered by five major agencies, the carriers of which compose what is popularly known as the "domestic system."15 The term


"system" is used in a rather loose manner for full coordina-
tion of the respective groups has not yet been achieved in the sense that each separate agency functions in the area best suited to its ability. However, coordination to a certain degree has been accomplished as shown in a description of the role of each agency in the transportation industry.

To some extent, each form of transportation occupies a distinct field of service in the economy, even though some of the traffic carried is highly competitive in nature. Railroads handle the bulk of high- and medium-grade traffic transported on a long distance basis. Water carriers usually carry the low-grade commodities at a slow rate of speed within reach of their lines. Motor carriers take less-carload, local, and specialized traffic usually on a short-distance haul. Pipe lines specialize in and control almost completely the petroleum traffic; and airlines transport high-grade articles emphasizing speedy delivery. 16


It may be doubted that the railroads will ever again achieve the position of dominance held in the field of transportation at the beginning of the Twentieth Century.
The relatively recent growth of new competition carries the warning that no matter how the nation may weather future periods of depression, the railroads will be confronted with new problems of a competitive nature. Motor carriers and the airplane have taken traffic from the railways which may never be recovered. Its loss has forced the railroads to place heavier burdens against long-distance traffic, with the result that local distribution has tended to be relatively less expensive, while long hauls are more and more costly for shippers.

In the fields of water, motor and air transport, traffic is carried under three distinct classifications: private, contract, and common carriers. Private operators carry raw materials and fabricated parts in their own equipment and in connection with their own business. With the exception of reasonable requirements for the promotion of safety operations, and preservation of public investment in ways and structures, the Commission exercises no control over them. On the other hand, contract and common carriers in domestic commerce are required to conform to regulations established for each by statute, as administered by the public authority.  

17. Requirements for these carriers include the following: Minimum and maximum rates and charges to be regulated for the common carriers, minimum rates for the contract carriers. Certificates of public convenience and necessity required of the common carriers, and permits of the contract carriers before beginning operations. For a complete
A summary of the distribution of commercial freight in the nation by agencies for the year 1926, and between the years 1939 and 1944, is presented in Table I. An accompanying table presents the percentage increase or decrease in ton-miles, 1939 over 1926, and 1944 over 1939. Reference to the first of these tables will show that water carriers have ranked closest to the railroads as carriers of freight in peacetime years. Competition is provided in bulk commodities, the most important of which are grain, coke, coal, sand, gravel, stone, lumber, and petroleum. Trucks compete in the less-carload shipments over short distances. The capacity of the average intercity motor truck is small as compared to the rail freight car, but the advantage of flexibility has caused a significant diversion of this type of traffic from rail to motor carriers.

The total volume of traffic carried by the pipe lines is large, although this agency services fewer customers directly and handles fewer individual commodities than any other. Most of the crude petroleum and a growing share of the gasoline traffic are carried by this form of transpor-
Generally the movement of oil by pipeline is more economical than by any other means of transport, for their operation involves relatively little labor expense, and both maintenance and right-of-way expenditures are low.

In terms of traffic volume handled, air carriers are the least important of all agencies. Air transport becomes highly significant when measured in terms of quality rather than in freight tonnage. Shippers interested in speedy service will use airplanes. Its greatest contribution to date has been more in the movement of passengers, express and mail, than that of commercial freight.

In the years 1926 to 1939, total freight ton-miles carried by all groups declined by 9.4 per cent. Railroads, which carried 76.4 per cent of the total traffic in 1926, carried only 62.3 per cent in 1940. However, between the years 1939 and 1944, total traffic rose by 99.3 per cent, and the railroads increased their proportion by 120 per cent. This improvement may be measured against the decline of 25 per cent in the proportion handled by the rail carriers in the prewar period. Thus, the railroads regained a considerable part of the traffic previously lost to their competitors, although they did not reach the relative position held in the years before the depression.

The only other agency to show an increase in ton-miles carried during the war were pipe lines, but these years
### Table I

Distribution of Commercial Freight in the United States Between the Agencies of Transport, 1926, 1939-1944

<table>
<thead>
<tr>
<th>Agency</th>
<th>1926</th>
<th>1939</th>
<th>1940</th>
<th>1941</th>
<th>1942</th>
<th>1943</th>
<th>1944</th>
</tr>
</thead>
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<tr>
<td>Steam Railroads&lt;sup&gt;1&lt;/sup&gt;</td>
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<td>338</td>
<td>378</td>
<td>481</td>
<td>644</td>
<td>733</td>
<td>745</td>
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<tr>
<td>Great Lakes&lt;sup&gt;2&lt;/sup&gt;</td>
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<td>69</td>
<td>88</td>
<td>104</td>
<td>112</td>
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<td>106</td>
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<tr>
<td>Rivers and Canals</td>
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<td>20</td>
<td>22</td>
<td>27</td>
<td>26</td>
<td>26</td>
<td>31</td>
</tr>
<tr>
<td>Motor Trucks</td>
<td>24</td>
<td>43</td>
<td>51</td>
<td>57</td>
<td>50</td>
<td>48</td>
<td>49</td>
</tr>
<tr>
<td>Oil Pipe Lines</td>
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<td>63</td>
<td>67</td>
<td>78</td>
<td>75</td>
<td>96</td>
<td>132</td>
</tr>
<tr>
<td>Air Carriers</td>
<td>---</td>
<td>.011</td>
<td>.014</td>
<td>.016</td>
<td>.033</td>
<td>.052</td>
<td>.069</td>
</tr>
</tbody>
</table>

| Totals                  | 590  | 534  | 607  | 748  | 909  | 1110 | 1065 |

---


<sup>2</sup> Includes mail and express.


simply continued the trend in evidence throughout the late thirties. In 1931, the number of barrels of motor fuel delivered by refineries to pipe lines was 13 million; by 1940, it had increased to 97 million, and the demands of mechanized war more than doubled the latter total by 1944.<sup>18</sup>

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Table II
Percent Increase or Decrease in Ton-Miles

<table>
<thead>
<tr>
<th>Agency</th>
<th>1939 over 1926</th>
<th>1944 over 1939</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railroads</td>
<td>25 %</td>
<td>120</td>
</tr>
<tr>
<td>Water Carriers</td>
<td>4 %</td>
<td>54</td>
</tr>
<tr>
<td>Oil Pipe Lines</td>
<td>191</td>
<td>110</td>
</tr>
<tr>
<td>Motor Trucks</td>
<td>83</td>
<td>15</td>
</tr>
<tr>
<td>Air Carriers</td>
<td>---</td>
<td>527</td>
</tr>
<tr>
<td>All Agencies</td>
<td>9.4 %</td>
<td>99.3</td>
</tr>
</tbody>
</table>


1. Decrease.

The rate of growth might be shown by a comparison of railroad revenues from petroleum traffic in the two years, 1931 and 1940. Rail carriers received $242 million for the movement of crude petroleum in 1931. By 1940, income declined to $137 million, a 46 per cent loss. At the same time consumption of both gasoline fuel oil and natural gas was rapidly expanded. While natural gas does not compete directly or divert traffic from the railways, it does deprive them of traffic indirectly. Many industries and homes have
substituted natural gas for coal as fuel, and coal supplies one of the largest single items of railroad revenue. The urgent need for petroleum as a war material was responsible for the outstanding development of pipe lines during the war period. The loss of tankers in the intercoastal traffic, and the inability of rail carriers to handle the supplies from the producing areas to the Eastern coast resulted in the construction of pipe lines by the Federal Government. The longest of these, referred to popularly as the Big Inch, covered some 1,340 miles, and extended from Longview, Texas, to the refining centers of the mid-Atlantic states. It reached its maximum operational point between the years 1943 and 1945. Of the total traffic carried in 1926, pipe lines were responsible for 3.7 per cent. By 1940, they carried 11 per cent of the total, and at the end of 1944, 12 per cent of the total traffic volume was handled by them.

Water carriers operating on the Great Lakes showed a slight gain in ton-miles between the years 1940 and 1944, but their proportion of the total ton-miles handled by all groups fell by 5.5 per cent in the war years. Motor carriers, likewise, had shown a tremendous gain in their share of total traffic between the years 1926 and 1939, but suffered a 4 per cent loss during the years 1940 to 1944. Water carriers had handled 15.6 per cent of all traffic in 1926; 18.1 per cent in 1939, and only 12.9 per cent in 1944; and
motor trucks which carried 4 per cent of the domestic traffic in 1926, doubled this volume by 1939, but showed only 4.7 per cent of the total in 1944. Although the relative growth of air transport has been fairly large, its share when compared to the total handled by all agencies is still very small.

All of the data presented indicated a reversal in the position of the railroads during the war when compared with the prewar period. Whereas the rail carriers were handling a smaller volume of a smaller total of domestic freight, they now carried a larger proportion of a larger total of the nation's traffic. It may be granted that the condition was temporary, and was caused to no small extent by the restrictions on new equipment for water and motor carriers; to the shortages of manpower for their operations; and to the rationing of fuel by the Government. In spite of this, the analysis does show that the railroads are the backbone of the transportation system of our nation; that they and they alone are the only mode of transport able to meet the demands of the economy in time of emergency. Notwithstanding this fact, there appears little doubt that the wartime competitive situation will again be reversed in the postwar years.

**Effects of the war on operating expenses**

Table IV, Appendix B, presents data summarizing the operating expenses of the railroads between the years 1940
and 1945. Over the six year period costs of materials, supplies, and fuel practically doubled, despite the attempt of the Government to control the general price level of the nation. Obviously these figures reflect increasing costs of labor and raw materials, which were problems common to all industry.

While materials, supplies, and fuel comprise an important part, it is the expense of labor which is the primary factor in railroad operational expenses. Estimates vary as to the proportion of labor costs to total expenses but normally wages and salaries constitute over 60 per cent of operating costs. 19


Average rail employment between the years 1940 and 1945 increased by almost 40 per cent. Total payrolls rose from something less than $2 billion in 1940 to almost $4 billion in 1945. Part of the rise was the result of increases in the number of railroad workers, but a good share of it came as a result of wage increases granted in 1941 and 1944. In both instances the labor disputes after having passed through the various steps prescribed by the Railway Labor Act were
settled through the personal intervention of President Roosevelt.20


The Railroad Rate Level Case of 1942

Wage increases granted in 1941 were estimated to cost about $312 million per year; prices of materials, supplies, and fuel were rising, and in addition the War Department had recommended that certain precautionary measures, estimated to cost $30 million, be taken by the carriers in order to protect property and operations. With this evidence the carriers petitioned for increases in rates, fares, and charges on December 13, 1941.21 The increases if granted would have

21. Ex Parte 148. Increased Railway Rates, Fares, and Charges, 1942. 248, I.C.C. 545. 1942. The freight increases sought were in the nature of a uniform 10 per cent on all commodities, except those on coal, coke, and iron ore. The proposed increases on excepted items, in terms of cents per 100 pounds, are shown in detail in Appendix I of the report.

been the first since the Fifteen Per Cent Case of 1937-1938, at which time the carriers were given 10 per cent on industrial commodities and five per cent on agricultural products,
with certain exceptions.

The railways alleged that the proposed increases would not be unreasonable, would not divert traffic, and would increase revenues an estimated $357 million per year. In general, shippers recognized the emergency faced by the railroads, and asked that the increases be made only to the extent justified by the evidence, and that such increases be published as emergencies with a definite expiration date.

The carriers pointed out that the roads were not attempting to obtain revenues for wage increases granted in 1941, but rather because of the trend of future operating costs. Uniform percentage increases were advised as the quickest and most practicable method of obtaining the needed revenues, since any attempt at adjusting rates on individual commodities would likely result in protracted negotiations between the parties concerned. Rail carriers could see no likelihood of competitive conditions compelling a reduction in rates because of the diminished truck and water competition. Rail facilities were all in use or held in reserve to meet the increasing need for transport; while further equipment purchases entailing huge expenditures would have to be made. If adequate and efficient services were to be given, they felt that they should be permitted to earn revenues sufficient to perform them. Shippers took no exception to these statements. What protests were made were directed
to the question of whether or not the increases should be on a "uniform" or "flat" basis; that is, whether the increases should be obtained by the imposition of a percentage or varying percentages on traffic in general, or by means of an addition of certain amounts to the going rates on individual commodities. 22

22. Ibid., pp. 572-573.

After reviewing past cases which had resulted in general rate increases, the Commission on March 2, 1942, proposed nation-wide percentage advances. The increases were justified because of the improvement in business conditions, and the ability of industry in general to stand higher charges; upward trends in the costs of operation of the railroads; the loss of revenues by the land-grant roads through the carriage of government traffic. 23 However it was pointed

23. In answer to protests that a considerable part of the increased expenses of the carriers could be recouped by a waiver of the "land-grant" rate privilege, which allowed the Government to transport property on the basis of one half of the established rates, the Commission replied: "The waiver of the land-grant privilege can come only from Congress. By the Transportation Act of 1940, Congress evinced an intent to restrict this privilege, but it left the law in the condition as to which now both shippers and railroads complain. We have long felt the imposition of the land-grant deductions was unfair, and that the main objective of the original grants long ago had been met so thoroughly that now it is equitable that the Government should pay the same reasonable rates for its
transportation that its citizens do." Ibid., pp. 608-609.

out that the "need for the increased earnings is subject to some discount on account of the prospect for a further growth in traffic and the consequent greater net earnings in 1942." The increases recommended by the Commission,

24. Ibid., p. 610.

however, were reduced from the 10 per cent proposed by the carriers to a general six per cent on industrial commodities and three per cent on agricultural products, with individual adjustments of three to six cents per ton on products of mines. The authorized advances were to become effective

25. Ibid., Appendix 2, pp. 621-625.

not later than May 15, 1942, upon 10 days' notice, and unless modified or terminated in further proceedings, were to expire six months after the termination of the war. However, because of favorable earnings the increases were later suspended in subsequent hearings. 26

26. Increased Railway Rates, Fares, and Charges, 1942, original report, March 2, 1942, 248, I.C.C. 545; report on further hearing, April 6, 1943, 255 I.C.C. 357; sup-
plemental report, November 8, 1943, 256 I.C.C. 502; 
second supplemental report, May 12, 1944, 258 I.C.C. 455; 
supplemental report on further hearing, December 12, 1944, 
259 I.C.C. 159.

Summary

The period between 1921 and 1930 found the railroads in a relatively prosperous condition. But during the thirties, as a result of the business depression and rising competition with the transportation industry, the railroads operated below capacity with earnings small or nonexistent. So great was the concern over their financial position that the Commission felt compelled to maintain freight rates at a level comparable to that of the twenties. Economic developments of the second decade of the interwar period fell with particular force upon the railways, and by 1940, over 32 per cent of the total railroad mileage was in bankruptcy.

War greatly enlarged the nation's transportation requirements. Rail carriers handled the major proportion of the increased traffic, and financial results of expanded operations brought net income in 1942 to a level slightly higher than that of the previous high of 1929. For this reason, the Commission suspended rate increases granted in 1942. From this year to the end of the war operating revenues reached new peaks, but because of increasing operating expenses and taxes, net income gradually declined. However, wartime
operations reversed the depressed financial position of the previous decade, and enabled the carriers to reduce a substantial amount of their funded debt.
Conversion of a nation from war to peacetime activities is usually characterized during the transition by low levels of industrial production, short supplies of goods and services relative to their demand, upward trends in prices, and general unrest among labor. The year 1946 proved no exception to the general rule. It experienced most of the economic ills which follow in the wake of a major war, while it set a pattern of its own in response to the general conditions of the period. It will be remembered as a year of futility and fumbling; a year in which the most widespread public reaction was uncertainty and bewilderment.

The problems of the railways at the beginning of the transition were many and varied, but their difficulties were representative of those which plagued all transportation agencies, and in many respects were similar to those of all industry. War had given the rail carriers an opportunity to overcome some of their prewar distress but at the same time had helped create new problems not easy of solution. The question confronting them at the beginning of 1946 was whether or not they could maintain at least some of the financial gains made throughout the war period, or would
revert to their comparatively unsatisfactory position at the close of the nineteen thirties. Answers lay in the movement of economic forces as the nation proceeded in re-conversion to peace.

Before examining the rate level cases of 1946, it seems desirable to devote brief attention to economic conditions existing at the beginning of the year -- to the trends which led to postwar inflation. This will be the first objective of the chapter. Following it will be a summary of the issues leading to the petition of the railroads for increased rates. A discussion of the rate proceedings and their disposition by Commission action will complete the analysis of this topic.

The Transition Period -- A Summary of Economic Trends

Conclusion of the second World War found the United States with an economy geared to the highest levels of production in its history. Industrial production had more than doubled its pre-war output by the end of 1944; while mining, agriculture, domestic trade, and exports, all showed substantial increases.\(^1\) Unemployment, approximately nine

\(^1\) See Table V, Appendix B.
women and overage workers replaced 12 million men drawn into the armed forces. Fears that unemployment after the war would disturb a smooth transition were largely dissipated between August, 1945 and early 1946. During this period over 80 per cent of munitions production had ceased, several million workers lost their jobs, and about five million men and women were demobilized from the military forces. Yet civilian employment rose above the level existing at the end of the war. By early 1946, 52 million persons were gainfully employed.2


Increased employment, high wages, and restricted civilian production and consumption throughout the war period combined to establish a huge fund of purchasing power available to meet previously postponed demands. The need for foreign relief and rehabilitation in the immediate future afforded a trade potential which would run into billions of dollars, and this factor when combined with domestic economic conditions assured the nation of continued high levels of employment and production. By 1946, the United States had on one hand a huge productive capacity available for peace-
time utilization; on the other, had an opportunity to sell its goods and services in markets already in existence.

Of major importance in the transition was the problem of inflation. To combat its force, close cooperation of business, government, labor, and the general public was vitally necessary. But the spirit of harmony which existed throughout the emergency was swiftly torn apart at war's end as each group moved to obtain its "rightful share" of the postwar economic potential. The general public demanded an immediate return to normal conditions; industry called for an easing or elimination of wartime controls; and labor insisted on high wages in order to maintain war earnings, even though a large percentage of their income had been received through overtime employment.

Consumer rationing was the first war control to be eased. Some of the major commodities were placed on the free list immediately following the end of hostilities in Japan. Market prices then presumably were to substitute for the public authority in directing distribution of scarce goods. However, short supplies, high levels of purchasing power, and continuing price controls made impossible an adjustment in the forces of general demand and supply. As prices exerted upward pressure upon the control mechanism remaining, wage demands arose and were supported to some extent by Government. As a result, labor-management disputes in
the basic industries flared up across the nation. Piecemeal price adjustments became the national policy until the summer and fall of 1946, when the entire program of price control collapsed. Because of these developments, thus what could have been the shortest and most satisfactory interval of industrial retooling in the nation’s history turned out to be a protracted struggle between labor and industry, and industry and Government.

By the summer of 1946 the nation was caught in a vicious spiral of wage-price inflation. Wholesale and consumer prices rose substantially over the levels of 1945. In most cases these advances meant further wage demands and would result in higher prices. Basically the boom during 1946 was the result of production lagging behind demand factors. The so-called period of prosperity generated maladjustments in all economic activity by disrupting the normal relationship of some prices to others, and by developing excesses of one kind or another. It made economic trouble for some groups while aiding others. However, there was little evidence in sight at the end of 1946 to indicate that the problem of inflation would be eased during 1947.

Transportation During the Early Transition Period

Railroads emerged from the war in a relatively favorable position. Properties generally were in good physical condition
even though deferred maintenance amounted to some $350 million. Although operating income had shown a declining trend since the peak year of 1942, there had been a marked reduction in fixed interest charges through debt retirement and reorganization. Some operating techniques developed under emergency conditions were likely to be carried over to the postwar years. War demands and the anticipated future competitive situation furnished a stimulus for improvements. Less favorable but common throughout the entire transportation industry were the rising costs of labor and materials and the uncertainty as to future volumes of traffic because of the expected restoration and expansion of competitive agencies. The railroad plant required very little physical retooling in order to convert from war to peacetime operation.

Both motor and water carriers of property suffered traffic losses during the war period and had been forced temporarily to suspend some of their functions. Those able to operate faced a further transitional problem of adjusting to the loss of war production traffic. There was little

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4. Ibid., p. 7.
doubt but that both agencies would redouble their efforts
to gain peacetime business in sufficient volume to compensate
for the decline in their war traffic. Motor carriers hoped
that wartime technological improvements in vehicles and
fuel would provide greater operating efficiency in the future;
that relaxation of some state regulations in respect to
weight and size of trucks would remove barriers which had
prevented the movement in interstate motor traffic in the
past; and that future highway improvements would result in
lower operating costs. However, rising equipment prices,
labor costs, and operating expenses tended to offset some
of this optimism. Water carriers faced similar problems.
Physical facilities had to be replaced and new contacts made
with shippers so as to recover traffic lost to other agencies
during the war years.

Pipe lines, expanded tremendously during the war, were
in possession of facilities which would allow for further
penetration into markets of a narrow range of products handled
by competitors. Major problems centered around the disposi-
tion of the Government-owned lines, the future use of which
would have an important effect upon all agencies with the
possible exception of airlines. Carriers by air were certain
that traffic would increase over prewar levels but it was
expected that their activities would be generally confined
to the areas of passenger service, mail, and express. There
seemed to be little fear that airlines would make an appreciable dent in the freight handled by other forms of transportation, in spite of the publicity given to such plans as flying boxcars.

In a competitive sense, the transportation problem in early 1946 was of much broader scope than that existing in 1920. Since the first World War there had been a rebirth of inland waterway service; an extensive growth of truck lines; a long-distance extension of pipe lines; and a phenomenal development of air carriers. Both Congress and the Commission faced a situation much more complicated than that which had risen 25 years before. Not only were they concerned with individual agencies, but also the relationships between the various groups. The Commission, in particular, seemed to be well aware of the complexities of the future.5

5. "Discussion of the problems peculiar to each of the forms of transportation tends to give too little emphasis to the problems which cut across two or more kinds of transportation. There are not only competitive relations to consider, but also questions as to the control and use of one form of transportation by another . . . . At this time it is too soon to foresee these problems in clear detail." Ibid., pp. 10-11.
Issues Leading to the Ex Parte 162 Petition

Transitional economic trends had an immediate effect upon the railroads. Labor disputes throughout the nation reduced and unbalanced traffic, while strikes in the automobile, coal, and steel industries slowed down deliveries of vitally needed equipment and supplies. It was apparent that the rail carriers would be faced with wage demands from the railway unions. It was expected that total annual operating costs would continue to rise throughout 1946. Increased expenditures had to be offset by increased rates even though the advances would be made in the face of declining traffic. Costs were on a postwar level; rates were prewar. There was no other issue.

The railway brotherhoods had placed requests for higher wages and for changes in working rules before the carriers at the end of 1945. On January 16, 1946, representatives of management and eighteen of the unions, Locomotive Engineers and Trainmen excepted, agreed to arbitrate their differences. It was further agreed that rules changes should be temporarily suspended. Arbitration boards began hearings February 18, and on April 3 suggested an award of 16 cents an hour in basic wages, to be retroactive to January 1. The unions rejected the proposal and petitioned for a higher amount on April 15 and May 5. Refusal of the Engineers and Trainmen to arbitrate led to an appointment of an emergency
fact-finding board by the President. Hearings were concluded on April 8, and their report carried the same awards as those granted through the arbitration proceedings. The two unions would not accept the decision, insisting that changes in working rules be disposed of simultaneously with wage questions. To force action on these issues, they called a nation-wide strike for May 18.

The strike notice moved the Government to activity. On May 17, President Truman ordered J. M. Johnson, Director of the Office of Defense Transportation, to take control of and operate the railroads. On the following day the strike was postponed to May 23. On May 22, the Government intervened by publicly proposing an additional increase of 2.5 cents per hour in lieu of working rules changes for a period of a year. Eighteen of the unions accepted but the Engineers and Trainmen rejected it once more and struck on the next day. The strike was so effective that only 100 of 17,500 scheduled passenger trains and 240 of 24,000 scheduled freight trains were operated, and for 48 hours the economy was at the mercy
of the two railway unions. Two days later, while the President was addressing a joint session of Congress requesting legislation to outlaw strikes against the public interest, the unions voted to return to work. The final agreement called for wage increases of 18.5 cents per hour, 16 cents of which was to be retroactive to January 1, while the remainder was to be effective as of May 22. Government control of the carriers was relinquished on May 26. The carriers estimated that the wage grants would add some $691 million annually to payrolls and would increase payroll taxes by approximately $41.5 million annually.


tion to employees as a result of the wage increases of 1946, compared with that received in the years of 1945 and 1939 is tabulated in Table III.
Table III

Average Railway Employee Straight Time Compensation Per Hour
June, 1946 as Compared with June, 1945, and June, 1949*

<table>
<thead>
<tr>
<th>Group</th>
<th>June 1946</th>
<th>June 1945</th>
<th>Percent increase 1946 compared to 1945</th>
<th>June 1939</th>
<th>Percent increase 1946 compared to 1939</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executives, Officials and Staff Assistants</td>
<td>$2.799</td>
<td>$2.409</td>
<td>16.19</td>
<td>$2.266</td>
<td>23.52</td>
</tr>
<tr>
<td>Professional, Clerical and General</td>
<td>1.164</td>
<td>.944</td>
<td>23.31</td>
<td>.773</td>
<td>50.58</td>
</tr>
<tr>
<td>Maintenance of Way and Structures</td>
<td>.915</td>
<td>.713</td>
<td>28.33</td>
<td>.514</td>
<td>78.02</td>
</tr>
<tr>
<td>Maintenance of Equipment and Stores</td>
<td>1.103</td>
<td>.920</td>
<td>19.89</td>
<td>.716</td>
<td>54.02</td>
</tr>
<tr>
<td>Transportation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other than Train, Engine &amp; Yard</td>
<td>.991</td>
<td>.806</td>
<td>22.95</td>
<td>.615</td>
<td>61.14</td>
</tr>
<tr>
<td>Yardmasters, Switch-tenders, Hostlers</td>
<td>1.291</td>
<td>1.102</td>
<td>17.15</td>
<td>.877</td>
<td>47.21</td>
</tr>
<tr>
<td>Yard and Engine Service</td>
<td>1.294</td>
<td>1.102</td>
<td>17.42</td>
<td>.908</td>
<td>42.51</td>
</tr>
<tr>
<td>All Employees</td>
<td>1.129</td>
<td>.926</td>
<td>21.92</td>
<td>.730</td>
<td>54.51</td>
</tr>
</tbody>
</table>

The wage settlement increased average hourly earnings in June, 1946 over June, 1945 from 16.19 per cent for the Executive group to 28.33 per cent for the group classified under Maintenance of Way and Structures. As compared with the 1939 figures, the increases ranged from 23.52 for the former to 78.02 per cent for the latter. Over the same period all employees gained to the extent of 54.66 per cent.

Compared to 1939, prices paid for materials, supplies, and fuel were expected to be higher by some $167 million during 1946. This represented an increase of 33 per cent.10

10. Ibid., pp. 1-2

During the war the carriers had been able to meet the heavy expenditures because of the tremendous volume of traffic handled even though less net income was realized from the traffic of 1944 and 1945 than from the lighter movements of 1942 and 1943. Under the conditions existing in the spring of 1946, the railroads were being squeezed between the increasing level of postwar costs and the rate level of prewar years. The combined effect of a lower relative volume of traffic and rising operating expenses placed the carriers in a critical financial position which could have wiped out all gains made during the war period unless relief in the form of increased rates was granted by the Commission.
Statistics presenting trends in traffic and revenues are shown in Tables IV, V and VI which follow. The data cover the first six months of 1946, and are of particular interest when compared percentagewise with the corresponding period of 1945. Upon the information contained in these tabulations, the rail carriers justified their petition for increased rates in April, 1946.

Table IV

Percentage Changes in Selected Items of Railroad Performance, 1945 as Compared with 1944; 6 Months of 1946 as Compared With A Similar Period in 1945*

<table>
<thead>
<tr>
<th>Item</th>
<th>1945</th>
<th>1944</th>
<th>1946</th>
<th>1945</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Ton-Miles (Millions)</td>
<td>684,148</td>
<td>7.62</td>
<td>272,359</td>
<td>25.32</td>
</tr>
<tr>
<td>Ton-Miles Revenue Freight Per Car Mile</td>
<td>30.18</td>
<td>1.44</td>
<td>28.52</td>
<td>6.03</td>
</tr>
<tr>
<td>Ton-Miles Revenue Freight Per Train Mile</td>
<td>1,034</td>
<td>1.07</td>
<td>973</td>
<td>9.66</td>
</tr>
<tr>
<td>Revenue Ton-Miles Per Mile of Road</td>
<td>2,853</td>
<td>7.51</td>
<td>1,201</td>
<td>25.14</td>
</tr>
<tr>
<td>Average Length of Haul of Revenue Freight</td>
<td>458.14</td>
<td>3.20</td>
<td>232.36</td>
<td>6.07</td>
</tr>
</tbody>
</table>


1. All railways.
2. Class I railways for 6 months.
3. Six months only.
4. Average obtained by dividing the revenue ton-miles by
the total loaded car-miles. The latter figure includes some cars loaded with non-revenue freight.

5. All railroads as a system.
6. Average haul per road.

Table V
Operating Income Account of the Class I Railroads; 5 Months Ending in May for Each Year 1942 to 1946*

<table>
<thead>
<tr>
<th>Account</th>
<th>1946 (In millions)</th>
<th>1945</th>
<th>1944</th>
<th>1943</th>
<th>1942</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total operating revenues</td>
<td>$2,966</td>
<td>$3,877</td>
<td>$3,837</td>
<td>$3,599</td>
<td>$2,657</td>
</tr>
<tr>
<td>Freight</td>
<td>2,170</td>
<td>2,938</td>
<td>2,858</td>
<td>2,756</td>
<td>2,171</td>
</tr>
<tr>
<td>All other</td>
<td>796</td>
<td>939</td>
<td>979</td>
<td>843</td>
<td>588</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>2,568</td>
<td>2,653</td>
<td>2,560</td>
<td>2,173</td>
<td>1,778</td>
</tr>
<tr>
<td>Net operating revenue</td>
<td>398</td>
<td>1,224</td>
<td>1,277</td>
<td>1,420</td>
<td>878</td>
</tr>
<tr>
<td>Taxes</td>
<td>222</td>
<td>700</td>
<td>743</td>
<td>739</td>
<td>378</td>
</tr>
<tr>
<td>Operating income</td>
<td>175</td>
<td>524</td>
<td>534</td>
<td>681</td>
<td>500</td>
</tr>
<tr>
<td>Net operating income</td>
<td>117</td>
<td>449</td>
<td>453</td>
<td>603</td>
<td>432</td>
</tr>
<tr>
<td>Operating ratio</td>
<td>86.6</td>
<td>68.4</td>
<td>66.7</td>
<td>60.5</td>
<td>66.9</td>
</tr>
</tbody>
</table>


1. Includes passenger, mail, express and all other revenues.
Table VI

Total Operating Revenues, Total Operating Expenses, and Net Railway Operating Income of Class I Railways by Months, January to May 1946

<table>
<thead>
<tr>
<th>Account</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total operating revenues</td>
<td>$640.9</td>
<td>$579.1</td>
<td>$646.3</td>
<td>$566.6</td>
<td>$532.6</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>496.0</td>
<td>456.3</td>
<td>614.6</td>
<td>507.9</td>
<td>592.4</td>
</tr>
<tr>
<td>Net railway operating income</td>
<td>66.6</td>
<td>50.5</td>
<td>5.7</td>
<td>10.7</td>
<td>4.5</td>
</tr>
</tbody>
</table>


1. Deficit.

The all-time peak in railroad physical performance was reached in the year 1944. Termination of the European war in April, 1945, and the Pacific war in August, 1945, resulted in a decline of every item of rail performance during 1945 as compared with 1944. Decreases ranged from 1.07 per cent in ton-miles of revenue freight per train mile to 7.62 per cent in revenue ton-miles carried. More significant losses were shown in the first six months of 1946 as compared with a similar period in 1945. Volume of traffic as measured by revenue ton-miles fell nearly 26 per cent below that of year earlier, and revenue ton-miles per mile of road showed an
equal decline. The average length of haul for revenue freight fell by over six per cent during this period.

For five months ending in May 1946 the financial record as presented in Tables III and IV showed similar trends. Freight revenues were down by $768 millions, some 36 per cent below the levels of the same period in 1945. Operating expenses decreased only $84 million which amounted to 3.3 per cent under those of 1945. It took more than 86 cents of each revenue dollar to cover operating expenses in 1946 as against slightly over 68 cents in 1945. Tax accruals in the former years were approximately one-third of those of the latter. Operating income dropped by $349 million within the year while net operating income declined by $432 million. As compared with 1945, the decline in 1946 represented nearly 200 per cent in operating income and over 300 per cent in net operating income.

By months the trends were even more significant. With the exception of March, total operating revenues declined steadily while expenses after falling somewhat in February, increased tremendously in March. Two reasons explain this situation. First, defense project amortization was accelerated. Second, wage increases granted in May were charged back to March for the first quarter of 1946. Net operating income was in a deficit condition in both March and May for the first time since April, 1940. For the 12 months ending March 31, 1946, the rate of return on property investment averaged
2.56 per cent, as compared with 3.91 per cent for 12 months ending on the same date in 1945. Fifty-nine Class I railroads failed to earn interest and rentals during the first quarter of 1946, of which twenty-six were in the Eastern District, ten in the Southern Region, and twenty-three in the Western District. 11


The Ex Parte 158 Petition and Commission Action

Alarmed by the trends of declining income, the Class I rail carriers on April 15 requested permission to increase their freight rates by 25 per cent with exceptions on important commodities. Furthermore, they asked that the increases become effective May 15 on one day's notice, without suspension. On April 26, the Commission assigned the petition as Docket Ex Parte 152, opened hearings on that part of it which requested the increases be granted on short notice, and simultaneously reopened Ex Parte 148 then in a state of suspension for further hearings. 12 The objective

of the carriers was to secure rate increases which would add about $1 billion to their operating revenues, and if approved in full by the Commission would mean the largest single percentage increases in freight rates since 1920.13

13. See Chapter II, p. 31. The complete list of the increases as proposed on specific commodities will be found in Ex Parte 162, op. cit., pp. 554-600. For a discussion of the decision as it affected broad classes of products, see Chapter VII.

Discontinuance of land-grant rates introduced a factor not present in previous rate-level cases. Congress on December 12, 1945, had eliminated the land-grant roads from any further obligation to transport persons and property of military agencies at reduced rates.14 This development neces-


sitated consideration of the legislation on future railroad revenues. Full rates were to be paid on Government traffic after October 1, 1946, and for the last quarter of the year the carriers estimated that added revenues from this source would amount only to $7 million. Most of the benefits would accrue to the Western roads, some would be gained by carriers operating in the Southern Territory, but practically no advantage would be derived by Eastern railroads. The Commission
criticized the estimate as being too low, stating that:

The Senate Committee's report (79th Congress, 1st Session. Report No. 552, p. 5) shows a monthly rate of rate reduction up to June 30, 1943, of from $18,500,000 to $20,000,000, which continued and increased up to the date of the report, July 28, 1945. While the Government traffic since has decreased greatly, both in volume and relatively to other traffic, we are not able to accept the statement that for the entire last quarter of the current year the amount of the land-grant deductions waived will be only one-fourth of that estimated on a peacetime basis, or that the annual peacetime saving will be only about one-ninth of that which was contemplated by Congress when it enacted the statute waiving its rights to land-grant deductions and instructed us to take the saving into account in making rates. For present purposes, all we can determine on the record before us is that the saving will be considerable and will exceed the relatively small amount shown in the petitioners' testimony.15


Supplemental petitions for rate increases were filed at the same time by water carriers operating in the intercoastal trade and on inland waterways, and by freight forwarders subject to Commission jurisdiction. Petitions for intervention but not rate increases were filed by motor carrier bureaus representing approximately 1000 trucking companies operating throughout the Western District.16

16. Water common carriers in intercoastal trade requested increases of 25 per cent in port-to-port rates and in joint rates with other common carriers by rail, barge, water, and highway. The Inland Waterways Corporation, operating Federal Barge Lines on the Mississippi River
and certain of its tributaries asked for increased to the same extent and on similar notice as those which might be granted on all-rail and joint barge-rail rates. The Mississippi Valley Barge Line operating on the Ohio and Mississippi Rivers petitioned for rate advances similar to those requested by the intercoastal carriers. Freight forwarders asked permission to increase their rates by the same percentages as granted to the rail carriers on traffic similar to that transported by them. Motor carriers requested that railroads be compelled to raise less-carload rates by 20 cents per 100 pounds to cover the cost of a service which they alleged was being handled at a loss. Ibid., pp. 711-715.

Opposing the petition at the hearings were numerous Federal and State agencies, and associations of shippers and producers. Without exception, their resistance was based principally upon the railroad's proposal to increase the rates with only one day's notice. It was their contention also that increases should be permitted only after all concerned had had an opportunity to present testimony in further hearings. Leading the opposition on the Federal level was the Director of Economic Stabilization who argued that price increases in such an important industry would breed further price increases throughout the economy. He maintained that the Commission should not have been unduly impressed by the conditions which prevailed throughout the nation during the months immediately past, for these resulted from an abnormal labor situation. Postponement of the proposed advances was requested until this agency could get a better perspective on future prices, costs, and margins.
available for the absorption of high freight rates. The

17. Ibid., p. 716. Few would dispute the argument of the
Director that railroad freight rate increases would be
inflationary but his position appeared rather weak in
light of the price increases granted to the automobile,
steel, and coal industries.

Price Administrator objected because new price ceilings would
have to be established throughout the nation. Further pleas
for extended hearings were made by the Secretary of Agri-
culture who not only opposed the increases suggested in Ex
Parte 162 but also objected to a restoration of the Ex Parte
148 suspensions. He based his opposition on the fact that
no railroad financial emergency existed at this time. Ad-
ditional support for a delay came from the Secretary of Com-
merce and the Federal Housing Expeditor. The former con-
tended that margins for production and manufacturing groups
would be greatly disturbed by any sizeable increase in
freight rates, while the latter showed concern over the pro-
posed advances as they would affect the veteran's housing
program. 18

18. Ibid., pp. 715-721.

Three different sets of figures were used by the Com-
mission in estimating traffic and revenues expected for the
balance of 1946. First to be considered was the estimate
of the carriers as set forth in their petition. Without the increases, total operating revenues would be $6,800 million as compared with $8,902 million in 1945. Operating costs for 1946 were expected to be $6,000 million; taxes, $595 million; and equipment and joint facility rentals, $165 million. Without relief, net operating income would be $75 million, and net income would show a deficit of $345 million. It was suggested by the railways that the proposed increases in the Ex Parte 162 case if effective July 1, 1946, would add some $500 million to the revenues, and by restoring the suspended Ex Parte 148 rates, revenues would be increased by some $112 million.19


Traffic and revenue reports submitted by the carriers to the Commission for the first three months of 1946 were used as a second method. Included in these estimates was the 16 cent per hour wage increase. Not included was the additional increase of 2.5 cents per hour awarded by the President. By multiplying these figures by four, the Commission arrived at a revenue of $7,464 million and a cost estimate of $6,273 million, leaving a net operating income of $499 million and a net income of $69 million.20 Off-

20. "This does not take into account two important facts. (1) During the first quarter of 1946 there were numerous
and prolonged strikes in important tonnage producing indutries, which cannot be considered as recurring or normal. (2) Usually less than half of the total annual freight revenue is earned in the first half of the year." *Ibid.*, p. 733.

setting these computations was the fact that all carriers did not include all of the initial wage award during the quarter. If the April returns were added to those of the first three months and were multiplied by four there would have been a decrease of $166 million in revenues and a decline of $45 million in operating costs.

The third estimate was based upon the freight commodity statistics for the year 1941, the last peacetime fiscal period, and 1945, the last war year, on the assumption that revenue per ton for various classes of commodities would fall somewhere between the figures for the two years. Total revenues for 1946 would approximate $7,721 million, resulting in a net railway operating income of $555 million and a net income of $135 million. Using this estimate as a base, the proposed rate increases would bring $500 million in net income for the remaining six months of 1946 or $865 million on a 12 month basis. This latter figure was only $37 million below the record earnings of 1942.  

21. For a complete summary of the different methods used in estimating the traffic and revenues for the balance of 1946, see *Ibid.*, Appendix 2, pp. 750-751.
In countering the railroad claims that substantial deficits would not be prevented through the restoration of the Ex Parte 148 increases alone, the Commission pointed out that the anticipated losses were based on the assumption that revenues for the balance of the year would be much lower than those earned during the first quarter, and that such assumption would have to include a continuation of the industrial and labor difficulties, or other transitional conditions which resulted in traffic losses. In its opinion, evidence to support such a position had not been presented. Pointing to the favorable net working capital of the railways, the Commission indicated that the railroad industry was in a better condition to meet declining traffic and revenues than it had been in any other period. Referring again to its estimates, the Commission saw no reason why the rail carriers would not earn a substantial net income regardless of which figures were used, and providing no further disturbances took place in the economy. 22

22. Ibid., pp. 735-737.

Discussion of the railroad testimony was concluded with reference to the effect of a rising price level upon operating costs. Particular emphasis was given to the influence of wage increases and increased prices of materials, supplies,
and fuel on future costs of operation. Following, the petition of the water carriers was analyzed briefly, ending with the observation that water carriers while requesting similar increases as those of the railroads had no objection to the restoration of the suspended Ex Parte 148 rate advances.

In answer to the Price Administrator, who urged no increases be granted until the case could be discussed more thoroughly by all parties, the Commission stated:

He emphasizes the unsettling effect of two successive freight-rate increases at short intervals. Avoidance of this would be desirable if circumstances permitted. As the freight-rate level has been controlled and kept on a stable or even declining level during the war period, industry has been shielded from the shock of increased freight rates for several years, although the general trend of materials and labor prices has been upward. So far as the principle of increasing utility has permitted the railroads to maintain a stable price level because their traffic expanded as it has approached the saturation point. Now, with the trend reversed, with general sharp increases of the wages of labor and the prices of materials, we must consider the effects of these reversals in trends as promptly as possible as due care to ascertain the necessary facts and weigh them permits, even if further adjustments may be required upon later full investigation.23

23. Ibid., pp. 742-743.

In consideration of the complete record in the proceedings, the case was concluded as follows: No emergency was found existing to the extent that the increases as proposed in Ex Parte 162 were justified at this time for common car-
riers by rail, water, or freight forwarders. Because of the increased wage costs and rising prices of materials and supplies, and the declining volume of traffic and revenues, some increases in freight rates were justified solely as a temporary measure pending further hearings. Greater rate advances were to be given to carriers operating in the Eastern Territory. Common carriers by water and freight forwarders were authorized to make the same increases in their rates as those granted the railroads. The rate increases were to be made effective within the period, July 1 to July 31, on not less than 3 days' notice. Concurring in part were Commissioners Patterson and Johnson, the former criticizing the additional awards given to the carriers operating in Official Territory as unwarranted by their revenue needs, while the latter believed that temporary increases were insufficient to meet the railroad's financial requirements. Dissenting in part was Commissioner Miller, who held that the authorized increases were below those justified by the evidence.

By the decision freight rates were increased generally
about six per cent throughout the nation. Exceptions were made for commodities classified as Products of Agriculture, Animals and Products, and Products of Mines. On these, the advances amounted to approximately three per cent. Eastern railroads were authorized to increase their rates by five per cent above those of other territories in order to bring their earnings to the levels of railways operating in other areas of the country.

The most difficult part of the decision to understand was the reasoning which decided that an estimated increase of $390 million in annual revenues was adequate to offset higher annual operating costs.\textsuperscript{26} The Commission labored mightily to convince the public that carrier estimates of increasing costs and declining traffic and revenues were highly exorbitant. They endeavored to justify the alleged adequacy of the interim awards so well that it appeared the railroads would have difficulty in proving their case in further hearings.

However, it was difficult to see how the Commission could have given greater assistance to the carriers at this

\textsuperscript{26} As against the rate increases, it was estimated that increased wages and payroll taxes would amount to $725 million for 1946. Interstate Commerce Commission, Bureau of Transport Economics and Statistics. Monthly Comment on Transportation Statistics, June 10, 1946, p. 2.
time, except possibly by granting the full 10 per cent requested in the original Ex Parte 148 petition. The decision reflected the uncertainties which gripped the nation in the early summer of 1946, and the conservative award was an effort to postpone further commitments until a definite economic trend could be seen. Not only did the magnitude of the proposed Ex Parte 162 increases pose a difficult problem but their effect upon the national economy was a question which required more time and effort to analyze. In further hearings the railroads had to offer more substantial proof of their original claims and change the conviction of the Commission that the emergency advances were sufficient to provide the services demanded by the public.

The Interim Period

Following the proceedings, Ex Parte 148 was closed. Regional hearings in the Ex Parte 162 case were opened during the summer in Chicago, Atlanta, Houston, and Salt Lake City. Final hearings were held in Washington, D. C. in the fall of 1946. Almost six months elapsed before the testimony of all parties to the case was acted upon by the Commission, yet from the railroad viewpoint, economic conditions steadily declined. Sharp increases were occurring in the general price level of the nation partly from the elimination of price controls and partly because higher wages were granted.
in the coal industry. As a result, costs of materials and
supplies to the railways were substantially higher than
those of early 1946. The wage increases awarded by the
President were estimated to cost $99 million more than had
been anticipated. In addition, $90 million was added to
annual operating expenditures through enactment of the new
railroad social security bill.27 To further complicate the

27. H.R. 1362 known as the Grosser Act was passed by
Congress in July and was to be effective January 1, 1947.
It amended the Railroad Retirement and Railroad Unemploy­
ment Acts by raising the payroll tax on both employees
also July 6, 1946, p. 36.

situation, excess profits tax credits approximating $170
million in 1946 were due to expire by the end of the year.
It was estimated that early 1947 operating costs would have
increased by $351 million since April, 1946.28


While the carriers struggled to remain out of financial
distress, the hearings before the Commission continued with­
out interruption. As the testimony and evidence was weighed,
balance sheets of individual railroads showed the trend of
earnings.29 The entire philosophy of regulation appeared
29. For the first time in 100 years the Pennsylvania Railroad reported a prospective deficit for 1946. New York Central estimated a loss of $12 million as compared with a profit of $24 million in 1945. Without the proposed increases, the latter road anticipated a loss of $69 million in 1947. The net income of Chicago and North-western was down $9 million from 1945. A survey of 30 major roads indicated that only 12 expected a net income in 1947 if rate increases were not granted. For a complete summary of the financial situation by individual carriers, see United States News. October 4, 1946. p. 13.

to be on trial during this period. The long series of events which had placed the railways in the precarious financial condition unfortunately came at a time when the nation could ill afford to allow natural economic forces to settle the matter. New equipment was needed but there was little reason for the railroad industry to place future orders unless some assurance of future earnings could be given. This was not immediately forthcoming. Other industries which sold substantial amounts of materials and supplies were also affected by the rate decision delay. 30 Even the sharp market decline of railroad securities in September, 1946 was attributed to the failure of the Commission to arrive at an

immediate decision. It appeared that trends of earnings

31. An average of 20 rail stocks compiled by the Dow-Jones index showed a loss of 23 points from the high levels of June. Barrons. January 2, 1947. p. 9. "Market prices of stocks of railroads represent the capitalized earnings. Failure of the Commission to grant the rate increases to pay for wages caused the decline in securities. Rails wish to make expenditures but will require continued definite earning power not a mere tax carry-back. By delaying the rate increases, the Interstate Commerce Commission has already reduced the purchases and modernization plans of the railroads." Commercial and Financial Chronicle. September 26, 1946. p. 1530.

during this period would eliminate the possibility of attracting large amounts of new permanent capital to the industry in the near future. Expenditures generally would have to come from the lean earnings of 1946, which would have been much worse had it not been for the tax carry-backs.

In further support of the above statements, Table VII is presented below. It compares certain items of railroad performance in 1946 with those of the years 1945 and 1941.

The data indicate that 1946 proved a year of record peacetime traffic yet net earnings were only slight higher than those of depression periods. Revenue ton-miles carried were 14 per cent below those of 1945 but were greater by 20 per cent than the levels of 1941. Total operating revenues during 1946 declined by $1,275 million from those of 1945. This represented a drop of 14.3 per cent but compared with 1941 revenues, a gain of 20 per cent. Total operating
Table VII
The Status of Class I Railroads in 1946 as Compared with 1945 and 1941*

<table>
<thead>
<tr>
<th>Item</th>
<th>1946</th>
<th>1945</th>
<th>1945 to 1944</th>
<th>1941 to 1940</th>
</tr>
</thead>
<tbody>
<tr>
<td>(In millions)</td>
<td></td>
<td></td>
<td>Percent</td>
<td>Percent</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>change</td>
<td>change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1946</td>
<td>1946</td>
</tr>
<tr>
<td>Revenue ton-miles</td>
<td>591.9</td>
<td>681</td>
<td>d 14</td>
<td>475</td>
</tr>
<tr>
<td>Total operating revenues</td>
<td>$7627</td>
<td>$8902</td>
<td>d 14.5</td>
<td>$5347</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>6358</td>
<td>7052</td>
<td>d 9.8</td>
<td>3664</td>
</tr>
<tr>
<td>Net railway operating income</td>
<td>6191</td>
<td>852</td>
<td>d 27.3</td>
<td>998</td>
</tr>
<tr>
<td>Net income</td>
<td>2891</td>
<td>450</td>
<td>d 35.8</td>
<td>500</td>
</tr>
<tr>
<td>Average number of employees</td>
<td>1358</td>
<td>1420</td>
<td>d 4.5</td>
<td>1140</td>
</tr>
<tr>
<td>Total payroll</td>
<td>4170</td>
<td>3962</td>
<td>7.4</td>
<td>2332</td>
</tr>
<tr>
<td>Annual compensation per employee (Actual)</td>
<td>3069</td>
<td>2721</td>
<td>11.3</td>
<td>2045</td>
</tr>
<tr>
<td>Average straight time per hour (Cents)</td>
<td>111.7</td>
<td>93.3</td>
<td>16.5</td>
<td>76.9</td>
</tr>
<tr>
<td>Operating ratio</td>
<td>83.4</td>
<td>79.2</td>
<td>3.8</td>
<td>68.5</td>
</tr>
<tr>
<td>Rate of return</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total investment</td>
<td>2.092</td>
<td>3.01</td>
<td>d .92</td>
<td>3.75</td>
</tr>
<tr>
<td>After depreciation</td>
<td>2.742</td>
<td>3.77</td>
<td>d 1.03</td>
<td>4.78</td>
</tr>
</tbody>
</table>

expenses fell some 9.8 per cent within the year but increased over 40 per cent from the totals of 1941. The decline was partly due to the smaller charges in 1946 for amortization of defense projects. If operating expenditures had been adjusted to eliminate such charges over the two year period, they would have shown a slight increase in 1946 as compared with those of 1945.

Approximately 60,667 fewer persons were employed by the carriers in 1946 than in 1945, yet the total payroll was the highest in railroad history, up 7.5 per cent from 1945 and over 44 per cent from the 1941 figure. Average straight time on an hourly basis crossed the dollar mark for the first time, and annual earnings for employees reached new peaks.

Excluding the tax credits, net railway operating income in 1946 was $449 million which was actually less than that received in the year 1933. \(^{32}\) Computed on the same basis,

net income for 1946 would have been $119 million. The decline in the latter item between the years 1945 and 1946 amounted to 35.8 per cent, and when the 1946 totals are compared with those of 1941, the decrease amounted to 42.2 per cent. Of every dollar of operating revenue received in 1946, 83.4 cents was used to pay operating expenses. With the exception of the years 1919 and 1920, when the carriers were under Federal operation, this ratio was the highest in the history of the Interstate Commerce Commission. The rate of return on property investment average 2.19 per cent in 1946. This represented only three-fourths of one per cent above the average of 1938, and if tax credits had been deducted, it would have been reduced to 1.59 per cent. After accrued depreciation the rate was approximately the same as the average for the five year period, 1936-1940. By eliminating the tax credits, it would have equalled the average for the period 1931-1935, the worse, incidentally, in railroad history.

A study of the comparisons points to only one conclusion. If the railroads were to perform the services demanded of them by the public, substantial rate increases would have to be granted by the Commission. Otherwise it seemed apparent that the financial emergency would continue with adverse effects upon the entire economy. After five months and 16 days of hearings and deliberations the decision was
finally made. Its analysis will conclude the discussion of this chapter.

The Decision in the Ex Parte 162 Rate Level Case

On December 6, 1947, rail and water common carriers were authorized to increase their rates and charges effective January 1, 1947, on five days' notice. It was estimated that the advances would aggregate nearly $1 billion annually, and represented an over-all increase of about 17.6 per cent over the existing "basic freight rates and charges." 33 Freight

33. Ex Parte 162. Increased Railway Rates, Fares, and Charges, 1946. 266 I.C.C. 537. 1946. "By basic freight rates and charges are meant those now in effect, whether established by order of the Commission or voluntary act of the petitioning carriers — excluding however, from such freight rates and charges as now in effect such portion thereof as represents the interim increases authorized by the report and order entered into on June 20, 1946." Ibid., p. 614.

forwarders were permitted to raise their rates in direct proportion to the increases made in the rates and charges of the common carriers whose facilities and transportation services they used.

The report on the extended hearings opened with a reference to the prior case, 264, I.C.C. 695, decided on June 20, and reviewed the origin and history of the proceedings and the position of the parties in the case. The
Commission stated that opportunities had been given for the presentation of complete evidence by shippers and State and Federal agencies who had demanded further hearings, and at the same time for the railroads to submit more recent data on trends in traffic, wages, and prices. The case rested "fundamentally ... as before on the basic conditions of declining traffic, increased wage rates and rising prices of materials and supplies." 34

34. Ibid., p. 544.

In the later hearings rail carriers revised upward their estimates of total operating revenues and expenses for the year 1946. The $6,919 million revenue figure presented in the Ex Parte 148-162 testimony was increased to $7,555 million. Total operating expenses were increased by $389 million over the original estimate. 35 For 1947, on the basis of the emergency increases and excluding the tax credits, the railroads estimated that total operating revenues would be $7,347 million; total operating expenses, $6,501 million; taxes, $661 million; net railway operating income, $30 million; with a deficit in net income of $312 million. On the basis
of the full amount of the proposed increases, the 1947 estimates were as follows: Total operating revenues, $8,090 million; total operating expenses, $6,501 million; taxes, $661 million; net railway operating income, $592 million; and net income, $247 million.36

36. Ex Parte 162, op. cit., p. 545. If the estimates were reasonably correct, the net income plus tax credits would be 37.1 per cent of the average net income of the five years, 1941-1945; 34.1 per cent of the period, 1925-1930; 50.4 per cent of the average for the period 1921-1925; and 53.7 per cent of the seven years, 1911-1917. It was about 33.4 per cent higher than the net income for the year 1940, which in turn was the highest of the decade, 1931-1940. Ibid., p. 545.

Prime importance was attached to the trends of wages and the prices of materials and supplies as they affected the future operating expenses. The Commission reviewed the wage increases and additional payroll taxes for the years 1941, 1943, and 1946, gave some attention to the increased costs resulting from enactment of the Crosser bill, and pointed to the upward sweep of the prices of materials and supplies. It was expected that these developments would raise operating expenses in 1947 by about $2,176 million over those incurred in the year of 1939.37

37. Ibid., p. 546.
In its prior report the Commission stated that none of its estimates had included the additional revenues accruing to the carriers as a result of discontinuance of land-grant rates. Carriers anticipated some $27.5 million from this source over a full year of peacetime operation. This figure was criticized as too low for 1947 by the Commission. Testimony of military groups before the appropriations committee of the House of Representatives revealed that land-grant deductions could be reasonably estimated at $33 million from October 1, 1946 to June 30, 1947. However, it was not expected that this amount would be maintained in subsequent years, for any future retrenchment in military expenditures would naturally cause a decline in the land-grant revenues from organized troop movements.

As in previous rate level cases, the extended hearings brought out the familiar controversy between the short and long haul producers and shippers over the effect of the increased rates than in the amount of the advances, per se. The hearings also presented fewer objections to the proposed increases, although substantial numbers of those protesting still regarded the interim advances to be sufficient for the carriers' needs. 38

38. These observations have resulted from a study of the detailed testimony of all parties during the regional hearings throughout the nation, and the final hearing in Washington, D. C. The complete report may be found in
the Traffic World, August 3, 1946, pp. 315-320; August 17, 1946, pp. 475-489; August 24, 1946, pp. 577-589; August 31, 1946, p. 625; October 5, 1946, pp. 905-913; and November 2, 1946, pp. 1151-1155.

Much of the report summarized the testimony and the arguments of the parties in regard to the rate relationships of commodity classes or groups of products, particularly those of agriculture, coal, lumber, petroleum, and iron and steel. In concluding, the Commission observed that the decision would directly affect "production and distribution in the industries of the nation and the welfare of its various regions, as well as the transportation industry ... by affecting the forces tending to economic stabilization or the reverse."39 There were further comments upon the similarities of the present proceedings to those of the year 1920, following the period of Federal control.40

39. Ibid., p. 613.

40. Ibid., pp. 613-614.

The decision may be condensed as follows:

In order to carry out the objectives of the national transportation policy and to develop a sound and adequate national system of transportation, it is necessary that
substantial rate increases be granted to the petitioning carriers. Such rates and charges as increased are to be considered as just and reasonable, but the full amount of the increases as proposed under the Ex Parte 162 petition are not found to be just and reasonable.

Except as otherwise indicated, all basic freight rates of the rail and water common carriers may be increased by 20 per cent, inclusive of the interim increases granted July 1, 1946, to become effective on January 1, 1947 upon five days’ notice.

Unless otherwise excepted, rates on commodities grouped under the classification of Manufactures and Miscellaneous, class rates, and rates on less-than-carload traffic may be increased by 25 per cent in Official Territory; 20 per cent within and between other freight rate territories; and 22.5 per cent between Official Territory and points in other territories.

Through rates which are made by combining separate two-factor or multiple factor rates will take a single increase on the combined rate. Joint rates with motor carriers were increased to the same extent and in the same manner as proposed for all-rail rates.

Freight forwarders were allowed to increase their rates and charges in direct proportion to those of the common carriers whose facilities and services they used.
As in all rate cases where substantial changes are made, the awards were enormously complicated. They applied to common carriers by rail and water, to freight forwarders, and covered a large variety of services. In general, rate increases amounted to 20 per cent on non-agricultural commodities, subject to numerous exceptions covering coal, iron ore, lumber, petroleum and products, sugar, iron and steel products, aluminum, canned foods, and building materials. For these groups, either a flat increase or a percentage advance with a maximum limit expressed in cents per 100 pounds was permitted. Most, if not all, of the excepted commodities moved in low-rated traffic, and it was presumed that their rates were so increased in order to prevent diversion from rail to other transportation agencies, and also to maintain wherever possible existing marketing relationships.

Agricultural commodities in general carried a 15 per cent increase in their rates. Exceptions were made on fruits and vegetables, cotton in bales, citrus fruit, and wool. In addition to the increases in line-haul charges, advances were authorized to the extent of 25 per cent in switching charges and in such accessorial services as
storage, handling, loading and unloading, reconsignment, diversion in transit, fabrication, and weighing. 42

42. For a complete list of the individual and group increases, see ibid., Appendix 1. pp. 618-624.

The awards in the final decision averaged about two per cent below those initially sought. Whereas the increases first requested would have been about 19.6 per cent over the previous level of rates, the authorized nationwide advances as noted above averaged approximately 17.6 per cent. In the report, more space than appears necessary was devoted to various appraisals of railroad earnings for 1946. The Commission first created the impression that the carrier estimates were too low, and then admitted during the subsequent hearings that the railroads had not significantly underestimated their revenues for the year. Actually, the revenue estimates of the carriers proved to be remarkably accurate.

Two important problems faced the Commission in deciding the case. One required an evaluation of the immediate facts as presented by the parties to the proceeding. The other involved a consideration of the effect of continued inflation on future economic trends. On the basis of the testimony, it is almost impossible to explain why the full amount of the proposed increases was adjudged as being unjust and
unreasonable. It is also difficult to understand the reasoning which suggested that an addition of $1 billion to existing revenues was sufficient to cover increased annual expenditures of more than twice that amount.

Despite the fact that evidence pointing to a continued future period of inflation had steadily accumulated during the latter half of 1946, the Commission apparently chose to ignore the trends. Possibly the uncertainties of the competitive situation within the transportation industry accounted for their hesitancy. It is also possible that the rate level adjustments experienced between the years 1920 and 1922 remained vivid. The financial damage to the rail carriers by the delay in the decision cannot be estimated, but in terms of the equipment, materials, and supplies which could have been purchased if the rates were raised earlier, it was undoubtedly substantial. Even with the new rate advances, the railroads could not keep pace with the upward spiraling costs of 1947, and six months after the Ex Parte 162 decision, they again asked for increases in freight rates.
THE EFFECT OF THE 1946 RATE LEVEL DECISION
ON RAILROAD FINANCES

Determination of revenues adequate to provide proper service may be considered as the heart of the railway problem; its solution is important not only to the carriers and their investors but to the nation at large. Good service at reasonable cost can be supplied the public only if the railroads have sufficient capital to maintain and improve facilities. Since the bulk of the funds needed for this purpose will probably come from private sources, at least as long as the present system of private ownership and operation continues, sustained future earning power is the criterion of the carrier's ability to attract capital in competition with other forms of transportation and with other industries and enterprises.

This chapter, the first of three which will analyze the effects of the rate level decision, is concerned with the 1946 case as it pertained to railway finances. By way of introduction, the first part is devoted to a brief discussion of the significance and characteristics of railroad financial problems. Subsequent sections consider the decision in terms of the question of adequate revenues; valuation of railway property as a rate base; the rate of return; and railroad credit.
Significance and Characteristics of Railroad Finance

Despite a long-run trend toward permanent impairment, railroad finance is still of vital importance to the nation. Historically, many of the early techniques used by rail carriers in raising capital were adopted by other industries. Statistically, the amount of gross investment in road, plant, and equipment is large, totaling $21,507 million in 1945. Against this sum, securities held by the public amounted to $13,682 million. These consisted of $9,286 million of unmatured funded debt, $1,840 million in preferred stock, and $6,169 million of common stock. Almost half of the funded debt was held by insurance companies, banks, and endowed institutions, so that millions of policy holders, depositors, etc., indirectly have a stake in the welfare of the industry. Ownership of stock in 1945 was divided among 864,036 persons.


2. Ibid., Table 150, p. 147.
heterogeneous group directly concerned with financial prob-
lems of the carriers.

A characteristic of railroad finance is the heavy con-
centration of property control by relatively few companies. 3

3. At the end of 1945, 492 line haul railroads owned
185,679 miles of road and 293,752 miles of track. Of
this total, 131 Class I rail carriers owned 175,300 miles
of road and 280,971 miles of track; Class II carriers
owned 7,873 miles of road and 9,922 miles of track; while
Class III carriers owned 2,441 miles of road and 2,859
miles of track. The 30 largest Class I railroads owned
and operated over 60 per cent of the total railroad mileage
of the nation. Ibid., Table 2, p. 4.

Such control is marked by a centralization of financial
decisions which at present are concerned more with raising
funds for equipment, additions and betterments, and refund-
ing outstanding securities than in financing future mileage
growth. Other important characteristics relate to the vari-
ety of securities used to obtain capital and the fact that
when compared to utility and industrial groups, railroads
show a larger ratio of long-term debt to total capitaliza-
tion. 4

4. Class I carriers in 1945 had a ratio of 53.8 per cent.
Ibid., Table 128, p. 117. The large amount of funded
debt carried may be explained by the past need for funds
to carry out programs of plant expansion. Up to 1930,
the rail traffic of the nation doubled in volume every
15 years on the average and the capacity of the plant
had to be similarly increased. The only method of ob-
taining the capital in many cases and the cheapest in
practically all was through the sale of bonds. Since 1932, when competition became increasingly effective, railway financial policies have been directed toward extensive debt reduction and greater reliance upon internal funds for improvement of property. The trend toward debt reduction has been aided by the regulatory authority, particularly through reorganization techniques made possible by amendments to the Bankruptcy Act of 1890, and also by additional resources through wartime earnings. It has been stimulated, too, by recognition of the fact that the industry has passed through its expansion phases and that future development will consist primarily in providing more efficient means of moving traffic. For discussion on these points, see Steyens, W. H. S. "Railroad Finance, 1830-1940" in National Resources Planning Board Report. Transportation and Public Policy. Washington, D. C., Govt. Print. Off. 1942. pp. 170-182. See also American Association of Railroads. Railroad Committee for the Study of Transportation. Railroad Finance. Washington, D. C., 1947, pp. 25-26.

In financing, first and second mortgage bonds constitute by far the major class of senior securities. In 1945, these amounted to 84 per cent of the total outstanding long-term debt. About 3.8 per cent of the total represented collateral trust certificates but the use of this type of security has been declining over the past 25 years. They are in the form of a mortgage obligation, with the lien on securities which represent an equity in railroad property. Equipment obligations, amounting to approximately 7.6 per cent of the total represent a special form of relatively short-term debt. Their importance shrinks or expands as the carriers make fewer or larger additions to rolling stock.5

5. For a further description of these different securities, see Guthman, H. C. and Dougall, H. E. Corporate Financial Policy. New York, Prentice-Hall, Inc. 1946. pp. 141-159.
The remainder of the debt structure consists of income bonds and miscellaneous securities. The former originated principally through reorganizations and are often secured by a junior mortgage. Their greatest disadvantage to the investor lies in the fact that a bond-holder does not receive any interest unless it has been earned during the fiscal period. In many cases, this has led to the practice of attaching a provision calling for the accumulation of interest not earned in any year, but this feature has had the effect of injuring the market value of previous issues and has destroyed their usefulness for further financing. Miscellaneous securities are chiefly classed as debentures which because of issuance on heavily mortgaged properties are often made convertible to provide speculative appeal.6

6. Lack of flexibility has been an important feature of the debt structure, primarily because of the relatively large proportion of debt which cannot be redeemed until maturity. This weakness, however, has been partially corrected in recent reorganization plans. Dr. Stevens is of the opinion that because of the possibility of future traffic losses, the investment position of the carriers should be strengthened by revisions in the terms and conditions of the debt structure so as to make interest charges react more automatically to changing economic conditions. To provide the needed elasticity, he suggests a novel combination of a noncumulative income bond with a participating feature to be applied only when interest has been unearned and unpaid in prior years. Stevens, W. H. S., op. cit., p. 195.

Certain problems for management and investors arise out of the complicated debt structure. Separate properties
carry separate mortgages, a fact which makes difficult the clear-cut status of bonds until reorganization occurs. Because of the specialized nature of the property, threats of foreclosure and acquisition are rarely carried out, for it is impossible to operate individual units with any great advantage except as part of the entire plant. Right of foreclosure has as its main purpose bargaining power in reorganization proceedings, dependent upon the importance of the property upon which the petitioner has a lien. Debt arrangement under reorganization presents the problem of working out the best possible combination of liens on real property, collateral trust securities, and debentures, to effect the lowest possible interest rates. There seems to be a definite trend toward simplification as bonds gradually mature, but progress in this direction is bound to be slow because of the long-term nature of rail securities, and because prior to 1933 very few companies had made provision for their retirement. 7 Minor equities have been retired by

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7. "Indebtedness evidenced . . . is ordinarily regarded as perpetual and no provision is made for its ultimate liquidation. The result is that the funded debt of the railway companies is constantly increasing . . . . We believe that the desired results can be obtained, in part, at least, through the provision of sinking funds to be set up by the railway companies out of net income for the purpose of retiring a part of their funded debt before maturity. If such funds are not voluntarily established . . . their establishment may be required as a condition to our authorization of further bond issues under the provisions of section 20a of the Inter-
some of the major carriers throughout the war period.

Almost 10 per cent of the capitalization of Class I railroads consists of preferred stock. Both cumulative and noncumulative issues are used, the latter originating in reorganization proceedings through replacement of bonds, thus decreasing the interest burden. Financing through preferred stock partially avoids the problem of fixed charges and increases the proprietorship. Common stock represents a smaller percentage than is found in private industries since the emphasis is on senior securities and also because a smaller proportion of common stock in a capital structure affords a concentration of control and permits trading on the equity. The $6,169 million of common stock represented

8. "This principle assumes that there is an equity in the corporation which will serve as protection for a lender. With the equity in evidence, the lender is supposedly willing to advance a loan at relatively low interest compared with anticipated returns on stock. Borrowing may be used as a device to increase earnings on stock whenever the cost of the loan is less than the amount it earns for a borrower. Railroads and public utilities make more use of the principle than industrial corporations. Holders of railroad bonds have frequently learned to their financial sorrow that equities provided by stockholders may fade away in the face of declining profits in the railroad business... The presence of heavy investments in fixed assets is not enough to justify large bond issues. There must be, in addition, assurance of continued net earnings sufficient to meet

approximately 30 per cent of total capitalization in 1945.

A composite balance sheet of the industry reveals interesting information.9 The bulk of the assets are almost entirely fixed and consist chiefly of specialized property and securities. The nature of the fixed assets explains the use of long-term debt and proprietorship obligations as the main sources of funds, and the relative unimportance of current financing. Current assets play only a minor role. Cash and temporary cash investments at present are large as a result of swollen war revenues. Receivables are negligible since operations are conducted on a cash basis. No inventories in the ordinary sense are used as the carriers sell service. The heavy investment in fixed assets which cannot be turned to alternative uses leads to increasing returns in periods of rising traffic but causes serious financial distress when traffic falls. The large proportion of long-term debt to total capitalization means heavy annual fixed charges to be covered through income.

9. See Table VI, Appendix B.
The Problem of Adequate Revenues

After the period of high wartime earnings, the swiftly changing pattern of economic events since 1945 has again raised the question of whether the rail carriers will be able to support their present debt and attract new investment capital, or whether they have passed through their cycle of maturity and should be considered as entering upon a period of senility. The fact that earnings are declining at a time when the nation is enjoying an era of prosperity gives rise to the question.

To command new capital and support existing debt requires at least enough revenues to cover operating expenses, taxes, rentals, and interest profits. If common stock is to be sold to further balance the capital structure, there must be an additional return earned for stockholders. How to increase revenues thus becomes the perennial problem facing the carriers. In the majority of instances, it is partially resolved through direct Commission action in rate level cases, but over long periods some of the distress could be eased through introduction by railroad management of programs designed to reduce expenses and fixed charges.

The need for direct Commission action on the revenue problem was apparent during the year of 1946. Both gross operating revenues and net income had fallen substantially from the levels of 1945. Industrial reconversion was ex-
pected to result in lowered volumes of traffic, yet traffic losses alone were not large enough wholly to explain declining net income. The difficulty lay in the fact that operating expenses remained at a rigid level or increased, thus tending to narrow earnings to a point where a serious financial crisis developed. Rate increases as a result of the Ex Parte 162 case were calculated to add approximately $1 billion. Subsequent advances in passenger and express charges were expected to add $279 million to this amount. On the expense side, wages increased annually by $1,406 million between the years, 1941 and 1947. Rising costs of materials and supplies over 6 years resulted in $740 million more. Payroll taxes and vacation allowances added $249 million per year. As of January 1, 1947, it was anticipated that increased annual expenditures would total about $2,395 million, 1947 as compared with 1941; increased annual revenues were expected to bring $1,279 million; expenditures not covered by income were approximately $1,116 million."10

10. See Table VII, Appendix B.

Increasing costs of the nature described above were generally beyond control of the carriers. In this respect the position of the railroads was no different from that of private industry, except that the latter could recover its
higher expenditures through immediate price increases while the railways were forced to await the decision on their requests for rate advances. In an inflationary period such as was evident at the end of 1946, railroads as heavy consumers of industrial products are among the first to be affected by rising prices, and are usually hard pressed to meet obligations when expenditures overtake revenues. While the carriers in the initial stage of inflation tend to have high volumes of traffic and high earnings, eventually expenditures rise to a level where they cannot be covered except through increased rates. Apparently it is impossible for the public authority to act immediately upon petitions for advances in freight charges even though the financial position of railroads deteriorates while hearings are continued. In view of the sharply increasing general price level on one hand, and the fact that over five months were necessary to arrive at a decision on the other, the wisdom of the Commission in paring down the proposed rate increases may be seriously questioned.

Analysis of the financial position of the railroads for the first six months of 1947 would seem to bear out the above conclusions. Total net income after charges amounted to $204 million as compared to a deficit of $21 million for a similar period in the year 1946, and to a net income of $173 million in a corresponding period of the year 1941. Operating revenues increased 71 per cent between the years 1941 and 1947,
but operating costs (expenses, rentals, payroll and other taxes excluding Federal income taxes) increased approximately 89 per cent. The railroad industry was in the unenviable position of carrying the greatest volume of freight in its history, receiving gross revenues of over $1.5 billion more than in 1941, yet earning only an additional $31 million.

Under the circumstances it was not surprising to find the carriers petitioning for further rate increases in July, 1947.

As mentioned previously, efforts to decrease expenses and reduce debt will also result in increased net income. While the railroads stress the need for increased rates
on one hand and emphasize progress in debt reduction on the
other, there appears to be little concerted effort to reduce
uneconomical expenditures on an industry-wide basis. Waste­
ful duplication of railroad services has long been the rule
rather than the exception, and attempts to coordinate various
services have met with little cooperation from either manage­
ment or labor. There was a surprising lack of attention

14. The Federal Coordinator in 1934 estimated that upwards
of $350 million annually could be saved if railroads
would consolidate various services. See Federal Coordi­
nator of Transportation. Regulation of Railroads. Senate
Document No. 119, 73d Congress, 2d Session. 1934.
pp. 21-29, 84-148. Excellent summaries of the subject of
railroad consolidation will be found in Dewey, R. L.
"Transportation Coordination," and Behling, B. N.
"Economies from Railroad Consolidation and Coordination," in the National Resources Planning Board Report. op. cit.
pp. 140-160, 161-170. The railroad point of view is
presented in American Association of Railroads. Trans­
portation in America. Washington, D. C., 1947, pp. 297-
298.

given to this possibility in the 1946 decision. The past
record of the railroads on possibilities of coordination and
unification is not too favorable. Much more to their credit
has been the recent drive toward debt reduction. This matter
will be discussed in a subsequent section of the chapter.
The Problem of Valuation

In the celebrated case of Smyth v. Ames, the Supreme Court stated: "We hold that the basis of all calculation as to the reasonableness of rates to be charged by a corporation maintaining a highway under legislative sanction must be the fair value of the property being used by it for the convenience of the public . . . ." The fair value principle established by this decision has been interpreted as a base upon which to allow rates which were reasonable; rates which would protect the carriers against confiscation. No other problem in the sphere of regulation has received as much attention, has been subject to as much spirited controversy, has commanded the time of commissions, courts, and carriers, and none has been as inconclusive as that of property valuation for rate-making purposes.

It should be clearly understood that the concept of "fair value" as used in the court decision does not mean value in the economic sense. As interpreted by the economist value means exchange or market value, thus appraisal of property providing an income depends upon the amount of its earnings. Property is usually exchanged on the basis of the discounted earnings which it is expected to produce. Railroad
income, however, is the result of rates charged its users, and rates cannot properly be based upon a value which in turn is dependent on rates. The use of market value as a rate base would mean legalizing existing rate levels whether high or low.16


Because of the circular reasoning involved, the Supreme Court early rejected the earnings' approach as a standard of measurement in valuation proceedings.17 Rejected also were such intangible items as good will and franchise value dependent upon earnings.18 By excluding the earnings'

17. "The value of the use, as measured by the return, cannot be made the criterion when the return itself is in question." Minnesota Rate Cases, 230 U.S. 352, 461. 1913. "... when rates themselves are in dispute, earnings produced by rates do not afford a standard for decision." Los Angeles Gas Co. v R.R. Commission of California. 289 U.S. 287, 305. 1933.


standard, the Court had no alternative but to use original
cost and reproduction cost as elements of value, although neither is appropriate if economic value is sought. Final recognition that value for rate-making cannot be value in a market sense was given by the Supreme Court in 1944.19

19. "The fixing of prices, like other applications of the police power, may reduce the value of the property which is being regulated. But the fact that value is reduced does not mean that the regulation is invalid. It does, however, indicate that fair value is the end product of the process of rate-making, not the starting point . . . . The heart of the matter is that rates cannot be made to depend upon fair value when the value of the going enterprise depends upon earnings under whatever rates may be anticipated." Federal Power Commission v Hope Natural Gas Co. 320 U.S. 591, 601. 1944.

Earlier support to this theory came when the Court distinguished value in reorganization cases from value in rate-making:

"Thus the question in a valuation for rate-making is how much the utility will be allowed to earn. The basic question in valuation in reorganization purposes is how much the enterprise in all probability can earn."20 Professor Locklin


differentiates the two theories in the following manner:

The Supreme Court finally came to recognize that in a valuation proceeding for rate making purposes a Commission or Court is not finding value; it is deciding what the value ought to be. Insofar as rates can be adjusted to yield a fair return on
such value, the Commission or Court is making value, not finding it. 21


After establishing the fair value principle, the Supreme Court listed a number of elements to be considered in reaching a conclusion as to property valuation. Those mentioned included: original cost of construction and amount spent in permanent improvements; amount and value of stocks and bonds; present as compared to original cost of construction; probable earning capacity of the property; and sum required to meet operating expenses. Then because of the possibility that something may have been omitted, the Court added: "We do not say that there may not be other matters to be regarded in estimating the value of the property." 22 Over the years value of stocks and bonds, probable earning capacity of property, and the sum required to meet operating expenses have generally been dismissed as elements to which serious consideration may be given. Accrued depreciation and going value have been added to original cost including additions and betterments, and to reproduction cost, as factors to which most of the weight is attached.

Inconclusiveness of the judicial guide for determination of value is the cause of most of the controversy which has raged in public utility regulation. The chief problem is a choice of a method of tangible property valuation, for Commissions looking toward the lowest consumer price and wanting a convenient method to expedite regulatory work prefer original cost, while the companies seeking a higher value to protect their earnings argue for reproduction cost in a period of inflation. Original value means the aggregate investment in the existing plant, the original cost when each property item was first devoted to public service. It is sometimes called prudent investment which means the sum an ordinary investor exercising reasonable judgment is willing to spend on the existing plant. Reproduction cost can be given any number of meanings. Its definition depends


upon the type of plant to be reproduced, the choice of prices, and the time of reproduction. At one extreme it is measured in terms of anticipated cost of replacement, but since future equipment and materials prices and future construction costs
are unknown, this ideal cannot be used for practical valuations in the field of public utilities.

Usually greater preference is given for reproduction cost at current prices but even so choices must be made between reproduceable prices. A plant may be replaced either on the basis of current costs or on the average over five to ten years. There must also be a choice between reproducing the existing plant or the existing service capacity. The replacement cost of a public utility is commonly defined as the reproduction cost of the existing plant measured usually by average prices of several recent years. 24


Fair or reasonable value is more difficult to define than either original or reproduction cost. It is primarily an authoritative standard established by the courts, commissions, or legislatures, with little or no explanation given as to the weight accorded the different elements composing it. Courts have insisted that reproduction cost be considered in a number of decisions between the years 1898 and 1933, and in some it was regarded as the controlling factor. Less emphasis on it and more on original cost was found in valuation cases decided during the depression period and subsequent years. 25
25. The importance of reproduction cost was stressed in early valuation cases because of the difficulty of finding original cost figures; also because in many instances original costs were inflated and were the result of uneconomical expenditures. Also responsible was the rising price level from 1898 to the depression years. The strongest language probably ever used in behalf of reproduction costs as a measure of fair value was found in McCandile v Indianapolis Water Co. 272 U.S. 625, 629-630, 1923; and to a lesser extent in St. Louis & O'Fallon R.R. Co. v U.S. 279 U.S. 461. 1929.

A change in attitude toward fair value occurred in 1942. In Federal Power Commission v Natural Gas Pipeline Company, 26 the Supreme Court opened a path for regulatory bodies to disregard cost of reproduction as an element of value and to adopt, if they chose, the original cost or prudent investment factor. Neither original cost nor prudent investment was specifically indicated as the proper rate base, but by implication the road was cleared for use of this standard. Again, in Federal Power Commission v Hope Natural Gas Co., a valuation made upon original cost was upheld by the Court. 27 Fair value may now be based on actual
prudent cost, and may be fixed and definite. With the valuation problem clarified some attention can be directed to the establishment of a fair rate of return.

Valuation and the Rate of Return

Fair or reasonable return on investment is an amount earned above all reasonable operating expenses including depreciation and taxes. According to the legal pattern of earnings regulation, it is determined by multiplying a fair property valuation by a reasonable rate of return; and is an overall amount computed without direct reference to the capital structure of an individual carrier. Neither the rate of return nor the property valuation taken alone is significant, rather it is the earnings which result through the combination with are important. Because of the inter-relationship, a corporation does not get larger earnings simply by increasing its valuation for a commission can depress the rate of return to offset the increased rate base.
Quantitatively, the percentage earned is as important as the valuation base for the return performs the function of paying the current cost of services, and also determines the conditions under which the regulated industry will be able to attract capital. What constitutes a fair return will vary with time, place, and circumstances.28 Also the

28. "A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market, and business conditions generally." Bluefield Water Works & Improvement Co. v Public Service Commission of West Virginia. 262 U.S. 679, 683. 1923.

rate of earnings considered fair in one industry may not necessarily be fair in another because of differences in risk. Although it was recognized that a return may differ in various areas of the nation, the Transportation Act of 1920 required that the fair rate of return be uniform throughout the country.29

29. See Chapter II, pp. 32-33.

In testing a fair return, two methods are commonly used. One is the rate necessary to attract capital but this test in the case of a particular carrier depends upon its financial structure. If the capital test is to be applied, it should be done on the basis of a total return
necessary to draw capital to the entire industry, otherwise it becomes an attempt to establish a credit standard based upon requirements of interest and dividend payments. It is difficult of application since funds are normally attracted not so much in terms of total return but rather on the expected earnings of several types of securities offered for sale by individual roads. However, the rate of return thought necessary to attract capital should be determined independently of the particular financial structure or the doctrine of a fair return on fair value becomes nothing more than a rate floor for overcapitalized companies and a rate ceiling for undercapitalized roads.

The second method is known as the comparative industry test. The difficulty of application lies in finding ind-

30. "A public utility is entitled to such rates as will permit it to earn a return on the value of the property equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties." Bluefield Water Works & Improvement Co. v Public Service Commission of West Virginia. 262 U.S. 679, 693. 1923.

ustries which have the same degree of risk. Comparisons between regulated utilities and private industrial enterprises are of little value since regulation itself affords protection against some of the uncertainties inherent in private enterprise. Railroads are protected from rate
cutting by rival roads, from construction of competing lines, and to some extent from agency competition. However, all risks are not eliminated. Shifts in population and business, depletion of natural resources, new intense competition, and invention of new equipment and operating techniques, all must be reflected in the rate of return.

To support their position in the Ex Parte 162 proceedings, the carriers submitted statistics showing their rate of earnings on depreciated property investment to be 3.76 per cent for the year 1945. This was computed on the rail rate base of $22,600 million. By comparison, the valuation established by the Commission amounted to $19,571 million, on which the return would have been 5.16 per cent. Objections were raised by each party as to the valuation figures presented by the other.31


The Commission pointed out that the return as shown by the railroads included a concentration of amortized defense projects which had been charged to operating expenses during the period September to December. They maintained that if the account was restated "... to eliminate the effect of these charges ... the net operating income ... would have been increased by $160 million, thus the return on in-
vestment after depreciation would have been 4.47 per cent instead of 3.71 per cent.\"32 Criticized also was the method

32. Ibid., p. 722

used by the carriers in stating depreciation. "The recorded depreciation by no means approaches the total amount which has taken place as observed by us and found in our numerous valuation proceedings under section 19a of the Act.\"33

33. Ibid., p. 727

At the same time, the railways argued that the Commission had given equal weight to actual cost less depreciation and cost of reproduction new less depreciation, plus the value of lands, working capital, and an allowance for going value, in establishing its valuation estimate. They further stated that the 1946 rate base included cost of reproduction new between the years 1932 and 1936, and failed to consider subsequent price increases since then. Also, they felt that the Commission's estimate of working capital was too low, and that amortization through the war years was not actual depreciation but a tax credit allowed by Federal law. If adjustments were made in these matters, the carriers asserted that the valuation figures of both parties would be
How much weight was given by the Commission to original or reproduction cost cannot be accurately determined, since methods of computing valuation are not made public. If reproduction cost was used in part, as claimed by the railroads, then the rising price level between the years 1936 to 1946 should have been reflected in higher valuations.

In view of the reluctance of the Commission to answer the charges of the carriers on this point, it might be inferred that such criticisms contained a measure of truth.

By writing off unwarranted depreciation against revenues, regulated industries could easily depress what might be considered as a reasonable rate of return. It thus becomes necessary for Commissions to control depreciation accounting. The controversy over this item in the rate case was the result of legislation enacted by Congress in 1940. Business enterprises who devoted their facilities

35. Public Law No. 801. 76th Congress, 3d Session. The Act amended Sections No. 21 and 124 of the Internal Revenue Code, and was known as the Second Revenue Act of 1940. For a summary, see Commercial and Financial Chronicle. October 19, 1940, p. 2251.
to defense or war production were given the privilege of
depreciating their plant and equipment over a period of
five years instead of the usual 15 to 20 years. Essentially
the legislation was designed to permit a higher level of
operating expenses to be charged against income during the
war period because of a more intensive use of productive
facilities. In that sense, concentrated amortization of
plant and equipment as claimed by the carriers was actually
an income tax credit. However, their statement that such
procedure should not be considered as depreciation seemed
to indicate a lack of accounting intelligence. It is under­
standable that the Commission was concerned over the amount
of depreciation estimated by the railroads, yet the carriers
had the same legal right as that of any other corporation,
regulated or otherwise, to amortize wartime depreciation
within the period allowed.

Appraisal of the decision in terms of the rate of
return requires certain assumptions. First, because of the
confusion which would result through the use of two valua­
tion estimates, it is suggested that an arbitrary figure
be used as the rate base. For this purpose, $21 billion
will be used. The amount is selected partly because it is
impossible to determine with reasonable accuracy the true
amount of the valuation, and partly because it is assumed
that there is some merit in the valuation criticisms of
each party.

The second assumption concerns carrier earnings for 1947. Net railway operating income for eight months ending in August, total $510 million,\footnote{36} which will be con-

\begin{footnote}{36} Traffic World, October 11, 1947, p. 1029.\end{footnote}

sidered as 60 per cent of the estimated yearly total.\footnote{37}

\begin{footnote}{37} It is generally considered that the higher proportion of railroad operating income is earned during the latter half of a year because of the peak seasonal demand for transportation, particularly in such industries as agriculture, lumbering, and mining. See Ex Parte 162, op. cit., p. 733.\end{footnote}

If the conclusion is reasonably accurate, the net railway operating income for 1947 should have approximated $310 million, after taxes but before rentals and interest deductions. This amount does not allow for further increases in operating expenses nor for additional revenues from rate advances. On the assumed rate base of $21 billion, the rate of return would average 4.05 per cent industrywide, slightly below the 4.14 per cent held by the Supreme Court to be confiscatory in the Minnesota Rate Cases of 1913,\footnote{38}

\begin{footnote}{38} 230 U.S. 352, 471. 1913.\end{footnote}
and substantially below the 6 per cent indirectly approved by the Court in the Dayton Goose Creek Case of 1924.39


Whether or not the estimated rate of return for the railroads as a whole in 1947 could be considered "fair" is extremely difficult to determine. The return would have to be measured against such factors as the prevailing interest rate, risk, management efficiency, losses and surplus earnings, changes in the purchasing power of money, and the capital structure. In addition, there remains the further question of the weight to be accorded each of the above factors in arriving at a standard fair return.

For some time the carriers have pressed for rates which would give an aggregate return of six per cent over a long-run period. They point to the 3.5 per cent earned over the past 25 years as a major cause of their past financial distress.40 However, the reader should be warned against

40. Between the years 1922 and 1933, the return never reached the 5.75 per cent established by the Commission. It climbed to 5 per cent or over in 1925 (5.15); 1926 (5.45); 1928 (5.07); and 1929 (5.31). Compiled from data in Interstate Commerce Commission. Statistics of the Railways in the United States, 1945. Table 155, p. 152. See also Locklin, D. P., op. cit., p. 365.
wholehearted support of this proposal for at least two reasons. In the first place, does six per cent actually represent a "fair return" under all economic conditions? The railroads defend this point of view by comparing their earnings to the return deemed "fair" in regulated public utilities. Recent cases have established 5.5 to 6.5 per cent as a standard, 41

41. An allowance of 5.5 per cent has been made for electric companies selling power under long-term guaranteed earnings contracts, to 6.5 per cent for some natural gas companies. In recent gas cases, the Commission fixed 6 per cent, recognizing that a fair return is not a static quantity. 26th Annual Report of the Federal Power Commission, June 30, 1946. Washington, D. C., Govt. Print. Off. 1947, pp. 51-52.

but these percentages usually apply to individual companies, not to the entire industry. Second, to arrive at an average of six per cent over a long period would mean possibly a 10 per cent industry return in periods of prosperity to counter lowered earnings during depression years. An average of 10 per cent for the industry in good times would result in a much higher percentage individually to the stronger roads and less relatively for weaker lines. The latter would then be in an untenable position as compared with the former when competing for funds on the basis of earnings. If railroads were operated under conditions of relatively free enterprise, the problem would be resolved through natural economic laws. The weak lines would either
meet competition or cease to operate. But since the philosophy of regulation is designed to serve economic and social objectives, the application of economic principles alone will not solve the strong and weak road problem. Apparently weak lines are essential to society, otherwise they would long since have been abandoned. Then if the social objective is equally as important as the economic problem involved, it is suggested that an adequate return be established for strong roads and the weaker lines be subsidized.

Determination of earnings amounting to six per cent or any other figure over a long-run period is essentially a problem dependent upon economic conditions. As long as private funds must be used to assure adequate railroad facilities to the public there must be a return sufficient to attract capital. This is the economic basis for the practice of adjusting rates to give the regulated industries sufficient earnings on property value, and to deny the return needed means a loss of important services to the public. For the nation to expect good service without adequate income to the carriers is fallacious economic reasoning.

In view of the inflation of 1947, it seems reasonable that rate advances affording a return higher than the estimated 4.05 per cent but not above the traditional six per cent would have been fair, notwithstanding the fact that
changing economic conditions over a long run period would make necessary a later adjustment in earnings. However, let it be assumed that a maximum of six per cent is considered a fair return. What amount of net railway operating income would it produce on the rate bases used in the Ex Parte 162 case? On the undepreciated investment of $27,893 million, six per cent would produce $1,674 million. On the railroad estimate, it would amount to $1,383 million. By using the assumed rate base of $21 billion, there would have been a return of $1,260 million, and if the Commission's figures were used, it would be $1,174 million. On the lowest estimate, to have earned six per cent the railroads would have needed some $300 million more than was anticipated for 1947.

Could the national economy in 1947 have afforded the rate increases necessary to raise the industry return to six per cent on the lowest valuation base? Relative to the year 1929, total operating revenues of Class I railroads in 1946 increased by 21.4 per cent, while net income after taxes declined almost 68 per cent. Using the year 1929 as a base, the 1946 net income of all incorporated businesses after taxes had increased almost 67 per cent while net income of agriculture before taxes showed a gain of 146 per cent. If compared with the year 1941, railroad operating revenues in 1946 increased by 42.6 per cent and net
income after taxes declined by 42.2 per cent. At the same time net corporate income increased by 40.9 per cent and agricultural net income showed a gain of 130 per cent.\textsuperscript{42}

\textsuperscript{42} Revenues and net income of railways, corporations, and agricultural groups by years, 1929 through 1947, will be found in Table VIII, Appendix B.

The net income of corporations in 1947 was expected to be some $5 billion higher than that of 1946. Within a year this amount would represent an increase of about 40 per cent. It was anticipated that agricultural net income in 1947 would be some 24 per cent higher than that earned in 1946. Enough evidence seems to be available to indicate that the nation could have borne the higher rate increases without difficulty.

Railroad Credit

The credit of any enterprise is its reputation for providing commodities or services at prices which cover production costs and leave an adequate margin for return on invested capital. Its importance lies in the corporate record of sustained earning power sufficient to encourage investors to contribute capital, with confidence that they will be able to withdraw it when desired, and in the hope of receiving a satisfactory return in the meantime.
As a result of the business depression and rising competition of transportation agencies, rail credit sank to a critical point during the thirties. Earnings were low or non-existent because of traffic and revenue losses. Faced with a heavy burden of fixed charges at the same time, most of the carriers could not remain solvent. Financial distress seemed to have become a permanent problem until alleviated by the national defense program and the Second World War. The temporary prosperity enjoyed throughout the early nineteen forties enabled the carriers to present a credit position equal to or greater than that of the last five years in the twenties.43


Between the years, 1940 to 1945, net earnings per $100 of capital stock increased fourfold, while rail stocks doubled in value and the appreciation of rail bonds increased by approximately 36 per cent.44 Prewar insolvencies numbering 109 fell to 72 at the end of 1945. New capital
Investment was more than $2.5 billion in the years 1941 and 1945, and further increased by $550 million in 1946.\footnote{45} Rail-

way net working capital (current assets minus current liabilities) reached a high of $2.1 billion on April 30, 1946, and declined to $1.8 billion on April 30, 1947. Excluding materials and supplies, the 1947 figure was four times that of the level of 1941. Including these items it was three times as great.\footnote{46}


During the war period, total debt decreased by $1,262 million, in turn reducing total fixed charges by $85.6 million annually. A further reduction of $61.8 million in interest was made during 1946, bringing the over-all annual reduction in fixed expenses to $146.4 million for the six years.\footnote{47} However, in spite of this favorable record, long-

\footnote{47} American Association of Railroads, op. cit., p. 25.

term debt as of December 31, 1946, still amounted to $9,093
Railroads will undoubtedly find it necessary to spend large sums for plant and equipment improvements in the future. Some capital will be needed to cover maintenance deferred during the war years while other funds will have to be used to finance additions and betterments. While exact determination of the total amount cannot be foreseen at present, it appears certain that it will amount to hundreds of millions of new investment for some years ahead. Financing may prove difficult. Because of their strong liquid asset position at this time, the carriers probably can provide some of the capital, but eventually they will have to resort to public money markets or to Government agencies.

The trend of increasing operating expenses during 1946 threatened the credit position of the railroads, but this trend was partly offset by the rate increases. The Ex Parte 162 decision was important because it maintained industry credit rather than by expanding credit through increased earnings available for new investment. Certainly without the rate advances rail credit would have slumped, and in that respect their significance cannot be minimized. As of
mid-1947 the credit position of the carriers appeared favorable, as did its immediate outlook. Earnings were covering fixed charges 1.6 times, stock and bond values continued to show strength, and the net working capital appeared strong. 49


Yet, while fixed charges had been reduced, operating expenses were still climbing and the reduction in fixed expenses was cancelled by increases in variable costs. Rising expenses combined with downward pressures on rates through competition forced the industry break-even point to a much higher level than formerly. As a result, the railroads today are more dependent upon huge volumes of traffic to maintain their credit position. Continued rising costs under a rigidly controlled rate level can result only in a decline in profit per ton-mile. Unless increased rates were granted to compensate for increased costs, it appeared doubtful that earnings in the postwar boom years would be much more than those of the immediate prewar period. What the outlook for rail credit will be in the future is not clear. It will depend upon such variable factors as the national economic situation; public policy relating to aid given competing agencies of transportation and the diversion of traffic as a result; the level of rates deemed adequate; trends in operating
expenses, particularly the attitude of labor toward wages and working rules; tax programs; ability of the industry to further reduce debt and fixed charges; and the policies of railway management in promoting operating economies within and between transportation enterprises.

Summary

Adequate transportation service cannot be provided unless the railroads are allowed earnings sufficient to support their debt structure and to attract a constant flow of capital. As measured by the rate of return on depreciated investment, the amount considered fair for this purpose will vary with changing economic circumstances.

Declining traffic and revenues and increasing operating expenses made necessary an evaluation of the railroad rate level in 1946. The net income position of the carriers as a result of transitional economic changes showed a substantial deterioration when compared with that of the previous year and was slightly lower than that earned in the immediate prewar years. The rate advances granted by the Commission were intended to give carriers substantial increases in revenues, but measured against the postwar inflation they seemed inadequate. Whether the rate of return following the Ex Parte 162 advances could be adjudged reasonable was difficult to determine, and was made more so by
the controversy between carriers and commission over the rate base. The increases tended to support rail credit which had been strengthened during the war years.
Significant differences in rates not justified by costs are a striking characteristic of the rail freight rate structure of the United States. Charges for moving traffic throughout the nation vary considerably between classes of freight, commodities, hauls, and regions. This lack of uniformity persists despite the efforts of regulatory agencies to place rate structures, which grew up in a haphazard manner, on a more scientific basis. Since generally accepted criteria for measuring the correctness of rate differences do not exist, disagreements between carriers and shippers as to methods of rate construction are quite common. This is particularly true in the case of interterritorial rate differences, which have probably caused more public controversy than any other problem arising from differences in rates.

The interterritorial issues result primarily from the traditional geographic division of the nation into three general freight classification zones, and five major class freight-rate territories. Methods of classifying freight for shipment vary between each of the classification districts, while a lack of uniformity has been found in both rate struc-
tures and rate levels prevailing in each of the territories. Because of the territorial differences, it is most difficult to construct interterritorial rate schedules which do not favor shippers and receivers of freight in one region over those of other areas.1

1. Eastern or Official, Southern, and Western areas of the nation have been recognized as the Classification districts. Freight-Rate territories are as follows: Eastern or Official, governed by Official Classification; Southern, governed by Southern Classification; Western Trunk-Line, Southwestern, and Mountain-Pacific Territories, governed by Western Classification. Geographical descriptions of the Classification Districts and the Rate Territories are found in Charts 1 and 2, Appendix A. A full summary of the Interterritorial Freight Rate Problem of the United States is found in Appendix C.

For some years Southern and Southwestern interests, led by the Southern governors and certain industrial groups, have expressed dissatisfaction over territorial rate differences and with the technical features of rate construction. Complaints were especially numerous during the depression years, when rate level increases tended to make the transportation burden heavier in these areas. It was alleged that rate-making practices protected Eastern producers, shippers and markets, from the competition of other regions, thus retarding economic activity in the South and Southwest, while stimulating it in the East. Initial attempts to clarify the issues were made in three reports published by
the Tennessee Valley Authority between the years 1937 and 1943.\textsuperscript{2} In 1939, the Interstate Commerce Commission in

\begin{quote}
\end{quote}

handing down its decision in the Southern Governors case questioned the bases upon which territorial rate variations had previously been justified.\textsuperscript{3}

\begin{quote}
3. 235 I.C.C. 255. 1939.
\end{quote}

By the end of the thirties, the interterritorial rate problem had become a political issue. Hearings on the subject were held by the Congress; the Transportation Act of 1940 proscribed undue preference and prejudice in freight rates as between territories; and the Board of Investigation and Research undertook an analysis of interterritorial rates. The report of this agency recommended legislation by Congress directing the Commission to establish a uniform classification of freight, and a uniform scale of class rates throughout the nation.\textsuperscript{4}
Following the decision in the Southern Governors case, the Commission announced a general investigation of class rates throughout the nation. The decree and subsequent order looked forward to equalizing class rates within and between rate territories, but its effectiveness was delayed almost two years by opposition of Eastern interests, who forced a Supreme Court ruling on the Commission's directive.5

5. See Interstate Commerce Commission, Dockets No. 28,300 and No. 28,310. See also Class Rate Investigation, 1939. 262 I.C.C. 447. 1945. For a further summary of the investigation, order and litigation, see Appendix C.

It is not the purpose of this chapter to examine the interterritorial problem per se, but rather to attempt to appraise Ex Parte 162 in relation to it. The discussion opens with an analysis of the revenue effects of the rate decision as applied to freight-rate territories. It will continue with a brief treatment of basic economic changes which have occurred within each territory during and after the war, and with the wartime and early postwar regional shifts in the volume of freight traffic. The discussion will close with an examination of the rate decision as it pertains to possible effects on the future movement of interterritorial
traffic. Throughout the analysis of these topics, reference will be made to the Class Rate decision whenever pertinent.

Territorial Rate Level Increases Under The 1946 Decision

It will be recalled that nation-wide interim rate increases averaging six per cent, with certain exceptions, were awarded the carriers in July, 1946, pending further hearings on the proposed Ex Parte 162 advances. Under the decision, Eastern carriers were given an additional five per cent in order to bring their earnings to the levels of carriers operating in other territories. To justify their action, the Commission presented financial data for 1945, shown in Table VIII.

Table VIII

Valuation and Rate of Return of Class I Railroads by Districts and Regions for the Year 1945 *

<table>
<thead>
<tr>
<th>District or region</th>
<th>Property valuation in 1945 (In millions)</th>
<th>Net railway Rate of operating income (In millions)</th>
<th>Rate of Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern District</td>
<td>$8,052</td>
<td>$346</td>
<td>4.30</td>
</tr>
<tr>
<td>Pocahontas Region</td>
<td>943</td>
<td>68</td>
<td>7.21</td>
</tr>
<tr>
<td>Southern Region</td>
<td>2,455</td>
<td>132</td>
<td>5.38</td>
</tr>
<tr>
<td>Western District</td>
<td>8,121</td>
<td>464</td>
<td>5.71</td>
</tr>
</tbody>
</table>


1. The words "District or Region" are defined by the Com-
mission for statistical and accounting purposes. Eastern district covers approximately Official Territory with the exception of parts of Virginia and West Virginia served by the Chesapeake and Ohio, The Virginian, and the Norfolk and Western Railroads. This area is known as Pocahontas Region. Southern Region corresponds to Southern Territory, while Western District encompasses Western Classification Territory. Because of the interlacing of lines and the absence of data permitting apportionments, the Commission did not consider practical a division of the Western district into the three Freight-rate territories.

It should be observed that the property valuations used to ascertain the regional rates of return were those estimated by the Commission, and were somewhat lower than the values carried in the records of the carriers. Comparisons of regional returns based on Commission estimates with those based on carrier valuations are impossible since no territorial valuation figures were presented by the railroads.

Analysis of the data in Table VIII reveals a lower relative rate of return for Eastern carriers than for those in the South and West. It would have required an additional $117 million, equal to 4.7 per cent additional revenue, from the same freight services performed in 1945, to have brought the net railway operating income of Eastern carriers to that earned by railroads operating in other areas. The percentage was almost identical with the percentage increases allowed in the interim proceedings. If the Pocahontas Region was excluded from the estimate, some $108 million, or 4.3 per cent of the total 1945 freight revenues of Eastern carriers,
would have been required to equalize the level of regional earnings. Federal income taxes on the additional revenues have been disregarded.

Some significance may be attached to the fact that the operating ratios of the carriers followed, in inverse ratio, the general pattern of territorial returns. Operating expenses took 78.8 cents of every dollar of operating revenues received in 1945 by Eastern carriers as compared with 66.9 cents in the Pocahontas Region, 71.2 cents in the Southern Region, and 68.2 cents in the Western District.6

6. Ex Parte 162. Increased Rates, Fares and Charges, 1946. 264, I.C.C. 729. 1946. Operating ratios of the various regions in 1939 were as follows: Eastern, 73 per cent; Southern, 73.8 per cent; Western, 75.6 per cent. Interstate Commerce Commission. Statistics of the Railways in the United States, 1939. Table 165, p. 185.

At the request of the Commission for further consideration of the proposed rate advances, Class I railroads submitted estimates of their net railway operating income for 1946, on the basis of the interim increases from July 1 to December 31; and for 1947, including continuation of the emergency increases only, and also on the basis of the proposed increases under the Ex Parte 162 petition. None of the estimates included tax credits. Rates of return were based on the valuation estimates used in the interim decision. By districts and region, the income estimates are shown
7. The actual operating income as reported by the carriers for 1946 was as follows: Eastern District, $66.6 million, with a rate of return of 3.3 per cent; Pocahontas Region, $60.2 million, or a rate of return of 6.63 per cent; Southern Region, $74.3 million, and a rate of return of 3.03 per cent; and Western District, $247.7 million, with a rate of return of 3.92 per cent. Interstate Commerce Commission, Bureau of Transport Economics and Statistics, Monthly Comment on Transportation Statistics, February 13, 1947, p. 5.

### Table IX

Estimated Net Railway Operating Income and Rate of Return for Class I Carriers for 1946 and 1947 by Districts and Regions

<table>
<thead>
<tr>
<th>District or region</th>
<th>1946 Including interim increases (In millions)</th>
<th>1947 Including interim increases</th>
<th>1947 Including proposed increases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern District</td>
<td>$42.7</td>
<td>Def. $43.1</td>
<td>$165.8</td>
</tr>
<tr>
<td>Value</td>
<td>$8.052 million</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate of return (per ct)</td>
<td>.53</td>
<td>---</td>
<td>2.06</td>
</tr>
<tr>
<td>Pocahontas Region</td>
<td>62.5</td>
<td>46.1</td>
<td>59.1</td>
</tr>
<tr>
<td>Value</td>
<td>$943 million</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate of return (per ct)</td>
<td>6.62</td>
<td>4.89</td>
<td>6.26</td>
</tr>
<tr>
<td>Southern Region</td>
<td>7.12</td>
<td>22.3</td>
<td>98.5</td>
</tr>
<tr>
<td>Value</td>
<td>$2,455 million</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate of return (per ct)</td>
<td>2.9</td>
<td>.91</td>
<td>4.01</td>
</tr>
<tr>
<td>Western District</td>
<td>210.2</td>
<td>16.5</td>
<td>269.1</td>
</tr>
<tr>
<td>Value</td>
<td>$8,121 million</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate of return (per ct)</td>
<td>2.59</td>
<td>.20</td>
<td>3.31</td>
</tr>
</tbody>
</table>

\*Source: Ex Parte 162. Increased Rates, Fares and Charges, 1946. 266 I.C.C. 537, 546. 1946.\*
Estimates for the year 1946, when based upon the interim increases ordered July 1, again showed the Eastern rate of return to be lower than all other regions and districts, although the additional five per cent previously authorized was in effect. Furthermore, the data tended to show that the downward trend in Eastern revenues would not be reversed in 1947, even though the carriers received the full amount of the proposed advance. It was obvious that the interim increases alone could not stave off the financial disaster facing the carriers in all regions for the year of 1947. Largely because of the estimates, rates on articles under the commodity classification of Manufactures and Miscellaneous, except as otherwise specified; class rates, rates on less-carload, and any-quantity traffic were increased by 25 per cent in Official Territory, 22.5 per cent between Official and other territories, and 20 per cent within and between other territories. Carriers operating in the Eastern area were to have their aggregate rate levels in-

and be in lieu of the increases awarded in the interim report.

How effective was the decision in providing the needed finances to the carriers of the several territories? Statistical data relative to the regional returns are severely limited. However, it is possible to point out certain trends through territorial comparisons of total operating revenues, net railway operating income before Federal taxes, net income, and percentage of net income by districts to total net income. The data are presented in Table X and cover the first six months of 1947, as compared with similar periods in the years 1941 and 1946.

Marked improvement in the levels of total operating revenues, net railway operating revenues before Federal taxes, and net income to total income, 1947 over 1946, is shown by those figures in the table. However, the percentages of regional net income to total net income in 1947 over 1941 reveals astonishing territorial differentials, when the East is compared with the South and West. Railroads in the Eastern District and Pocahontas Region combined accounted for only 35.3 per cent of the total net income for six months of 1947, as compared with 67.9 per cent of the total net for 1941. Western District roads, on the other hand, increased their proportion of net income from 12.5 per cent in 1941 to 49 per cent in 1947, while a decline from 19.6 per cent in 1941 to 15.7 per cent in 1947 was noted for the carriers.
Table X

Financial Returns to Class I Railroads by Districts and Regions First 6 Months of 1947 as Compared with 6 Months of the Years 1946 and 1941*

<table>
<thead>
<tr>
<th>District or region</th>
<th>Total operating revenue (In millions)</th>
<th>Net railway operating income before taxes (In millions)</th>
<th>Per cent of col. 1</th>
<th>Net income of col. 2 (In millions)</th>
<th>Per cent of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern district and Pocahontas Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1941</td>
<td>$1,220.3</td>
<td>$271.8</td>
<td>22.3</td>
<td>117.7</td>
<td>67.9</td>
</tr>
<tr>
<td>1946</td>
<td>1,564.8</td>
<td>20.4</td>
<td>1.3</td>
<td>d 54.0</td>
<td>----</td>
</tr>
<tr>
<td>1947</td>
<td>1,919.2</td>
<td>210.6</td>
<td>11.0</td>
<td>72.0</td>
<td>35.3</td>
</tr>
<tr>
<td>Southern Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1941</td>
<td>328.2</td>
<td>76.0</td>
<td>23.2</td>
<td>d 33.9</td>
<td>19.6</td>
</tr>
<tr>
<td>1946</td>
<td>536.6</td>
<td>37.1</td>
<td>6.9</td>
<td>d 1.6</td>
<td>----</td>
</tr>
<tr>
<td>1947</td>
<td>593.8</td>
<td>78.2</td>
<td>13.1</td>
<td>32.0</td>
<td>15.7</td>
</tr>
<tr>
<td>Western District</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1941</td>
<td>875.9</td>
<td>153.8</td>
<td>17.6</td>
<td>21.6</td>
<td>12.5</td>
</tr>
<tr>
<td>1946</td>
<td>1,476.2</td>
<td>109.6</td>
<td>7.4</td>
<td>35.0</td>
<td>----</td>
</tr>
<tr>
<td>1947</td>
<td>1,631.9</td>
<td>223.5</td>
<td>13.7</td>
<td>100.0</td>
<td>49.0</td>
</tr>
<tr>
<td>United States</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1941</td>
<td>2,424.4</td>
<td>501.6</td>
<td>20.7</td>
<td>173.2</td>
<td>100.0</td>
</tr>
<tr>
<td>1946</td>
<td>3,577.6</td>
<td>107.1</td>
<td>4.7</td>
<td>d 20.6</td>
<td>----</td>
</tr>
<tr>
<td>1947</td>
<td>4,149.9</td>
<td>512.3</td>
<td>12.3</td>
<td>204.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>


---
d. Deficit
3. Because of the merger of the Chesapeake and Ohio and Pere Marquette railroads, effective for accounting purposes as of June 1, 1947, the figures for the Pocahontas region and Eastern district were combined in the table to preserve comparisons.
in Southern region. Further support of these trends may be shown by a regional analysis of income available for fixed charges and the operating ratios for the first five months of 1947. The ratio of income available for fixed and contingent charges to such charges was 1.19 in the Eastern District as compared with 8.82 in the Pocahontas Region, 2.21 in the Southern Region, and 2.11 in the Western District. The operating ratio of 82 per cent for the Eastern District was the highest of all areas. Pocahontas Region showed a ratio of 66.7 per cent, Southern Region, 77.6 per cent, while the ratio on the Western District was 78.1 per cent. The United States average was 78.1 per cent.\(^9\)

\(^{9}\) Ibid., p. 6.

It seems logical now to expand this investigation from six months to a full year, and the revenues for the first half of 1947 will be considered as 40 per cent of the yearly total. On that basis, a projection of the net railway operating income for Eastern District and Pocahontas Region combined would amount to $526.5 million, which when measured against the valuation estimates of the Commission would result in a rate of return of about 5.83 per cent. On the surface, this percentage seems highly satisfactory, but the inclusion of Pocahontas returns, which normally approximate
three times those of the Eastern District, would naturally mean a somewhat higher overall percentage than would result if the two regions were separated. Southern Region should have a yearly net operating income of $80 million and a return of 3.26 per cent, while Western District should show $535.5 million of net operating income with a return of 6.88 per cent. These estimates are presented on the further assumption of no increases in operating expenses during the latter half of 1947.

What conclusions may be drawn from the analysis? All signs seem to point to a continued unfavorable trend in the financial position of the Eastern carriers when compared with those in the South and West. Even with the additional increases granted under Ex Parte 162, the relative level of return showed little if any improvement whether measured under the actual operations for the first half of the year, or based upon the estimated income accruing over the full year. A slight downward trend may be noted in the estimated rate of return to the Southern carriers. It seems reasonable to conclude, therefore, that the Ex Parte 162 advances made little or no improvement in the rate of return to the Eastern carriers, although accurate measurement of the income levels is obscured through the combination of Eastern Territory with the Pocahontas Region. Southern carriers have apparently maintained their financial position reasonably well, while the advances appear to have increased the
relative financial position of the Western roads.

Regional Shifts in Marketing Activity, 1939-1946

Territorial financial developments discussed in the preceding section are closely associated with regional changes in marketing activity over a period of time. Since the demand for railroad service is derived from the demand for producer and consumer goods, it is logical at this point to investigate structural changes which have occurred during the past few years in the regional markets. Shifting activity in markets is of significant importance to the carriers serving them, for the level of carrier finances depends largely upon expansion or contraction of the markets creating the demand for their services.

The discussion to follow is in the nature of a broad survey rather than a detailed evaluation of marketing trends. For that reason, only a minimum amount of statistical data will be included. It will attempt to measure the movement of economic activity throughout the various regions by comparing variations between the years of 1939 and 1946 in such economic factors as the flow of national income, population changes, shifts in manufacturing activity, factory employment, and per capita income changes.
Regional changes in the flow of national income

Probably the most fundamental change in marketing activity during the period took place in the distribution of national income. On a relative basis, the West and South were accounting for larger shares of the total in 1946 than in 1939, while the New England and the Mid-Atlantic regions of Official Territory were holding smaller shares. The third important area of the East, that of the Great Lakes region, showed no significant change. The exact change in the regional proportions of national income is presented in Table XI. It shows, first, how regional income gains differed on a percentage basis from 1939 to 1946; then each region's share of the total income in 1939 and 1946; and finally the percentage change in the regional share of total income between the years 1939 and 1946.

The data indicate that Mountain-Pacific territory ranked first in the percentage increase in the distribution of national income, and in the percentage change in the regional share of total income. Southern, Southwestern, and Western Trunk-Line territories followed in that order, while Official Territory was last. It is important to note that the first four regions showed percentage increases above the national average, while all three regions of Official Territory fell below the average.
Table XI
Changes in the Distribution of National Income by Regions - 1939 to 1946

<table>
<thead>
<tr>
<th>Region</th>
<th>Per cent increase 1939-1946</th>
<th>Per cent of U.S. total 1939</th>
<th>Per cent change 1939-1946</th>
</tr>
</thead>
<tbody>
<tr>
<td>Far West</td>
<td>195</td>
<td>10.50</td>
<td>12.91 d 23.0</td>
</tr>
<tr>
<td>Mid-Atlantic</td>
<td>110</td>
<td>31.26</td>
<td>27.38 d 12.4</td>
</tr>
<tr>
<td>Great Lakes</td>
<td>133</td>
<td>22.23</td>
<td>22.08 d 0.7</td>
</tr>
<tr>
<td>Southwest</td>
<td>156</td>
<td>6.35</td>
<td>7.32 d 6.9</td>
</tr>
<tr>
<td>Farm West</td>
<td>150</td>
<td>9.97</td>
<td>10.39 d 4.2</td>
</tr>
<tr>
<td>Southeast</td>
<td>178</td>
<td>11.08</td>
<td>12.84 d 15.9</td>
</tr>
<tr>
<td>New England</td>
<td>109</td>
<td>8.11</td>
<td>7.08 d 12.7</td>
</tr>
<tr>
<td>United States</td>
<td>140</td>
<td>100.00</td>
<td>100.00 d 0.0</td>
</tr>
</tbody>
</table>


1. The regions as shown in the table may be translated into the five major freight rate territories as follows: Far West will approximate Mountain-Pacific territory; New England, Mid-Atlantic, and Great Lakes regions compose Eastern or Official Territory; Southeast Region approximates Southern Territory; Farm West is similar to Western Trunk-Line Territory; while Southwestern Region approximates Southwestern Territory.

Three principal reasons might be suggested for regional shifts in income. First, there was either a broad expansion or decline in all types of income sources; second, there were extraordinary expansions or contractions of a particular income-producing field of activity; third, gains or losses resulted from a type of income which bulks large in the total income of the region. The Mountain-Pacific region is a prime example of the first type of change. There, income expanded in every direction and so did its share of the
national income. Western Trunk-Line territory, an example

10. See Department of Commerce. Survey of Current Business. April, 1943; December, 1943; April, 1944; May, 1945; December, 1947.

of the second type of income change, won most of its gains from agricultural activity. The region had a large share of farm income in 1939, but since then, agricultural income rose more rapidly than from other sources, and thus its share expanded. The Southern and Southwestern regions illustrate the third type of income change. Both made substantial gains from Government income, and somewhat smaller gains from factory payrolls. But both lost ground in farm revenues mainly because the national level of agricultural income rose much more than that from other sources. Within Official Territory, the Great Lakes area lost some of its share of the national income from factory payrolls, Government wages, and miscellaneous income. Lores in these sources were balanced by gains in farm and property income. The highest percentage of its income in both 1939 and 1946 was derived from industry. New England showed losses in income from all sources, while the Mid-Atlantic region held its position in income from manufacturing, but lost ground in the other categories.
Population changes by regions

For the past century there has been a gradual westward movement of population. This was somewhat accelerated during and following the war as new work opportunities opened the way for extensive migration of people. In addition, the national population increased by 7.3 per cent over the period. The chief gainer of population from other areas between 1939 and 1946 was the Mountain-Pacific Territory with an increase of 34 per cent. Southwestern Territory ranked second with a gain of 4 per cent, and in third place was Southern Territory with 3 per cent. The population of Official Territory remained relatively stable, while the western Trunk-Line Territory was the only region to show population losses.11 Much


of the shifting of population occurred within freight-rate territories, rather than between them, thus a territorial analysis tends to obscure marked intraterritorial changes. However, the available data show that Mountain-Pacific territory had the greatest relative increase in population as a result of the migration from other areas, and in its percentage share of the increased population of the nation.
Whether or not the gains made will be permanent is impossible to determine at present. Future levels of national economic activity will undoubtedly have an important influence on the continued trend of population movements. On this point, one study which attempted to measure the permanency of population moving from rural to urban areas should be mentioned.¹² The conclusions seemed to indicate that most of


the prosperous centers of war industries had a fair chance of retaining a good portion of their immigrants. Inquiries among war workers showed that a large proportion intended to remain at the location of their war work, or to look for jobs in the surrounding area rather than return to native states. Unless these intentions are changed by a major depression, it would appear that the temporary gains in population made throughout the various regions, particularly those in the Mountain-Pacific Territory, have a reasonably good chance of becoming permanent.

Regional shifts in manufacturing activity

It is evident that the building of new enterprises or the expansion of old manufacturing plants in any freight-rate territory will tend to affect favorably the development
of traffic within that region. For this reason, railroads have always been interested in promoting industrial development in the areas through which they operate. Long-term trends in manufacturing as measured by the value of manufactures, show a gradual shifting from the East to the West and South. For instance, between the years 1869 and 1939, the portion of the nation's manufacturing output in Official territory decreased from 82.8 per cent to 67.8 per cent. At the same time the share of Southern Territory increased from 5 to 10 per cent; Western Trunk-Line, from 8.3 to 9.9 per cent; Southwestern, from 1 to 4.5 per cent; and Mountain-Pacific, from 2.4 to 7.8 per cent. Over the same period, similar trends were found in the proportion of wage earners in each territory. The number in Official Territory declined from 82.2 per cent of the total in 1869 to 69 per cent of the total in 1939. Southern Territory showed increases from 6.5 to 14 per cent; Southwestern, 2 to 3 per cent; while Mountain-Pacific had increases from 1.7 to 6 per cent. No appreciable change took place in Western Trunk-Line Territory.


Expansion and new construction of war facilities throughout the nation were greatly accelerated during the first years of the war. Approximately 59 per cent of all war facilities authorized between July 1, 1940 and May 31, 1944, were located in Western Trunk-Line Territory, 11 per cent in Southwestern, and 12 per cent in Mountain-Pacific Territory. New plants at new locations were a relatively low percentage of total war facility investment in Official Territory, slightly higher in Southern, and considerably higher in other regions. On the other hand, Official Territory had a relatively higher percentage of expansion of old plants as compared with other areas.

In terms of the 1939 distribution of capital investment, an investigation of the regional wartime percentage increase of investment in manufacturing facilities reveals interesting trends. Rankings of the several territories when based on expenditures for plant and equipment, and on the basis of value added by manufactures, from 1939 to 1943 are shown in Table XII.
Table XII

Territorial Rankings According to the Wartime Percentage Increase of Investment in Manufacturing Facilities 1939-1943*

<table>
<thead>
<tr>
<th>Territories</th>
<th>Expenditures for plant &amp; equipment (% gain)</th>
<th>Territories</th>
<th>Value added (% gain)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southwestern</td>
<td>75.9</td>
<td>Southwestern</td>
<td>137.5</td>
</tr>
<tr>
<td>Mountain-Pacific</td>
<td>62.2</td>
<td>Mountain-Pacific</td>
<td>65.7</td>
</tr>
<tr>
<td>Western Trunk-Line</td>
<td>54.1</td>
<td>Western Trunk-Line</td>
<td>46.5</td>
</tr>
<tr>
<td>Official</td>
<td>34.0</td>
<td>Southern</td>
<td>34.9</td>
</tr>
<tr>
<td>Southern</td>
<td>34.0</td>
<td>Official</td>
<td>33.3</td>
</tr>
</tbody>
</table>


The array showing the percentage gain from war facilities gives the same order for the first three territories. Southern territory ranks above Official when value added is the basis of distributing capital investment, but below when expenditures for plant and equipment is used. The percentage difference, however, is very slight. While the gains for Southwestern and Mountain-Pacific territories were materially higher when value added was used instead of plant and equipment expenditures as a basis of distributing facilities, their order was unchanged.

Estimates have been made which show that conversion of wartime facilities to peacetime purposes will leave Official
Territory at a disadvantage when compared to its percentage of manufacturing facilities in the prewar period.\textsuperscript{17} While the rate of conversion in Official Territory was expected to be higher than that of other regions, the share of Official in total manufacturing facilities was estimated to be relatively lower as compared with its prewar position. The conclusions drawn from these estimates pointed to the probability that the territories west of the Mississippi River would stand to gain in conversion of war plants at the expense of the Eastern area of the nation.

Closely paralleling the trend of manufacturing was that of the distribution of manufacturing employment. The territorial positions between the years 1939 and 1945 are presented in Table XIII.

The sharpest percentage gain in factory employment during the war years came in Mountain-Pacific Territory. Southwestern Territory ranked second, and was followed by Western Trunk-Line, Official, and Southern territories. Southwestern, which ranked first in percentage increases and probable peacetime utilization of manufacturing plants, was displaced by Mountain-Pacific Territory when percentage increases in employment were studied. This may be partly

\textsuperscript{17} Ibid. See Table 22, p. 51. See also Tables 10, 21, 156, A-1 in Appendix A, and B-4 in Appendix B.
Table XIII

Employment in Manufacturing Industries by Territories
1939 - 1945*

<table>
<thead>
<tr>
<th>Year</th>
<th>U.S.</th>
<th>Official Southern Line (Per cent of United States totals)</th>
<th>Western</th>
<th>Southwestern</th>
<th>Mountain Pacific</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1939</td>
<td>100.0</td>
<td>70.5</td>
<td>11.5</td>
<td>8.0</td>
<td>3.6</td>
</tr>
<tr>
<td>1940</td>
<td>100.0</td>
<td>70.8</td>
<td>11.1</td>
<td>7.9</td>
<td>3.6</td>
</tr>
<tr>
<td>1941</td>
<td>100.0</td>
<td>71.0</td>
<td>10.9</td>
<td>7.7</td>
<td>3.4</td>
</tr>
<tr>
<td>1942</td>
<td>100.0</td>
<td>68.6</td>
<td>10.7</td>
<td>8.2</td>
<td>3.7</td>
</tr>
<tr>
<td>1943</td>
<td>100.0</td>
<td>66.7</td>
<td>10.1</td>
<td>8.9</td>
<td>4.2</td>
</tr>
<tr>
<td>1944</td>
<td>100.0</td>
<td>66.4</td>
<td>10.2</td>
<td>9.0</td>
<td>4.5</td>
</tr>
<tr>
<td>1945</td>
<td>100.0</td>
<td>67.0</td>
<td>10.4</td>
<td>9.4</td>
<td>4.3</td>
</tr>
</tbody>
</table>

(Per cent increase 1945 over 1939)

35.8 29.2 22.9 58.5 60.3 89.6


explained by the small increase in employment necessary to operate the expanded chemical industries of the Southwestern area. However, employment increased in this region by a larger percentage than in all territories other than that of Mountain-Pacific.

Regional changes in per capita income

Quantitatively, the markets of the nation grew substantially between the years 1939 and 1946, due primarily to the increases in population and income. However, markets differ in quality as well as quantity, and perhaps the best indicator of a quality market is the level of per capita income in that
market. Over the years of this century, the percentage spread among regions has been narrowing. In 1929, for instance, the range was from $348 in the Southern Territory, to $954 in the Eastern region, which represented a spread of 41 to 140 per cent of the national average that year. In 1946 the per capita income in the Southern region was $822 as compared with $1,369 in the East, or a variation of 69 to 123 per cent of the national average.\(^{18}\) Between

\(^{18}\) Business Week, op. cit., p. 69.

the years 1939 and 1946, the national average rose from approximately $525 to $1,200, a gain of about 129 per cent. The relative rank of the territories in 1939 on the basis of per capita income was Official, Mountain-Pacific, Western Trunk-Line, Southwestern, and Southern. By 1946 the order remained unchanged.\(^{19}\) In terms of the percentage increase


in per capita income over the period the rankings shown above were almost reversed. Western Trunk-Line Territory with a gain of 156 per cent stood first, followed by Southern, 149 per cent; Southwestern, 131 per cent; Mountain-Pacific, 120
little doubt that regional differences in the trends of per capita income are being narrowed considerably.

Enough data has been presented to indicate the trend toward a broadening of the regional markets outside of those located in Official Territory. Changes in the distribution of the national income, acceleration of the trend toward a more urban population, industrial decentralization, and narrowing of the per capita regional income levels all contributed toward the movement. Official Territory will undoubted remain as the most important marketing area of the nation for many years to come, but in terms of future expansion it would seem that this region would no longer hold the tight economic grip on marketing activity that it did in prewar years. The future market is shaping up as a broader market, having lost many of its interior boundary lines. A continued period of relative national prosperity should give territories other than Official much more opportunity to exploit gains made through the war years. However, it should be emphasized that the increases in business activity made in the West and South were based on the relative positions held before the war, and such gains may be difficult to hold if a business recession materializes in the near future.
Trends in Territorial Freight Traffic, 1939-1946

Because of the close relationship between marketing activity and rail transportation services, the shifting structure of regional markets should have brought about changes in the regional distribution of freight traffic. In view of the regional marketing trends already presented, it seems logical to direct some attention toward a study of the traffic movement within and between freight-rate territories before the territorial effects of the Ex Parte 162 decision are analyzed.

A precise investigation of regional traffic flows required information giving both origin and destination of shipments. The best source of data for this purpose are waybills, but these are beyond the reach of the average student of transportation. Lack of available material has forced the writer to rely heavily upon a few waybill studies published by the Commission between the years, 1939 and 1947, as a basis for the discussion to follow. 21

21. Waybill samples were taken for the years 1939, 1942, 1944, 1946, and 1947. The most thorough of these was the first, since it represented terminated carload traffic for one day of each month during the year. The 1942 sample included all waybills for 2 days, May 27 and September 23. That taken in 1944 represented only 2 per cent of the traffic moving on January 12. In 1946, waybills for only the month of November were studied. The 1947 sample represented a 1 per cent coverage of the traffic moving for the first quarter of the year. The first four studies gave information regarding the intra-
A study of freight distribution by territories shows a much higher percentage terminated in the region originating it than is distributed to other territories. Because of the nature of the freight carried during the war years, the percentage moving intraterritorially showed a decided decline throughout all territories, with a corresponding increase in the percentage which moved between territories. However, the 1946 sample, inadequate as it might have been, showed these trends to have reversed. Percentages giving the intraterritorial distribution by regions are shown in Table XIV.

An outstanding characteristic of the above data is the high percentage of traffic terminated in Official Territory throughout the four years. Even though war traffic brought decreases in the intraterritorial movement between the years 1939 and 1944, Official had a higher percentage than did all other regions. The 1946 study revealed higher percentages
Table XIV
Percentage of Intraterritorial Carload Freight Movement by Territories for the Years 1939, 1942, 1944, and 1946

<table>
<thead>
<tr>
<th>Territories</th>
<th>1939</th>
<th>1942</th>
<th>1944</th>
<th>1946</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official</td>
<td>92.2</td>
<td>86.0</td>
<td>83.2</td>
<td>91.6</td>
</tr>
<tr>
<td>Southern</td>
<td>64.3</td>
<td>56.0</td>
<td>60.2</td>
<td>68.5</td>
</tr>
<tr>
<td>Western Trunk-Line</td>
<td>69.6</td>
<td>73.3</td>
<td>58.1</td>
<td>75.3</td>
</tr>
<tr>
<td>Southwestern</td>
<td>66.9</td>
<td>49.6</td>
<td>42.1</td>
<td>73.9</td>
</tr>
<tr>
<td>Mountain-Pacific</td>
<td>70.9</td>
<td>70.0</td>
<td>74.7</td>
<td>57.6</td>
</tr>
</tbody>
</table>


of traffic moving within all regions than in 1939, with the exception of the Mountain-Pacific Territory. The trend from 1939 to 1944 in this area suggested that a greater growth in its postwar economy could be expected following the war, but the percentage decline in the intraterritorial traffic shown by the 1946 sample apparently reversed the trend. While it is somewhat difficult to explain the declining percentage in this area between the years 1944 and 1946, the increase in interterritorial movement might possibly represent a high seasonal peak movement of manufactured articles into the region from other territories. Without
adequate information on the subject, however, it is dangerous to generalize further.

In terms of the relative importance of intraterritorial traffic in all territories, the 1947 sample can be used to compare percentages against those of 1939. In the latter year, 73 per cent of all traffic moved throughout the nation was intraterritorial, while in 1947 this percentage had increased to 85 per cent.22 Despite the fact that the 1947

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study represented only a fraction of the traffic moving in the 3 month period, it does tend to support the conclusions made previously in regard to the regional expansion of marketing activity. It seems apparent that the territories are utilizing their expanded economic facilities in broader territorial peacetime markets than had been possible in prewar years.

Two additional approaches to the problem of traffic distribution remain for consideration. One analyzes the percentage increases and the distribution of percentage increases of freight originating in the various regions or districts between the years 1939 and 1946. These are condensed by region or district instead of freight-rate territory in Table XV.
Table XV

Increases in Freight Tons Originated by Regions and Districts for the Period between 1939 and 1946:

<table>
<thead>
<tr>
<th>Region or district</th>
<th>Anim. and ores</th>
<th>Mines</th>
<th>ests</th>
<th>misc.</th>
<th>load frt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern District</td>
<td>45.0</td>
<td>33.3</td>
<td>41.2</td>
<td>94.2</td>
<td>46.6</td>
</tr>
<tr>
<td>Pocahontas Region</td>
<td>39.3</td>
<td>---</td>
<td>29.2</td>
<td>104.0</td>
<td>76.6</td>
</tr>
<tr>
<td>Southern Region</td>
<td>63.4</td>
<td>41.6</td>
<td>63.0</td>
<td>91.1</td>
<td>88.8</td>
</tr>
<tr>
<td>Western District</td>
<td>70.1</td>
<td>48.4</td>
<td>50.8</td>
<td>52.8</td>
<td>66.9</td>
</tr>
<tr>
<td>United States</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>54.4</td>
<td>30.8</td>
<td>46.2</td>
<td>82.6</td>
<td>69.7</td>
</tr>
</tbody>
</table>

Per cent Distribution of Total Increase 1946 over 1939

<table>
<thead>
<tr>
<th>Region or district</th>
<th>1939</th>
<th>1946</th>
<th>1939</th>
<th>1946</th>
<th>1939</th>
<th>1946</th>
<th>1939</th>
<th>1946</th>
<th>1939</th>
<th>1946</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern District</td>
<td>14.5</td>
<td>20.9</td>
<td>40.4</td>
<td>9.5</td>
<td>45.1</td>
<td>36.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pocahontas Region</td>
<td>0.4</td>
<td>0.1</td>
<td>12.2</td>
<td>3.5</td>
<td>3.3</td>
<td>7.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern Region</td>
<td>11.0</td>
<td>8.0</td>
<td>18.4</td>
<td>42.1</td>
<td>16.3</td>
<td>13.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western District</td>
<td>74.1</td>
<td>71.0</td>
<td>29.0</td>
<td>44.9</td>
<td>35.3</td>
<td>37.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. Totals</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


The data show the geographical distribution of increases in railroad tons originated, carload freight only, 1946 as compared with 1939. The upper half of the table presents the percentage increase in each region and district for each of the commodity groups. The lower half localizes the changes by showing how the increased tonnage of each commodity group was distributed among the various regions and district.
The Southern Region showed the greatest relative tonnage increase with respect to all freight over the period, but ranked first only in Manufactures and Miscellaneous. Western District was second in total tonnage increase but ranked first in Products of Agriculture, Animals and Products, and Products of Mines, while the Pocahontas Region was first in Products of Forests. Only Southern Region and Western District were above the United States average increase in all carload freight tonnage. As indicated in the lower half of the table, Western District accounted for 37.5 per cent of the total increase in all freight. Eastern District was second with 36.9 per cent, followed by the Southern Region with 19.5 per cent. The Eastern District showed the largest proportion of the total increase in Manufactures and in Products of Mines, while Western District was first in all other groups.

The second approach measures the traffic density by district or region for the first 10 months of 1947 as compared with similar periods of 1946 and 1941. This information is presented in Table XVI.

For the carriers as a whole traffic density increased by 10.7 per cent in the year 1947 over 1946, and was higher by 39.8 per cent, 1947 over 1941. The largest territorial increase was found in the Western District, whose 54.6 per cent was more than twice as great as the percentage increase
Table XVI

Net Ton-Miles Per Mile of Road per Day by Districts or Regions, for the First 10 Months of 1947 as Compared with 1946 and 1941*

<table>
<thead>
<tr>
<th>Region or District</th>
<th>Average number 1947</th>
<th>Average number 1946</th>
<th>Average number 1941</th>
<th>% of increase 1947 over 1946</th>
<th>% of increase 1947 over 1941</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern District</td>
<td>12,389</td>
<td>11,389</td>
<td>9,810</td>
<td>8.8</td>
<td>26.3</td>
</tr>
<tr>
<td>Pocahontas Region</td>
<td>25,742</td>
<td>19,494</td>
<td>21,426</td>
<td>21.0</td>
<td>10.3</td>
</tr>
<tr>
<td>Southern Region</td>
<td>9,303</td>
<td>6,541</td>
<td>4,771</td>
<td>5.5</td>
<td>44.7</td>
</tr>
<tr>
<td>Western District</td>
<td>5,307</td>
<td>5,646</td>
<td>4,079</td>
<td>11.7</td>
<td>54.6</td>
</tr>
<tr>
<td>United States</td>
<td>8,450</td>
<td>7,634</td>
<td>5,043</td>
<td>10.7</td>
<td>39.8</td>
</tr>
</tbody>
</table>


in the Eastern District. However, traffic density was much greater in the East than in the South and West during all three periods, reaching its highest level in the Pocahontas Region, due to the nature of the traffic of this area. Probably the most significant point to be noted from the data is the relative expansion which took place in both Southern Region and Western District in the period between 1941 and 1947.

It seems apparent that the pattern of freight distribution from 1939 to 1946 followed closely the territorial expansion of business activity during those years. The relative increase in the percentage of traffic moving within each of the territories during the period seems to indicate a relatively higher level of industrial activity within each
region in 1947 as compared with 1939. As was indicated in the discussion of regional marketing changes, the East seems to have had a smaller increase in the expanded traffic of the nation than either the South or West.

Probable Effects of the Rate Level Increases on the Future Movement of Regional Freight Traffic

Two different types of rate advances were permitted under the Ex Parte 162 decision. One, in the nature of a uniform horizontal increase, raised the basic level of rates by 25 per cent within Official Territory; by 22.5 per cent between Official and other territories; and by 20 per cent within and between other territories. It applied generally to all commodities which moved under the classification of Manufactures and Miscellaneous, to class rates, and to less-carload traffic. Although granted primarily for the purpose of increasing carrier revenues, the percentage variations within and between regions tended to narrow territorial rate differences in both class and average rate levels.

The second type of advance permitted flat increases regardless of distance, or percentage increases limited to a maximum amount. These were made for the purpose of maintaining, insofar as possible, market relationships existing before the decision. Horizontal percentage increases on industrial
and agricultural commodities have the effect, where they are applicable, of enhancing the competitive position of industries and farm producers located closer to markets and raw materials sources. Thus, the producer or shipper who must meet competition offered by similar groups located nearer established markets suffer a disadvantage. However, by granting flat increases on certain commodities, it is possible to sustain the production and marketing position of the competitors, whether located far from or close to marketing centers. A few examples taken from the Ex Parte 162 case may illustrate the point.

Grain was given a 15 per cent increase, but the advances were accompanied by a mandate from the Commission to restore rate relationships, market, gateway and port equalizations existing before the decision. Increases on citrus fruits and fresh fruits and vegetables were limited to a maximum of 13 cents per 100 pounds in order to preserve the existing differentials between Florida, Texas, and the Pacific Coast products marketed in the northeastern states. On sugar, the increase was limited to 10 cents per 100 pound maximum to preserve existing relationships between southern cane and western beet sugar industries. Iron and steel took a $2.00 per ton maximum in the hope of protecting producers who normally supply distant markets. On canned foods a maximum of 13 cents per 100 pounds maintained the position of the
western canners, just as the similar increase on fresh fruits preserved the position of the western growers.

Attempts were also made to protect the relationships between different commodities which compete each with the other. The outstanding example was the action taken on aluminum and steel. The rate on aluminum and bauxite ore was increased by 12 cents per ton, and a similar increase was allowed on iron ore shipments, except for rates in the Lake Superior region on which no increase was granted. Pig iron took a 20 per cent increase subject to a maximum of 10 cents per 100 pounds and an indential increase was permitted on pig aluminum. On finished products, the Commission departed from identity of treatment by allowing 20 per cent, or a maximum of 10 cents per 100 pounds on iron and steel, as against an increase of 20 per cent, or a maximum of 12 cents per 100 pounds for aluminum sheet. The 20 per cent maximum increase on wool maintained its competitive position with cotton. Identical increases were allowed for both anthracite and bituminous coal, which compete to some extent.23


Most, if not all of the items mentioned in the foregoing discussion move on commodity rates. Since there is no accurate basis for a territorial comparison of commodity rate
levels, it is not possible to measure the increases for their effect on expansion or contraction of territorial commodity rate differences. It seems obvious that rate advances when made to preserve existing market relationships would tend at the same time to maintain territorial differentials established previous to the decision. It is quite possible that the increases may have expanded or reduced commodity freight rate differences within and between territories, but without an adequate index of average commodity rate levels, it is impossible to make a reasonable appraisal of the effects of the decision as it applied to this type of traffic. 24

24. "It is practically impossible to determine average commodity-rate levels, either within territories or between territories .... Commodity rates are special rates which apply on a designated commodity or group of commodities. They are lower than the class rates they supersede, and some commodity rates are lower than the lowest of class rates. Competition plays a larger role in determining commodity than class rates. Studies made by the Board of Investigation and Research show that, on many important commodities, the rates are higher in the South and West than in Official Territory. Examples are salt, plaster, plasterboard, livestock, packinghouse products, cotton textiles, and cement. On some commodities, however, including brick and clay products, fertilizer materials, lime, logs, pulpwood, and scrap iron, the Board found the rate levels to be lower in the South or West, chiefly in the South, than in Official Territory. On coke and sugar, the rates in Official and Southern territories are approximately equal." See Dewey, R. L. "Interterritorial Freight Rate Differences in Relation to the Regionalization of Industry." Journal of Farm Economics. May, 1945, p. 439.
The situation, however, is somewhat different if the analysis is narrowed to those commodities which carried the straight horizontal percentage increases, particularly those of Manufactures and those moving on class rates. It was in the hope of reducing the territorial differences in the class rate structure that the Commission undertook its investigation in 1939. The decision made in 1945 increased the class rate level within Official Territory by 10 per cent. Between Official and other territories, and within and between other territories, class rates were to be reduced by 10 per cent. No class rate adjustment was made within Mountain-Pacific Territory, nor between it and other territories.

Because of the widespread interest in the class rate proceedings, it is proposed to combine it with the uniform percentage increases under the Ex Parte 162 decision for a study of their effects on the future movement of regional freight traffic. It is conceded that the volume of traffic represented by these commodities amounts only to a small portion of the total traffic volume of the nation, and furthermore than an appraisal of the decisions as they affect a relatively small number of articles will have limited application. However, in spite of these qualifications, the proposed analysis should have value. Previous sections of this chapter presented trends which showed a need for a greater development of manufacturing enterprises in the South and West.
Since the products of this type of activity generally fall within the classifications suggested for analysis, the effects of the decisions on possible future development of regional traffic should be of significant interest. Each rate territory will be considered separately in the discussion which follows.

Official Territory

Among all territories, the East is devoted far more than the others to industrial pursuits. It is an intensely developed area on any account. In the year 1946 the region had 49.3 per cent of the national population and 52 per cent of the gainfully employed dwelling in only 16 per cent of the land area of the nation. In the same year, the territory accounted for 56.4 per cent of the national income, and 52.5 per cent of all retail sales. In 1939, 60 per cent of the total employment in manufacturing industries was concentrated in the region while its industries accounted for 76 per cent of the nation's manufacturing industry. In sharp contrast to its high position in the proportionate share of the national income, population, and employment, Official Territory in 1939 had only 29 per cent of the total

population engaged in extractive occupations which produce foods and raw materials. 26

The high level of economic activity experienced throughout the nation during the war and early postwar years increased the level of manufacturing in all territories. Absolute amounts of materials moving to all regions thus tended to increase, but the proportion of products made in Official Territory and shipped to other territories depended partly on the degree to which products manufactured in other regions were offered locally at lower prices. The East, at present, has the highest degree of industrialization and the largest percentage of intraterritorial traffic movement, but it is probable that the percentage of intraterritorial traffic within other territories will increase if the degree of industrialization approaches that of Official Territory.

Both decisions had the effect of raising the basic levels of rates within the Eastern area. In the short-run, they should probably reduce the volume of intraterritorial traffic in the East. However, in the long run, the reduction in class rates and the relative lower level of rates under Ex Parte 162 within other territories, and between Official and other territories, could offset a decline in the intra-
territorial volume of traffic within Official Territory, by stimulating traffic between this area and other territories.

Of importance may be the competitive advantage gained by other regions in the markets within Official Territory as a result of the decisions. For instance, assume that Boston (Official) was competing with New Orleans (Southwestern) for a market in Chicago (Official). Rates from Boston to Chicago would be increased by 10 and 25 per cent respectively, while rates from New Orleans to Chicago would be increased approximately by only 10 per cent. However, if both communities

competed for business in Omaha (Western Trunk-Line), the cities originating the traffic would have their rates reduced by 10 per cent under the class rate decision. The Boston traffic would have its rates increased by 22.5 per cent, while that of New Orleans would be raised by 20 per cent under the Ex Parte 162 decision. The net effect would be to give the traffic from Southwestern a 2.5 per cent advantage over that originating in Official and destined to Western-Trunk-Line Territory.

The class rate reduction of 10 per cent between terrri-
topics and the relatively lower interterritorial level of rates between territories other than Official could make possible the exploitation of resources at present dormant in other regions. These new developments could conceivably involve resources which would not compete with those of other areas. Markets for consumer staples in the South and Southwest, and for housing in the South, Southwest, and West, could be developed without damage to existing production in Official or any other territory. In fact, it is possible that the long-run effects of the decisions could result to the advantage of producers and markets in Official Territory. Future developments of this type would require shipment of commodities now produced exclusively in the East to other regions, thus stimulating interterritorial traffic between Official and other territories, and resulting in a higher level of intraterritorial traffic within Official Territory.

From the point of view of interterritorial traffic, the decisions seem to indicate a short-run relative increase in the cost of production in Official Territory and a slight shift of production from Official to other territories. Long-run effects, as pointed out above, which increase production and marketing activity within other regions, could have the effect of stimulating business activity within Official Territory. Thus the marketing potential of other territories could in the long-run reverse the short-run
effect in Official Territory by the future stimulation of both territorial and interterritorial traffic movements.

It seems reasonable to conclude that a future expansion of manufacturing throughout the nation would lead to an increase in the percentages of products moving on the rates under consideration. In the past, Official Territory has had favorable rates as compared with other territories, and it may be said that this advantage has been one factor contributing to the industrial position held by this region. The granting of equality of treatment through the two decisions would tend to increase the number of tons of freight originating in territories other than Official. These regions might expect a higher level of activity not only in manufacturing but also in the service industries, the latter stimulated through the increases in manufacturing employment. Higher future levels of manufacturing activity throughout the other regions will not necessarily mean a corresponding decrease in manufacturing throughout Official Territory.

Southern Territory

The relatively high gains experienced by this region in the distribution of national income and per capita income during the war should have the effect of increasing the general level of consumption in the postwar period. Increasing needs of the territory alone would probably result in
the development of larger numbers of manufacturing enter-
prises than was possible in prewar years. A trend of this
kind could readily be accelerated by the rate decisions
since both tended to decrease the rate levels as compared
with those of Official Territory. Insofar as the decisions
make possible an increase in manufacturing activity, they
should also tend to increase both the intraterritorial and
interterritorial traffic of the region.

The rate levels in effect previous to these rate pro-
ceedings favored the movement of traffic from North to South.
A trend toward equalization of rate levels between terri-
tories would tend to cause an increase in shipments in the
reverse direction. Assuming other locational factors to be
equal as between the South and North, it is possible that
products of heavy industry originating in the north would
probably move at a greater volume into the South. Thus the
short-run effect of the decision should tend to increase the
interterritorial traffic of the region. At the same time
high postwar consumption in the South would no doubt require
capacity operations of the manufacturing industries in that
area, resulting in higher levels of intraterritorial traffic.
In the long-run, these conditions would tend to hold. Under
rate level equalization surplus manufactured products would
find more favorable markets in the North, while the continued
demand for locally manufactured goods would keep intraterri-
torial movements at a relatively high peak. However, the magnitude of the increased traffic flow both within the territory and between it and other territories would depend upon the future level of national economic activity, particularly in the distribution of national income. On the other hand, contracting business activity would tend to decrease traffic moving interterritorially more than it would diminish intraterritorial movements. The reason lies in the lesser number of small manufacturing enterprises which would probably locate in this region. A future depression would not tend to stop their growth, especially when their products could be distributed to customers in nearby communities.

Western Trunk-Line Territory

While Official Territory may be considered the industrial domain of the nation, this region occupies a similar position with respect to agricultural activity. However, it is possible that an increase in manufacturing will take place in the future. This development would depend largely upon the success in converting wartime facilities to peacetime pursuits. Since the region ranked first in percentage increase in per capita income during the war years, it seems that a larger market for manufactured products would exist in the future.

Both short-run and long-run effects of the decisions look toward a lowering of class rates within Western Trunk-
Line Territory, and between it and other territories. The average level of rates between this region and Official Territory would also tend to be lower. It seems reasonable to infer that traffic between Western Trunk-Line and other territories should be stimulated by the decisions. As in the case of Southern Territory, any development toward a high future level of industrialization would tend in both short-run and long-run periods to increase the levels of interterritorial and intraterritorial traffic. This would be particularly true of shipments of fully or semi-processed materials from Official Territory, and for agricultural products between this region and other territories. The market potential for goods manufactured within the territory will probably be greater for some time than can be met by local industries. Any increase in manufacturing then would seem to find a ready market within the region, thus tending in the long-run to increase levels of intraterritorial traffic.

It is probable that a depression would decrease the interterritorial traffic much more than that moving within the territory. Prices on agricultural products tend to fall at a faster rate than those on manufactured articles during a depression. The fact that levels on freight rates do not fall as rapidly as prices would tend to decrease the interterritorial traffic of the region. In addition to rate rigidity, lower income from lower prices would depress the
demand for manufactured products moving from Official to Western Trunk-Line Territory. While both levels of traffic would show relative decreases, that moving interterritorially would probably decline at a faster rate than the traffic of an intraterritorial nature.

Southwestern Territory

Percentagewise, more capital was invested in industries in this territory during the war than in any other region. It led all others also in the estimated peacetime use of its war facilities. In gains in factory employment, the territory ranked second, while it was third in increases in population and per capita income.

It is somewhat difficult to estimate the relative development of intraterritorial and interterritorial traffic in this territory as a result of the rate decisions. The reduction in class rates within the area as well as between it and other territories should help in retaining the gains made during the war years. For similar reasons to those presented for Southern and Western Trunk-Line territories, the short-run effects should increase interterritorial traffic, but on a long-run basis, both interterritorial and intraterritorial traffic should tend to increase to higher levels than those of prewar years. It is possible that the most important effect of the rate adjustments will be their influence on
the decisions of industries to locate in the region, other
locational factors assumed to be equal.

Because of their proximity, Mountain-Pacific and Eastern
Trunk-Line territories are the best customers for the products
of this region. Any growth in manufacturing in any of the
three territories would tend in the long-run to increase the
interterritorial traffic between them, as well as increasing
the value of intraterriorial traffic within each region.
A depression should decrease interterritorial traffic more
than intraterritorial traffic.

**Mountain-Pacific Territory**

Generally, this region gained more than any other ter­
ritory as a result of the war. It ranked first in population
increases, in percentage increases in the distribution of
national income, and shared first place with the Mid-Atlantic
area of Official Territory for the highest percentages of
income groups. It was second to Southwestern Territory in
the percentage increase in manufacturing activity, and made
the greatest percentage gain in factory employment. Un­
questionably the area represents one of the richest poten­
tial markets of the nation.

In respect to the class rate decision, the territory
occupies a rather unique position. Rate adjustments which
took place within and between other regions did not apply
to the area. However, the Ex Parte 162 decision resulted
in a similar percentage increase within the territory and
between it and other territories as that of Southern, South-
western, and Western-Trunk-Line territories. The net effect
of the decisions would indicate that the rate level of
Mountain-Pacific Territory would be increased over those of
the others, except Official, by approximately 10 per cent.
The lack of a uniform class-rate structure in the territory
makes difficult an analysis of the possible future direction
of traffic. Putting into effect the proposed new classi-
fications will undoubtedly affect the volume of traffic between
Mountain-Pacific Territory and other regions but there appears
to be no available data upon which to base estimates.

Further expansion of marketing activity should in the
short-run stimulate both intraterritorial and interterritorial
traffic. From the point of view of production and marketing
activities the area compared to other regions represents a
relatively younger section of the nation. It will need a
substantial period of time to develop its full economic
potential. Even though the rate levels are higher than those
of the surrounding territories, it is possible that high
marketing possibilities would overcome this handicap. On
the other hand, lower production costs as a result of lowered
rate levels in nearby regions could cause a migration of cap-
ital and labor from this area. Under such circumstances,
the long-run effects would tend to reduce the volume of in-
traterritorial traffic at a greater rate than that of inter-
territorial traffic. A business depression would seem to have a similar effect.

Summary

By the end of 1945, the rate of return to Eastern railroads had fallen below the levels of those operating in the South and West. For this reason in 1946 higher intrasterritorial and interterritorial rate increases were authorized for the Eastern District than for other regions. The advances, intended to increase railroad earnings, when horizontal percentage increases, tended to narrow territorial differences in class and average rate levels. Measured against the financial record of the first half of 1947, or estimated earnings for the entire year, the rate increase granted in Ex Parte 162 did not seem to improve the Eastern return as well as that of other territories.

A basic cause of the territorial financial developments during and after the war could be ascribed to shifting regional marketing activity which arose through expansion of the national economy during the emergency. On a regional basis, the war increased manufacturing, accelerated the trends toward a westward movement of population and urbanization, increased total population, and tended to equalize better the national income distribution. Intense postwar demand registering through regional markets was probably the immediate
reason for the high volume of intrastate traffic within the several territories, as regional needs wherever possible were filled by local production. The trend toward a broadening of national markets should mean future expansion in the volume of interterritorial freight traffic. Both Ex Parte 162 and the Class Rate decisions would seem to accelerate this tendency.
CHAPTER VII
EX PARTE 162 AND POSSIBLE EFFECTS ON PRODUCERS, CONSUMERS, AND AGENCIES COMPETITIVE WITH THE RAILROADS

This chapter presents some of the possible effects of the railroad rate level decision upon producers, consumers, and competitive transportation agencies. At the beginning it should be pointed out that sources of information upon these topics are extremely limited even though each is vitally important in an investigation of this nature. One of the reasons for the paucity of data is the complicated structure of a modern industrial economy. To portray clearly the effects of railway rate changes upon the commerce of the nation, it would be necessary to trace the resulting changes in thousands of commodity prices. Furthermore, it would be essential to evaluate the many different competitive adjustments which follow a changing price policy of so important an economic function as transportation.

Another reason which makes difficult the task of tracing the effects of rail rate increases lies in the complexities involved in the pricing problem of the railroads. Here will be found one of the most complex masses of economic data in existence. Rail carriers have in effect over half a million different rate tariffs, each containing from one to thousands of individual prices. The total number of pages in these
publications would probably run into the millions while the number of individual rates would be well into the hundreds of millions. In view of these obstacles, it is perhaps understandable why producers, shippers, and independent observers have had little success in analyzing the effects of rate changes upon individual marketing relationships. Possibly the trend toward rate stability will in the future partially ease the problem, but until such uniformity is achieved it appears unlikely that rate level changes as they effect economic relationships can be measured with a substantial degree of conciseness. However, the planned chaos which seemingly describes the present railroad structure does not destroy the contention that the effects of changes in the prices of railroad service upon the flow of commerce are of far-reaching significance to all economic groups.

It is for these reasons that the three topics outlined above have been combined, with a full realization that a general treatment of each leaves many more loose ends untreated than would be true if a more comprehensive investigation was possible. In the space assigned only tentative limited conclusions can be drawn.

The major part of the chapter will be devoted to a discussion of the Ex Parte 162 decision and its possible effects upon commodity production and distribution. Following an introductory statement regarding the importance of freight
rates on agriculture as compared with those on manufacturing, this section attempts to analyze the results of freight rate increases in four broad fields of interest. The first of these considers the general area of agricultural products. The second relates to products of forests, while the third applies to products of mines, with specific attention directed to the coal industry. Effects of rate advances upon the marketing of steel is the last area examined. Possible consumer reaction to increased freight charges, and the effect upon railroad competition will be discussed in the final sections of the chapter.

The Importance of Freight Rates in Agricultural Industries as Compared with Those in Manufacturing Industries

In the case of manufactured products, the expenses of transportation are normally recovered through additions to fabrication costs and by passing them along to the consumer in the form of market prices. It is not difficult for manufacturers to follow this practice, for they can usually forecast their costs with some degree of accuracy and plan their production accordingly. But conditions in agriculture are different. Farmers seldom know their costs with the precision found in manufacturing. Standardization of expenses, possible in industry, is impossible on the farm.
The industrial entrepreneur uses certain quantities of material which when combined with the necessary amounts of capital and labor will tend to produce under usual working conditions a determinate amount of the finished product. In agriculture, however, it is difficult to know just what constitutes normal or usual costs. Seasonal or yearly climatic changes, insects, and diseases among crops and cattle, make it impossible for the farmer to know what it costs to produce a bushel of wheat, or a steer, or hog.

Thus the allocation of expenses in farm production can at best only be estimated. But even if costs were accurately determined, they do not furnish a basis upon which prices may be established. In the first place, production and distribution costs differ among different producers and often vary to a considerable degree among different regions. Second, there are few organizations among farmers comparable to those of industrial producers which enable them to fix a price for a commodity and adhere to it. Probably of more importance is the fact that agricultural production is highly seasonal while that of manufacturing is reasonably continuous. It is possible for industrial producers to curtail production when prices decline and in this manner exercise some control over supply until a more normal price is restored. But when production on the farm is completed there is relatively little individual control over the supply of the commodity. Under
this condition, if a large supply is available at a given market so that under given demand conditions the price as a result is lowered, a high freight rate leaves the farmer with a reduced income. Price in this respect is considered under short-run marketing conditions. Over a longer period, if one type of production gives promise of higher profits, the farmer would probably shift from the less profitable crop to the products which bring higher prices, upon which the transportation burden would normally be lower.

As a producer, then, the farmer receives a market price from which transportation charges are deducted or are paid separately. As a consumer, he buys his equipment and supplies at a price which includes whatever transportation costs the manufacturer or dealer are able to pass along to him. In other words, he sells in a market which is highly competitive at a price which is practically impossible to influence by his own actions, while he buys in a market subject to many of the forces of monopolistic competition. Under these circumstances it is not surprising to find that the level of freight rates governing the movement of his commodities is of vital concern to the farmer. Of course freight rates are important to the manufacturer in determining prices at which his products will be sold to the consumer, and on the average freight rates are considerably higher on manufactured goods than on farm products. But because it is
possible to add freight costs to expenses of processing, the transportation burden may be felt less by the manufacturer than the farm producer.

This conclusion is based upon a study of the percentage of freight charges to market prices of farm products, and to the net sales of incorporated businesses from 1930 to 1945, as presented in Table XVII. Through the nineteen thirties, freight charges as a percentage of farm market prices were higher than those of incorporated businesses. However, during the war years, the situation was reversed. Over the entire period the percentage of freight charges to farm market prices averaged .058 per cent, while that to non-farm prices was .049 per cent.

The Ex Parte 162 Decision as it Affected Agriculture

The rail carriers requested that rates be increased by 25 per cent on agricultural commodities, except for cotton in bales, wool, fruits, and vegetables. Similar increases were proposed on the excepted products but these were to be subject to maxima of 10 cents per 100 pounds on cotton shipments and 15 cents on fruits and vegetables. Such limitations were designed to preserve commercial relationships and to secure the greatest possible volume of traffic in competition with other transportation agencies. To justify their requests, the railways asserted that products of agriculture as a whole were not bearing their full share of transportation
Table XVII

Cash Farm Prices Received by Farmers, Net Sales of Incorporated Business, Freight Charges on Farm and Non-Farm Shipments, and Percentages of Freight Charges to Farm and Non-Farm Market Prices for the Years, 1930-1945*  

<table>
<thead>
<tr>
<th>Year</th>
<th>Farm prices (Millions)</th>
<th>Frt. chgs. (Thous)</th>
<th>Net sales business (Millions)</th>
<th>Freight charges (Thous)</th>
<th>Farm prices (Millions)</th>
<th>Non-Farm prices (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1930</td>
<td>$9,021</td>
<td>$675</td>
<td>$66,216</td>
<td>$3,307</td>
<td>.074</td>
<td>.050</td>
</tr>
<tr>
<td>1931</td>
<td>6,371</td>
<td>600</td>
<td>57,316</td>
<td>2,538</td>
<td>.094</td>
<td>.044</td>
</tr>
<tr>
<td>1932</td>
<td>4,743</td>
<td>480</td>
<td>46,041</td>
<td>1,864</td>
<td>.101</td>
<td>.045</td>
</tr>
<tr>
<td>1933</td>
<td>5,314</td>
<td>450</td>
<td>43,517</td>
<td>1,942</td>
<td>.095</td>
<td>.045</td>
</tr>
<tr>
<td>1934</td>
<td>6,334</td>
<td>448</td>
<td>46,538</td>
<td>2,079</td>
<td>.077</td>
<td>.042</td>
</tr>
<tr>
<td>1935</td>
<td>7,086</td>
<td>430</td>
<td>53,141</td>
<td>2,301</td>
<td>.061</td>
<td>.044</td>
</tr>
<tr>
<td>1936</td>
<td>8,367</td>
<td>472</td>
<td>59,105</td>
<td>2,786</td>
<td>.056</td>
<td>.048</td>
</tr>
<tr>
<td>1937</td>
<td>8,850</td>
<td>484</td>
<td>63,350</td>
<td>2,874</td>
<td>.057</td>
<td>.045</td>
</tr>
<tr>
<td>1938</td>
<td>7,686</td>
<td>527</td>
<td>60,967</td>
<td>2,286</td>
<td>.068</td>
<td>.038</td>
</tr>
<tr>
<td>1939</td>
<td>7,877</td>
<td>517</td>
<td>63,816</td>
<td>2,693</td>
<td>.066</td>
<td>.042</td>
</tr>
<tr>
<td>1940</td>
<td>8,343</td>
<td>510</td>
<td>68,275</td>
<td>2,996</td>
<td>.061</td>
<td>.044</td>
</tr>
<tr>
<td>1941</td>
<td>11,157</td>
<td>597</td>
<td>78,271</td>
<td>3,851</td>
<td>.052</td>
<td>.049</td>
</tr>
<tr>
<td>1942</td>
<td>15,316</td>
<td>709</td>
<td>86,713</td>
<td>5,242</td>
<td>.046</td>
<td>.060</td>
</tr>
<tr>
<td>1943</td>
<td>19,342</td>
<td>903</td>
<td>97,102</td>
<td>5,993</td>
<td>.047</td>
<td>.061</td>
</tr>
<tr>
<td>1944</td>
<td>20,238</td>
<td>913</td>
<td>105,054</td>
<td>6,125</td>
<td>.045</td>
<td>.059</td>
</tr>
<tr>
<td>1945</td>
<td>20,761</td>
<td>985</td>
<td>115,799</td>
<td>5,685</td>
<td>.043</td>
<td>.051</td>
</tr>
</tbody>
</table>


1. Does not include Government subsidy payments.
2. Net sales to private consumers only.
charges, since the existing rates had been established during depression years and were on a lower level than they otherwise would have been. The Secretary of Agriculture opposed these arguments by emphasizing that the proposed advances were disproportionate to those requested on other commodities, particularly iron, steel, and coal.¹ Shipping groups and numerous State authorities called for increases to amount to only 50 per cent of those granted on general traffic. They took issue with carrier contentions that the volume of agricultural traffic in 1947 would be lower than in 1946, and suggested that the increases be limited to those authorized in the interim report of July 1, 1946.²

¹. Ex Parte 162. Increased Railway Rates, Fares and Charges, 1946. 266 I.C.C. 537, 570, 573, 578. 1946.

². Ibid., p. 555. Forecasts of the railroads as to probable lowered levels of agricultural traffic in 1947 proved somewhat inaccurate. Measured by the weekly averages of carloadings reported by the Association of American Railroads to the Commission, increases in grain and livestock traffic were noted in every month between January and October, with the exception of February. The gains made during 1947 over the levels of 1946 ranged from a low of 3.1 per cent during May, to a high of 12.6 per cent during August. See Interstate Commerce Commission, Bureau of Transport Economics and Statistics. Monthly Comment on Transportation Statistics. August 15, 1947, p. 8; November 14, 1947, p. 4.
The carriers' statement that agricultural commodities were not bearing their fair share of the transportation burden was also countered by the Commission. It was shown that in the year 1940, products of agriculture contributed about 28.3 per cent of the total revenues and 19.9 per cent of the total tonnage to the carriers operating in the Western District; 12.2 per cent of revenues and 7.1 per cent of tonnage to Eastern railroads; and 13.8 per cent of revenues and 7.6 per cent of tonnage to Southern carriers. By way of contrast, Western carriers in the same year obtained 45 per cent of their tonnage and 15.8 per cent of their revenues from products of mines, while the carriers on the whole received 57.3 per cent of their tonnage and only 31.3 per cent of their revenues from this source.\(^3\)

\(^3\) Ex Parte 162, op. cit., p. 556.

During 1946, the average revenue yields per ton in various commodity classes showed the following: Products of agriculture, $6.17; animals and products, $11.77; products of mines, $2.03; products of forests, $4.18; manufactures and miscellaneous, $8.48; all-revenue freight, $4.88.\(^4\) The

\(^4\) Ibid.
comparisons show that animals and products produced about 40 per cent more revenue per ton-mile originated than manufactures and miscellaneous, more than twice as much as products of forests and all-revenue freight, and more than five times as much as products of mines. Agricultural products were responsible for more income than the other groups with the exception of manufactures and miscellaneous, and animals and products. Combining the latter group with products of agriculture shows the contribution of the agricultural industry to revenues of the rail carriers to have been highly significant.

Agricultural production during 1946 had increased over prowar years by approximately 33 per cent. On a relative basis, the industry was in a highly profitable condition, and based upon the 1910-1914 index, the farm parity ratio during this year stood at 120. However, the index was not an adequate measure of the farmer's economic status since it did not include increases in wages to farm labor. On the basis of the 1910-1914 index, the farm wage-rate measured 359 in 1945, and by July, 1947, had risen to 404.\textsuperscript{5} Moreover,

\begin{footnote}
\end{footnote}

the postwar prosperity in agricultural areas was general
throughout other sections of the nation.

The Ex Parte 162 decision authorized rate increases of 15 per cent on farm commodities whether they were shipped on class or commodity rates. With the exceptions made on cotton, citrus fruits, vegetables and wool, the advances were of a uniform horizontal percentage type. They were

6. The full increase of 15 per cent applied to the following products: wheat, corn, oats, barley, rye, rice, flour, meal, hay and alfalfa, straw, tobacco, cotton and cottonseed, potatoes, cabbages, onions, tomatoes, beans, peas, peanuts in the shell, flaxseed, sugar beets, and products of agriculture not otherwise specified. The full increase was also authorized on cattle and calves, sheep and goats, hogs and live poultry. Cotton in bales took the full increase subject to a maximum of 10 cents per 100 pounds; citrus fruits and vegetables 13 cents per 100 pounds; and wool was subject to 20 cents per 100 pounds. Ex Parte 162, op. cit., pp. 619-620.

accompanied by a mandate from the Commission that carriers adjust resulting rates to restore rate relationships and market equalizations, so that such adjustments would represent as much as possible the equivalent of a 15 per cent increase in revenues.

The fact that all railroad rates were raised proportionately on the bulk of agricultural commodities was small comfort to the shipper located far from his market if he had competition closer to the market. The increases raised transportation costs of the distant producers much more than those to shippers near consuming points. This fact is illustrated in Table XVIII, which presents information relative
Table XVIII

A Comparison of Carload Freight Rates on Wheat and Orange Shipments before and after the Ex Parte 162 Rate Increases*  

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>June 30 1946</th>
<th>January 1 1947</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Bend, Kansas</td>
<td>Chicago, Ill.</td>
<td>35</td>
<td>40.2</td>
</tr>
<tr>
<td>Williston, N. D.</td>
<td>Chicago, Ill.</td>
<td>42</td>
<td>47.3</td>
</tr>
<tr>
<td>Pullman, Washington</td>
<td>Chicago, Ill.</td>
<td>71</td>
<td>81.7</td>
</tr>
</tbody>
</table>

Difference: Great Bend & Williston 7 7.1  
Great Bend and Pullman 36 41.7

B. Orange Rates in cents per 100 lbs

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>June 30 1946</th>
<th>January 1 1947</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Wales, Florida</td>
<td>New York City</td>
<td>65.7</td>
<td>75.6</td>
</tr>
<tr>
<td>Los Angeles, California</td>
<td>New York City</td>
<td>135.0</td>
<td>153.0</td>
</tr>
</tbody>
</table>

Difference: Lake Wales and Los Angeles 69.3 78.0


to the rate increases upon the movement of wheat and also indicates the method by which the maximum increases are used to soften a competitive situation as in the case of orange shipments.

Farmers in Kansas, North Dakota, and Washington who desire to sell wheat in the Chicago market absorb the freight costs. Prior to the decision a producer at Great Bend, Kansas, had a seven cent per 100 pounds advantage over the
producer at Williston, North Dakota, and a 36 cents advantage over the farmer located at Pullman, Washington, into the Chicago market. Because of the 15 per cent horizontal increase, the farmer at Great Bend had a 7.1 cents advantage over his competitor at Williston, and a 41.7 cents advantage over the Pullman grower. Since the increases in the differentials between the rates after the decision could not be passed on to buyers, they represented a competitive disadvantage to Chicago for the higher rated area.

In the case of oranges, the competition between growers in Florida and California was so intense that a limit was placed upon the amount of the increases. As shown in the table, the rates between Lake Wales, Florida to the New York market were increased by the full 15 per cent, but the rates between Los Angeles and New York were limited to about 13 per cent since the maximum of 13 cents per 100 pounds applied on shipments between these points. In other words, the application of the full percentage increase on the movement of oranges between California and New York would have been over the maximum allowed in cents per 100 pounds. Consequently, the advantage of Lake Wales over Los Angeles into New York increased by approximately 9 cents rather than 11 cents per 100 pounds, which would have been the case under the straight horizontal percentage increase.

The total revenues received in 1945 by Class I carriers
for products of agriculture amounted to $985 million. Of this sum, $707 million applied to commodities for which the 15 per cent increase was specified. The remaining $278 million were derived principally from fruits and vegetables, the bulk of which moves long distances so that the maximum advances would be effective on a large share of the traffic. The rate increases for the entire group of items moving under the classification of products of agriculture would probably be less than 15 per cent. For all groups of farm products the advances were expected to result in revenues of $241 million over the $1,512 million produced by farm products and derivatives in 1945. These figures assume volume and length of haul during 1947 to be maintained at 1945 levels. The estimated total of $241 million when compared to the 1945 cash farm income of $21.5 billion amounted to slightly more than 1 per cent. But on the basis of the 1945 net realized income of $12.5 billion, the increases amounted to slightly more than 2 per cent. The initial impact in all


probability was on the farmer but over long periods of adjustment the consumer could be expected to bear a portion of the increases.
The major concern of agricultural shippers at present does not center on the question of whether or not they could have afforded the 1946 rate increases. Rather it is the long-run relationship between the railroad rate level and farm income that poses the problem. Past experience has shown that the level of freight rates remains relatively stable regardless of prevailing economic conditions. Recent economic history also shows that in periods of emergency, agricultural prices generally rise before those of other products, and, conversely, fall first when the general price level declines. In spite of the future possibility of government support to the industry, if a recession develops in the years hence, agricultural prices will probably decline faster and farther than others simply because the farm business is of a nature which makes it impossible to discontinue production. While sporadic freight rate reductions may take place on individual commodities, it cannot be assumed that the level of rates would be reduced on a comparable basis. Farmers would thus be faced with a declining price level for their products while they would be forced to pay a freight rate maintained on a relatively high level. Such hardship could well result in farm pressures for legislation pertaining to rate-making practices similar to that prescribed under the Hoch-Smith Resolution of 1925.
The Effect of the Decision on Forestry Products

The two major lumber-producing areas in the nation are the Pacific Northwest and the South-Southwest. Railroads serving these regions are naturally the largest originators of lumber and products. In 1945, for example, total products of forests (excluding rosin, turpentine, and crude rubber) originated by rail carriers serving the Pacific Coast constituted 13.5 per cent of total carload tonnage originated, whereas the corresponding proportion originated on all Class I railroads in that year was only 5.6 per cent. 8

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Railroads which operate in the Western District, particularly those serving the states of Washington and Oregon, originate at least one-half of the nation's total lumber shipments. Lumber is easily transported. It is easy to handle, difficult to damage, and is usually moved in large quantities. These characteristics make it a desirable freight commodity from the point of view of railways, motor trucks, and water carriers. Competition for the traffic results in low rates so that lumber is moved long distances to market. But because freight costs are high in proportion to production costs, lumber shipments are usually sensitive to conditions
of transport and the freight rate to an unusual degree de-
termines not only the agency employed to carry it from mill
to market, but also the boundaries of the region in which
the product can be sold.

Shipments of lumber into mid-western markets follow
three major routes. One comprises the all-water route from
the Pacific Coast through the Panama Canal to Atlantic and
Gulf ports, thence west and northward by rail or truck; or
through the New York Barge Canal and over the Great Lakes;
or from the Gulf ports up the Mississippi River by barge
into the interior markets of Chicago, St. Louis, and Cin-
cinnati. The second is the all-rail route from the Pacific
to interior and eastern distributing points. The third route
is the all-rail movement from the South to markets in the
Northeast and in the upper Mississippi Valley.

Railway rates from producing areas into the major
markets reflect the influence of carrier and market compe-
tition. The rates are usually grouped on points of origin
and destination. As a result, rigid distance relationships
are not emphasized. However, while competition makes diffi-
cult a strict observance to distance scales, it will be
found that the more distant market groups usually take
higher rates than the less distant groups.

World War II brought a marked change in the distribution
of western forest products. Prior to the emergency, lumber
had been moving in heavy quantities by intercoastal carriers to the East, and to California by carriers in the coastwise trade. When these services were suspended, the traffic fell to the railroads. In the period between the years of 1939 and 1943, water-originated lumber traffic from Washington and Oregon declined some 68 per cent. The result was to increase the revenues of railroads from all forest products by $183 million during the period.9


On lumber products the Ex Parte 162 decision authorized flat rate increases which ranged from 8 to 10 cents maximum per 100 pounds.10 Since the rates were not advanced per-

10. Logs, wood (fuel), and pulpwood took the 8 cents maximum. Posts, poles, piling, ties, lumber and products, boxes, crates took the 10 cents maximum. Ex Parte 162, op.cit., p. 622.

centagewise, distance relationships were largely disregarded. To illustrate the effect of the rate increases on lumber products, freight rates prior to and following the decision from Spokane to selected market points in the Mid-West, East, and South, are presented in Table XIX.
Table XIX

Lumber Freight Rates from Spokane, Washington, to Selected Market Points Before and After the Ex Parte 162 Freight Rate Decision*

<table>
<thead>
<tr>
<th>Destination</th>
<th>June 30, 1946</th>
<th>January 1, 1947</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kansas City, Missouri</td>
<td>62</td>
<td>72</td>
</tr>
<tr>
<td>Chicago, Illinois</td>
<td>72</td>
<td>82</td>
</tr>
<tr>
<td>St. Louis, Missouri</td>
<td>72</td>
<td>82</td>
</tr>
<tr>
<td>Detroit, Michigan</td>
<td>86-82</td>
<td>96-92</td>
</tr>
<tr>
<td>Buffalo, New York</td>
<td>89-82</td>
<td>99-92</td>
</tr>
<tr>
<td>New York, New York</td>
<td>91-82</td>
<td>101-102</td>
</tr>
<tr>
<td>Atlanta, Georgia</td>
<td>91½</td>
<td>99</td>
</tr>
</tbody>
</table>


1. To the East of Chicago in Official Territory lower rates apply to lumber not further manufactured than passing lengthwise through a standard planing machine. These rates are the lower of the two shown in the table.

Flat increases applied to lumber shipments maintained the competitive markets of the western and southern producers. A possible exception was the increase in rates from Spokane to Atlanta. While the advances generally raised the prevailing level of rates to all destinations shown in the table, the increase in the Atlanta rate was under the maximum authorized. Undoubtedly the competitive influence of southern producers was reflected in this adjustment. On the basis of the limited data available there was little evidence that the tendency of the rail carriers to group points of origin and destination was affected through the
decision. Although it is impossible to predict the future course of agency competition or the future trend of rate adjustments on lumber shipments, one fact seems certain. Gains made by the rail carriers during the war period are important enough to hold in the peacetime economy, and it may be expected that railroads will do everything in their power to retain the lumber business. On the other hand, water carriers and motor trucks will probably make a strong effort to regain lumber traffic thus lost during the war years, so that competition for the lumber traffic would tend to be more intense in the future.

Effects of the Ex Parte 162 Decision on Products of Mines

From the standpoint of tonnage and revenues, the commodities embraced in this classification constitute the most important of all groups. Coal is at present and long has been in first place among commodities carried by the railroads. No other item approaches it in importance as a source of railway earnings and there is nothing in the foreseeable future to offset the losses that would follow a marked decline in coal shipments. Also, coal shipments have been less susceptible to business cycle fluctuations than have those of any other product. As a result, during the thirties coal occupied a much more important place in
total railroad business than in the pre-depression twenties, or during the war-swollen traffic of the forties. Thus, it is in the poor years that coal assumes its greatest value and thereby constitutes the strongest support upon which financially crippled carriers may lean.

In 1940, Class I railroads originated 373 million tons of coal and coke on which revenues of $792 million were received. This amounted to approximately 37.5 per cent of total tonnage and 23.1 per cent of total revenues for that year. In contrast, during 1928, 432 million tons amounting to 34.6 per cent of the total tonnage was carried. The revenues were $932 million or 22.8 per cent of the total. In the depression year of 1932, 432 million tons representing 43.2 per cent of total tonnage were carried, on which $602 millions were earned. The revenue from coal in this year approximated 26.4 per cent of the total operating revenue.


The coal industry has long been characterized by over-development of mines and extremely keen competition for markets. Because of the widely varying qualities of the coal from different fields and the equally varying costs of production, it is practically impossible to completely analyze
the competitive phases of the industry. Railroads themselves have further increased competition by constructing branch lines into new fields and establishing rates which put new fields into markets already served by older producing points. Coal rates historically have been made so as to group points of origin and destination. Competition between railroads and between mines became more intense and tended to enlarge the original groups. Naturally, from a marketing standpoint each mine wanted freight rates to be as favorable as those granted its competitor, but there were limits beyond which the railways could not go in equalizing rates from differently located mines since profits were likely to disappear if costs of hauling coal extra distances were not covered. However, the general groups continue in existence even though their boundaries are modified from time to time.

Thus the present rates from each field into different markets are generally not made in relation to distance, but are established through a system of "differentials" from competing groups. The rates to a large extent are influ-

12. "As to the relation between the rates to given markets from different groups, the railroads have tried to establish differentials which would allow the mines each to get a fair share of their logical markets. In Illinois, for instance, there are numerous mine groups extending south from Chicago, beginning with the three northern groups, Wilminton, Third Vein, and Peoria; going to the Springfield group in the middle of the state and the
Danville group in the eastern part; on down to the Belle­ville group near St. Louis and the Centralia group; and finally to the Southern Illinois group in Williamson and Franklin counties. Rates from these groups to points northwest of Chicago as far as Minnesota were quite early related to one another by differentials above what were called basic rates from the three northern groups to these points. The Springfield group was given a rate 40 cents per net ton higher than the base rates; Danville, 57 cents higher; Belleville and Centralia along with the Brazil­Clinton group in Indiana, 60 cents; and the Southern Illinois group... 70 cents." Healy, K. The Economics of Transportation in America. Ronald Press, New York, 1940. p. 242.

enced by the competition of other forms of transportation and by the competition of other fuels. Motor trucks compete for short runs and water carriers on a long distance basis. The volume carried by the railroads is subject to the competi­tion of natural gas and hydroelectric power, and of fuel oil which moves principally by pipe line. The major compet­itor of coal in the fuel and energy market is natural gas, the consumption of which has increased by over 210 per cent between the years of 1928 and 1944. At the same time the consumption of fuel oil increased by about 85 per cent.13

13. Table IX, Appendix B, presents statistics on the transportation of bituminous coal by Motor Carrier, Water Carrier, and Railroads between the years of 1933 and 1945. Revenue losses to the bituminous coal indus­try and to the Class I railways through the increased consumption of competitive fuels will be found in Table X, Appendix B.
Largely because of the intricate competitive situation, the coal interests in the Ex Parte 162 proceedings argued that increases in rates should be made in the form of flat advances per ton or by percentage increases subject to maxima considerably lower than that applied on traffic in general. Railroads proposed rate increases on bituminous coal to the extent of 15 cents per ton within and to the territory east and south of a line along the west bank of Lake Michigan and the west bank of the Mississippi River between Burlington, Iowa, and the Gulf of Mexico; and on the through all-rail rate from the Appalachian fields to all destinations. It was also suggested that graded increases ranging from 15 to 40 cents per ton be made within and to the territory west and north of the line described above, with the exception of the rates proposed from the Appalachian fields. On anthracite coal and coke, graded increases from 15 to 40 cents per ton were requested. An increase of 15 cents per ton would raise the level of rates about six per cent above those in effect on June 30, 1946. The graded increases would approximate 15 per cent over the levels of the same date. 14


Shippers generally conceded that some increases were justified in coal rates but they were concerned over the
effect of the proposed advances on the rate relationships then currently in effect between producing fields and marketing groups, and between bituminous and anthracite coal. Many of their objections to the railroads' proposals contained a good deal of merit. For example, greater rate increases were requested to Dubuque, Iowa, and to other west-bank Mississippi crossings north of Burlington than to St. Louis and other west-bank crossings in Missouri and Iowa south of Burlington, even though both sets of crossings were in Official Territory. Greater increases were also proposed from mid-western and southwestern producing fields to similar destinations than for the longer hauls from the Appalachian area. As to the greater advances on anthracite coal than on bituminous, the railroads contended that it was necessary since the anthracite originating lines were in greater need of revenue than were those roads originating bituminous coal. However, the Commission pointed out that

... all the coal-hauling roads are adversely affected by increased costs, and while some of them are more seriously affected than others, this difference is not sufficient to warrant differences in treatment ... Moreover the different method and lower quantum of increased proposed on these commodities than on other commodities generally are not based on differences in costs of transportation or revenue needs as between the coal carrying lines and other lines, but rather on competition with other forms of energy, and with transportation, and other matters having to do with the value of the service in general are not less impelling for one haul of bituminous coal than for another or on anthracite ... than on bituminous.
Rate increases were authorized on anthracite and bituminous coal, and coke in the following manner: 15 cents per net ton or 17 cents per gross ton to be applied to all basic rates up to $1.00 per ton as rated; 25 cents per net ton or 28 cents per gross ton on basic rates over $1.00 and not over $2.25 per ton as rated; 30 cents per net ton or 34 cents per gross ton on basic rates over $2.25 per ton as rated. Where coal was transported by water precede and followed by rail transportation, or transported by rail at a combination of two separately established rates, the aggregate amount of the two rail factors was to be considered as the rate to be increased. It is interesting to note that the system of increases proposed by the railroads were rejected by the Commission and a new series of graded increases were granted with a view to maintaining as much as possible the existing marketing relationships.

Actual data showing the effect upon individual coal producing regions or upon certain markets of the rate advances are not available. Even though the advances were
of the "flat" type, determined by the prevailing basic rate in existence before the decision, the groups located farthest from producing points tended to suffer a greater disadvantage than those nearer the mines. Where the basic rate was $1.00 per net ton prior to the Ex Parte 162 case, the increases added 15 cents, making the total $1.15. However, if the prevailing rate before the decision was $2.25, the advances added 30 cents per net ton, or a total of $2.55. Thus the differential of $1.25 between the high- and low-rated groups was advanced to $1.40. While the intent of the Commission may have been maintenance of competitive relationships, the effect on a distance basis was to grant increases of a percentage type. There could be some validity in the assertions of coal producers that rate increases of this kind would tend to drive coal traffic from the rails to other agencies. From the point of view of a distant consumer these fears might prove accurate in the future.

The Decision as it Affected the Marketing of Steel

The basic raw materials of limestone, iron ore, and coal are required for the manufacture of steel. Not only are coal and limestone very abundant in certain areas of Pennsylvania and Illinois but they possess the necessary characteristics for steel production. The bulk of the iron ore needed is mined near the shores of Lake Superior and the
natural waterway offered by the Great Lakes supplies a route which brings the ore to processing points at a minimum of transportation expense. The movement of raw material must meet at some intermediate point where transportation costs are at a minimum, and this fact explains one of the important elements in the location of the industry.

Most of the nation's steel production is centered in the states of Pennsylvania, Ohio, Indiana, and Illinois, with lesser amounts manufactured in New York, Maryland, West Virginia, and states in the South and West. The two greatest centers are those of the Pittsburgh district and the Chicago region. Both obtain ore at a very moderate cost and both have easy access to the coal of Pennsylvania and Illinois.17

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17. While not specifically mentioned above, the Alabama mills supply a considerable amount of steel to meet a local demand, and some reaches Texas and even the Pacific coast. However, this district does not meet the needs of its own area as shown by the fact that 43 percent of the iron and steel items transported by souther railways originated outside of the southern states between the years 1928 and 1932. 201 I.C.C. 92. 1934. For a discussion of the geographical capacity of steel processing regions, see Daughtery, C. R., de Chazeau, M. G. and Stratton, S. S. The Economics of the Iron and Steel Industry. Vol. 1. New York, McGraw-Hill Book Co., 1937. p. 30-50.

Steel is usually transported over distances of moderate length.18 Because its movement is heavy, concentrated, and

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18. An analysis of steel movements for 12 days of each month during the year of 1925 revealed the longest haul
to be 1,110 miles while the shortest averaged 174 miles. See Daggett, S., op. cit., p. 199.

continuous, the traffic is advantageous to the railroads. Large quantities of steel can be carried in open cars. Average loadings exceed those of any other commodity transported by rail carriers with the exception of products of mines. However, these same considerations make steel traffic attractive to water carriers. Some competition is found on the Great Lakes as well as on the Mississippi River, although the major marketing channels do not readily lend themselves to river hauls. To some extent, trucks are used to carry steel but highway facilities have not yet been developed to the point where long distance transportation is possible, except possibly in the shipment of relatively small units.19


In the period from 1916 to 1943, the mill price of steel varied from 1.5 to 3 cents per pound, and since it is classified as a heavy, low-grade item, freight rates are an important factor in delivered prices.20 For some years
prior to 1924, market prices of steel were customarily quoted on a Pittsburgh base and the system became known as the "Pittsburgh plus" method of pricing. Briefly stated, this meant that mill prices were quoted to any market plus the freight charge from Pittsburgh regardless of whether or not the steel was actually shipped from that point. Certain plants collected more for freight than they actually paid to the carriers since steel was shipped from a plant enjoying a lower rate to destination point than that on shipments from the Pittsburgh mills. The system was attacked as discriminatory against steel consuming industries located in the Chicago area. It tended to maintain the Pittsburgh markets by making steel as cheap to buyers as that obtained from any other mill. The practice was condemned by the Federal Trade Commission in 1924, and was replaced with a plan of multiple basing points. Different bases were established for different products but these new points usually included the old bases of Pittsburgh, Chicago, and Birmingham, and the prices at the latter two points continued to be higher than those of Pittsburgh. In 1938, as a result of a general investigation made by the Government into monopolistic prac-
tices of industries, the pricing structure was revised by reducing or eliminating the price differentials between the principal basing points. New bases were added and this development tended to reduce the over-all price of steel. 21


Taken collectively, iron and steel products represent the third most important group of commodities in point of tonnage and the second in revenues. In 1945, they furnished about 99 million tons of traffic which earned some $467 million. The rail carriers requested 25 per cent increases on these products subject to a maximum of 4 cents per 100 pounds or 80 cents per net or gross ton. 22 On some items, such as railway car wheels, axles, and trucks, when not included in the list of iron and steel products, scrap and scrap steel not taking commodity rates, they proposed a 25 per cent increase without limitations. Their declared objective was to disturb as little as possible the existing

competitive relations among producers. The proposals were estimated at a 10 per cent increase in the basic level of steel rates. The increases authorized by the Commission were 20 per cent subject to a maximum of 10 cents per 100 pounds or $2.00 per net or gross ton. While the percentage increase granted was lower than that proposed, the maximum per 100 pounds was higher by six cents per 100 pounds or $1.20 on a net or gross ton. Apparently the Commission was convinced that the steel companies could afford to pay even higher rates in some instances than those requested by the railways. The advances generally covered a variety of iron and steel products.

The percentage increases made necessary a higher mill freight absorption on shipments to distant points. As a result, markets close to the basing points probably received a greater share of the steel output. Since the demand for steel during 1947 far exceeded the supply, consumers located in the more remote markets were most affected by the advances.
Regardless of their willingness to pay the extra freight costs, it is probable that producers would be disposed to strengthen their marketing position in areas close to their plants, where old customers were involved.

Tables XI and XII in Appendix B reflect the competitive position of Pittsburgh with other basing points on shipments of steel into selected markets under the new freight rate advances. Pittsburgh mills found their carload rates increased from 36 to 43 cents per 100 pounds into New York City. When competing with Bethlehem based products, Pittsburgh was forced to absorb an extra four cents, as the Bethlehem rates to the same destination advanced from 17 to 20 cents. No handicap was suffered by Pittsburgh on Buffalo-based products into New York City since the rates from both origin points were raised by the same amount. But into Boston, Pittsburgh was penalized two cents on the Buffalo base, and one cent on the Bethlehem base. In the Philadelphia market, Pittsburgh producers were handicapped to the extent of 3.5 cents on steel from Bethlehem, while they suffered a disadvantage of one cent at Reading and two cents at Baltimore.

To the West, Pittsburgh and Detroit suffered a penalty of one cent on Cleveland-based products into Columbus, although they held their own on shipments from Cleveland into Dayton. Chicago, Gary, and Pittsburgh lost one cent on
Cleveland into Cincinnati. To Dubuque, Iowa, the Pittsburgh disadvantage was five cents on the Chicago base, and three and one cents respectively on the Detroit and Cleveland bases. Detroit lost two cents and Pittsburgh four cents on the Chicago base into South Bend, Indiana.

A more significant picture of the comparative disadvantages of the Pittsburgh base may be seen in the increased freight costs per net or gross ton. To reach the New York market, the shipper at Pittsburgh had to absorb $4.60 when competing against the Bethlehem base. This represented an increase of 80 cents per ton over the rate level prevailing before the decision. On shipments from Pittsburgh to Milwaukee, producers would have to absorb $6.40 per ton against the Chicago base, an increase of $1.00 over the previous scale.

The effect of the percentage increases in freight rates on steel products on the Pittsburgh district may be of far-reaching significance in the future. Previously it was pointed out that producers in this area would find it necessary to reduce the radius of their shipments. The area is one primarily devoted to the production and converting of metal. Its fabrication conversion is rather low. Normally the region would ship large volumes of steel into the heavy manufacturing areas of the Eastern Seaboard, Ohio, Michigan, Indiana, and Illinois, but under the increased freight rates,
absorption of transportation costs is undoubtedly reaching a point where distribution of steel at a profit is becoming increasingly difficult. On the other hand, mills located at Bethlehem, Cleveland, Detroit, and Chicago, can reach major steel consuming areas without facing the Pittsburgh freight rate problem.

In a more general manner, through the freight rate increases of the type authorized under the Ex Parte 162 proceedings, it seems that the Interstate Commerce Commission is effectively accomplishing what the Justice Department and various other governmental agencies have for many years failed to do. That is, they appear to be forcing the steel industry to price on an F.O.B. mill basis instead of selling steel on the multiple basing point system currently in effect.

The Effect of the Decision upon Consumers

The complexities faced in tracing freight rate level increases upon producers are by no means lessened when rate advances are discussed from the point of view of the ultimate consumer - when the analysis attempts to appraise possible consumer reaction to increased transportation costs. Much of the confusion stems from the attitude of the railways in rate level cases. When producers oppose increases they are often told that the consumer pays the freight charges. At
the same time, when consuming interests protect against rate advances they are informed that producers will absorb the increases, and even if freight costs are shifted to consumers the amount will be a very insignificant part of the price.

Transportation charges are an important part of the expenses necessary to deliver products to the consumer. In the long-run, a major portion of freight rate increases are probably borne by ultimate users of goods, since all costs of production and distribution must be covered by market prices or the commodities would not be produced. If considered only in its long-range aspects, it could be said that the Ex Parte 162 increases would be shifted almost entirely to the consumer. But the short-run effects may be different and for this discussion they are more important than long-run considerations.

Although freight rates are included in the price of products, it does not necessarily follow that prices will be raised by the full amount of the increased rates, nor is there any guarantee that consumer prices may not be raised by more than the increases. Where the final incidence will fall, and the extent of shifting from producer to consumer, will depend largely upon the elasticity of demand and supply for the commodities in question.25 It should be remembered

25. In numerical terms, the elasticity of demand or supply may be defined as the percentage change in the quantity
of goods demanded or supplied which would result from a one per cent change in price. If the elasticity of demand is a minus 0.5, it means that a one per cent increase in price will eventually result in a 0.5 of a per cent decrease in the quantity demanded. See Boulding, K., op. cit., pp. 131-137.

that the demand for transportation is a derived demand. Those who buy railroad service do not generally buy it for its own sake, but rather because with it they can produce or acquire some further commodity for which there exists a demand and which therefore can be sold at a price. Increased use of goods will tend to cause a rise in the demand for the means of transportation best utilized for its movement.

Generally, the less elastic the demand for a commodity, the less consumption is affected by price changes and the greater will be the tendency for increased freight rates to raise its price. Conversely, the more elastic the demand the less prices will tend to advance as a result of freight rate increases.26 The extent to which increases in freight

26. On the conventional demand and supply diagrams so familiar to students of economics, the less elastic demand situation may be shown by drawing a relatively steep vertical demand curve, and a supply curve representing production costs including that of railroad service. A position of equilibrium between demand and supply is established at their points of intersection. If it is assumed that the freight rates are increased in such a manner that the advances apply equally to all units produced, the supply or cost curve is raised and results in a new equilibrium point higher and to the left of the original one. As compared with a more elastic demand situation, it is important to note that price is raised
more where demand is less elastic and at the same time
the quantity produced at the new price is curtailed
less than would be true where demand is highly elastic.

rates will affect consumer prices also depends upon the
elasticity of supply. Where supply is highly elastic freight
rate advances are likely to be shifted to a greater extent
to the consumer than if less elastic. It is possible that

27. For a detailed analysis on this point, see Locklin,
D. P. Economics of Transportation. 3d Ed. Chicago,

traffic could be destroyed by a freight rate increase where
demand and supply are both highly elastic. However, where
both are inelastic the increases would probably have little
or no effect upon traffic volume.

Another important factor to be considered in the shift-
ing and incidence of a freight rate increase is whether or
not production takes place under conditions of intense compe-
tition or monopoly. At first sight, it might appear that
a monopolist by controlling supply could increase prices of
products by an amount equal to that of the rate increase.
But it must be remembered that monopolistic firms fix a
price which will yield the highest total profit rather than
the highest profit per unit sold. The entrepreneur therefore
must consider the volume of sales possible at each different
price and the cost of production at each separate quantity sold. If total maximum profits were earned before the rate increase, and assuming that the rate advances were additions to fixed costs, the increases could not be shifted to consumers. On the other hand, if profits were not maximized prior to the new rate increases or the advances were considered as additions to variable costs, some shifting would take place. The effects of rate increases on particular


commodities produced under monopolistic conditions is quite unpredictable, but elasticity of demand and conditions of production would tend to condition the result.

Even though short-run effects of rate advances may or may not mean higher prices to consumers, it is believed that the Ex Parte 162 increases were passed along almost immediately following their authorization. Two reasons are presented for this conclusion. In the first place, the railroads because of the relative ease of physical reconversion were in a much more favorable position to handle peacetime traffic than any of their competitors with the possible exception of pipe lines. Second, the combination of high
levels of purchasing power and the scarcity of peacetime commodities created a sellers market, in which intense demand for goods and services forced sharp increases in prices. Demand, under this economic situation, tended to become relatively inelastic so that rising prices following the elimination of controls did not appear to seriously curtail consumption. Depending upon the length of the marketing channel, prices of products may have increased to a point higher than the percentages of the rate increases. Most commodities designed for consumer use commonly pass through the hands of two or three middlemen. Each, by marking up his price on costs, including transportation, could have pyramided the rate increases to the ultimate consumer under the above economic conditions.

Thus, the early postwar period was marked by the inelasticity of general demand and supply in the commodity markets so that prices of products could be increased without the loss of sales. In addition, railroads possessed a virtual short-run monopoly on the transportation service of the nation. In view of these circumstances, it seems reasonable to assume that most if not all of the increases granted in 1946 were shifted through higher commodity prices to consumers.
The Decision as it Affected Agencies

Competitive with Railroads

During the rate hearings shippers unanimously stressed the dangers of traffic diversion from railroads to other agencies if the requested rates were fully approved. Whether all forms of transportation were included is not clear from the testimony, but it is believed that protesters were referring mainly to the possible future competition of motor trucks. This conclusion seems plausible since the rate advances granted to the railroads applied equally to water common carriers and freight forwarders.29

29. Rates applicable on import, export, coastwise, and intercoastal traffic could be increased to the same extent and in the same manner as provided for domestic rates. The advances also applied to joint rates between railroads and ocean, lake, inland water and motor carriers. In all cases where joint rates were involved, they were to be increased to the same extent and in the same manner as provided for all-rail rates. Ex Parte 162, op. cit., pp. 616-617.

Of all transportation agencies, probably those of pipelines and air carriers benefited least from the decision. The former appeared to be at peak capacity during late 1946, and it was unlikely that advances in railway rates would have any effect in diverting petroleum traffic to them. As for air lines, their percentage of the annual volume of freight traffic remained on the same level for the years
1943 through 1946, and there was little evidence to support a belief that substantial tonnage would be diverted to them by railway freight rate increases.30


Water common carriers probably derived fairly substantial revenue benefits from the rail rate increases. Since water rates could have been increased to the same extent and in the same manner as those of rail carriers, the decision would tend to divert little additional traffic except possibly on a few bulk commodities. However, the average rate increase to the water carriers was probably less than that afforded the railroads as much of the traffic susceptible to water movement was subject to the "flat" increases or limitations on percentage advances. Whereas the railroads received increases averaging 17.6 per cent, it is probable that the increases to the water carriers approximated only 12 to 15 per cent.31


In particular, barge operators on the inland waterways
would tend to derive some benefits from the rail rate increases on petroleum, coal, sulphur, sugar, grains, and iron ore, since these commodities normally move in rather heavy volume on the rivers. Coastwise and intercoastal carriers probably benefited from the rail rate increases on lumber, canned foods, and iron and steel products. During the first six months of 1947 virtually all shipping in the intercoastal trades was operated by the Maritime Commission with heavy financial losses to the Government. Unless rates on this type of transportation were further increased or operating costs reduced, it would seem that the major effect of the decision would be to reduce these operating losses.

As in the case of other transportation agencies, motor common carriers experienced sharp increases in costs during the early postwar period. Accordingly, increases in the rates of their rail competitors afforded an excellent opportunity for the truckers to seek rate relief. Following the railway rate decision, rates of motor carriers of property were advanced in various rate territories during early 1947. In March and April, motor common carrier rates in Official Territory (except New England), and in the Southern and Western Trunk-Line Territories, were adjusted to bring them in closer relationship to changes in rail rates. The resulting increase in motor rates over 1942 levels ranged up to 15 per cent.32
Since the increases in motor carrier rates were designed
to make their charges comparable to those of the railroads,
the rail rate advances should have diverted relatively little
traffic to motor common carriers. Some diversion undoubtedly
occurred on a short-run basis, particularly where the motor
rates previously had exceeded rail rates. However, the rail­
ways could be expected to prevent serious diversion by in­
creasing their charges to less than the full extent author­
ized in situations where the full increase would tend to
shift any large volume of their traffic to the trucks.

The largest percentage of traffic diverted probably
took place in the short hauls of commodities grouped under
the classification of Manufactures and Miscellaneous, on
class rate traffic, and on less-carload traffic. The latter
is particularly susceptible to motor carrier competition.
In addition, motor trucks undoubtedly participated to an
increasing extent in the movement of such products as fruits
and vegetables, livestock, milk and cream, canned goods, and
paper and pulp. While the total diversion from rail to
motor common carriers probably amounted to a substantial
volume of this short-haul business, the trend did not seem
to seriously reduce the revenue ton-mileage of the railroads, as it was unlikely that much of the long-haul traffic would be lost to the trucks as a result of the Ex Parte 162 decision.

From the point of view of rail carriers, the most serious competitive problem arising out of the 1946 rate increases may be found in private transportation. Competition from this source on highways as well as waterways was substantial before the Ex Parte 162 decision and could conceivably become much more serious if the rates of for-hire carriers were to diverge much from the costs of private transportation.33

33. Although there is no breakdown of statistics as to the number of common-carrier trucks compared with private trucks, it is interesting to note that total truck registrations throughout the United States increased by 13.4 per cent in 1947 over 1946; and increased by 33.6 per cent in 1947 over 1941. See Public Roads Administration, Federal Works Agency. Statement No. P-5685. Washington, D. C. 1948.

Fear of private carrier competition is probably a reason why common carriers campaign endlessly for the passage of restrictive legislation. The competitive position of private trucks, for instance, could be weakened by unreasonable limits on truck weights and sizes, speed, and lights.

Competition between private and regulated carriers is of special significance to business enterprises. When common carrier rates are forced upward by increasing costs, industries
tend to decentralize or relocate; to utilize substitute commodities and transportation facilities, wherever possible. These developments mean reduced freight tonnage and revenues for the regulated carriers. Increasing competition from private carriers may be expected to follow common carrier rate increases and its extent will be determined by the relative economies afforded through the use of private transportation. In both economic and social aspects, the problem is important enough to warrant serious consideration in future studies relating to the role of transportation in the nation's economy.
CHAPTER VIII

SUMMARY AND CONCLUSIONS

Few problems of railroad regulation have offered so serious a challenge to economic statesmanship as the administration of the railroad rate level. Establishment of rates at a level which will provide revenues adequate to maintain service makes necessary a consideration of their reasonableness. This involves not only the cardinal principle of rate-making - that all rates shall be just and reasonable per se, but also that rates on transportation between persons, places, commodities, and traffic shall be made to prevent discriminatory practices and maintain equitable rate relationships. These aspects of rate control are not unrelated since every particular price adjustment affects the flow of revenues in some manner, while alterations in the level of rates requires further consideration of rate relationships. Property valuation, return on investment, and aggregate earnings of rail carriers all play an important part in the disposition of rate level cases, but the problem of specific rate levels is one of apportioning the transportation burden among a variety of services rendered under changing operational and competitive conditions.

To fix railroad rates on a reasonable basis in a dynamic economy is an extremely difficult task, involving the problem of reconciling the opposing interests of shippers with those
of rail carriers. While the lowest possible charges are naturally sought by those demanding service, rates so low as to jeopardize service are against public interest, just as rates so high that they tend to destroy or divert economical traffic are against the best interests of the railroads.

Among all elements of reasonableness applied to the regulation of the general rate level, that of fairness of return occupies a central position. Even though a leading objective of regulation is prevention of monopoly profits to rail carriers, revenue needs as a basis for adequate service cannot be ignored. Value of service to a shipper or receiver of freight depends on the supply of such service, which in turn is conditioned by the return enjoyed by those who risk capital in the industry. For this reason, the Interstate Commerce Commission early in its history determined rate level proceedings through revenue considerations. The prominence attached to this reasoning was emphasized by the legislation of 1920, giving legal support to the earnings approach.

Some of the financial problems faced by the railroads may be traced to rate level rigidity. Since long periods of time usually elapse in major rate level cases, often before a carrier can show a fair amount of earnings through increased rates, business conditions may have changed to the extent that revenues are insufficient to cover increased expenditures. Control of the rate level is made difficult
also by developments which occur within the transportation industry. Increased agency competition contributed to the financial distress suffered by the railways during the thirties. Coming at a time of general business depression, this competition with the resulting loss in revenues and traffic combined with high fixed charges threw many of the major railroads into bankruptcy. Despite enormous financial assistance by the Government, the carriers were in a critical position by 1939.

In the second decade of the interim period demand for railroad service was declining. Even though this condition caused unused capacity in the industry, the Commission refused to lower the general level of rates during the darkest financial period of railroad operations. As in previous rate level cases, revenue considerations were permanent, and such important elements as value of service to shippers, and reasonableness of rates charged at this time did not seem to receive the attention they merited. Largely ignored also were the long range implications of a relatively rigid level of rates on carrier finances. It is most difficult to defend the Commission's reasoning which suggested that railroad revenues would be increased by permitting rates at a level substantially higher than that of the general price level of the nation.

In the preliminary period of national defense activity,
railways were able to prepare their facilities for the huge traffic movements which occurred during the war emergency, although from time to time, some doubt was raised concerning their ability to fulfill the existing demand. It seems obvious that successful prosecution of the second World War would not have been possible without the services contributed by them. At the same time, full capacity operations and high wartime earnings provided a means whereby prewar financial distress was greatly eased. This fact was borne out by suspension of the 1942 rate increases until the end of the war. A good share of the success achieved in transporting wartime traffic could be attributed to the administrative policies established and followed by the Federal Government, particularly the wise decision to allow private operation of the railroads. Credit should also be given to the Office of Defense Transportation, which acted in an advisory capacity to the carriers, and to the cooperation of railway management, the majority of their employees, and the shipping public.

Despite the fact that some maintenance of facilities had been deferred throughout the war period, railroads generally emerged in good physical condition. With few, if any, reconversion problems to face, they appeared in a much more favorable position than their competitors to handle the immediate postwar traffic of the nation.
Termination of the European and Pacific wars in 1945 released dangerous inflationary forces upon the nation as it shifted attention to postwar economic problems. Controls established by the Federal Government during wartime were expected to soften the impact of the transition. However, as a result of pressures generated by minority groups, wage and price regulations were considerably weakened and finally abolished. National labor organizations succeeded in achieving increased wages at a time when industrial profits were too low to absorb rising costs; and purchasing power held dormant throughout the war was released during a period when commodities were generally in scarce supply. Both forces furnished a stimulus for postwar inflation.

Caught in a wage-price spiral at the time when traffic and earnings were declining, the railroads requested rate increases in the spring of 1946. Temporary advances were granted through disposition of the Ex Parte 148 case, previously suspended, until further hearings could be held on the propriety of the Ex Parte 162 petition. Interim increases proved inadequate to meet the upward sweep of carrier expenditures, and the delay in the Ex Parte 162 decision caused financial hardships during the latter half of the year. Herein lies one of the major weaknesses of regulation. Railroads normally the last of the nation's industries given an opportunity to raise prices in a period of prosperity, are
thus subject to rising material and equipment costs passed on to them by industries privately owned and operated. In other words, transportation prices are rigidly controlled by the public authority which apparently must spend long months in deciding whether the rail carriers need higher revenues to compensate for increasing costs of a nature no different from those met by private enterprise.

A large share of the increased expenditures faced by the railroads during 1946 arose from wage increases granted to railway labor unions. Through strike threats, the brotherhoods were successful in persuading the Government to increase wages by an amount higher than that arrived at through the collective bargaining processes established in the Railway Labor Act.

Efforts of the Chief Executive to settle a threatened railroad strike should be lauded by the public. However, when the President chooses to increase wages on his own initiative, this action represents a dangerous interference in labor-management relations. In addition, it places a heavier burden upon railway finances, and does not ease the task of the Commission in adjusting the rate level. Strikes or threats of strikes by railway labor are intolerable to a nation so dependent upon transportation as is the United States, but as long as the railroad brotherhoods are protected by Congress, it may be expected that labor crises will periodically arise in the industry.
After nearly six months of deliberations, the Ex Parte 162 decision was given. It provided the greatest gross revenues of any rate level case since the year 1921; yet in view of the financial distress suffered by the carriers since mid-1946, they fell short of meeting anticipated future expenditures. The full amount proposed by the railways was adjudged unreasonable, a fact difficult to explain. The increases were presumably intended to raise the aggregate rate of return but whether or not they did so was clouded by the controversy between the Commission and carriers over the valuation figures to be used as a rate base. The difficulty lay in the methods used by each party to compute depreciation on wartime operations. By estimating valuation, the Commission is forced to take over an important managerial function, and its determinations are naturally of interest to the carriers. But the assumption of a role normally reserved for management was not so much the crux of the matter as was the method by which valuations were determined by the Commission. It seems reasonable to suggest that such information be published by the regulatory body, if for no other reason than to dispel the clouds of suspicion which gather in a valuation controversy of the type found in the Ex Parte 162 proceedings. To have a regulatory authority estimate depreciation or valuation of a privately owned enterprise without informing management and the public of the
procedures used in arriving at the result seems to violate
the same spirit of fairness which is basic to the philosophy
of regulation.

Rail credit, strengthened during war prosperity, seemed
generally to be maintained by the 1946 rate increases. Its
future, however, will depend upon a number of variables, im-
possible to determine at present. One of these will relate
to the level of future earnings, for as long as the railroads
serve a vital economic function in productive activity and
play an indispensable role in national defense, a way should
be opened to profitable operation. Continued progress in
plant and facility improvement can be made only through
continued new investment, but railways as private enter-
prises cannot be assured of the needed funds unless allowed
adequate earnings. Such assurance was not forthcoming by
the Ex Parte 162 advances.

In addition to direct Commission action, coordination
of railroad facilities and services can result in increased
revenues to rail carriers. Little attention was paid to
this possibility in the 1946 decision. Notwithstanding the
reluctance of the Commission to discuss this matter, it
might be suggested that the carriers, if as seriously con-
cerned over future competition as some of their publicity
might indicate, would inaugurate programs of unification
to protect their interests. The past record on possibilities
of coordination has not been too favorable. Much more to their credit has been the recent attempt to reduce fixed debt.

Despite the difficulties of tracing the 1946 rate advances on the railway financial position, two facts seem relatively clear. First, under honest and efficient management, earning power is the key to the future welfare of the railroad industry, and this in turn is closely linked to national security and prosperity. Second, unless revenues are sufficient to meet fixed charges, pay adequate dividends on invested capital, and place railroads on a comparable basis with other industries in securing capital in the money markets, private operation must be abandoned. The alternative of Government control in an economic system based theoretically at least on free competition is not pleasant to contemplate.

On a regional basis the inflationary lag which occurred in the 1946 rate level proceedings fell with particular force on the earnings of carriers operating in the Eastern District. Here the most expensive railroad operations take place in the greatest concentration of traffic. Freight hauls in the East are relatively short, and the multiplicity of destinations calls for much costly switching of cars and reassembly of trains. The five day work week prevailing along the lines of Eastern carriers increases
congestion by holding up car loading or unloading and leads to increased overtime payments by the railroads. Also, increased railroad rates make certain short-haul traffic susceptible to the competition of motor trucks who operate on what might be considered the finest highway net in the nation.

To offset an extremely low rate of return, Eastern carriers were granted freight rate increases higher than those applying to railroads in other territories. At the same time, these adjustments between regions to a certain extent eased the interterritorial rate discrimination which had prevailed prior to the decision. In other words, Southern and Western shipping interests found their competitive disadvantages to Eastern markets somewhat narrowed by the new advances made effective within and between the different territories of the nation.

Regional economic changes occurring during the war and early postwar years had a tendency to broaden territorial markets, and given a fairly stable period of prosperity, the economic gains made by the South and West stand a good chance of becoming permanent. In turn, regional freight traffic showed shifting trends. The most significant development of the past eight years in the railroad industry has been the advance of the Western carriers at the expense of the Eastern roads. During 1946, Eastern railroads showed
a deficit despite substantial tax credits, while those operating in the Western district had a fair income. During the years between 1939 and 1947, Western roads percentage-wise reduced long-term debt by five times as much as did Eastern carriers, increased cash and temporary cash investments balances half as much again, and added twice as much to earned surpluses.

It seems that the historic overbuilding of the Western railways is finally paying off. Westward shifts in population and industrialization during and since the war have more than doubled the freight traffic carried on the long hauls of Western roads, while the Eastern increment has been only about two-thirds that of the year 1939. Western carriers had more and better room in their plants for expansion and efficient handling of the increased traffic volume.

An analysis covering operations for six months following the 1946 rate advances showed the Eastern income to be the lowest of all regions, although the rate adjustments in the decision were designed to equalize the rate of return in all territories. Maintenance or acceleration of the economic trends growing out of the war years will continue to effect adversely Eastern carriers, and in turn will mean a loss of service to the general public and to the markets served by them. At present, it seems that this region is in a critical financial position relative to other areas,
and its future earnings should be given close attention. It is possible that continued financial distress (within the next few years) may force Eastern carriers to consider coordination and consolidation of facilities and services as a means of overcoming the dilemma.

Both Ex Parte 162 and the Class Rate decisions in the short-run should make possible future levels of intrateritorial traffic movements higher than those of prewar years, depending upon the ease and rapidity of industrial reconversion in each region and ability to market regional production within the territories. Over longer periods, territorial rate adjustments could increase traffic between regions, and thus promote a more efficient use of the economic resources of the nation. However, a general conclusion as to the effects of both decisions on future traffic movement is difficult because of lack of data pertaining to regional and national commodity rate structures and levels. Future rate adjustments of the type made in the 1946 case when combined with the plan of nationwide uniform freight classifications should gradually remove existing territorial rate differentials in class traffic. But further progress in this direction will come only when it is possible to investigate more scientifically the nationwide commodity rate levels.

Production and distribution of separate products of
commodity groups were probably affected differently by the rate increases. Straight uniform percentage advances when applied to agricultural traffic tended to increase the disadvantages of long haul shippers over those located shorter distances from common markets. At the same time, by allowing percentage increases with specific maxima on certain products in this classification, an attempt was made to maintain existing market relationships. Historically, fluctuating farm prices when measured against rate level stability have had an adverse effect upon farm income in depression periods. However, legislation designed to support farm income would relieve the burden of freight charges in a future period of declining prices. A reduction in the rate level on agricultural commodities may be necessary in the future, and government support programs do not necessarily preclude agitation for that purpose as in 1922 and 1926.

Increases on lumber were intended to continue the competitive relationships prevailing prior to the decision. Interagency competition probably will become more intense as more of the intercoastal carriers resume operations suspended during the war emergency.

The system of graduated rate increases as applied to coal shipments were designed to equalize markets. However, they seemed to have the same effect as if granted on a percentage basis. Long distance shippers or receivers of coal
would be at a disadvantage compared with those located closer to mines or markets. Some traffic diversion may have resulted as industries attempted to convert to substitute fuels as a result of the increased rates, but this probably would not affect coal production since other fuels are in extremely short supply at this time.

Significant economic changes in the production and distribution of steel products could result from percentage increases in freight rates. Through the Ex Parte 162 decision, markets tended to become narrower as the distant basing point procedure was compelled to absorb increased freight charges when competing in common markets with producers located closer to fabrication areas. It is not inconceivable that future increases of this type would in time destroy the basing point system of pricing in the steel industry and force this commodity to be priced on an F.O.B. mill basis. Of all steel producing regions, Pittsburgh seemed to be affected most adversely, since its output is carried farther than that of other mills to the concentrated manufacturing areas. While the present demand for steel remains high relative to the supply, Pittsburgh prices will probably cover the higher freight rates, but the most difficult economic period for this district will come when supply and demand for its output are more in equilibrium.

Postwar economic conditions in the nature of high general
demand, short supply, and the high short-run monopoly position held by the railroads in the transportation field make it seem probable that the full amount of the increased freight rates were passed along to the ultimate consumer. In industries where prices are marked up on the basis of costs, and where such commodities pass through long marketing channels, it is possible that prices to consumers may have been increased by a percentage greater than that involved in the increased rates.

Of the agencies comprising the national transportation system, those of water and motor common carriers seemed to benefit most by the rail rate increases. Charges of the former were raised simultaneously with railways, and resulted in a percentage increase only slightly less than that of rail carriers. For this reason it is unlikely that any substantial diversion of traffic from rail to water carriers resulted. Motor common carriers waited longer for increases which were designed to give them rate equality with the railroads. As a result of the time lag, some traffic may have been diverted in short-haul movements. The most serious competitive problem arising from the railroad rate advances appears to be in the area of private water and motor transportation. While impossible to determine at present, losses of traffic and revenues to the regulated carriers may have been substantial as it became more profitable for shippers
to increase their use of private facilities. The effects of railway rate level advances upon private transportation needs immediate research attention, for until such investigations are made there is no way of knowing the extent of losses to common carriers through diverted traffic. These studies should be undertaken originally on a local basis, expanded regionally, and finally made nationwide.

The Ex Parte 162 rate increases may be considered as part of the first phase of the postwar rate level adjustment. Percentage increases authorized by the Commission were made as the most expeditious means of raising railroad revenues to offset rising costs, although at the time it was clearly recognized that advances of this nature create undesirable rate relationships and rate levels for some types of traffic. Railroads prefer horizontal percentage increases in the "standard" rates since this method permits them to raise individual rates as much or as little as suits their purpose. Consequently, in spite of attempts to "hold down" the competitive differences, discriminations tend to become more pronounced in the wake of general percentage increases. It is believed that the 1946 case created a number of unreasonable rate relationships and may have raised charges above the levels that some traffic can bear. For this reason, the second phase will undoubtedly consist of selective adjustments on individual or groups of rates. Such adjustments may be expected to extend over many years.
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### TABLE I

**A COMPARISON OF THE GENERAL STATUS OF CLASS I RAILROADS IN SELECTED YEARS BETWEEN TWO GREAT WARS**

<table>
<thead>
<tr>
<th>Item</th>
<th>1921</th>
<th>1926</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(IN Thousands)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miles of Track Operated</td>
<td>379.2</td>
<td>394.9</td>
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<tr>
<td>Locomotives Available</td>
<td>64.9</td>
<td>62.7</td>
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<tr>
<td>Freight Cars Available</td>
<td>2,315</td>
<td>2,348</td>
</tr>
<tr>
<td><strong>(IN Millions)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Employees</td>
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<td></td>
</tr>
<tr>
<td>Tons Revenue Freight Carried</td>
<td>1,690</td>
<td>2,462</td>
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<tr>
<td>Tons Revenue Freight Originated</td>
<td>940</td>
<td>1,338</td>
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<tr>
<td>Railroad Operating Revenue</td>
<td>5,516</td>
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<tr>
<td>Railroad Operating Expenses</td>
<td>4,562</td>
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<tr>
<td>Net Revenue from Operations</td>
<td>955</td>
<td>1,713</td>
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<tr>
<td>Railway Operating Income</td>
<td>676</td>
<td>1,323</td>
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<tr>
<td>Net Railway Operating Income</td>
<td>601</td>
<td>1,213</td>
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<tr>
<td>Net Income after Charges</td>
<td>314</td>
<td>809</td>
</tr>
<tr>
<td>Funded Debt</td>
<td>9,739</td>
<td>10,572</td>
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**(In Percentages)**

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<thead>
<tr>
<th>Item</th>
<th>1921</th>
<th>1926</th>
</tr>
</thead>
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<tr>
<td>Operating Ratio</td>
<td>22.7</td>
<td>73.1</td>
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<tr>
<td>Rate of Return on Property</td>
<td>2.8</td>
<td>4.9</td>
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<tr>
<td>Railroads in Receivership</td>
<td>68</td>
<td>45</td>
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1. Includes duplications on account of trackage rights and other joint operations.

2. All Railroads.

3. Carload and Less-Carload traffic based on a 2,000 pound ton. Assumes no previous line haul transportation by other rail carriers.

4. Excluding Switching and Terminal Companies.

5. Found by subtracting Tax Accruals and Uncollectible Revenues from.

6. Found by subtracting Equipment Rentals and Joint Facility Rentals.

7. Percent of Operating Revenues absorbed by Operating Expenses.

8. Return on Investment before Depreciation.
TABLE I

THE GENERAL STATUS OF CLASS I RAILROADS
TENV YEARS BETWEEN TWO GREAT WARS*

<table>
<thead>
<tr>
<th>21</th>
<th>1926</th>
<th>1929</th>
<th>1940</th>
</tr>
</thead>
<tbody>
<tr>
<td>(IN Thousands)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79.2</td>
<td>394.9</td>
<td>406.4</td>
<td>389.5</td>
</tr>
<tr>
<td>64.9</td>
<td>62.7</td>
<td>57.5</td>
<td>41.7</td>
</tr>
<tr>
<td>15</td>
<td>2,348</td>
<td>2,277</td>
<td>1,653</td>
</tr>
</tbody>
</table>

(In Millions)

<table>
<thead>
<tr>
<th>1.6</th>
<th>1.8</th>
<th>1.6</th>
<th>1.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>2,465</td>
<td>2,451</td>
<td>1,843</td>
</tr>
<tr>
<td>40</td>
<td>1,336</td>
<td>1,333</td>
<td>1,009</td>
</tr>
<tr>
<td>16</td>
<td>6,382</td>
<td>6,279</td>
<td>4,296</td>
</tr>
<tr>
<td>62</td>
<td>4,669</td>
<td>4,506</td>
<td>3,069</td>
</tr>
<tr>
<td>53</td>
<td>1,713</td>
<td>1,773</td>
<td>1,207</td>
</tr>
<tr>
<td>76</td>
<td>1,323</td>
<td>1,375</td>
<td>811</td>
</tr>
<tr>
<td>01</td>
<td>1,213</td>
<td>1,251</td>
<td>682</td>
</tr>
<tr>
<td>14</td>
<td>809</td>
<td>897</td>
<td>189</td>
</tr>
<tr>
<td>39</td>
<td>10,572</td>
<td>10,638</td>
<td>9,601</td>
</tr>
</tbody>
</table>

(In Percentages)

<table>
<thead>
<tr>
<th>82.7</th>
<th>73.1</th>
<th>71.1</th>
<th>71.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.8</td>
<td>4.9</td>
<td>4.8</td>
<td>2.6</td>
</tr>
<tr>
<td>68</td>
<td>45</td>
<td>29</td>
<td>103</td>
</tr>
</tbody>
</table>

* Based on a 2,000 pound ton. As defined by the Commission, this item is transportation by other rail carriers, uncollectible revenues from net revenues from operations, and uncollectible revenues from property rentals and joint facility rentals from railway operating income, absorbed by operating expenses.
TABLE II

FREIGHT TRAFFIC STATISTICS OF CLASS I RAILROADS, 1940

<table>
<thead>
<tr>
<th>Item</th>
<th>1940</th>
<th>1941</th>
<th>1942</th>
<th>1943</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 19^0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue Freight Tons Originated</td>
<td>1,009</td>
<td>1,228</td>
<td>1,421</td>
<td>1,614</td>
</tr>
<tr>
<td>Index: 1935-39 - 100</td>
<td>114</td>
<td>138</td>
<td>160</td>
<td></td>
</tr>
<tr>
<td>Revenue Ton-Miles</td>
<td>373,353</td>
<td>475,072</td>
<td>637,984</td>
<td>727,165</td>
</tr>
<tr>
<td>Index: 1935-39 - 100</td>
<td>116</td>
<td>148</td>
<td>199</td>
<td></td>
</tr>
</tbody>
</table>

(In Millions)

<table>
<thead>
<tr>
<th>Item</th>
<th>1940</th>
<th>1941</th>
<th>1942</th>
<th>1943</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locomotives in Service^1</td>
<td>41.7</td>
<td>41.7</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Freight Cars in Service</td>
<td>1,653</td>
<td>1,703</td>
<td>1,745</td>
<td>1,725</td>
</tr>
<tr>
<td>Ton-Miles per Freight Train-Hour. (Gross)</td>
<td>33.8</td>
<td>34.7</td>
<td>35.5</td>
<td></td>
</tr>
<tr>
<td>Ton-Miles per Freight Train-Hour. (Net)</td>
<td>14.0</td>
<td>14.9</td>
<td>16.1</td>
<td></td>
</tr>
</tbody>
</table>

(In Thousands)

<table>
<thead>
<tr>
<th>Item</th>
<th>1940</th>
<th>1941</th>
<th>1942</th>
<th>1943</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Mileage of</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locomotives^2</td>
<td>107.5</td>
<td>116.4</td>
<td>122.4</td>
<td></td>
</tr>
<tr>
<td>Cars^2</td>
<td>38.9</td>
<td>43.7</td>
<td>48.8</td>
<td></td>
</tr>
<tr>
<td>Average Haul per Ton in Miles</td>
<td>202.5</td>
<td>208.3</td>
<td>228.1</td>
<td></td>
</tr>
<tr>
<td>Net Tons^4Miles per Freight Car per Day</td>
<td>664</td>
<td>795</td>
<td>975</td>
<td>1,035</td>
</tr>
<tr>
<td>Net Tons per Train</td>
<td>849</td>
<td>915</td>
<td>1,035</td>
<td>1,035</td>
</tr>
<tr>
<td>Net Tons per Car</td>
<td>27.6</td>
<td>28.5</td>
<td>31.8</td>
<td></td>
</tr>
<tr>
<td>Average Freight Train in Cars</td>
<td>49.7</td>
<td>50.3</td>
<td>51.8</td>
<td></td>
</tr>
<tr>
<td>Average Speed per Train (M.P.H.)</td>
<td>16.7</td>
<td>16.5</td>
<td>15.8</td>
<td></td>
</tr>
</tbody>
</table>


1. Includes Steam, Electric, Gasoline, and Diesel.
2. Locomotive-Miles per Locomotive-Day. Car-Miles per Serviceable Car.
TABLE II

STATISTICS OF CLASS I RAILROADS, 1940 - 1945*

<table>
<thead>
<tr>
<th>Year</th>
<th>1940</th>
<th>1941</th>
<th>1942</th>
<th>1943</th>
<th>1944</th>
<th>1945</th>
</tr>
</thead>
<tbody>
<tr>
<td>(In Millions)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1909</td>
<td>1,228</td>
<td>1,421</td>
<td>1,481</td>
<td>1,492</td>
<td>1,425</td>
<td></td>
</tr>
<tr>
<td>114</td>
<td>135</td>
<td>160</td>
<td>167</td>
<td>168</td>
<td>161</td>
<td></td>
</tr>
<tr>
<td>153</td>
<td>875,072</td>
<td>637,984</td>
<td>727,026</td>
<td>737,246</td>
<td>681,000</td>
<td></td>
</tr>
<tr>
<td>156</td>
<td>148</td>
<td>199</td>
<td>226</td>
<td>230</td>
<td>212</td>
<td></td>
</tr>
<tr>
<td>(In Thousands)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41.7</td>
<td>41.7</td>
<td>42</td>
<td>42.7</td>
<td>43.6</td>
<td>43.5</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>1,703</td>
<td>1,745</td>
<td>1,756</td>
<td>1,769</td>
<td>1,762</td>
<td></td>
</tr>
<tr>
<td>33.8</td>
<td>34.7</td>
<td>35.5</td>
<td>36.0</td>
<td>37.2</td>
<td>36.9</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>14.9</td>
<td>16.1</td>
<td>16.9</td>
<td>17.6</td>
<td>17.4</td>
<td></td>
</tr>
<tr>
<td>107.5</td>
<td>116.4</td>
<td>122.4</td>
<td>124.5</td>
<td>122.8</td>
<td>118.5</td>
<td></td>
</tr>
<tr>
<td>35.9</td>
<td>43.7</td>
<td>48.8</td>
<td>51.0</td>
<td>51.9</td>
<td>49.3</td>
<td></td>
</tr>
<tr>
<td>202.5</td>
<td>208.3</td>
<td>228.1</td>
<td>241.7</td>
<td>245.3</td>
<td>239.4</td>
<td></td>
</tr>
<tr>
<td>664</td>
<td>795</td>
<td>975</td>
<td>1,092</td>
<td>1,113</td>
<td>1,068</td>
<td></td>
</tr>
<tr>
<td>849</td>
<td>915</td>
<td>1,035</td>
<td>1,116</td>
<td>1,139</td>
<td>1,129</td>
<td></td>
</tr>
<tr>
<td>27.6</td>
<td>28.5</td>
<td>31.8</td>
<td>33.3</td>
<td>32.7</td>
<td>32.2</td>
<td></td>
</tr>
<tr>
<td>49.7</td>
<td>50.3</td>
<td>51.8</td>
<td>52.1</td>
<td>53.0</td>
<td>52.2</td>
<td></td>
</tr>
<tr>
<td>16.7</td>
<td>16.5</td>
<td>15.8</td>
<td>15.4</td>
<td>15.7</td>
<td>15.7</td>
<td></td>
</tr>
</tbody>
</table>


- Car-Miles per Serviceable Car per Day.
### TABLE III
REVENUES AND INCOME OF CLASS I RAILROADS, 1940 - 1943

<table>
<thead>
<tr>
<th>Item</th>
<th>1940</th>
<th>1941</th>
<th>1942</th>
<th>1943</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Operating Revenues</td>
<td>$4,297</td>
<td>$5,347</td>
<td>$7,466</td>
<td>$9,055</td>
</tr>
<tr>
<td>Total Operating Expenses</td>
<td>3,049</td>
<td>3,664</td>
<td>4,601</td>
<td>5,658</td>
</tr>
<tr>
<td>Taxes(^1)</td>
<td>396</td>
<td>547</td>
<td>1,199</td>
<td>1,849</td>
</tr>
<tr>
<td>Operating Rentals</td>
<td>129</td>
<td>137</td>
<td>181</td>
<td>188</td>
</tr>
<tr>
<td>Net Railway Operating Income</td>
<td>682</td>
<td>998</td>
<td>1,485</td>
<td>1,360</td>
</tr>
<tr>
<td>Net Income after Charges</td>
<td>189</td>
<td>500</td>
<td>902</td>
<td>874</td>
</tr>
<tr>
<td>Total Funded Debt(^2)</td>
<td>9,601</td>
<td>9,618</td>
<td>10,971</td>
<td>8,376</td>
</tr>
<tr>
<td>Operating Ratio</td>
<td>71.9</td>
<td>68.15</td>
<td>61.6</td>
<td>62.5</td>
</tr>
<tr>
<td>Rate of Return(^3)</td>
<td>2.59</td>
<td>3.75</td>
<td>5.50</td>
<td>4.92</td>
</tr>
<tr>
<td>Average Dividends Paid</td>
<td>2.0</td>
<td>2.3</td>
<td>2.5</td>
<td>2.7</td>
</tr>
<tr>
<td>Carriers in Receivership(^4)</td>
<td>103</td>
<td>91</td>
<td>87</td>
<td>82</td>
</tr>
</tbody>
</table>


1. All taxes, State and Federal. Foreign taxes include those of Mexico.
2. Debt includes Funded Debt, Unmatured; Debt in Default; Receivers and Equipment Obligations; and Amounts Payable to Affiliated Companies.
4. All Railroads.
TABLE III

SOME OF CLASS I RAILROADS, 1940 - 1945*

<table>
<thead>
<tr>
<th></th>
<th>1941</th>
<th>1942</th>
<th>1943</th>
<th>1944</th>
<th>1945</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(In Millions)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$5,347</td>
<td>$7,466</td>
<td>$9,055</td>
<td>$9,437</td>
<td>$8,902</td>
</tr>
<tr>
<td></td>
<td>3,664</td>
<td>4,601</td>
<td>5,658</td>
<td>6,282</td>
<td>7,052</td>
</tr>
<tr>
<td></td>
<td>547</td>
<td>1,199</td>
<td>1,849</td>
<td>1,846</td>
<td>825</td>
</tr>
<tr>
<td></td>
<td>137</td>
<td>181</td>
<td>188</td>
<td>203</td>
<td>175</td>
</tr>
<tr>
<td></td>
<td>998</td>
<td>1,485</td>
<td>1,360</td>
<td>1,106</td>
<td>850</td>
</tr>
<tr>
<td></td>
<td>500</td>
<td>902</td>
<td>874</td>
<td>666</td>
<td>447</td>
</tr>
<tr>
<td></td>
<td>9,618</td>
<td>10,971</td>
<td>8,376</td>
<td>7,920</td>
<td>8,659</td>
</tr>
<tr>
<td></td>
<td>(In Percentages)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>68.15</td>
<td>61.6</td>
<td>62.5</td>
<td>66.6</td>
<td>79.2</td>
</tr>
<tr>
<td></td>
<td>3.75</td>
<td>5.50</td>
<td>4.92</td>
<td>3.97</td>
<td>3.05</td>
</tr>
<tr>
<td></td>
<td>2.3</td>
<td>2.5</td>
<td>2.7</td>
<td>3.1</td>
<td>3.2</td>
</tr>
</tbody>
</table>

*(In Percentages)*


*Foreign taxes include those of Mexico and Canada. *Debt in Default; Receivers and Trustees' Securities; *Its Payable to Affiliated Companies. *Core Depreciation.
# TABLE IV

A SUMMARY OF THE CLASS I RAILWAY OPERATING COSTS, 1940

<table>
<thead>
<tr>
<th>Item</th>
<th>1940</th>
<th>1941</th>
<th>1942</th>
<th>1943</th>
<th>1944</th>
</tr>
</thead>
<tbody>
<tr>
<td>(In Millions)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel (Coal and Oil)</td>
<td>$273.6</td>
<td>$348.8</td>
<td>$426.3</td>
<td>$527.3</td>
<td>$579.3</td>
</tr>
<tr>
<td>Index: 1933 = 100</td>
<td>135.1</td>
<td>143.4</td>
<td>155.2</td>
<td>180.5</td>
<td></td>
</tr>
<tr>
<td>Materials and Supplies</td>
<td>899.9</td>
<td>811.5</td>
<td>833.5</td>
<td>867.0</td>
<td></td>
</tr>
<tr>
<td>Index: 1933 = 100</td>
<td>133.7</td>
<td>146.4</td>
<td>153.1</td>
<td>159.5</td>
<td></td>
</tr>
<tr>
<td>Total Materials,</td>
<td>854.5</td>
<td>1,161.3</td>
<td>1,259.8</td>
<td>1,394.3</td>
<td></td>
</tr>
<tr>
<td>Supplies and Fuel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Employees</td>
<td>1,026</td>
<td>1,139</td>
<td>1,270</td>
<td>1,355</td>
<td></td>
</tr>
<tr>
<td>Total Payroll</td>
<td>$1,964</td>
<td>$2,332</td>
<td>$2,932</td>
<td>$3,521</td>
<td>$4,013</td>
</tr>
<tr>
<td>Annual Compensation Per Employee</td>
<td>1,913</td>
<td>2,045</td>
<td>2,307</td>
<td>2,598</td>
<td></td>
</tr>
</tbody>
</table>

### TABLE IV

**CLASS I RAILWAY OPERATING COSTS, 1940 - 1945**

<table>
<thead>
<tr>
<th></th>
<th>1941</th>
<th>1942</th>
<th>1943</th>
<th>1944</th>
<th>1945</th>
</tr>
</thead>
<tbody>
<tr>
<td>(In Millions)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1941</td>
<td>348.8</td>
<td>426.3</td>
<td>527.3</td>
<td>585.8</td>
<td>550.2</td>
</tr>
<tr>
<td>1942</td>
<td>148.4</td>
<td>155.2</td>
<td>180.5</td>
<td>185.1</td>
<td>195.9</td>
</tr>
<tr>
<td>1943</td>
<td>811.5</td>
<td>833.5</td>
<td>867.0</td>
<td>1,024.7</td>
<td>1,041.0</td>
</tr>
<tr>
<td>1944</td>
<td>146.4</td>
<td>153.1</td>
<td>159.5</td>
<td>162.4</td>
<td>170.0</td>
</tr>
<tr>
<td>1945</td>
<td>1,161.3</td>
<td>1,259.8</td>
<td>1,394.3</td>
<td>1,610.5</td>
<td>1,591.1</td>
</tr>
<tr>
<td></td>
<td>1,139</td>
<td>1,270</td>
<td>1,355</td>
<td>1,414</td>
<td>1,422</td>
</tr>
<tr>
<td></td>
<td>2,332</td>
<td>2,932</td>
<td>3,521</td>
<td>3,858</td>
<td>3,860</td>
</tr>
<tr>
<td></td>
<td>2,045</td>
<td>2,307</td>
<td>2,598</td>
<td>2,727</td>
<td>2,718</td>
</tr>
</tbody>
</table>

*Source: Statistics of Railways in the United States, 1940 - 1945.*
TABLE V
INDEX NUMBERS OF ECONOMIC ACTIVITIES
IN 1944, COMPARED WITH PREWAR HIGHST
(Index: 1935-39 100)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Prewar High Year</th>
<th>Index 1935-39</th>
<th>19441</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Production</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1937</td>
<td>113</td>
<td>335</td>
</tr>
<tr>
<td>Durables</td>
<td>1937</td>
<td>113</td>
<td>252</td>
</tr>
<tr>
<td>Nondurables</td>
<td>1929</td>
<td>132</td>
<td>335</td>
</tr>
<tr>
<td>Mining</td>
<td>1939</td>
<td>109</td>
<td>171</td>
</tr>
<tr>
<td>Fuels</td>
<td>1937</td>
<td>112</td>
<td>140</td>
</tr>
<tr>
<td>Metals</td>
<td>1929</td>
<td>109</td>
<td>145</td>
</tr>
<tr>
<td>Agricultural Production</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crops</td>
<td>1937-39</td>
<td>106</td>
<td>136</td>
</tr>
<tr>
<td>Livestock</td>
<td>1934 &amp; 1939</td>
<td>117</td>
<td>129</td>
</tr>
<tr>
<td>Construction (New)2</td>
<td>1926-27</td>
<td>218</td>
<td>78</td>
</tr>
<tr>
<td>Public2</td>
<td>1930</td>
<td>137</td>
<td>116</td>
</tr>
<tr>
<td>Private2</td>
<td>1926</td>
<td>296</td>
<td>53</td>
</tr>
<tr>
<td>Trade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale2</td>
<td>1920</td>
<td>151</td>
<td>201</td>
</tr>
<tr>
<td>Retail2</td>
<td>1929</td>
<td>125</td>
<td>180</td>
</tr>
<tr>
<td>Exports2</td>
<td>1920</td>
<td>286</td>
<td>500</td>
</tr>
<tr>
<td>Imports2</td>
<td>1920</td>
<td>218</td>
<td>165</td>
</tr>
<tr>
<td>National Income2</td>
<td>1929</td>
<td>127</td>
<td>246</td>
</tr>
<tr>
<td>Employment</td>
<td>1929</td>
<td>108</td>
<td>143</td>
</tr>
<tr>
<td>Factory Payrolls2</td>
<td>1920</td>
<td>135</td>
<td>357</td>
</tr>
<tr>
<td>Wholesale Prices2</td>
<td>1920</td>
<td>192</td>
<td>129</td>
</tr>
<tr>
<td>Cost of Living2</td>
<td>1920</td>
<td>143</td>
<td>126</td>
</tr>
</tbody>
</table>

*Source: Industrial Production, manufacturing, and mining; Federal Reserve; United States Department of Agriculture. Construction; United States Department of Commerce. Wholesale Prices, cost of living; United States Department of Labor.

1. - decrease
2. Based on 1944 prices. Others are indexes of volume.
<table>
<thead>
<tr>
<th>Prewar High Index</th>
<th>1944 over Prewar Peak in Percent</th>
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</thead>
<tbody>
<tr>
<td>113</td>
<td>108.0</td>
</tr>
<tr>
<td>113</td>
<td>123.0</td>
</tr>
<tr>
<td>132</td>
<td>167.4</td>
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<tr>
<td>109</td>
<td>56.9</td>
</tr>
<tr>
<td>112</td>
<td>25.0</td>
</tr>
<tr>
<td>109</td>
<td>33.0</td>
</tr>
<tr>
<td>134</td>
<td>15.7</td>
</tr>
<tr>
<td>1939</td>
<td>28.3</td>
</tr>
<tr>
<td>106</td>
<td>10.3</td>
</tr>
<tr>
<td>117</td>
<td>33.0</td>
</tr>
<tr>
<td>1939</td>
<td>64.2</td>
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<td>137</td>
<td>82.1</td>
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<td>296</td>
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<td>74.8</td>
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<td>286</td>
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<tr>
<td>218</td>
<td>93.7</td>
</tr>
<tr>
<td>127</td>
<td>32.4</td>
</tr>
<tr>
<td>108</td>
<td>164.4</td>
</tr>
<tr>
<td>135</td>
<td>32.8</td>
</tr>
<tr>
<td>192</td>
<td>11.9</td>
</tr>
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</table>

Indexes of volume.
TABLE VI

CONDENSED BALANCE SHEET OF THE CLASS I STEAM RAILROAD
December 31, 1945
(In Millions)

<table>
<thead>
<tr>
<th>ASSETS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Investments:</td>
<td></td>
</tr>
<tr>
<td>Road and Equipment</td>
<td>$21,627</td>
</tr>
<tr>
<td>Improvements - Leased Property</td>
<td>532</td>
</tr>
<tr>
<td>Investments in Affiliated Property</td>
<td>4,045</td>
</tr>
<tr>
<td>Miscellaneous Physical Property</td>
<td>338</td>
</tr>
<tr>
<td>Other</td>
<td>798</td>
</tr>
<tr>
<td>Less Depreciation and Amortization</td>
<td></td>
</tr>
<tr>
<td>Current Assets</td>
<td></td>
</tr>
<tr>
<td>Cash and Deposits</td>
<td>1,151</td>
</tr>
<tr>
<td>Temporary Cash Investments</td>
<td>1,575</td>
</tr>
<tr>
<td>Receivables</td>
<td>421</td>
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<tr>
<td>Materials and Supplies</td>
<td>591</td>
</tr>
<tr>
<td>Other</td>
<td>606</td>
</tr>
<tr>
<td>Deferred Assets</td>
<td></td>
</tr>
<tr>
<td>Unadjusted Debits</td>
<td></td>
</tr>
<tr>
<td>Total Assets</td>
<td></td>
</tr>
<tr>
<td>LIABILITIES AND NET WORTH</td>
<td></td>
</tr>
<tr>
<td>Capital Stock Outstanding</td>
<td></td>
</tr>
<tr>
<td>Common</td>
<td>$6,16</td>
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<tr>
<td>Preferred</td>
<td>1,84</td>
</tr>
<tr>
<td>Liabilities</td>
<td></td>
</tr>
<tr>
<td>Long Term Debt</td>
<td>9,28</td>
</tr>
<tr>
<td>Current Liabilities</td>
<td>2,95</td>
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<tr>
<td>Deferred Liabilities</td>
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<tr>
<td>Unadjusted Liabilities</td>
<td>76</td>
</tr>
<tr>
<td>Surplus</td>
<td></td>
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<tr>
<td>Total Liabilities and Net Worth</td>
<td></td>
</tr>
</tbody>
</table>

TABLE VI

BALANCE SHEET OF THE CLASS I STEAM RAILROADS*  
December 31, 1945  
(In Millions)  

<table>
<thead>
<tr>
<th>ASSETS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Party</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$21,627</td>
<td>532</td>
</tr>
<tr>
<td></td>
<td>4,045</td>
<td>421</td>
</tr>
<tr>
<td></td>
<td>338</td>
<td>594</td>
</tr>
<tr>
<td></td>
<td>798</td>
<td>600</td>
</tr>
<tr>
<td></td>
<td>1,151</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,579</td>
<td></td>
</tr>
<tr>
<td></td>
<td>400</td>
<td></td>
</tr>
<tr>
<td></td>
<td>196</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5,253</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$21,939</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1,193</td>
<td></td>
</tr>
<tr>
<td></td>
<td>275</td>
<td></td>
</tr>
<tr>
<td></td>
<td>196</td>
<td></td>
</tr>
<tr>
<td></td>
<td>26,756</td>
<td></td>
</tr>
</tbody>
</table>

LIABILITIES AND NET WORTH

<table>
<thead>
<tr>
<th>Liabilities and Net Worth</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$6,169</td>
<td>1,840</td>
<td>8,009</td>
</tr>
<tr>
<td>9,286</td>
<td>2,955</td>
<td>14,138</td>
</tr>
<tr>
<td>1,193</td>
<td>704</td>
<td>4,609</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$26,756</td>
</tr>
</tbody>
</table>

### TABLE VII

**ANNUAL INCREASES IN RAILROAD OPERATING COSTS AND OPERATIONS**

**DECEMBER, 1941 - JUNE, 1947**

(In Millions)

<table>
<thead>
<tr>
<th>Increased Costs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage(^1)</td>
<td></td>
</tr>
<tr>
<td>1941</td>
<td>370</td>
</tr>
<tr>
<td>1943</td>
<td>344</td>
</tr>
<tr>
<td>1946</td>
<td>692</td>
</tr>
<tr>
<td>Payroll Taxes on Wage Increases</td>
<td></td>
</tr>
<tr>
<td>Grosser Act (Effective January 1, 1947)</td>
<td></td>
</tr>
<tr>
<td>Cost of Vacations with Pay</td>
<td></td>
</tr>
<tr>
<td>Material and Supply Price Increases</td>
<td></td>
</tr>
<tr>
<td><strong>Total Increased Costs</strong></td>
<td></td>
</tr>
</tbody>
</table>

| Increased Revenues (Effective and Prospective) |  |
| Ex Parte 148. Passenger Fare Increase (February, 1942) |  |
| Ex Parte 162. Freight Rate Increase (December, 1946) |  |
| Docket 29711. Increased Passenger Fares (Eastern District) |  |
| Ex Parte 163. Railway Express Rates (Interim) |  |
| Ex Parte 163. Railway Express Rates (Prospective) |  |
| Railway Mail (Prospective) |  |
| **Total Revenues (Effective and Prospective)** |  |
| **Excess of Increased Costs over Increased Revenues** |  |

---


1. Excluding Executives and Officials.
2. 1941 average 9.9¢ per hour; 1943 average 9.2¢ per hour; 1946 average.
3. Computed at six percent of wage increases.
4. 2¼ percent of 1946 payroll of $4 billion charged to operating expenses.
5. Average chargeout price was $131.35 in 1940. Purchase price index 47.3 percent over 1940. The index was 222.6 in June, 1947, or 15.
6. Nine percent of passenger revenues for 1946 ($1,259 million).
7. 17.6 percent of freight revenues for 1946 after deducting interim.
9. 45 percent of mail revenues.
### TABLE VII

**RAILROAD OPERATING COSTS AND OPERATING REVENUES**

**DECEMBER, 1941 - JUNE, 1947**

(In Millions)

<table>
<thead>
<tr>
<th>Item</th>
<th>1941</th>
<th>1946</th>
<th>Increase (Feb., 1942)</th>
<th>Increase (Dec., 1946)</th>
<th>Fares (Eastern District)</th>
<th>Rates (Interim)</th>
<th>Rates (Prospective)</th>
<th>Effective and Prospective</th>
<th>Costs over Increased Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>$370</td>
<td>113</td>
<td>113</td>
<td>98</td>
<td>275</td>
<td>1,279</td>
<td>1,116</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$344</td>
<td>94</td>
<td>94</td>
<td>90</td>
<td>50</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$692</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$1,406²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$2,395</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. 1, 1947)

3 average 9.2¢ per hour; 1946 average 16¢ to May 22, 18¼¢ thereafter.

3 billion charged to operating expenses.

1.35 in 1940. Purchase price index stood at 193.5 in 1946, an increase of index was 222.6 in June, 1947, or 15 percent greater than 1946.

Uses for 1946 ($1,259 million)

$ for 1946 after deducting interim increase of July 1, 1946.
### TABLE VIII


<table>
<thead>
<tr>
<th>Year</th>
<th>Total Operating Revenues of Class I Roads (In Millions)</th>
<th>Net Income of Class I Roads</th>
<th>Net Income Corporations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1929</td>
<td>1947</td>
</tr>
<tr>
<td>1929</td>
<td>$6,280</td>
<td>$897</td>
<td>$7,19</td>
</tr>
<tr>
<td>1930</td>
<td>$5,281</td>
<td>524</td>
<td>1,72</td>
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<tr>
<td>1931</td>
<td>$4,188</td>
<td>135</td>
<td>d 1,61</td>
</tr>
<tr>
<td>1932</td>
<td>$3,127</td>
<td>d 139</td>
<td>d 3,64</td>
</tr>
<tr>
<td>1933</td>
<td>$3,095</td>
<td>d 6</td>
<td>d 62</td>
</tr>
<tr>
<td>1934</td>
<td>$3,272</td>
<td>d 17</td>
<td></td>
</tr>
<tr>
<td>1935</td>
<td>$3,452</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1936</td>
<td>$4,053</td>
<td>165</td>
<td>3,76</td>
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<td>1937</td>
<td>$4,156</td>
<td>98</td>
<td>3,94</td>
</tr>
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<td>1938</td>
<td>$3,565</td>
<td>d 123</td>
<td>1,65</td>
</tr>
<tr>
<td>1939</td>
<td>$3,995</td>
<td>93</td>
<td>4,22</td>
</tr>
<tr>
<td>1940</td>
<td>$4,297</td>
<td>189</td>
<td>5,84</td>
</tr>
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<td>1941</td>
<td>$5,347</td>
<td>500</td>
<td>8,51</td>
</tr>
<tr>
<td>1942</td>
<td>$7,466</td>
<td>902</td>
<td>9,74</td>
</tr>
<tr>
<td>1943</td>
<td>$9,055</td>
<td>873</td>
<td>9,84</td>
</tr>
<tr>
<td>1944</td>
<td>$9,437</td>
<td>667</td>
<td>9,90</td>
</tr>
<tr>
<td>1945</td>
<td>$8,902</td>
<td>450</td>
<td>9,00</td>
</tr>
<tr>
<td>1946</td>
<td>$7,627</td>
<td>289</td>
<td>12,50</td>
</tr>
<tr>
<td>1947</td>
<td>$8,684</td>
<td>480</td>
<td>17,50</td>
</tr>
</tbody>
</table>

Percent Increase:
- 1946 over 1929: 21.4%
- 1946 over 1941: 42.6%

*d. - Deficit
1. After Taxes
2. Before Taxes
3. Partly Estimated
4. Estimated on the basis of the first six months of 1947.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>$897</td>
<td>$7,194</td>
<td>$6,044</td>
</tr>
<tr>
<td>1930</td>
<td>524</td>
<td>1,723</td>
<td>4,329</td>
</tr>
<tr>
<td>1931</td>
<td>139</td>
<td>1,614</td>
<td>2,744</td>
</tr>
<tr>
<td>1932</td>
<td>6</td>
<td>3,646</td>
<td>1,832</td>
</tr>
<tr>
<td>1933</td>
<td>17</td>
<td>625</td>
<td>2,661</td>
</tr>
<tr>
<td>1934</td>
<td>18</td>
<td>540</td>
<td>3,759</td>
</tr>
<tr>
<td>1935</td>
<td>165</td>
<td>1,668</td>
<td>4,484</td>
</tr>
<tr>
<td>1936</td>
<td>98</td>
<td>3,767</td>
<td>5,062</td>
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<tr>
<td>1937</td>
<td>123</td>
<td>3,943</td>
<td>5,139</td>
</tr>
<tr>
<td>1938</td>
<td>93</td>
<td>1,658</td>
<td>4,327</td>
</tr>
<tr>
<td>1939</td>
<td>189</td>
<td>5,284</td>
<td>4,415</td>
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<tr>
<td>1940</td>
<td>500</td>
<td>6,519</td>
<td>4,974</td>
</tr>
<tr>
<td>1941</td>
<td>902</td>
<td>8,740</td>
<td>9,209</td>
</tr>
<tr>
<td>1942</td>
<td>873</td>
<td>9,842</td>
<td>12,187</td>
</tr>
<tr>
<td>1943</td>
<td>667</td>
<td>9,908</td>
<td>12,399</td>
</tr>
<tr>
<td>1944</td>
<td>450</td>
<td>9,000</td>
<td>12,536</td>
</tr>
<tr>
<td>1945</td>
<td>289</td>
<td>12,500</td>
<td>14,889</td>
</tr>
<tr>
<td>1946</td>
<td>480</td>
<td>17,500</td>
<td>18,000</td>
</tr>
<tr>
<td>1947</td>
<td>67.8</td>
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<td>146</td>
</tr>
<tr>
<td>1948</td>
<td>42.2</td>
<td>40.9</td>
<td>130</td>
</tr>
</tbody>
</table>

TABLE VIII

AND NET INCOME OF CLASS I RAILROADS, CORPORATIONS, AND REALIZED NET INCOME, FOR THE YEARS, 1929 through 1947


First six months of 1947.
TABLE IX

BITUMINOUS COAL TRANSPORTED BY VARIOUS MODES FOR THE YEARS
(In Thousands of Net Tons)

Index - 1933 = 100

<table>
<thead>
<tr>
<th>YEAR</th>
<th>PRODUCTION</th>
<th>INDEX</th>
<th>TRUCK OR WAGON</th>
<th>INDEX</th>
<th>LOADED AT MINES FOR SHIPMENT BY WATER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1933</td>
<td>333,631</td>
<td>100</td>
<td>15,463</td>
<td>100</td>
<td>13,021</td>
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<tr>
<td>1934</td>
<td>359,368</td>
<td>108</td>
<td>18,739</td>
<td>121</td>
<td>15,128</td>
</tr>
<tr>
<td>1935</td>
<td>372,373</td>
<td>112</td>
<td>21,960</td>
<td>142</td>
<td>18,327</td>
</tr>
<tr>
<td>1936</td>
<td>439,088</td>
<td>132</td>
<td>27,929</td>
<td>161</td>
<td>24,868</td>
</tr>
<tr>
<td>1937</td>
<td>445,531</td>
<td>134</td>
<td>1/</td>
<td>1/</td>
<td>1/</td>
</tr>
<tr>
<td>1938</td>
<td>348,545</td>
<td>104</td>
<td>25,592</td>
<td>166</td>
<td>16,903</td>
</tr>
<tr>
<td>1939</td>
<td>394,855</td>
<td>116</td>
<td>29,534</td>
<td>191</td>
<td>22,229</td>
</tr>
<tr>
<td>1940</td>
<td>460,772</td>
<td>136</td>
<td>35,540</td>
<td>230</td>
<td>29,493</td>
</tr>
<tr>
<td>1941</td>
<td>514,149</td>
<td>154</td>
<td>40,056</td>
<td>259</td>
<td>30,240</td>
</tr>
<tr>
<td>1942</td>
<td>582,693</td>
<td>175</td>
<td>45,154</td>
<td>292</td>
<td>34,018</td>
</tr>
<tr>
<td>1943</td>
<td>590,177</td>
<td>177</td>
<td>42,433</td>
<td>274</td>
<td>30,188</td>
</tr>
<tr>
<td>1944</td>
<td>619,576</td>
<td>186</td>
<td>40,123</td>
<td>259</td>
<td>31,518</td>
</tr>
<tr>
<td>1945</td>
<td>576,000</td>
<td>173</td>
<td>34,000</td>
<td>220</td>
<td>27,690</td>
</tr>
</tbody>
</table>

*Source: Exhibit of Statistical Data Filed on Behalf of Producers and S. Ex Parte 162, July, 1946, p. 3.

1/ Breakdown not available.
## TABLE IX

**Loade by Various Modes for the Years 1933 Through 1945**

*(In Thousands of Net Tons)*

Index - 1933 = 100

<table>
<thead>
<tr>
<th>YEAR</th>
<th>LOADED AT MINES FOR SHIPMENT BY WAGON</th>
<th>LOADED AT MINES FOR SHIPMENT BY WATER</th>
<th>LOADED AT MINES FOR SHIPMENT BY RAIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>53</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>39</td>
<td>121</td>
<td>116</td>
<td>107</td>
</tr>
<tr>
<td>50</td>
<td>142</td>
<td>141</td>
<td>109</td>
</tr>
<tr>
<td>29</td>
<td>181</td>
<td>191</td>
<td>126</td>
</tr>
<tr>
<td>/</td>
<td>1/</td>
<td>1/</td>
<td>1/</td>
</tr>
<tr>
<td>32</td>
<td>186</td>
<td>130</td>
<td>161</td>
</tr>
<tr>
<td>34</td>
<td>191</td>
<td>171</td>
<td>113</td>
</tr>
<tr>
<td>36</td>
<td>230</td>
<td>227</td>
<td>130</td>
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<tr>
<td>39</td>
<td>259</td>
<td>232</td>
<td>145</td>
</tr>
<tr>
<td>54</td>
<td>292</td>
<td>261</td>
<td>165</td>
</tr>
<tr>
<td>33</td>
<td>274</td>
<td>232</td>
<td>169</td>
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<tr>
<td>23</td>
<td>259</td>
<td>242</td>
<td>180</td>
</tr>
<tr>
<td>50</td>
<td>220</td>
<td>213</td>
<td>167</td>
</tr>
</tbody>
</table>

*Filed on Behalf of Producers and Shippers of Bituminous Coal in No. 3.*
<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue Loss Thru Increased Consumption of Natural Gas</th>
<th>Revenue Loss Thru Increased Consumption of Fuel Oil</th>
<th>Revenue Loss Thru Increased Output Hydro-Generated Electric Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>$11,757,941</td>
<td>$10,225,445</td>
<td>$8,693,075</td>
</tr>
<tr>
<td>1930</td>
<td>11,280,350</td>
<td>10,195,247</td>
<td>-11,876,750</td>
</tr>
<tr>
<td>1931</td>
<td>7,572,488</td>
<td>7,543,083</td>
<td>-21,332,850</td>
</tr>
<tr>
<td>1932</td>
<td>2,461,228</td>
<td>2,993,492</td>
<td>-26,829,128</td>
</tr>
<tr>
<td>1933</td>
<td>3,552,005</td>
<td>4,035,502</td>
<td>-24,700,890</td>
</tr>
<tr>
<td>1934</td>
<td>14,119,788</td>
<td>11,813,421</td>
<td>-21,746,813</td>
</tr>
<tr>
<td>1935</td>
<td>23,784,729</td>
<td>20,167,300</td>
<td>-10,334,588</td>
</tr>
<tr>
<td>1936</td>
<td>38,674,680</td>
<td>32,730,646</td>
<td>9,047,720</td>
</tr>
<tr>
<td>1937</td>
<td>57,737,724</td>
<td>42,100,035</td>
<td>25,354,345</td>
</tr>
<tr>
<td>1938</td>
<td>47,853,000</td>
<td>36,041,653</td>
<td>9,361,950</td>
</tr>
<tr>
<td>1939</td>
<td>57,634,964</td>
<td>46,962,005</td>
<td>31,456,180</td>
</tr>
<tr>
<td>1940</td>
<td>72,088,366</td>
<td>54,211,206</td>
<td>52,971,940</td>
</tr>
<tr>
<td>1941</td>
<td>102,329,174</td>
<td>67,632,572</td>
<td>90,976,980</td>
</tr>
<tr>
<td>1942</td>
<td>137,945,894</td>
<td>87,900,176</td>
<td>118,755,200</td>
</tr>
<tr>
<td>1943</td>
<td>200,197,352</td>
<td>114,291,797</td>
<td>191,889,400</td>
</tr>
<tr>
<td>1944</td>
<td>250,691,198</td>
<td>129,191,820</td>
<td>241,089,070</td>
</tr>
<tr>
<td>Total</td>
<td>$1,039,227,881</td>
<td>$677,035,403</td>
<td>$662,572,841</td>
</tr>
</tbody>
</table>

Source: Figures abstracted from last two columns of pages 14, 16, and 19, Exhibitors and Shippers of Bituminous Coal in Ex Parte 162, July, 1946.
TABLE X

USES TO THE BITUMINOUS COAL INDUSTRY AND RAILROADS THRU INCREASED CONSUMPTION OF PETROLEUM FUELS, 1928 THRU 1944

<table>
<thead>
<tr>
<th>Loss Increased Revenue Loss Thru Increased Output of Hydro-Generated Electricity Use of Competitive Fuels</th>
<th>Total Revenue Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss</td>
<td>Revenue</td>
</tr>
<tr>
<td>304,339</td>
<td>$294,448,292</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Exhibit of Statistical Data Filed in Behalf of Pro-Ex Parte 162, July, 1946.
TABLE XI

FREIGHT RATES ON STEEL PRODUCTS TO MID-WESTERN DESTINATIONS
BASING POINTS PRIOR TO AND FOLLOWING THE EX PARTE 16:

(In cents per 100 pounds)

<table>
<thead>
<tr>
<th>To</th>
<th>Pittsburgh</th>
<th>Bethlehem</th>
<th>Cleveland</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Old</td>
<td>New</td>
<td>Old</td>
</tr>
<tr>
<td>Cincinnati, Ohio</td>
<td>29</td>
<td>35</td>
<td>43</td>
</tr>
<tr>
<td>South Bend, Indiana</td>
<td>33</td>
<td>40</td>
<td>46</td>
</tr>
<tr>
<td>Louisville, Kentucky</td>
<td>36</td>
<td>43</td>
<td>47</td>
</tr>
<tr>
<td>Columbus, Ohio</td>
<td>23</td>
<td>28</td>
<td>50</td>
</tr>
<tr>
<td>Dubuque, Iowa</td>
<td>43</td>
<td>52</td>
<td>55</td>
</tr>
<tr>
<td>Rockford, Illinois</td>
<td>41</td>
<td>49</td>
<td>52</td>
</tr>
</tbody>
</table>

### TABLE XI

<table>
<thead>
<tr>
<th></th>
<th>Bethlehem</th>
<th>Cleveland</th>
<th>Detroit</th>
<th>Chicago</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Old New</td>
<td>Old New</td>
<td>Old New</td>
<td>Old New</td>
</tr>
<tr>
<td>43</td>
<td>52</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
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<td>46</td>
<td>55</td>
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<td>14</td>
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<tr>
<td>47</td>
<td>56</td>
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<td>27</td>
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<td>50</td>
<td>48</td>
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<td>29</td>
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<tr>
<td>55</td>
<td>65</td>
<td>39</td>
<td>35</td>
<td>19</td>
</tr>
<tr>
<td>52</td>
<td>62</td>
<td>35</td>
<td>32</td>
<td>13</td>
</tr>
</tbody>
</table>

*In cents per 100 pounds*

- *pp. 93-95.*
TABLE XII

PITTSBURGH FREIGHT DISADVANTAGE COMPARED WITH OTHER BASING POINTS BEFORE AND AFTER THE EX PARTE DECREASE

(In dollars per ton)

<table>
<thead>
<tr>
<th>Destination</th>
<th>Sparrows Pt. Old</th>
<th>Sparrows Pt. New</th>
<th>Bethlehem Old</th>
<th>Bethlehem New</th>
<th>Younghusband Old</th>
<th>Younghusband New</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York, New York</td>
<td>$2.40</td>
<td>$2.80</td>
<td>$3.80</td>
<td>$4.60</td>
<td>$3.50</td>
<td>$4.60</td>
</tr>
<tr>
<td>Philadelphia, Pennsylvania</td>
<td>3.00</td>
<td>3.60</td>
<td>4.10</td>
<td>4.80</td>
<td>$3.30</td>
<td>$4.80</td>
</tr>
<tr>
<td>Boston, Massachusetts</td>
<td>1.60</td>
<td>2.00</td>
<td>2.60</td>
<td>3.20</td>
<td>.50</td>
<td>.60</td>
</tr>
<tr>
<td>Detroit, Michigan</td>
<td>$2.80</td>
<td>$3.30</td>
<td></td>
<td>$3.80</td>
<td>$3.50</td>
<td>$4.80</td>
</tr>
<tr>
<td>Milwaukee, Wisconsin</td>
<td>$1.60</td>
<td>$2.00</td>
<td></td>
<td>$2.60</td>
<td>.60</td>
<td>.60</td>
</tr>
<tr>
<td>Toledo, Ohio</td>
<td>$2.40</td>
<td>$2.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE XII

ANTAGE COMPARED WITH OTHER BASEING POINTS TO SELECTED CONSUMING
BEFORE AND AFTER THE EX PARTE 162 DECISION

(In dollars per ton)

<table>
<thead>
<tr>
<th>Steelworks Pt.</th>
<th>Bethlehem Old New</th>
<th>Charleston Old New</th>
<th>Savannah Old New</th>
<th>New York Old New</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>$2.80</td>
<td>$2.00</td>
<td>$2.60</td>
<td>$2.00</td>
</tr>
<tr>
<td>New</td>
<td>$3.60</td>
<td>$2.60</td>
<td>$3.20</td>
<td>$2.60</td>
</tr>
<tr>
<td>New</td>
<td>$2.00</td>
<td>$1.80</td>
<td>$2.40</td>
<td>$2.00</td>
</tr>
</tbody>
</table>

APPENDIX C

Summaries of the Interterritorial Freight Rate Problem . 307
The Class Rate Investigation of 1939 ...................... 319
SUMMARIES OF THE INTERTERRITORIAL FREIGHT RATES PROBLEM

In a physical sense, the railroads are one system, for long ago science and engineering overcame the geographical barriers which originally prevented unification of service. But the uniformity which marks the mechanics of service does not extend, in an economic sense, to the national structure of rates. Charges for equal services - equal freight loads of similar commodities carried equal distances - may and do vary widely from region to region, and frequently within individual regions.

The large number of commodities transported throughout the nation makes impossible a separate rate on each and every item to and from every point on all routes. To simplify the process, commodities are "classified" or grouped into divisions, each of which is designated by a number or letter known as class "rating." Articles are segregated into the various classes on the basis of similar transportation characteristics. The term "rating" should not be confused with the actual rate charged, for the designation given to the commodity simply specifies the class assigned, whereas the rate is the price charged for the freight shipment. Classified interstate traffic and much of the intrastate traffic is governed by one or more of the three principal classifications; Official, Southern, and Western. All three are
1. See Chart 1, Appendix A, for a geographical description of the territories.

The freight classifications published in one volume called the Consolidated Freight Classification, constructed and revised frequently by committees drawn from the participating railroads.

In addition to the freight classifications, the nation is divided into five freight class rate territories, each of which has established its own particular rate level and rate structure. For rate-making purposes, these regions are known as Eastern, or Official Territory, governed by Official Classification; Southern Territory, governed by Southern Classification; and Western Trunk-Line, Southwestern, and Mountain-Pacific Territories, governed by Western Classification. Existence of these regional rate structures causes

2. Territorial descriptions will be found in Chart 2, Appendix A.

the interterritorial freight rate problem of the United States. The number of standard "classes" of freight established and the method of designating classes differ in the three classifications, and the percentage relationship of these classes to first-class rates differ to some extent in the various freight-rate territories. Similar commodities may have dif-
ferent ratings in two or in all three of the classifications. In terms of the percentage of first-class, approximately 60 per cent of the ratings are uniform in all three classifications; about 13 per cent are completely different in any two classifications; and 27 per cent are similar in two but not in all three classifications.


Since classification is not the result of scientific formulas, but based rather on matters of judgment, the lack of uniformity in the classification ratings may be easily understood. Rating differentials between the three classifications also reflect differences in economic factors within each of the territories.

In recent years, there has been an increasing number of instances where exceptions to classification have been used. These provide ratings somewhat lower than the standard classifications. In Official Territory, 17 per cent of the commodity descriptions have been modified by use of the exception ratings; Southern Territory, 31 per cent; in Western Trunk-Line, 26 per cent; and in Southwestern, 36 per cent.

Use of exceptions has had the effect of reducing rates by about 20 per cent on the commodities originally moving on standard classifications. Standard classification ratings move only a small proportion of the total freight tonnage of the nation, and even when combined with the volume moving on classification exceptions, the amount is not large. By far, the greater proportion moves on commodity rates.  

5. An analysis made by the Interstate Commerce Commission on the volume of carload traffic originating on all railroads on September 23, 1942, revealed the following: 4.1 per cent moved on standard class rates, and yielded 6.3 per cent of the revenues from carload shipments on that date. By adding the traffic moving on classification exceptions to the class rate traffic, the figure increased to 14.8 per cent and 22.4 per cent of the carload revenues. 85.2 per cent of the carload traffic accounting for 77.6 per cent of the revenues moved on commodity rates, 79 per cent of less-than-carload lots moved on class rates and 21 per cent on commodity rates, but less-carload traffic constituted only 1.16 per cent of the tons of revenue freight originated in 1939. See Exhibit No. 288 in I.C.C. Docket 28,300 Class Rate Investigation, 1939. See also Board of Investigation and Research, op. cit., p. 2.

Commodity rates are of three different types. First, are those tied directly to class rates, usually by being made a certain per centage of first-class, or of a class other than first. These are known as column rates. Then there are those which are built upon some systematic basis not related to class rates, but constituting a consistent rate structure. Frequently, these are constructed upon a distance
scale or group basis. Finally, there are commodity rates consisting of special point-to-point rates, built upon no consistent basis, but adjusted to meet the needs of particular shippers, communities, or some competitive situation.

Within the freight-rate territories, class rates are generally constructed on distance scales, with departures resulting from the following practices: Equalization of rates between points at different distances; grouping points of origin or destination; creating rate blankets; and allowing especially low rates to favored points. Equalization, grouping and blanketing arise from competition and the desire to simplify rate-making processes. Special rates are usually the result of competition. Each of the territories move traffic on a uniform scale of first-class rates as prescribed by the Commission following comprehensive investigations of the territorial class-rate structures. The objective of these decisions was to provide more uniformity and consistency in the structures than had previously existed.6

6. Intraterritorial rate scales are based upon the following: Eastern Class Rate Investigation, 164 I.C.C. 314, 1930; Southern Class Rate Investigation, 100 I.C.C. 513, 1925, and supplementary decisions in 1926 and 1927 (109 I.C.C. 300; 113 I.C.C. 200; 128 I.C.C. 567); Western Trunk-Line Class Rates, 164 I.C.C. 1, 1930; Consolidated Southwestern Cases, 123 I.C.C. 203, 1927. Mountain-Pacific Territory is covered by the Arizona scale authorized in Arizona Corporation Commission v. Arizona and Eastern Railway Co., 115 I.C.C. 52, 1926; by the Oregon, Idaho and Montana scales established in State of Idaho ex. rel. Public Utilities Commission of Idaho v. Oregon
The complex nature of the first-class rate structures within each of the several territories makes difficult a precise comparison of the territorial levels of class rates. However, rough approximations of the differentials have been made. Results of the most recent study show that Southern rates are higher than Official rates by 33 per cent; Western Trunk-Line, Zone I, by 27 per cent; Western Trunk-Line, Zone II, has a level 45 per cent higher than Official; Western Trunk-Line, Zone III, 60 per cent; Western Trunk-Line, Zone IV, 83 per cent; and Southwestern, 53 per cent.\footnote{7. Board of Investigation and Research. Report on Interterritorial Freight Rates. Washington, D. C., Govt. Print. Off. 1943. p. 56.}

Levels of Mountain-Pacific Territory are not indicated because of the lack of uniformity in its rate structure.

The different bases used in constructing commodity rates prevent an adequate comparison of their average levels in the different territories. Territorial differences, however, have been compared on specific commodities. Studies have shown that rates are higher in the Southern and Western
Territories than in Official on such articles as sand, plaster, plasterboard, livestock, packinghouse products, cotton, textiles, and cement. Higher in the East and lower in the South and West, but particularly in the South, are the rate levels on brick, and clay products, fertilizer and fertilizer materials, lime, logs, pulpwood, and scrap iron. On sugar and coke, the rates in the East and South were approximately equal. It was concluded that there were significant territorial differences in commodity rate levels, resulting in higher rates in the South and West than in the East, but the relative differences were less than those in the levels of first-class rates in the same territories. 8

8. Board of Investigation and Research. op. cit., pp. 92-149.

Further comparisons of territorial rate levels may be made by combining levels of class and commodity rates into average levels of rates. A method of measurement commonly used to achieve this objective is the average revenue per ton-mile, but it is not entirely satisfactory since allowances are not made for variations in the composition of traffic, and for differences in the average length of hauls existing from region to region. On a per-mile basis, rates are usually lower for long hauls than for short hauls, and may be much lower when grouped or blanketed on points of
origin or destination. With the above qualifications in mind, the rough data showing average revenues per ton-mile for the principal rate territories are presented in Table I.

Table I

Average Revenue Per Ton-Mile, Class I Railroads, By Region or Districts, 1930-1941*

<table>
<thead>
<tr>
<th>Region or District</th>
<th>Average Revenue Per Ton-Mile (Mills)</th>
<th>Index Eastern-100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern District</td>
<td>10.19</td>
<td>100.0</td>
</tr>
<tr>
<td>Pocahontas Region</td>
<td>6.35</td>
<td>62.3</td>
</tr>
<tr>
<td>Southern Region</td>
<td>10.25</td>
<td>100.6</td>
</tr>
<tr>
<td>Western District</td>
<td>10.49</td>
<td>102.8</td>
</tr>
</tbody>
</table>


The estimates indicate that only slight differences occur in the average level of rates in Eastern District, Southern Region, and Western District. The one significant departure from the Eastern level is in Pocahontas Region, where the differential of 37.3 per cent can be explained by the high proportion of bituminous coal entering the traffic. Compared with indexes of classrate levels, and the conclusions with respect to levels of commodity rates, average rate levels for the South and West do not show the marked variations indicated previously. A partial explanation might be found in an examination of the average length of haul in each area.
In 1939, the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission estimated the average length of haul in the territories as follows: Eastern 252 miles; Southern, 282 miles; and Western, 345 miles. The average haul, thus, is longer in the South than in the East, and longer in the West than in the South.

Since the average revenue per ton-mile was shown to be approximately equal for all areas except Pocahontas, it would seem that a correction for average haul differences would result in higher average rate levels in the West and South than in the East. Even though the above conclusions are accepted as reasonably correct, there still remains the problem of satisfactorily measuring the differences in the average levels of the territories. Attempts in this direction were made by comparing the actual revenues received in 1939 by the railroads of the South and West with the revenues they would have received if the Eastern levels had prevailed in those regions. From the results, index numbers of "average revenue levels" were prepared. These showed Southern rates to be 5.5 per cent higher than rates in Official Territory, and rates in Western Territory 16.6
per cent higher than the rates in the East. Taken at face
value, the estimates suggested that differences in the
average level of rates by territories were less marked
than differences in levels of class rates.

Territorial differences in class rate levels complicate
the construction of interterritorial rates. To avoid abrupt
changes in rates at the borders of the various regions, the
Commission has attempted to blend the intraterritorial levels.
The process is usually applied to the entire haul by taking
a basic scale in each territory and adding to it a differential representing the difference in rate levels for the dis­tance traveled in the higher rated territory. The results
have not been too satisfactory. Existence of different
classification ratings in two rate territories creates a
difficult problem in blending the levels, and is a reason
why the interterritorial level is usually higher than would
result if the scale after blending produced levels propor­tionate to the length of haul in each territory. 10

10. Commission decisions authorizing interterritorial
rates are as follows: Southern--Official, 100 I.C.C.
513, 1925, and supplementary decisions; Western Trunk-
Line--Official, 164 I.C.C. 1, 1930, and supplementary
decisions; Western Trunk-Line--Southern, 226 I.C.C. 497,
1938, and supplementary decisions; Western Trunk-Line--
Southwestern, supplementary report in 205 I.C.C. 601,
1934, Southwestern--Official, ibid.; and Southwestern--
Southern, ibid.
For distances ranging from 200 to 1,500 miles, interterritorial class rate levels have been compared as follows:

On traffic moving from Southern to Official Territory, the rates are 35 per cent higher than those applying within Official Territory. Rates from Western Trunk-Line to Official are 37 per cent higher and between Southwestern and Official Territories, rates are 49 per cent higher.


Justification for territorial differences in average rates has often been made on the ground that costs of transportation differ between the various rate territories - that the costs are higher in the higher rated region. While it cannot be argued that unit costs in each territory are affected by many factors, such as wages, materials costs, density of traffic, traffic composition, terminal congestion, and character of terrain, there appears to be little validity in the declaration when viewed on the basis of the cost studies made by the staff of the Interstate Commerce Commission. As long ago as 1929, Dr. M. O. Lorenz directed a study which showed slightly lower costs in the Southern Territory.

13
13. Interstate Commerce Commission. Territorial Variations in the Cost of Carload Freight Service on Steam Railways in the United States for the year 1928. Statement No. 3018. 1930. Traffic density in the South was almost one-half of that of the East, but terminal costs were enough lower in the South to give the region a cost advantage for distances up to 300 miles.

In 1936, another analysis, based on the cost of handling carload freight per loaded car-mile including less-carload traffic and passenger deficits, revealed the territories to be ranked as follows: Eastern, 100; Central Eastern, 104.6; New England, 168.1; Western, 102.7; Souther, 94.6; and Pocahontas, 78.5.14


The most significant study of territorial costs was that made by Dr. Ford K. Edwards in connection with the Class Rate Investigation of 1939. Differences in the composition of traffic were taken into consideration by taking averages of fully distributed costs of carload traffic for a haul of 300 miles based on actual loads, in box, gondola and hopper, flat, stock, refrigerator, and tank cars. In terms of actual average loads in each territory indexes of the relative costs were computed as follows: U.S. Average,
100; East, including New England, 101; Pocahontas, 87; South, 99; and West, 110. On less-than-carload traffic, the following relationships were shown to exist; East, excluding New England, and northern Illinois, 92; New England, 112; Pocahontas, 87; Southern, 87; Western, 122.15

15. Board of Investigation and Research. op. cit., pp. 261.

With the exception of New England which has the highest average unit costs, and the Pocahontas region, where average unit costs are lowest, it seems reasonable to conclude that the difference in territorial levels of rates are greater than can be justified by variations in the cost of service or composition of traffic.

THE CLASS RATE INVESTIGATION OF 1939

Representatives of both South and West have long expressed dissatisfaction with the existing class rate structure. Objections, particularly from the South have been primarily focused on the higher interterritorial rates which govern shipments between points in Southern Territory and points in Official Territory. The structure, it is claimed, works a hardship on Southern manufacturers when competing for northern markets against northern producers who ship on a lower scale of rates.
Furthermore, it has been asserted that the rate handicaps of the South have prevented normal industrial development of that region. Class-rate equalization might tend to encourage the growth of Southern industry in the long run, but it appears unlikely that the effects would be as great as alleged. As a practical matter the extent of territorial retardation of industry as a result of the interterritorial rate structure, is extremely difficult to determine.16

16. Favorable freight rates are of significant importance in industrial location only when other comparative locational factors are evenly balanced. However, the advantage of freight rates may be more than offset by disadvantages which occur in such basic location factors as raw materials, labor, fuel, markets, power, water, tax structures, etc. For further analysis see Daggett, S., op. cit., pp. 452-493. See also Lynch, E. C. "The Influence of Transportation in Location of Economic Activity." Natural Resources Planning Board Report. op. cit., pp. 71-87; and U.S. Department of Commerce. Basic Industrial Location Factors, Industrial Series, No. 74. Washington, D. C., Govt. Print. Off. 1947.

Many commodities produced in the South and West are shipped to Official Territory on freight rates based on the Eastern level or on a scale exceeding the level by less than the differences in the levels of class-rates.17 Adjustments of this nature, made in some instances by voluntary carrier action, in others through decisions of the Commission, did
not remove the basic causes of Southern and Western complaints; namely, the differences in the levels of class rates as a whole in the different territories. It was because of these objections that the Commission, on its own motion, undertook the investigation of the relationships between class rates as a whole in the several territories.

The case did not cover an examination of the class rates within Mountain-Pacific Territory or between that area and the remainder of the United States. Closely related to it was the proceeding known as the Consolidated Freight Classification which decision was combined with that of the class-


rate case when given on May 15, 1945.

Existing classifications were found unreasonable in the Consolidated Classification proceedings. It was decided also that the numbers of different classification ratings caused undue and unreasonable preference and prejudice in violation of Section 3 of the Interstate Commerce Act. The Commission ordered the establishment of a uniform classification, and requested the carriers to advise within 90 days as to whether or not a uniform classification could be constructed and submitted for approval. The railroads answered in the affirmative. The new classification prescribed by the Commission
was to contain 30 classes, ranging from Class 400 (400 per cent of first-class) to Class 13 (13 per cent of first-class). 19


Both interterritorial and intraterritorial class rates were found to be unreasonable. As a result of the differences existing between interterritorial rates from Southern, Southwestern and Western Trunk-Line Territories to Official Territory, shippers and receivers of freight in the East were favored over those of the South and West. 20

20. Ibid., pp. 700-702.

It was believed that the class rate and classifications revision should be accomplished simultaneously if possible. However, just and reasonable rates could not be established until the new classifications were approved, which in all probability would require considerable time. In view of this fact, the Commission prescribed an ad interim revision of class rates based upon existing classifications. Class rates within Official Territory were to be increased by 10 per cent, those within Southern, Southwestern and Western Trunk-Line Territory were to be reduced an equivalent amount.
Reductions of 10 per cent were ordered in the class rates between the various territories covered by the investigation. The temporary revisions were to apply only on articles transported on standard classification ratings - not to traffic moving on exception ratings nor on commodity rates.

The new rates were to become effective on January 1, 1946, but before that date the Commission order was temporarily enjoined at the request of nine Eastern states by a Federal court at Utica, New York on December 21, 1946.  

The injunction was dismissed by the Supreme Court on May 12, 1947, in a decision upholding the "interim" class rate order.

Class rate revision would seem to bring about a greater degree of uniformity between the levels of the territories than had formerly existed, and lower the scales of inter-territorial rates. As compared with Eastern manufacturers,
Southern and Western producers should find their transportation position much more favorable. Application of the class rate adjustment should result in a unified class rate level in four of the five major freight rate territories, and will mean a new base for construction of interterritorial rates. Insofar as class rates are used to move commodities, the significant territorial disadvantages should disappear. Yet it must be recalled that traffic moving on class rates is but a small fraction of the total, and furthermore, the rate order did not apply to exception ratings and commodity rates. Because of these facts, it is probable that the effects of the decision will not be as great as is popularly assumed.

Probably the most important question relative to the rate adjustment concerns its effect on industrial location. The rate decision might remove one obstacle to the development of Southern and Western industrialism, but it appears highly improbable that the nation will witness a wholesale movement of industries from the East to the South and West. There seems to be little doubt that Eastern markets will continue to absorb a high proportion of the nations' industrial production for years to come, thus granting advantages to the industries already located in that area. If and when other basic locational factors become equal throughout the several regions, a migration of industries to areas having real locational advantages might occur. From an
economic standpoint, the entire nation would benefit from this circumstance for sounder geographical specialization would be developed.

The importance of the class rate decision should not be minimized, for any revision of rates which results in more uniformity of rate levels and removal of discriminatory practices in the long-run tends to benefit all areas of the nation. Neither should the importance of the decision be overly stressed. Other problems of rate reorganization remain to be solved and this relatively small step should be measured in its true perspective - as representing a degree of progress toward a goal, rather than having attained the long sought objective of itself.
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