Financial Viability of Conrail: Review and Analysis

September 1975

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UNITED STATES CONGRESS

Office of Technology Assessment

The Financial Viability of Conrail

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REVIEW AND ANALYSIS

PREPARED AT THE REQUEST OF

THE SENATE COMMITTEE ON COMMERCE
SURFACE TRANSPORTATION SUBCOMMITTEE

PREPARED UNDER CONTRACT OTA C-19 BY

ENERGY AND ENVIRONMENTAL ANALYSIS, INC,
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SEPTEMBER 1975

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DEPUTY DIRECTOR

September 12, 1975

Honorable 01 in E. Teague
Chairman of the Board
Office of Technology Assessment
U. S. Congress
Washington, D. C . 20510

Dear Mr. Chairman:

In response to the requests* of Senator Schweiker of the OTA Board on February 26, 1975, and Senator Warren G. Magnuson, Chairman, Senate Commerce Committee on March 20, 1975, I am pleased to submit an initial report: The Financial Viability of CONRAIL - Review and Analysis.

Prepared by the Office of Technology Assessment, with the assistance of an ad hoc task force of consultants knowledgeable in rail industry operations and problems and a contractor, the report is part of an OTA review of the United States Railway Association's Plan for restructuring the bankrupt Northeast railroads.

It is anticipated that the report will be used as background for hearings planned for mid-September by the Senate Commerce Committee and for hearings to be held by the House Committees on Commerce and Appropriations.

Sincerely,

EMILIO Q. DADDARIO
Director

* See Appendix

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SEP 15 1975

The Honorable Warren G. Magnuson
Chairman, Committee on Commerce
United States Senate
Washington, D. C. 20510

Dear Mr. Chairman:

On behalf of the Board of the Office of Technology Assessment, we are pleased to forward a report: Financial Viability of CONRAIL .

This study is a part of a review of the United States Railway Association's Plan for restructuring the bankrupt Northeast railroads. This report considers the Final System Plan submitted to Congress on July 26, 1975.

This report is being made available to your Committee in accordance with Public Law 92-484.

Sincerely,



Olin E. Teague
Chairman
Technology Assessment Board

Sincerely,

Clifford P. Case
Vice Chairman
Technology Assessment Board

Preface

In **1973,** the financial disarray of the Northeast and mid-West railroads led to the passage of the Rail Reorganization Act of 1973. The Act established the United States Railroad Association (USRA) to develop a plan for a Consolidated Rail Corporation (CONRAIL) to be formed of the financially distressed railroads. On February 26, **1974,** USRA issued a Preliminary System Plan for CONRAIL, and on 26 July USRA submitted the Final System Plan to Congress.

This review and others in the series were prepared in response to requests from the Senate Commerce Committee. Originally intended to deal with the Preliminary System Plan, these reviews are based on the Final System Plan to maximize their utility to the Congress.

This review was accomplished in a two month period by OTA'S Transportation Assessment Group supported by Energy and Environmental Analysis, Inc. and a task force of individuals knowledgeable in railroad problems. Contact was maintained with authorizing, appropriations and budget committees of both the Senate and the House as well as the GAO, Library of Congress and the Congressional Budget Office.

The brief period of time precluded a rigorous assessment, Instead, the major issues have been identified, frameworks have been developed for their consideration and the data have been organized to allow for thorough review.

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ABBREVIATIONS

Chessie	The holding company that controls the Baltimore and Ohio (B&O) and Chesapeake and Ohio (C&O) systems.
ConRail	The new railroad entity proposed by USRA to operate the bulk of the bankrupt lines - the Consolidated Railroad Corporation.
FSP	Final System Plan, published by USRA in July, 1975.
ICC	Interstate Commerce Commission. Responsible for regulating the rates and conditions of competition for U.S. railroads.
MT	Million tons, used as an abbreviation for coal shipments, output, etc.
N&W	Norfolk and Western Railroad, a system operating in the Northeast and East Central United States.
PSP	Preliminary System Plan, published by USRA in February, 1975 as its preliminary plan for re-organizing the financial and operating affairs of the bankrupt railroads.
RSPO	Rail Services Planning Office. Office within ICC responsible for critiquing the USRA plans.
TOFC	Trailer on Flat Car freight, better known as “piggyback” freight.
USRA	United States Railway Association, established by Congress in 1973 to plan the restricting of the bankrupt railroads of the Northeast and Midwest.

CHAPTER 1
SUMMARY

PURPOSE AND APPROACH

This report examines the financial outlook for ConRail, the railroad entity proposed by the United States Railway Association (USRA) to acquire the bulk of the railroad assets and operating responsibilities of the bankrupt Northeast railroads. On July 26, 1975, USRA dispatched to the Congress its Final Systems Plan (FSP), or "blueprint", for reorganizing the bankrupt railroads now responsible for 22,200 miles of track. Early in 1975, in accordance with the 1973 Regional Rail Reorganization Act, USRA published a Preliminary Systems Plan (PSP) to which the public, creditors, shippers, ICC and other interested parties responded.

The approach of this report is to examine the critical assumptions affecting ConRail's financial viability using background data developed by USRA, the views of the key parties and independent analysis. Not surprisingly, ConRail's financial future depends on (a) how fast its revenues can grow, (b) whether it can reduce its operating expenses per ton mile of freight carried by improving efficiency, and (c) how much it must pay to acquire capital assets from the bankrupts and upgrade such track and equipment to give better and lower cost service. This report provides an independent assessment of how the decisive factors in each of these areas might be expected to develop between now and 1985. It concludes with an analysis of what these outcomes may mean in terms of the three critical financial questions facing the Congress as it weighs the ConRail proposal in reaching its November 1975 decision:

- What is the size of the Federal government's subsidy to start and sustain ConRail?
- Is it realistic to plan on an "income-based" reorganization? That is, can ConRail be expected, in 1979 as projected by USRA, or ever, to make profits adequate to shift it from public to private ownership?
- Finally, if the forecast shows that ConRail will encounter financial problems more serious than contemplated by USRA, are there superior alternative approaches? Can these be implemented now or can acceptance of the USRA ConRail proposal be viewed as the first step toward such options?

THE BASIC FINANCIAL PROJECTION

USRA'S report to the Congress projects modest increases in revenue and dramatic improvements in operating efficiency. These

outcomes together with the low estimated cost of acquiring the bankrupt railroads' assets, and the use of favorable depreciation accounting methods lead to USRA'S conclusion that ConRail can be launched at a cost of $1.85 billion, plus another $650 million in contingency funds.

During the planning period, USRA projects that ConRail will collect $43.7 billion in revenues (current dollars) and generate $1.5 billion in income. This represents a dramatic turnaround from a $332 million loss in 1976 to a profit of $397 million in 1985. The first profitable year of operation is expected to be 1979.

REVENUES

USRA estimates that the tonnage of freight shipped on ConRail will increase by 15.4 percent from 317.1 million tons in 1973 to 366.3 million tons in 1985. Tonnage shipped by the Penn-Central has been dropping for the last decade. ConRail is projected to experience a 1.20 percent per annum tonnage growth rate. Revenues (in 1973 dollars) are projected to grow by 15.7 percent, or 1.22 percent per year, to $2.090 billion by 1985. The GNP growth rate through 1985 of at least 3.5 percent is more than twice the revenue growth rate.

This projection is not optimistic in light of the projected growth in coal shipments. It assumes increased coal tonnage will constitute 62.2 percent of the total increase in freight shipped from 1973 to 1985. Even accounting for the declining share of Eastern coal in U.S. production, the absolute amount of coal produced in the U.S. is expected to grow so dramatically that major new ConRail shipments can be expected.

A pessimistic factor that could lower the USRA revenue projection results from the operation of the ICC-managed regulatory system for railroads. Railroads seek rate increases based on cost increases. At projected inflation rates of six percent or more, if the railroads are not quick to document cost increases and seek ICC actions, and the ICC does not rule expeditiously and responsively, then revenues will be eaten up by costs with no margin for profits. The magnitude of revenue losses due to unplanned lags could be $100 million or more over the 1976-1985 period. For ConRail, the situation is even worse because the ICC grants rate increases on an industry-wide average cost basis. ConRail's costs will exceed, at least into the early 1980's if not beyond, the costs experienced by other railroads. Thus, rate increases granted are likely to fall short of ConRail's requirements.

OPERATING COST

Today, the bankrupt Penn-Central loses 9.9¢ on every dollar of revenue. ConRail is expected to make a profit of 13.5¢ by 1985. This is to be accomplished primarily by reducing operating expenses. The most dramatic cost saving is to occur in the cost

of transporting freight. Transport costs will, according to USRA, drop from about 40¢ on the revenue dollar to about 30¢.

USRA projects that such savings will result from improved yard efficiencies, car utilization, and better traffic densities (tons per mile of track) which can reduce costs. Many USRA FSP critics doubt ConRail will do so well. USRA correctly identifies yards as the chief delay point in car movements. Only 14.6 percent of car time is spent moving whereas 61.8 percent is spent in yards. If yards can be bypassed and if yard efficiencies improve, the average time a car spends on a trip (through 5-6 yards per trip) will decline. Cost per trip will drop, and because more time per car and per locomotive will be available, less new equipment will need to be purchased to handle new tonnage. USRA anticipates an investment savings of $1.2 billion due to car utilization improvements.

USRA expects these gains to result from the implementation of a computerized car management system. “Blocks” of cars will bypass yards. However, USRA’S projections will not be easily attained. The primary reason is the structural characteristics of the Northeast railroads. There is an inverse correlation between railroad operating ratios (operating costs + revenues) and the percentage of railroad mileage devoted to mainlines as opposed to yards and light density lines. Thirty-one percent of Penn-Central line is mainline and its operating ratio is 84.4 percent. This compares with the N&W’s operating ratio of 71.1 percent and mainline proportion of total track of more than 70 percent. Even the divestiture of 5,700 miles of light density lines from the bankrupts as recommended by USRA will not free ConRail of this disadvantage.

Other characteristics of the Northeast bankrupts will impede improvements in efficiency. Generally, greater traffic per mile of track (called density) allows better recovery of fixed costs. But, the Penn-Central’s density is near the bottom of the top ten railroads (measured in terms of revenue). ConRail’s average haul length is shorter than most major railroads, making trip simplifications and yard avoidance more difficult. Finally, the nature of the Northeast economy leads inevitably to more rail car terminations on ConRail than other railroads which enjoy more through traffic. Because a railroad pays other lines when their cars are on its tracks, this characteristic works to ConRail’s disadvantage.

A prudent forecast would not assume that these structural limits of Northeast railroads can be easily overcome by sophisticated computer-based planning. Most likely, the operating improvements ConRail will experience will fall substantially short of those assumed by USRA.

SENSITIVITY ANALYSIS

Adjusting USRA'S estimates for possible outcomes that are more pessimistic or optimistic than the FSP forecast serves to illustrate how much worse or how much better ConRail's financial outlook might be over the period to 1985.

Coal Revenues Could Be Higher - The FSP assumed that coal tonnage shipped by ConRail will grow 36 percent by 1985. But, growth of 58 percent is possible if national coal production doubles in accordance with current plans. This adjustment would increase ConRail revenues by $752 million. Profits would rise by $150 million. In addition, a 50¢ per ton rate increase for coal shipments is possible in 1976. If implemented, ConRail's coal revenues would jump $375 million and profits would increase by the same amount.

Operating Improvements Will Fall Short of USRA Expectations - If the efficiency gains anticipated by USRA in the FSP occur later and fall short of USRA projections, the investment required by ConRail would increase $1 billion and operating costs would grow by $1.85 billion. Illustrative of the failures that would produce this result are: only 50 percent of the equipment utilization savings are achieved and not until two years after the USRA schedule, yard rehabilitation fails to reduce yard operating expenses, and only 75 percent of blocking improvements are achieved (see Chapter 6 for complete details).

The Federal Government May be Burdened with a Higher Initial Cost of Acquiring Bankrupt Assets - The creditors and stockholders of the bankrupt railroads are to be offered $422 million according to the FSP. The U.S. Supreme Court has held that the creditors may sue the U.S. Government for damages if they can prove the USRA offer is less than the "constitutional minimum" they deserve. Other estimates of the value of the bankrupts' properties are $7.4 billion (by Penn-Central creditors assuming continued operation) and $3.5 billion (by Penn-Central creditors assuming liquidation) . If any outcome above $422 million is reached, the Federal guarantee to the creditors and stockholders would increase proportionally.

SUMMARY IMPACT

The impact of alternative assumptions on the projected revenue and income of the system is summarized below.

The Impact of Alternative Assumptions on Revenue and Income (1976-1983)

	Alternative	Revenue	Income
1.	Final System Plan	$43.7 billion	$1.5 billion
2.	Increased Coal Revenue	44.8 billion	2.0 billion
3.	Lags in Operating Improvements	43.7 billion	- .3 billion
4.	Deficiency Judgment (Assume assets valued at $7.4 billion)	43.7 billion	.5 billion
5.	Unified ConRail	51.1 billion	2.5 billion

THE FEDERAL COMMITMENT

Under the proposed restructuring, the Federal government replaces private investors as the primary source of capital. As a result, a majority of the ConRail board members will be government appointees until long after the year 2000. The federal investment will vary depending upon ConRail's success in achieving the projections set forth in the FSP. In all cases however, it is in excess of the publicized $1.85 billion investment. Better performance will probably speed up repayment of the Federal debt but worse performance would substantially increase the Federal liability. The level of required Federal commitment is summarized below for alternative assumptions:

Alternative	Direct Investment	Other Assistance	Deficiency Judgement Payments	Total
FSP	$ 2.7B	$ 2.8B	0	$ 5.5B
Increased Coal Revenue	2.7	2.8	0	5.5
Operating Failures	>3.4	3.9	0	>7,3
Deficiency Judgement	2.7	3.9	6.8	13.4
Unified ConRail	1.8	2.8	0	4.6

ISSUES AND QUESTIONS

In the short time available to complete this report, many questions were left unanswered or, to speed the analysis, simplifying assumptions were employed. Nonetheless, conclusions were reached that merit serious consideration. Other questions need more investigation.

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#1 On balance, the downside risks for ConRail from the basic USRA forecast are greater than the upside profit potential. This means it is likely that the cost to the Federal government of the ConRail package will exceed that anticipated in the USRA forecast, perhaps by billions of dollars.

#2 The choice between a Unified ConRail and a ConRail/Chessie solution in the Northeast has very significant financial consequences. The public is being asked to pay possibly $650 million or more for the additional rail-to-rail competition resulting from the USRA preferred solution versus Unified ConRail. It would be helpful to have more insight into the value of this competition, taking into account the role of trucks and other presently viable railways in the Penn-Central area of operations.

#3 It may be appropriate to explore further the financial consequences of some of the findings herein. USRA relies on a computer model for financial forecasting. The authors of this report did not have access to that model. Thus, the report's ability to incorporate the results of the model is limited by the requirement that the analysis consists solely of adjustments to published projections. For example, the scale of the projected coal tonnage increase may exceed the amounts assumed in the USRA sensitivity analysis, especially in the early years, to such a degree that different cost factors, capital requirements, etc. may need to be employed.

#4 The USRA analysis of coal has become dated. This report finds that the coal tonnage and revenue forecasts in the FSP are probably too low. Moreover, USRA'S proposal that Chessie rather than ConRail acquire the only Penn-Central line into the lucrative West Virginia coal area raises questions about how thoroughly coal was considered in USRA's plans for restructuring the bankrupt railroads. Recently available information from government and private sources could be used to considerably strengthen the coal projections in the FSP. As the most important commodity in ConRail's future, it would appear desirable to understand more fully how more up-to-date projections will impact on the key issues raised in the FSP.

#5 Both USRA and industry personnel recognized that a deficiency judgment was likely to be entered against the government. Since the cost of these claims could exceed all other government investments, it deserves further consideration.

#6 Once agreement is reached to invest Federal funds in ConRail, contingency plans should be made to minimize losses. Otherwise, the taxpayer could continue indefinitely to subsidize the railroad with no hope of ever recovering public capital.

CHAPTER 2

INTRODUCTION

THE PROBLEM

"How do you turn around a company losing $500 million per year and have it make $500 million per year?" The foregoing statement by a United States Railway Association official captures the essence of the ConRail financial issue. The proposed railroad's principal component, the Penn-Central, will lose about one-half billion dollars in 1975. From the merger of the Pennsylvania Railroad and the New York Central in the 1960's, the railroad has been experiencing a steady financial decline. The largest railroad in the United States, the Penn-Central, serves a 16-state territory where half of the U.S. population resides and a major portion of its industry is located.

In the years since the Penn-Central Transportation Company's bankruptcy, other Northeast railroads have experienced a similar fate. Among these are the Central of New Jersey, the Lehigh Valley, the Leigh and Hudson River, the Ann Arbor, the Reading, and the Erie-Lackawanna. Together with the Penn-Central, these lines cover about 22,200 miles. The Regional Rail Reorganization Act of 1973 called for the development of a new rail system to replace the bankrupt carriers operating in the Northeast and Midwest. The traditional process of reorganizing the debt structure of individual bankrupt railroads was acknowledged as inadequate to deal with these bankruptcies. Instead, innovative ideas applied regionally were to form the basis for a new viable rail system. The U.S. Railway Association (USRA) was established to prepare a "blueprint" for the new system.

This assessment is concerned with the financial viability of the restructured railroad entity proposed by USRA and named ConRail, or the Consolidated Railroad Corporation. USRA anticipates that this new entity can profitably operate the bulk of the lines of the bankrupts, after a sizable U.S. government investment at the beginning. The USRA forecast projects profitable operation by 1979.

On February 26, 1975, the USRA published a Preliminary System Plan (PSP) to describe this new regional rail system. Considerable criticism was levelled at that plan by the ICC, bankers, solvent carriers and the public. USRA considered that criticism and on July 26, 1975 published a revised Final System Plan (FSP). A difficulty faced by USRA was implicit in the statute that charged it with the reorganization task. The 1973 law stipulated that the new system was to fulfill many and in some cases conflicting goals. The new railroad was to be profitable. Yet, it was to provide maximum service, which to some implied that unprofitable lines were not to be shut down. The new plan was to provide for competition, but whether this had to be rail-to-rail competition or whether inter-modal, for example, truck-to-rail, would be sufficient was not specified. In short, USRA tried to incorporate

in its plan the conflicting goals of the Act by creating a system that was financially viable yet did not destroy competition among the solvent carriers and still provided adequate service to shippers.

The recommended alternative in the PSP was a three-carrier system with the Chessie and Norfolk & Western Railroads competing with ConRail in the Northeast and Midwest Regions. These currently profitable railroads were to purchase portions of the bankrupts which would provide them with competitive access, along with ConRail, to key market areas such as Newark and Albany. Comments received from the public by the ICC generally indicated that USRA had fulfilled the goal of maintaining competition among the carriers. In the FSP, USRA slightly modified the approach because the Chessie expressed an interest in buying a major part of the bankrupt railroads whereas the N&W did not.

The proposed solution contemplates the purchase by the Chessie System, Inc. of 2,500 miles from the bankrupt lines for $62.5 million. USRA proposes that another 5,700 miles of light-density lines be pared from the bankrupts and either be closed down or operated with State and Federal subsidies. According to this solution, USRA believes the Act's goal of maintaining competition will be met by giving the 11,500 mile Chessie stronger access to Northeastern markets. The separation of 5,700 miles of light-density lines from ConRail is USRA'S attempt to balance the Act's goal of forming a financially viable entity with its goal of maintaining adequate service to the Northeast.

This paper focuses solely on whether or not the ConRail plan fulfills the goal of developing a financially viable system. The significance of this issue for the Congress can be summarized in the following questions:

1. What are the total financial burdens that will be placed on the general taxpayer if the ConRail proposal is implemented? The proposal seeks $1.85 billion in Federally provided capital with delayed payback provisions on interest and principal. $650 million in contingency funds are sought in addition to subsidies, guarantees and loans totalling billions of dollars more. But, the total financial burden may be more than twice this amount.
2. Will ConRail succeed financially? This question is not independent from the first, for if enough unprofitable burdens are lifted from ConRail and enough subsidies are provided, presumably financial viability could be assured. But such a solution would be a pyrrhic victory, because it would be little more than an accounting accomplishment. The basic question is:How long will Federal subsidies be needed after initial transfer? The ConRail proposal expects the restructured railroad will earn a

profit before taxes and extraordinary items of $36 million by 1979. Is this a reasonable projection?

3. Did the Congress in charging USRA through the 1973 Rail Reorganization Act, or did the USRA in interpreting its Congressional mandate, bias the proposed rail solution to the point that superior options to that favored were not seriously put forward? This question involves the choice of the favored "system." For example, the USRA interpreted the Congress' mandate that competition be provided by the solution as requiring rail-rail competition in the major ConRail market areas. However, trucks and barges or other water borne traffic compete with railroads for freight shipments. This inter-modal competition is extensive. For example, more than half of all commodities shipped by rail are also shipped by truck. Even where inter-modal competition is weak, for example, on some routes for basic commodities such as coal and grain, the Interstate Commerce Commission regulates rates and to some degree service conditions. The price implicit in adoption of the FSP'S preferred ConRail solution, with its rail-to-rail competition, is substantial. If inter-modal competition were instead deemed adequate, a one-system or unified ConRail solution could reduce the initial cost to the Federal government to establish ConRail. The amount of the reduction is, according to the FSP, from $1.85 to $1.2 billion, a thirty-five percent savings. A unified ConRail might divert revenues from other Northeast railroads, in part because of a greater long-haul service capability, but the size of such diversions as judged by USRA would not substantially alter the financial outlook of other railroads.

4. What other Congressional actions are possible that might help ConRail to financial viability without incurring additional Federal financial burdens? Since the late 1950's, Federal funding of the Interstate Highway System has greatly enhanced truck competition with railroads for freight traffic. President Ford's Administration has urged regulatory reform of the ICC. In 1974, the Congress enacted legislation allowing truck weights to be increased, thus improving truck competitiveness with railroads.

This study focuses principally on the first three of the above listed four questions. But, indirectly, the financial viability of ConRail relates to the powers exercised by Congress and listed in item 4.

WHAT HAS CHANGED?

Throughout this report, a variety of non-financial considerations will be cited as potentially decisive influences on the financial projections. These are best labelled as structural or

secular forces, beyond the control of railroads. The PSP cited many of these factors in explaining the demise of the Penn-Central. Expectations about a reversal in the financial performance of the Northeast railroads must realistically reflect how these factors will impinge on rail operations in the future. Below, some of these considerations are noted, along with how they might evolve in the future in comparison with the past.

TABLE 1 - EXTERNAL FACTORS AFFECTING RAILROAD FINANCIAL VIABILITY

1960 - 1975	Post-1975
Increasing truck competition for inter-city freight aided by cheap petroleum, interstate highway construction and the flexibility of trucking versus fixed-track limited rail.	Truck competition may continue to make inroads but railroads use less energy per ton mile (at least one-half) than trucks and new highway construction is being curtailed.
High economic growth rates favored other areas of the U.S. compared with the Northeast.	Economic growth in the Northeast will continue to lag nationwide performance, particularly performance in the South and Southwest.
Manufactured goods more commonly shipped by trucks have dominated growth since 1960 whereas basic commodities have suffered a relative decline.	The energy crisis has boosted coal as a major rail-shipped commodity. But, manufactured goods will continue to pace economic growth.
Spatial growth patterns have increasingly concentrated the U.S. population in large urban centers. Greater raw material specialization has increased the average length of bulk commodity movements. These developments should have favored rail freight movement, but railroads for regulatory, management and other reasons did not reshape their systems to fit new patterns.	Projected population growth and movements should favor rail's ability to compete if over-developed rail systems covering low-density routes can be reduced in size and railroad reliability and speed of delivery times improve.
In the Northeast, over forty million tons of coal-fired electrical generation capacity was converted to oil and gas between 1967 and 1972. Railroads lost a major share of these shipments. Oil and gas moved by water or pipeline.	Oil and natural gas shortages will favor coal conversions and the siting of new coal-fired facilities.

The above citations of some of the possible external developments that could make or break ConRail highlight coal as a key consideration. The ConRail plan expects coal to play a major role in the Northeast railroad revival. This report, therefore, gives special attention to coal. Illustrating the decisive role of this commodity are the two other major rail systems operating in the Northeast: the Chessie and the N&W. At the end of the first quarter of 1975, the Chessie led the nation's railroads with cash on hand of $185 million. It was followed by the N&W with $175 million. Yet, it is questionable whether a third railroad operating in the Northeast can also base its profitability on coal. These other entities are better positioned vis-a-vis the West Virginia coal fields and both serve the export port at Norfolk. Moreover,- the ConRail plan, rather than focusing on coal-based viability, contemplates selling to the Chessie its only coal line into West Virginia (in 1974, this line carried one-eighth of the coal tonnage that the Penn-Central originated) and strengthening the Chessie's access to the fastest growing 1974 coal market, Canadian exports. A key question, therefore, is how coal fits within the financial plans for ConRail. (See Chapters 3 and 6). In explaining Chessie's earnings gain in the first six months of 1975 while the rest of the economy faltered, Chessie's President attributed success to "good management and coal." [2]

The expectation of good management and the projection of major financial savings because of improved management are central to the profitability of ConRail as foreseen by USRA'S FSP. The plan anticipates that large financial benefits will result from improvement in rail yard efficiency, from the use of a computerized car tracking and allocation system, and from a car blocking system which reduces yard burdens by moving blocks of cars around points of congestion. Improved management performance will be essential if ConRail is to capture, as the ConRail plan expects, $50 million in revenues from other rail carriers. Innovative marketing by management is assumed in the forecast of an additional $41.6 million in revenues from piggy-back freight. The management challenge in making ConRail financially self-sustaining cannot be understated. The prospects are made even more sobering by the realization that the nation's largest and most efficient major railroad has consistently proved to be unmanageable.

In weighing the financial viability of ConRail, the possibility cannot be totally eliminated that the density of railroads in the Northeast is greater than that area can sustain. The ConRail plan meets this possibility by proposing the divestiture of 5,700 miles of light-density track. But, some PSP critics deemed that inadequate. Little was done to reduce yards and main line trackage. Even superior management operating a system too large for its markets cannot achieve success. The ICC noted that comments on the PSP repeatedly emphasized that more attention be given to the

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1 Capacity utilization in the industrial Sector was slightly less than 70 percent.

2 Business Week, August 11, 1975, P. 51

"problem of mainline and terminal rationalization and that the 'spaghetti' of redundant facilities throughout the Region must be eliminated." [3] The solvent railroads criticized the PSP, saying according to the ICC, '... operating efficiencies could only be achieved by eliminating duplicative terminals, yards, and mainlines, not by simple elimination of branch lines.. . ."[4] Yet, the FSP includes no significant further measures to reduce redundancy.

In judging the merits of the final ConRail plan, the search for the perfect solution could sacrifice the attainability of a successful second or third best solution. Most critics of the PSP, however vehement, urged that above all something be done quickly to head the bankrupt Northeast railroads in a new direction. The Congress in weighing the USRA proposal must decide whether the possible weaknesses in the ConRail plan justify further delay or whether they can be dealt with in an evolutionary way as the FSP maintains.[5]

THE FINANCIAL FRAMEWORK

The financial viability of ConRail will depend on its ability to generate revenue, control operating expenses and attract financing. The bankrupt carriers were notably unsuccessful in all three areas. Declining revenues in the Northeast coupled with skyrocketing interest rates and labor costs made attracting private capital impossible. These carriers have now turned to the Federal government as the lender of last resort to obtain the cash necessary for continued operations.

The Final System Plan recognizes that a simple injection of new capital will be insufficient to create a profitable railroad. Revenue will have to be generated by competing more effectively for freight with trucks and other carriers. Costs will have to be reduced by employing more advanced control systems, rehabilitating the rails and equipment, and obtaining management of 'the highest caliber." Finally, capital will have to be provided in large part by the Federal government to accomplish these aims. In return, the nation is to receive a rail system that will provide adequate service to shippers and eventually become a profitable privately owned and operated enterprise.

The FSP projects the performance of ConRail during the planning period 1976-1985. The USRA analysis relied extensively upon field surveys, consultant reports, simulation models, analysis of historical data and internal staff work. USRA in preparing the FSP as the final plan for reorganizing the Northeastern railroads synthesized these voluminous studies choosing those assumptions which they felt best reflected future ConRail operating conditions.

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[3] ICC **Evaluation** of U.S. Railroad Association Preliminary Systems Plan, p. 11

[4] **Ibid., p. 13**

[5] **See FSP, p.5-6.** 'A task so complex as the restructuring of the rail system in the Region must be evolutionary. . . In the longer term, after the **ConRail** system is established, further **sales, mergers** and consolidations of facilities may be **desirable."**

On closer examination, however, the financial viability of the plan proves quite sensitive to a few key assumptions. Varying these assumptions between optimistic, pessimistic and moderate scenarios demonstrates the impact on the profitability and capital demands of the proposed system. The critical assumptions examined fall into the following categories:

Revenue Generation

1. Baseline growth - The USRA forecast foresees an improved performance by the Northeast economy. Recently, the Northeast economy has grown at a slower rate than other regions of the U.S.
2. Coal - Because of the energy crisis, USRA foresees a major increase in coal shipments and revenues.
3. Trailer on Flat Car (TOFC) - Rapid growth but questionable profitability is USRA'S outlook for this railroad market area.
4. Inter-modal Competition - USRA forecasts a decrease in incursion by trucks into ConRail markets.
5. Inflation/Regulatory Action - The USRA anticipates that in the future the railroads will expedite their requests for and the ICC will act more rapidly in allowing rate increases to pass through cost increases borne by railroads.

Operating Expenses

1. Yard Efficiencies - USRA expects significant savings from improved yard efficiencies.
2. Car Utilization - Improvements in car management, according to the USRA outlook, will increase car utilization and reduce the required investment in rail cars and locomotives.
3. Track Utilization - By increasing rail density - the number of cars per mile of track - USRA expects ConRail can reduce operating costs.
4. Cost Control Systems - Future potential savings are expected because of closer cost control.
5. Labor Productivity - Few improvements in labor performance are forecast by USRA.
6. Management - ConRail expects great improvements will result from better management.

Financing

1. Valuation of Properties - Significant disagreement exists between the creditors of the bankrupt railroads and USRA on the value of railroad assets. If the lower USRA estimate prevails in court tests, the cost of ConRail implementation will be substantially lower.
2. Depreciation Accounting - Various accounting options can impact on profits. USRA'S approach departs from conventional railroad practice and improves ConRail's outlook.

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3. Rehabilitation Cost - A major use of capital is in upgrading rails and equipment. USRA has carefully weighed the possible impact of inflation on the cost of such improvements.
4. The Form of Federal Investment - The future flexibility of ConRail is affected by how deeply the government, as ConRail's principal creditor, is involved in control of the company.
5. Passenger Subsidies - Large passenger subsidies from the government to ConRail are viewed by USRA as essential for successful ConRail financial performance.

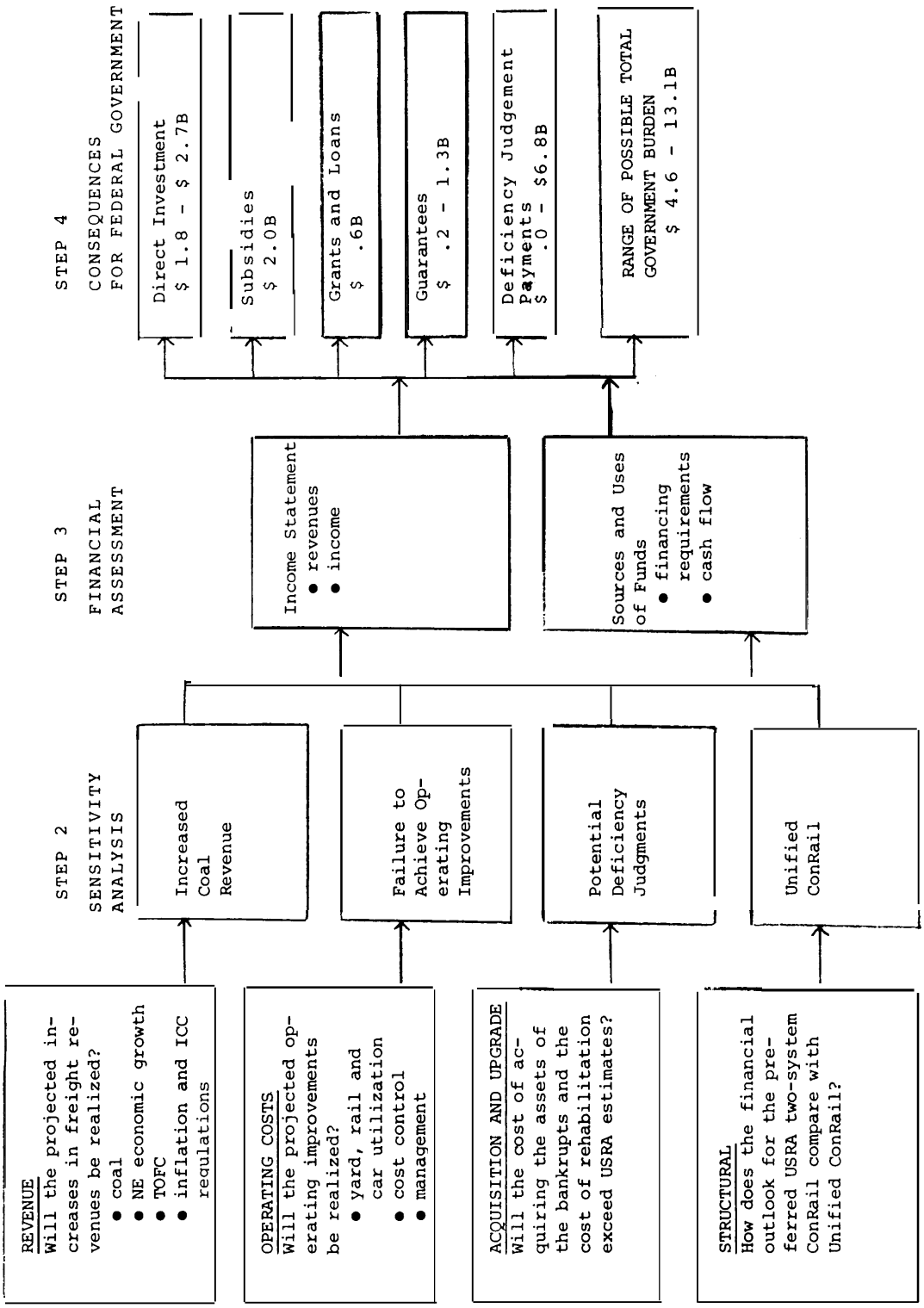
The approach of this report is to examine the critical assumptions just reviewed in light of the background data provided by USRA, the views of other key parties such as the ICC, the creditors of the bankrupts, and independent analysts. The methodology of the report is summarized in the accompanying simplified schematic (Figure 1). Step 1 is to assess likely railroad revenues, expected costs of operating the railroad and the required capital investment to acquire and upgrade the bankrupt rail track and equipment. Chapter 3 examines the revenue outlook, covering such considerations as baseline economic growth in the Northeast, coal, TOFC, and inflation and regulatory lag. For example, a key assumption is how quickly the railroads can document a cost increase, request an appropriate ICC rate increase, and obtain an ICC decision. Chapter 4 looks at operating expenses and assesses FSP projections in such areas as yard, track and car utilization improvements. USRA's expectations for major gains in these areas are evaluated against performance by other railroads and in the context of ConRail's unique structural characteristics. The third major determinant of financial viability is the cost to ConRail of acquiring from the creditors of the bankrupts the assets of the bankrupt companies and the cost of upgrading these run-down facilities. Chapter 5 addresses these issues.

The second step in the analysis (Figure 1) is to pick from the many determinants of performance in the areas reviewed in Chapters 3, 4, and 5 a handful of the most critical ones. For these, a sensitivity analysis is presented in Chapter 6 to show how outcomes in these areas could alter ConRail's financial outlook. Some of the possible developments, for example coal, could give ConRail a financial boost. Others could worsen the financial outlook. At the end of Chapter 6, a conclusion is drawn on whether the likelihood is greater that the ConRail forecast is optimistic or pessimistic.

The third step is to incorporate the sensitivity analysis into revised financial accounts for ConRail. A new income statement and a sources and uses of funds analysis is provided.

The final step in the analysis (Chapter 7) is an assessment of the consequences of various ConRail financial outcomes for the size of the Federal government's commitment to the railroad reorganization. Abbreviated financial statements provide a financial overview and permit the reader to readily assess the size of the Federal commitment.

FIGURE 1 - SCHEMATIC OF STUDY METHODOLOGY



CHAPTER 3
REVENUE GENERATION

INTRODUCTION

In the ten years from 1976 to 1985, USRA predicts that ConRail revenue will rise from $2.81 billion to $6.18 billion, an increase of 111 percent. Figure 2 traces this dramatic growth back to 1970 and divides it among its five key component parts.

- improved mix and volume of traffic (primarily coal and TOFC)
- inflation
- maintenance of base level traffic
- rate increases above inflation adjustments
- passenger revenues and operating subsidies

While the most striking aspect of the figure is the tremendous growth in inflation relative to real traffic growth, the small increase in traffic volume indicates a reversal begun in the 1970's of the long-term decline in Northeastern traffic (Figure 3). Most of the reversal is due to an increase in coal which accounts for 62.2 percent of the growth in total tonnage, though only a 24.7 percent increase in revenue. A second major area of growth is in TOFC (trailer on flat car) or piggyback shipments which account for 14.7 percent of revenue growth.

The following four key assumptions, critical to the revenue forecast, are investigated:

- baseline traffic growth
- coal traffic growth
- TOFC traffic growth
- inflation and regulatory impacts.

BASELINE TRAFFIC GROWTH

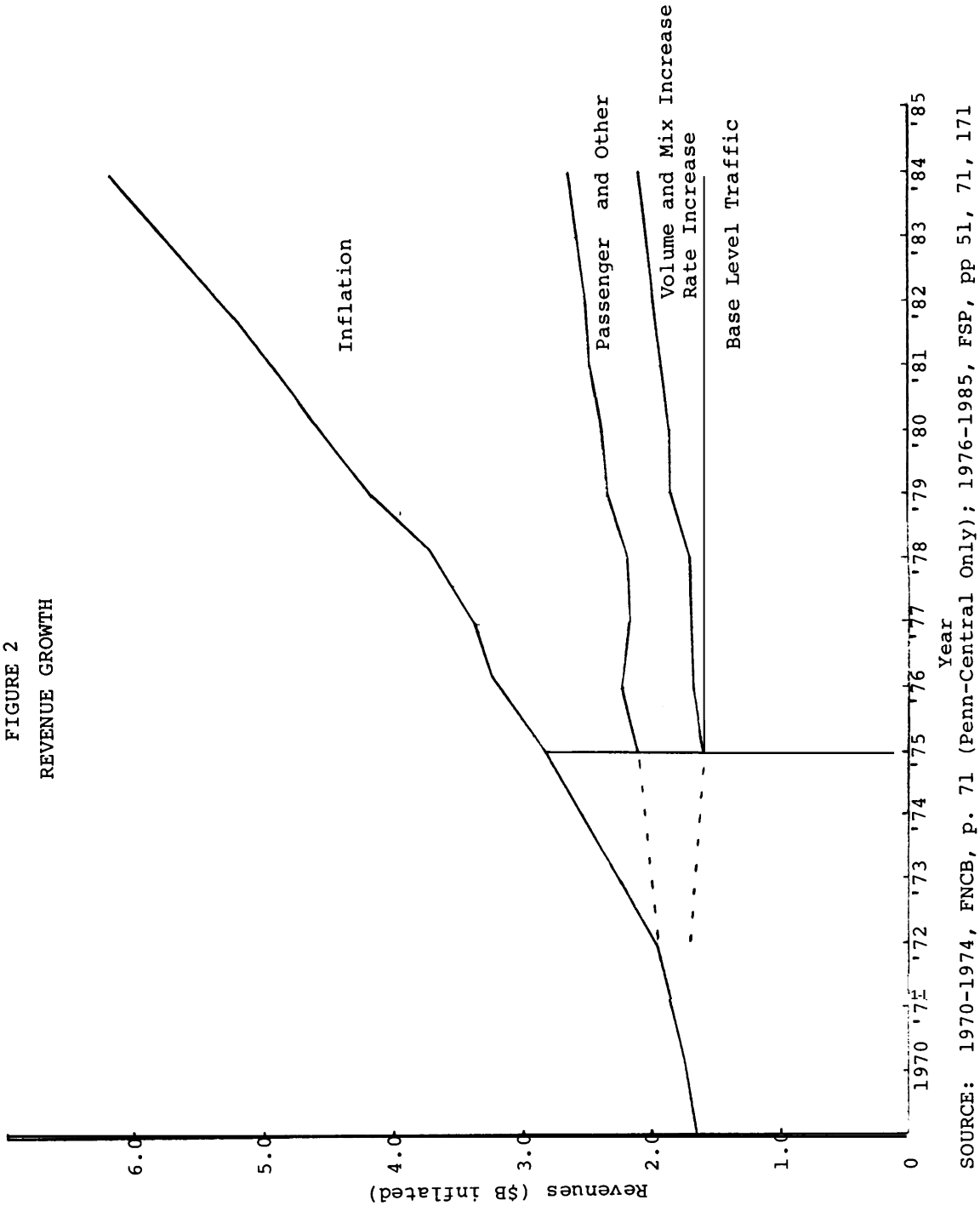
Figure 2 indicated that the increase in revenue due to changes in the volume and mix of traffic and rate increases between 1973 and 1985 would be $283.8 million. The tonnage increases projected for the twelve principal commodities are shown in Table 2. Between 1973 and 1985, tonnage will increase 15.4 percent (1.20 percent annually) . But, revenues in constant dollars will increase more rapidly, by 15.7 percent (1.22 percent annually). Nonetheless, this growth rate in revenues is lower than the expected growth in real GNP during the same period, 51 percent (3.5 percent annually). This discrepancy is explained, however, by the fact that historically railroad tonnage as a percentage of GNP has been decreasing by .15 percent annually.

TABLE 2 - PROJECTED 1973-1985 FREIGHT PERFORMANCE

Commodity	Million Tons				Revenue	
	19/3	1985	1973-85 % Change	% of Total Increase	Constant Dollars % Increase	% of Total Increase
Farm Products	10.7	8.8	-17.8	-3.9	-3.8	-1.0
Metallic Ores	28.7	31.9	+11.1	+6.5	+11.9	+3.2
Coal	84.5	115.1	+36.2	+62.2	+33.4	+24.7
Non-Metallic Metals	19.4	18.1	-6.0	-2.6	-1.6	.3
Food Products	23.6	20.5	-13.1	-6.3	-10.49	-7.0
Lumber	8.6	8.9	+2.9	+0.6	+7.7	+1.6
Pulp & Paper	18.8	21.4	+13.8	+5.3	+24.9	+9.6
Chemicals	21.1	21.9	+3.8	+ 1.6	+5.7	+2.9
Stone, Clay & Glass	14.6	14.6	0	0	0	.4
Primary Metals	26.0	31*7	+21.9	+11.6	+23.2	+13.4
Transportation Equipment	13.9	17.4	+25.2	+7.1	+29.4	+24.8
Waste	15.5	18.7	+20.6	+6.5	+33.8	+8.7
Coke	7.0	7.8	+11.4	+1.6	+16.1	+1.6
TOFC	7.8	10.6	+35.9	+5.7	+36.8	+14.7
Other	16.9	18.6	+10.1	+3.4	-4.0	+2.7
TOTAL	317.1	366.0	15.4	+99.3	+15.7	+99.2

SOURCE: FSP, p. 171

FIGURE 2
REVENUE GROWTH



SOURCE: 1970-1974, FNCB, p. 71 (Penn-Central Only); 1976-1985, FSP, pp 51, 71, 171

The ICC assessment of the PSP expressed serious doubts about the growth forecasts, considering them generally "optimistic." The constant (1973) dollar revenue outlook in the FSP can be summarized as follows:

	1973-1985 Revenue Growth
1. Growth in coal tonnage	+ $ 70.1 million
2. Trailer on flat car growth	+ 41.6 million
3. Baseline growth in other traffic	+ 161.8 million
4. Selective rate increases	+ 53.3 million
5. Diversion to long-haul routes	+ 30.0 million
6. Light density line abandonments	41.8 million
7. Market transfers to solvents	31.2 million
	+ $283.8 million

SOURCE: FSP, p. 170 as adjusted by EEA.

In fact, the projections indicate a "hopeful" reversal of the trends in the Northeast since the mid-1950's (Figure 3). Between 1955 and 1974, coal and other freight carried on the Eastern railroads declined 26 percent. Both USRA and its critics emphasized basic weaknesses which still remain: population out-migration, diminished growth in traffic volumes, out-migration of manufacturing centers and raw material sources and competition from trucks for short hauls. As seen in Table 2, the largest contributions to the expected total 1973-1985 gain in revenue are expected to result from increased shipments of transportation equipment (24.8 percent), from increased coal revenues (24.7 percent), and from increased TOFC (14.7 percent). In absolute terms, the gain in coal revenues (in 1973 dollars) is expected to be $70 million versus a $41 million TOFC increase. These ConRail expectations are worth examining in detail because they are decisive factors in the revenue outlook.

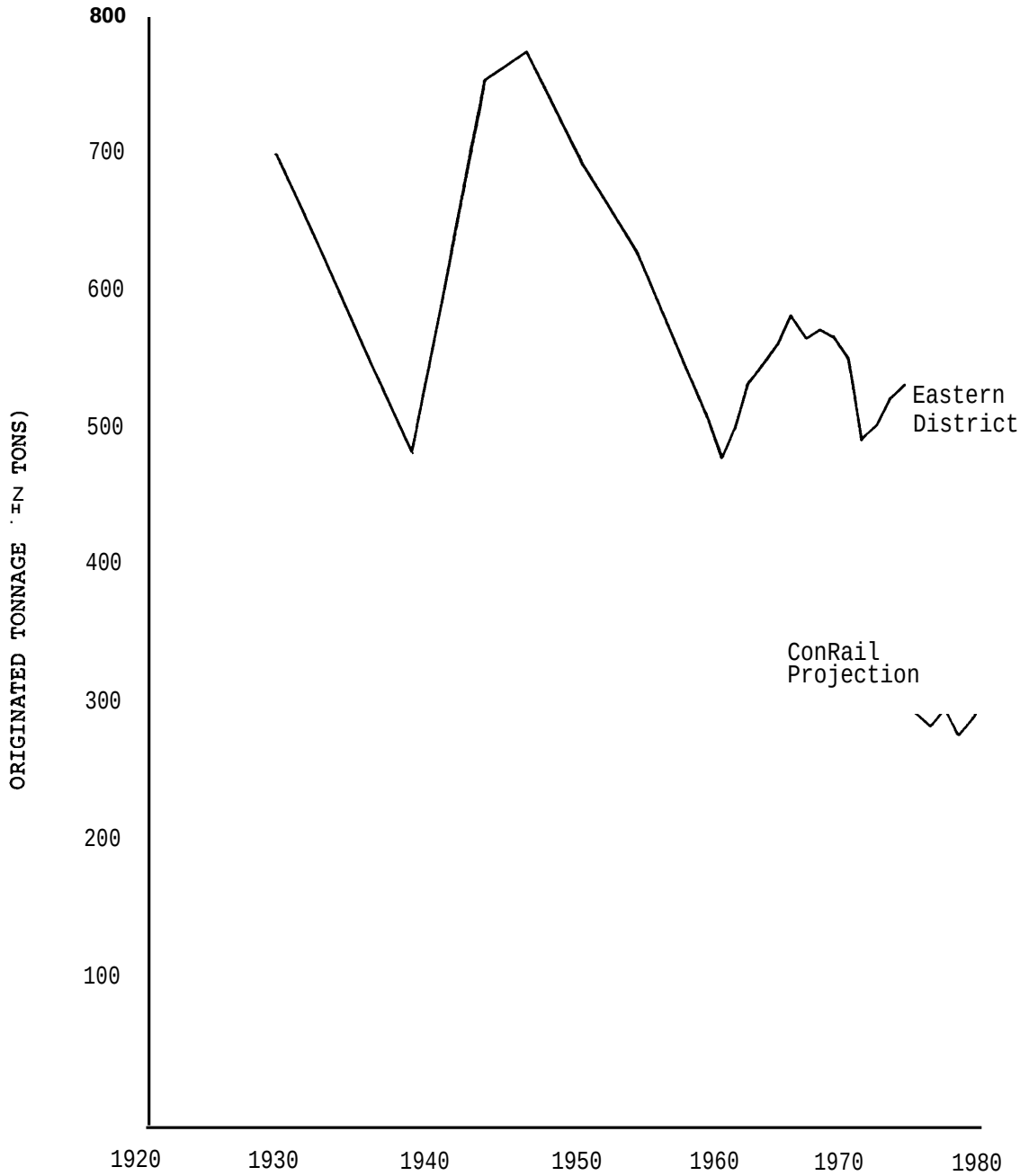
COAL PROJECTIONS - THE USRA APPROACH

Focusing on the year 1980 for which already announced coal production plans are relatively firm, USRA projects a slight growth in ConRail coal traffic of 10 million tons or 12 percent. This projection is questionable both in the face of an increase in national coal production of from 30 to 50 percent and on methodological grounds.

Step one in the projection is a forecast of national coal production. USRA'S consultant used an econometric forecast of future growth which when coupled with an input/output model (INFORUM) yields estimates of national production by industry and commodity groups. For coal the 1980 production estimate is 785 million tons. This estimate is extremely conservative in comparison with projections of 895 million tons prepared by FEA, and similar projections from other sources.

FIGURE3

Eastern District Originated Tonnage and ConRail Tonnage



Source: FSP pp. 171
Railroad Facts - 1975 pp. 28

Despite criticism of the Preliminary System Plan by the ICC and others that focused on whether the forecast was too optimistic, (coal provided 62 percent of the increase in Con-Rail tonnage after 1973) , a combination of factors support the higher estimate. Substantial new coal-fired electric capacity is scheduled to come on-line, industry users of oil and gas are converting to coal where possible (e.g. in cement production), and coal exports overseas and to Canada have already surged.

Step two of the USRA analysis consisted of projecting the Eastern district share of national production. Here the USRA forecast is also in error. The methodology used projects two ratios: the rail fraction of total production (rail loadings/ national production) and the Eastern share of national rail loadings (Eastern rail/total rail). These two ratios together give the Eastern rail share of national production. The projection was based on historical trends, with relatively little change expected from current figures. A third relationship is implicit in these variables: the Eastern share of total production. This ratio has not changed dramatically in recent years. However, analysis of potential supply done by FEA (Coal Supply Task Force Report of the Project Independence Blue Print) and modelling conducted by Energy and Environmental Analysis, Inc. for the National Science Foundation project a sharp shift in shares. Currently, Eastern production is about 75 percent of national production. By 1980, Eastern production may be from 45 to 62 percent of national production. Using this corrected estimate, and the USRA baseline of 785 MT annual production yields an estimate of Eastern production and hence Eastern rail originations 20 to 40 percent lower than USRA'S. But, because USRA'S assumption of national coal production of only 785 MT in 1980 is too low, the mistakes fortuitously cancel each other.

Step three in the USRA analysis focuses on the rail share of Eastern production. USRA treated this issue indirectly in the methodology described above (i.e. by estimating Eastern rail share of national rail tonnage) . The question should be: What is the split of Eastern production between rail, water, mine-mouth use and truck transport? The USRA analysis indicates, albeit indirectly, that the rail share is constant (at roughly 50 percent).

Step four is the allocation of rail traffic between ConRail and the solvent railroads. USRA does not explicitly state the method by which this is done, but the projections prepared allot most of the increased Eastern originations to the non-ConRail lines.

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TABLE 3 - EASTERN RAIL ORIGINATIONS, USRA ESTIMATES

	ConRail	Non-ConRail
1973 (million tons)	42.6	144
1980 (million tons)	44.9	178
% Increase	5%	24%

The explanation given is that sulfur regulations will result in most of the increased coal production occurring in West Virginia and Virginia where no ConRail lines begin. (The Penn-Central has a West Virginia line but USRA proposed to sell it to the Chessie.)

AN ALTERNATIVE ESTIMATE

A recent survey by the National Coal Association of new coal mining capacity shows high gross additions to capacity in Illinois, Indiana, Ohio and Pennsylvania, where ConRail coal shipments originate. These planned expansions must be adjusted for replacement of retirements (equal to 1/30 per annum) and for a ConRail share. The acquisition of lines by solvent railroads will not give them greater access to or better routes from these producing areas. Hence ConRail's share of rail loadings in these states should be constant. With these assumptions, the forecast of net growth from identified new coal production capacity in states with current ConRail originations is 34 million tons. Of this total, assuming historical portion of ConRail originations to total production in these areas holds, 9.2 million tons would be expected to originate on ConRail. This estimate is almost certainly an understatement, since smaller operations are not adequately represented in the Coal Association survey, and many probable expansions are not yet announced. Even taking into account the loss of 6.3 million tons of West Virginia originations to the Chessie system, there is likely to be more and possibly substantially more growth than the 2.3 million tons projected by USRA.

In addition, a significant amount of ConRail coal traffic will be coal received from other systems. This accounts for 55 percent of ConRail coal traffic now.[1] USRA projects coal received to grow to 52.5 MT by 1980, an increase of 24 percent over 1973. An EEA analysis of demand for coal in 1980 in the

[1] According to TBS, USRA's consultant, in 1973 ConRail originated 42.6 million tons and received 52.9 million tons.

United States served by ConRail (New England, New York, New Jersey, Pennsylvania, Ohio, Indiana and Illinois) indicates a growth of 107 MT or 46 percent by 1980.[2]

If ConRail keeps its share of total terminations, and its originations do not increase dramatically (as described above), its coal received must grow by 46 percent from 43 MT to 62 MT (vs. 52 forecast by USRA). Assuming the sale of the Erie-Lackawanna and other properties to Chessie and N&W does not materially increase their access to major coal using markets, this seems a reasonable assumption.

The net coal traffic could, adding new originations and terminations together, be in the range of 110 million tons versus the 95 million tons in 1980 projected by USRA. If all mining plans were known, the coal originated could be higher. In the FSP, USRA discusses the possibility that its coal projections may be too low (p. 78). The USRA financial sensitivity analysis assumes in a calculation that by 1985 there is a 33 million ton increase in the ConRail coal tonnage transported. The estimated financial effect of such an increase is to increase total coal revenues by $371 million and cash by $150 million over the 1976-1985 period. Since the analysis reviewed above finds a coal traffic increase of at least 15 million tons by 1980, the 1985 impact of this adjustment is even more profound.

In short, the upside financial possibility is that by 1985 ConRail's cash position could be as much as $300 million stronger than is assumed in the base case USRA forecast.

Two other positive factors in the coal revenue outlook for ConRail are the possibility that rate changes approved by the ICC will increase the per ton profit on coal and that improved unit train operations will reduce per ton mile coal transportation costs to ConRail. The FSP noted the first possibility (p. 180-181). The USRA estimates that a 50¢ per ton increase in coal rates would yield a $34 million increase in annual ConRail revenue. Of course, this benefit could be higher if USRA'S coal forecast proves too low. As far as the feasibility of unit train operations, the following table shows that for the key coal producing states served by ConRail a significant portion of 1973 coal traffic did not move on unit trains. If rate reforms by the ICC are coupled with greater reliance on low cost unit trains, ConRail's financial situation would be enhanced.

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[2] Based on individual plant data on existing and new utilities, estimates of metallurgical exports, and industrial use. Total estimated demand in 1980 is 897 million tons.

TABLE 4 - 1973 COAL SHIPMENTS VERSUS UNIT TRAIN SHIPMENTS FOR SELECTED STATES

	Tons by Unit Train	Total Tons	% by Unit Train
Illinois	22,155	41,138	54
Indiana	5,493	15,172	36
Pennsylvania	22,262	30,628	73
Ohio	18,266	20,607	89

The foregoing discussion of coal and ConRail's financial prospects suggests that USRA'S revenue forecasts for this commodity are too low. However, the subject deserves more thorough treatment than this report is able to give. A more complete analysis of coal and ConRail is needed. It should identify the new and converted power plants in ConRail's markets that will burn coal, the share of European and Canadian exports ConRail can ship, industrial conversions to coal in ConRail's area, and growth in base period coal consumption by ConRail served coal consumers. Such an analysis must reflect possible EPA actions limiting the burning of high sulfur coal, probable ICC coal rate actions, and the cost savings possible from increased ConRail reliance on unit trains. This analysis should also examine the implications for ConRail profitability of giving up to Chessie the Penn-Central line into Charleston and the contemplated cooperative agreements giving the Louisville and Nashville (L&N) access to southern Illinois and Indiana Penn-Central coal markets. [3]

TRAILER ON FLAT CAR (TOFC)

Another major growth area in the USRA forecast is TOFC (Trailer on Flat Car) traffic, commonly known as piggyback. TOFC commodities tend to be higher rated goods which often are shipped by truck. Penn-Central significantly expanded traffic in this area although profitability of this traffic is disputed. Between 1973 and 1985, TOFC tonnage and revenue (in constant dollars) are projected to increase 36 percent (2.65 annually). In the PSP, growth was

[3] In the FSP (Vol. II p. 6), USRA recommended that a "fossil-fuel rail bank" be established by the Department of Interior or other Federal agency to administer rail trackage serving potential coal reserves which are not presently developed to a point that justifies ConRail service. Another possible entity for administering such rail assets could be the Appalachian Regional Commission which has jurisdiction over and knowledge of much of the Appalachian coal reserves and economic development potential in 12 Eastern states from Georgia to New York and Maryland to Ohio.

projected at 5.16 percent annually. The reduced growth is due to the fact that:

- TOFC oriented commodities are most affected by recessions
- USRA is recommending rate increases which will improve TOFC profitability but lower demand
- recently increased truck size and weight limitations will divert potential TOFC traffic from the railroads.

TOFC growth accounts for 14.7 percent of the $284 million in real freight revenue growth projected by USRA. The FSP predicts that this growth will occur as ConRail continues to penetrate the market for small shipments. The mechanisms for penetration include expanding rail operated motor carrier operations to provide control over pick-up and delivery, modification of the rate structures to make TOFC more competitive with trucking for smaller shipments, and improved reliability through rehabilitation and operating improvement since shippers of high tariff goods seem more sensitive to service and reliability than price. Additional inter-modal traffic will probably be generated as light density lines are eliminated and shippers are forced to use truck and rail combinations for delivering goods.

The two principal arguments against TOFC expansion are that it is unprofitable and that railroads have historically failed to compete successfully with trucks for small shipments. According to the ICC, Penn-Central in 1973 lost $30 million handling $170 million of TOFC traffic, or about 18¢ for each dollar of traffic handled. TOFC has been traditionally unprofitable traffic due to extensive competition for small traffic volumes, too many small terminals which do not cover fixed costs, the high capital cost of tying up flat cars and trailers, and rate structures which allow empty trailers to travel at below cost rates.

Because 85 percent of highway freight shipments are less than truck load size, ConRail will have to assemble shipments into profitable truckload quantities. Freight forwarders historically have served the function of assembling small shipments into carload lots, yet between 1950 and 1970, the tonnage assembled by freight forwarders has not increased. During the same period, the less than carload tonnage shipped by railroads declined 95 percent.

In summary, shippers have concluded through the market system that trucks haul small shipments over all distances better than railroads. Making TOFC a worthwhile market for ConRail will require a change in the rate structure so that railroads can make a profit on TOFC traffic, and better service on the part of railroads including control over the pick-up and delivery (through trucking subsidiaries) of shipments. ConRail may have considerable difficulty succeeding in this highly competitive market while solving more pressing startup problems.

INFLATION - BACKGROUND

Between 1976 and 1985, USRA predicts that inflation will account for 84 percent of the growth in revenue. Since rate increases must be approved by the ICC, regulatory response will be a critical element in system profitability. If costs go up because of escalation of labor or material prices and rate increases lag behind, revenues and profitability suffer. The ability of ConRail to recover inflationary cost increases will depend on the speed with which ConRail documents cost increases and requests rate changes, the adequacy of the rate increases granted by the ICC to cover increased costs, and the speed with which the-ICC responds.

In the Final System Plan (FSP), USRA assumed that rate increases necessary to accommodate inflation hikes would lag cost increases by 6 to 8 months. Normally, the ICC approves rate increases in 2 to 3 months after a request. The industry, however, takes 5 to 6 months to define the needs. The speed with which increases are granted is especially critical to ConRail profitability because inflation rates are expected to average over 6 percent annually between 1976 and 1985. First National City Bank of New York (Citibank) tested the sensitivity of income projections using data from the PSP which assumed no lag. Assuming a 3-month and a 6-month delay in rate increases, the impact on profitability is shown in Table 5.

TABLE 5 - IMPACT OF RATE DELAY ON NET INCOME

	Net Income	
	1976	1985
PSP (no delay)	-$ 96 million	$ 171 million
3-month delay	- 180 million	6 million
6-month delay	- 265 million	- 157 million

SOURCE: A Financial Analysis of the Preliminary System Plan as proposed by the USRA, First National City Bank, May 15, 1975.

The FSP assumes that by 1981 the lag in pass-through will drop to 6 months. This implies a faster response time on the part of industry than has been demonstrated in the past. Table 6 indicates historical rate increases and increases in the major component costs. Obviously, in the Eastern district, increases in revenue per ton mile have historically lagged increasing costs. As the inflation rate accelerates from historically low levels to the projected 1975-1980 average of 6.3 percent, the impact of a lag will be more severe. For identical expenditures, profits are increased by the amount of the rate increase with losses occurring only if traffic is diverted to another mode. Consequently, the impact of rate increases on profitability is tremendous.

TABLE 6 - EASTERN DISTRICT COMPONENTS
(Normalized: 1967 value = 100.0)

	Fuel[a]	Waqes[a]	Average of all factors[a]	Revenue Per Ton Mile[b]
1967	100.0	100.0	100.0	100.0
1968	103.3	105.9	106.4	105.2
1969	106.0	113.2	113.3	108.6
1970	109.2	122.9	123.6	116.3
1971	115*3	136.6	134.3	137.0
1972	**117.7**	**150.0**	**147.4**	**138.8**
1973	137.3	165.5	165.7	140.7
1974	271.4	175.2	188.6	159.8

[a] AAR Series Q-MPW-88, July 22, 1975
[b] Railroad Facts, p. 33

The extent to which ConRail as an individual carrier can recover cost increases through rate increases is questionable. The ICC historically grants rate increases on an average cost basis. Thus, those carriers which are more efficient than the average will benefit more than less efficient carriers. Consider the operating ratio (operating expense as a percentage of operating revenue) as a measure of efficiency. The N&W, Chessie and Penn-Central are the three largest carriers in the Eastern district (76 percent of all revenue).

TABLE 7 - RAILROAD OPERATING RATIO (1973)

Norfolk & Western	72.5%
Chessie	74.8%
Penn-Central	82.7%
Average of all Class I Carriers	79.4%

SOURCE: PSP, p. 24.

Assume that inflation averages 6.3 percent annually and that rate increases are granted which will allow the average Class I carrier to recover additional costs in higher revenues. Table 8 illustrates the impact on the least efficient, most efficient and average carriers.

TABLE8 - RATE INCREASE IMPACT ON RAILROADS OF VARYING Efficiency
(Normalized: 1973 operating revenue = 100.0)

	N&W		Class I Ave.		Penn-Cen.	ConRail
	1973	1980	1973	1980	1973	1980
Operating Revenue	100.0	142.3	100.0	142.3	100.0	142.3
Operating Expenses	72.5	111.2	79.4	121.7	82.7	126.8
Contribution to Profit	27.5	31.1	20.6	20.6	17.3	15.5

[a] Carrier costs increase 6.3 percent annually but revenues increase only enough to maintain average industry 'profits

The impact is striking. While in 1973 Penn-Central's contribution to profit would have been 84 percent of the industry average, by 1980 it was only 75 percent. Until ConRail achieves parity with average industry operating efficiency which is not projected until 1981 under the FSP, rate increases will be insufficient to cover added costs. In addition, very efficient carriers may "hold down" or prevent tariff increases for all railroads in a district if the efficient carriers do not need them.

The final impact of inflation concerns the relative shift it may cause in rail-truck-barge rates. If inflation hits railroads harder, there would be a diversion of traffic away from ConRail. An analysis for USRA by Chase Econometric Associates showed that the future impact of inflation on truck and rail would be comparable so that no net diversion of traffic should occur. "Diversion would occur if:

1. the increase in prices for input factors (labor, material, fuel) were more expensive for one mode than for another;
2. interest costs were higher for one mode; or
3. rate increases were not passed along with equal speed.

On balance, therefore, the assumed regulatory lag for ConRail is slightly optimistic when judged by historical performance. Quick documentation by ConRail and improved reaction times at the ICC could reduce the lag to be consistent with USRA'S assumption. More serious is ConRail's disadvantage in obtaining rate increases due to its comparative inefficiency. Most probably, until ConRail efficiency approaches industry average performance (in 1981 at the earliest), inflation will not be passed through completely and ConRail's profitability will suffer.

CHAPTER 4

OPERATING EXPENSES

Between 1976 and 1985, the Final System Plan (FSP) projects that ConRail operations will improve markedly turning a 1976 loss of 9.9¢ on every dollar of revenue to a 13.5¢ profit. Table 9 illustrates the percentage reduction in expenses through which this profit turnaround is accomplished. The most significant improvement occurs in the transportation expense category, (i.e., the cost of transporting the freight) which drops from 39.8% of revenue to 29.0%.

Percentage reductions are achieved in nearly every expense category. Maintenance of Way (M of W) expenditures per mile of track increase due to better track rehabilitation, but the elimination of light density lines allows M of W expenditures to decrease as a percentage of revenue. Similarly, maintenance of equipment (M of E) expenditures rise, decreasing the number of freight cars currently out of service from 10.7% to 5%. However, a reduction in fleet size due to improved car utilization lowers M of E expenditures as a percentage of revenue. General administrative and passenger expenses remain relatively constant on a dollar basis reflecting ConRail's ability to generate more freight revenue without increasing management overhead. Net car hire decreases as a percentage of revenue reflecting better car utilization and the assumption that cars will be purchased rather than leased. The "other" category decreases as a Percentage of revenue due to the stable work force size (lower payroll taxes as a percentage of revenue) and increased income gained from investment of excess ConRail stock in short term securities.

To improve transportation expenses, from 39.8% to 29.0% of revenue, ConRail will rely primarily upon increased yard efficiencies providing faster throughput of freight, improved car utilization through a computer-based car management system, economies of density obtained by running more traffic over less track and better management of costs and operations. The USRA analysis relies heavily upon computer-based simulations of projected ConRail performance. These results are integrated with a financial model projecting system profitability and cash needs. Considerable doubts, however, have been expressed by railway operating personnel and the ICC about the ability of ConRail to obtain these dramatic improvements.

Most of the critiques concern ConRail management's ability to improve equipment utilization as much as expected. A number of critical assumptions were identified that affect achievement of the operating improvements.

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Table 9

NET INCOME (1973 dollars)
(normalized revenue = 100.0)

	1976	1985
Total Operating Revenue	100.0	100.0
Operating Expenses:		
Maintenance of Way	(11.5)	(11.1)
Maintenance of Equipment	(14.8)	(12.1)
Transportation	(39.8)	(29.0)
General, Administrative, Passenger, and Other Expenses	(23.9)	(18.9)
Net Operating Revenue	10.0	28.9
Other Expenses:		
Net Car Hire	(9.9)	(8.3)
Other Income, Expenses, and Taxes	(9.2)	(5*7)
Earnings Before Interest	(9.1)	14.9
Interest	(.8)	(1.4)
Income	(9.9)	1305

SOURCE: USRA Final System Plan, pp. 71.

IMPROVEMENT IN YARD OPERATING EXPENSES

ConRail projects that yard operating expenses will be reduced by system modifications. No improvements in labor productivity are expected other than those resulting indirectly from system changes. A principal system modification is blocking changes, which reduce yard expenses by 8%. This involves assembling blocks of cars into trains in an efficient manner which minimizes transportation costs, for example, by forming longer trains. It also maximizes delivery speed, for example, by bypassing intermediate yards. A second major system modification is rehabilitation of yards and related facilities. This reduces yard expenses by 6%.

The importance of yard improvements to the efficiency of the system is illustrated in Figure 4. Cars spend 61.8% of the time in yards and only 14.6% of the time moving with the remaining 23.6% of the time spent under customer control. More importantly, on an average haul, a car will pass through 5 or 6 yards. Rehabilitating tracks to increase train speeds, for example, from 10 mph to 40 mph, may have little effect on system efficiency if the car spends 60% of the time waiting in yards for reclassification or loading.

Comparing ConRail yard expenses with other railroads indicates that even after the expected improvements, ConRail will incur higher yard expenses per freight movement than other railroads. For example (see Table 10), in 1976 ConRail will spend $3.15 per 1,000 ton-miles for yard-related expenses while Southern spends only $1.47. By 1985 ConRail's costs will still be higher at $2.41 per 1,000 ton-miles. This is due primarily to the yard intensive nature of the Northeast rail operations. For the same reason, yard expenses will continue to account for a higher percentage of transportation expenses than other railroads. Although USRA projected a 22% drop in yard-related expenses from $3.07 to $2.41 per 1,000 ton-miles, yard expenses will remain a high percentage (29%) of all transportation costs.

Another indication of the "spaghetti" nature of the old Penn Central system is given in Table 11 showing the relationship between operating ratios (i.e., operating expenses ÷ operating revenue) and the percentage of track which is mainline. The data suggest a strong correlation between more branch lines and higher (i.e., less efficient) operating ratios. In a branch line intensive operation, like ConRail, yard requirements may be increased substantially. In 1969, for example, only 31.1 percent of Penn Central track was mainline resulting in an extremely high operating ratio of 84.4 percent.

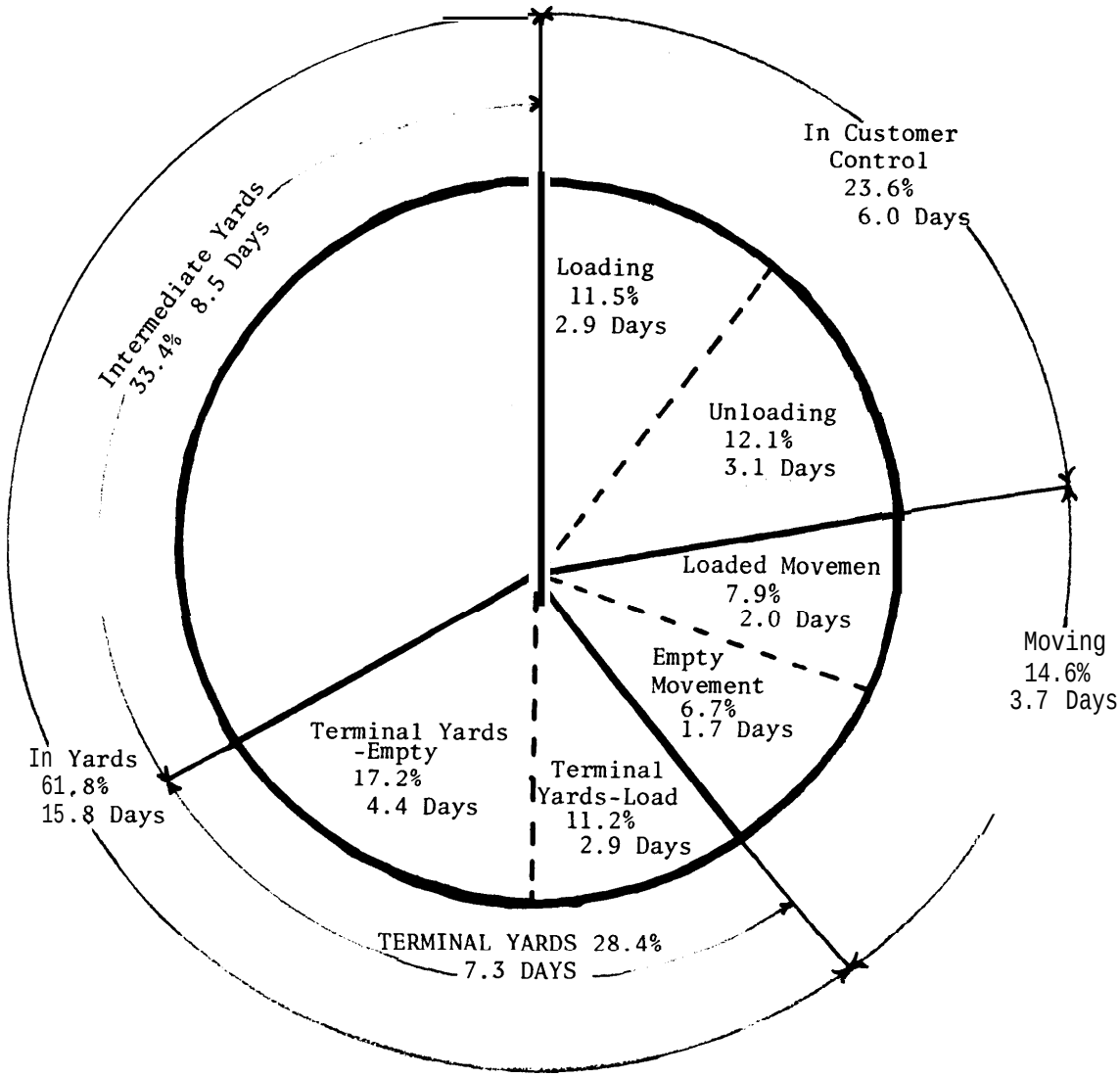
Yard improvements predicted by USRA rely heavily on a systems analysis approach which optimizes traffic movement over the ConRail system based on computer simulations. This sophisticated model was not previously available to Penn Central management. It will ensure some improvements, but whether these will be as dramatic as the FSP predicts is questionable. The PSP indicates that Penn Central already had "a relatively efficient blocking plan" for intermediate yards.[1] Therefore, USRA projected gains must occur primarily at origin and destination yards.

Deciding which yards to expand or contract and where to focus yard rehabilitation efforts requires an accurate prediction of future traffic flows. Predicting market growth is an inherently risky business and failure to accurately predict traffic flows may reduce some of the projected yard efficiency improvements.

[1] PSP p. 60.

Figure 4

AVERAGE EQUIPMENT TRIP CYCLE



NOTES:

Average Cycle Time 25.6 Days

SOURCE:

Federal Railway Administration
Report: FRA-OE-73-1

Table 10

MEASURES OF YARD EFFICIENCY

Railroad	Yard Related Transportation Expenses $ per (1000 ton-miles)	Yard Expenses as a Percentage of all Transportation Expenses
ConRail (1973)	**3.07**	29%
ConRail (1976)	**3.15**	30%[2]
ConRail (1985)	**2.41**	29%[2]
Seaboard Coast Line (1973)	**1.85**	28%
Burlington Northern (1973)	**1.63**	26%
Illinois Central Gulf (1973)	1.56	27%
Southern (1973)	1.47	26%
Atchison, Topeka & Santa Fe (1973)	1.17	19%
Union Pacific (1973)	1.11	21%

SOURCE: Evaluation of the USRA'S Preliminary System Plan Rail Services Planning Office pp. 42-43.

2 Preliminary System Plan, P. 63.

Table 11

RELATIONSHIP BETWEEN PROPORTION OF MAIN LINE TRACK AND OPERATING RATIO

Percentage of Total Road Mileage Devoted to Main Line	Mean Operating Ratio	Example Railroad Operating Ratios	
20% - 50%	85.9%	PC	84.4%
50% - 60%	80.5%	BN	82.1%
60% - 70%	76.1%	C&O	76.2%
70% - 80%	76.8%	N&W	71.1%
80% - 90%	77.5%	B&O	73.1%
90% - 100%	75.1%	RFP	57.9%

NOTE: In 1969, 31.1 percent of Penn Central Track was main line and the operating ratio was 84.4 percent.

SOURCE: Competition in the Railroad Industry; Simat, Hellieson & Eichner, February 1975, pp. II-28, II-29.

The existence of an optimal blocking plan does not ensure that it will be rapidly implemented or followed. Blocking changes may require the transfer of sorting operations from one yard to another, in addition to shifting work loads, train schedules and car routing patterns. Yard expansions and schedule changes will require time for implementation. Blocking plans may be overridden by a desire to expedite certain types of traffic. Because railroads compete primarily on service, blocking decisions may be adjusted to provide priority service to important customers. These blocking adjustments may reduce the efficiency of the entire system, sacrificing the efficient movement of less time-sensitive freight. If ConRail is to compete more effectively with trucks in the TOFC market, these service differentials may conflict with optimal blocking patterns.

Despite all these projected improvements, ConRail will remain a more yard intensive railroad than most due to the congested nature of Northeast traffic.

CAR UTILIZATION IMPROVEMENTS

The savings from yard and track rehabilitation appears largely in the form of better car utilization. USRA projects a 28% improvement in car utilization over present levels. Improvements are primarily due to four factors: improved travel speeds due to track rehabilitation, faster throughput in yards, better maintenance of equipment and better freight car distribution techniques.

ConRail will begin with approximately 175,000 freight cars.[3] During the planning period approximately 24,000 cars will be purchased[4] and 49,000 will be retireds decreasing the fleet to 150,000 which is 40,000 less than would be needed without the anticipated efficiency improvements. The anticipated savings is approximately $1.2 billion.[6] In addition, the number of locomotives will be reduced by 223 from current levels. ConRail's fleet consists potentially of 4,500 locomotives.[7] The total anticipated expenditure for new equipment is $1.78 billion.[8] Consequently the improvements in car utilization will save approximately 40% of the total capital expenditure that would otherwise be required for new equipment.

Improved car utilization affects the railroad financially by reducing capital requirements, interest costs, transportation expenses and net car hire expenses. The net car hire account includes net per diem and mileage payments in addition to car leases. The net per diem and mileage charges are the difference between the amount which ConRail must pay for borrowing other railroad's cars and the amount it receives from other railroads using ConRail cars. The Northeastern railroads are at a disadvantage because more goods are shipped to the Northeast than originate there. Consequently ConRail is more likely to have a negative net car hire balance because it will be holding cars belonging to shippers in the South and West. A comparison of six Southern and Western railroads indicates that they had net car hire balances equal to only 55% of ConRail's.

ConRail has the choice of leasing or purchasing new cars. If the railroad chooses to purchase new cars, the financial statement will reflect higher depreciation and interest costs. For presentation purposes, USRA assumed that all cars were purchased and therefore all debts would appear explicitly on the balance sheet. The assumption that ConRail would purchase rather than lease cars accounted for 41% of the savings in net car hire paid. However, ConRail is likely to lease cars because it will be unable to use the tax advantages resulting from accelerated depreciation. By allowing outside investors to purchase the cars, use the depreciation to protect other income, and then lease the cars to ConRail, the railroad will conserve its cash. Lease payments would then increase the negative balance in the net car hire account and reduce reported income.

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[3] PSP p. 92
[4] FSP p. 99
[5] PSP p. 92
[6] Strong, Wishart, p. 2-1
[7] FSP p. 79
PSP p. 78
[8] FSP p. 61

Several other factors are likely to reduce net car hire savings. Net car hire has a tendency to increase because the price of cars hired increases. Between 1963 and 1973, net car hire increased 10 percent annually despite a 6.6 percent drop in car loadings. Increases were due to newer cars and higher interest rates which produce higher costs. There has also been a tendency to rely more heavily over time on shippers' cars. This practice increases net car hire expenses.

The achievability of projected car utilization improvements will significantly affect ConRail's profitability and capital requirements. Improvements will certainly result from raising mainline travel speeds by 21 percent, reducing classifications by 10 percent, and reducing the bad order ratio (i.e., the percentage of cars not in operating condition) from 10.7 percent to approximately 5 percent. However, the major improvements rely on an improved computer based information system to control car movements.

Because a car spends only 14 percent of the time moving, a 21 percent increase in track speed would only improve car utilization by 3 percent. Reducing the number of classifications by 10 percent improves car throughput but does not solve the critical problem of having cars available at the locations demanding cars. Again, USRA relies on the computer-based information system to fill the gap.

The car management system will probably be a hybrid of the Penn Central's TABS system and the Southern Pacific's TOPS system. Output of the system will be used to predict areas of future demand and to move cars to those areas. While implementation of the anticipated system would dramatically improve car utilization, the difficulties in developing and implementing the system are considerable. If a combination of TOPS and TABS is chosen, the problems of integrating two large computer systems will be encountered. In addition, demand forecasting involves a new application of these systems and will require time to debug. The most critical aspect of a sophisticated car management system, however, involves data input and quality.

Improvements in car distribution will require input of car information daily including: car type, ownership, grade cleanliness, and previous commodity. When a car is under shipper's control this information is difficult to obtain. The data input operation must also be extremely accurate. Because ConRail will be controlling so many cars, the opportunity for "losing" cars through failure to input data or input of bad information is higher than for most railroads. Persons responsible for data input and integrity must exhibit a high level of discipline. Cooperation among railroads in the exchange of information necessary to track car movements across -boundaries has historically been a problem.

Improvements in car utilization may result from several regulatory reforms suggested by USRA.

- Reducing the amount of free time which a shipper has to unload a car from 48 hours to 24 hours.

- Eliminations of special exceptions to normal demurrage charges (charges for a shipper keeping a car beyond the agreed upon free time) .

- Additional charges for cars which shippers release to the railroad without disposition instructions.

In addition, future coordination projects to prevent empty back hauls could considerably improve car utilization. Potential savings from these programs have not been included in the FSP. Their implementation depends on ICC action, which is not imminent.

USRA has projected dramatic improvements in car utilization relying primarily on implementation of a sophisticated computer based car management system. Many problems exist in the development, implementation and operation of the system. These are likely to reduce the savings below those projected by USRA.

Similarly, savings in the net car hire account will be reduced assuming that ConRail chooses to lease rather than purchase a portion of the new equipment. The natural dependence of the Northeast on shipments from the South and West will limit improvements in this expense category.

Proposals requiring regulatory action could provide incentives to shippers to handle cars more efficiently. However, no concrete proposals have been made. These potential savings rely on actions which are beyond the control of ConRail management.

TRACK UTILIZATION IMPROVEMENTS

Yard improvements and car utilization improvements reflect better utilization of the track. USRA projects that ConRail will improve profitability by passing more traffic over a shorter track system and using fewer cars and less locomotive power than its predecessor railroads. ConRail will be reaping the economies of density which are the railroad's version of economies of scale. Table 12 illustrates the high correlation between density and operating ratio. Ranking the 24 Eastern railroads by density and computing the average operating ratio shows that operating ratios get much worse (i.e. higher) as density decreases. There are exceptions to the rule, for example, a railroad which hauls high tariff items, but the relationship is generally true. ConRail's density is currently near the national average of 4.2 revenue tons per mile, but will show a marked improvement by 1985 to 8.2, making it the third densest railroad in the East and the fourth in the nation.[9] Table 13 indicates that by 1985 ConRail will exceed the average densities of seven other major railroads and all the area averages.

[9] Competition in the Railroad Industry; Simat, Hellieson and Eichner, February 1975, pp. 37-39.

TABLE 12 - RANK OF EASTERN RAILROADS BY DENSITY

Number of Railroads in Each Group	Average Density of Group	Average Operating Ratio of the Group
5	8.5	77.7
5	5.0	80.4
5	3.7	85.0
5	2.5	88.2
4	.75	109.4

SOURCE: Competition in the Railroad Industry; Simat, Hellieson & Eichner, February 1975.

The improvement in track utilization is an indication of the improved operating efficiency of the entire system. The elimination of 5,700 miles of light density lines, improved blocking procedures, yard operations and car control systems allow the passage of more traffic over less track in a given time period. The only constraint concerns the scheduling of train movements and the ability to accurately monitor the movement of equipment. Neither of these factors are expected to hinder expected improvements.

Average density, however, may be misleading because averages include numerous light density lines and very dense but shorter main routes. Penn-Central mainline traffic is already quite dense. Elimination of 5,700 miles of light density lines may increase ConRail density without significantly affecting main line densities. Very high densities are not thought to impede traffic flow, however, scheduling of additional traffic requires good centralized traffic control and keeping accurate track of all equipment.

Another factor considered relative to traffic density was the average length of haul. In a longer haul, there is less interfacing with other railroads, less time in switch yards and supposedly more profit from the traffic. As trucks absorbed most of the railroads' short-haul traffic, the average length of haul for rail freight nationwide increased. Between 1960 and 1974, the average haul per ton increased 20 percent from 442 miles to 531 miles. However, a haul is normally split up among a number of railroads. Table 14 compares the average length of haul of ConRail and six other railroads.

TABLE 13 - AVERAGE DENSITIES

Railroad	Density (ton miles\mile)
ConRail (1973)	4.2
ConRail (1976)	4.6
ConRail (1985)	8.2
Union Pacific	6.2
Southern	4.7
Santa Fe	4.7
Seaboard CL	3*9
Illinois Central-Gulf	3.5
Burlington Northern	3.2
Chessie	6.2
National Average	4.2
Eastern Average	4.9
Southern Average	4.4
Western Average	3.9

SOURCE: RSPO, p. 43

TABLE 14 - AVERAGE HAUL LENGTH

Railroad	Average Haul (miles)	Index
ConRail (1973)	268	41
ConRail (1976)	293	45
ConRail (1985)	295	45
Union Pacific	656	100
Atchison-Topeka & Santa Fe	640	98
Burlington Northern	495	75
Illinois Central-Gulf	333	51
Southern	249	38
Seaboard	220	34

SOURCE: RSPO, p. 43.

Both Southern and Seaboard Coast Line are profitable yet handle shorter average hauls than ConRail. The Western and Midwestern railroads tend to have longer hauls. The ConRail merger only increased haul length by 10 percent and will presumably have little impact on operating efficiency. ConRail may suffer relative to shorter haul carriers such as Southern and Seaboard Coast Line because while all three have similar average haul lengths, the Penn-Central maintains twice the amount of track as the other two. Presumably one of the advantages of a larger system would be the ability to fully control shipping over a longer portion of each freight movement; yet ConRail has not noticeably improved.

The elimination of 5,700 miles of light density lines obviously improves ConRail's track utilization rate and should improve profitability. More traffic should be attracted as ConRail service improves due to track rehabilitation. Slow orders now restrict speeds on 9,000 miles of ConRail track.[10] In addition incursions by trucks into the remaining rail freight commodities will decrease since the most divertable traffic is already gone.

10 First National City Bank, a Financial Analysis Of the primary System Plan as proposed by the USRA, pp. 6-7.

The major questions concerning ConRailrs ability to dramatically improve traffic density stem from comparisons with other systems. While physically the system can handle increased density, it seems peculiar that none of the nation's ten largest rail systems have densities approaching the ConRail projections. The factors which could prevent achievement of these densities include requirements that ConRail continue to operate light density lines, a continuing decline in Northeast rail traffic and an inability to implement projected operating improvements (i.e. car management system, yard rehabilitation) .

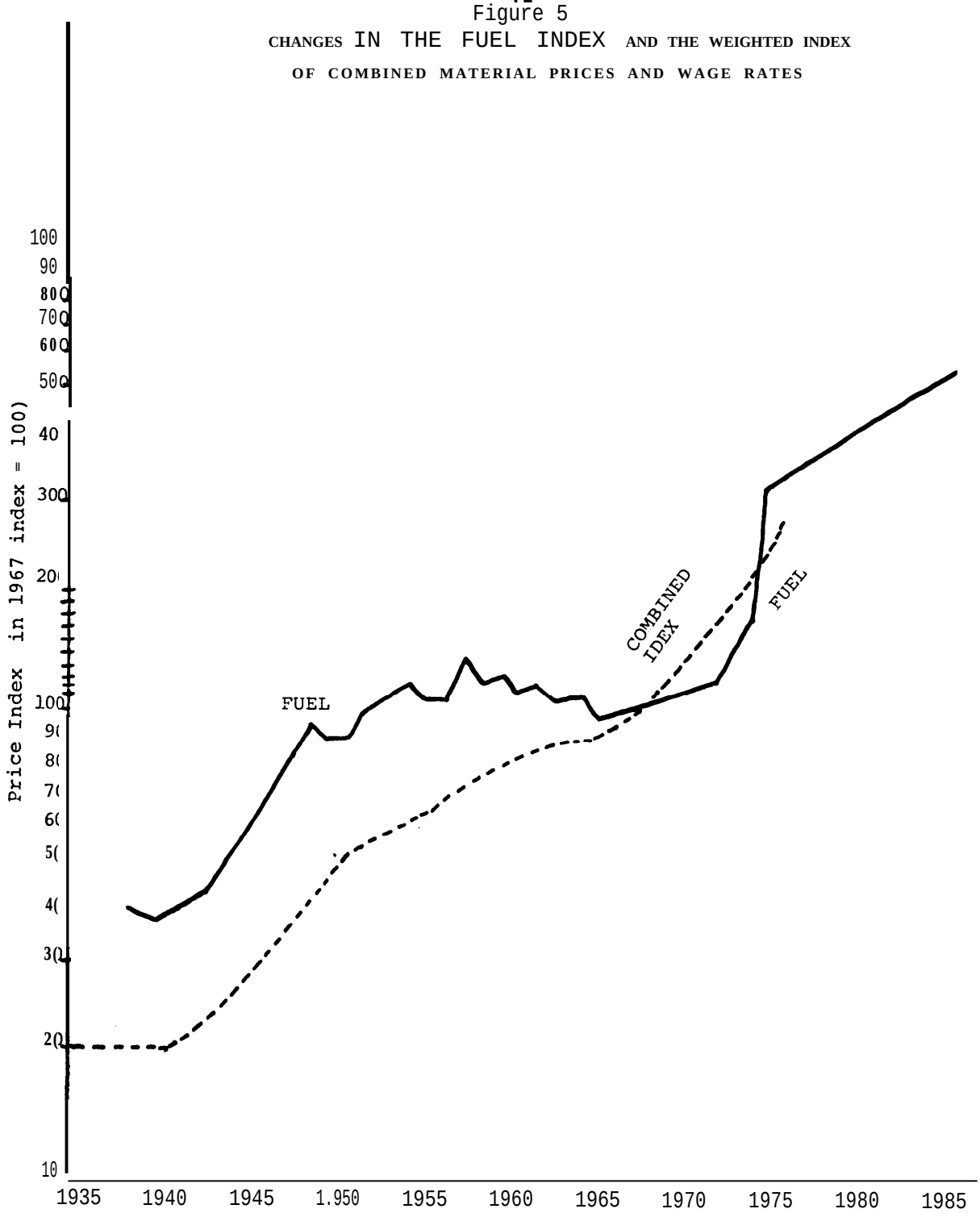
IMPROVEMENTS IN COST CONTROL

The ability to achieve potential cost savings arises from consolidation of track, rehabilitation of yards and identification of unprofitable traffic. Identifying unprofitable freight movements so that selective rate increases can be requested depends on management's ability to assign costs to individual rail movements. A yard or a piece of track supports many trains consisting of individual cars of different commodities with different origins and destinations. Thus, tying costs to particular freight movements is difficult. Traditionally management optimized on an individual yard or other sub-system basis to maximize throughput. ConRail management will attempt to optimize on the whole system and accurately identify costs.

In periods of rapid inflation where the costs of fuel, labor and materials may change drastically, the problem of identifying cost components with traffic movements is critical. Figure 5 illustrates the exponential rise recently experienced in fuel and other costs. As cost components vary in growth rates (i.e., labor, fuel, materials), ConRail management must be able to distinguish between profitable and unprofitable investment opportunities. Between 1945 and 1965 the fuel index only doubled while during the 20 years from 1965 to 1985 it is expected to increase more than five fold. The index of combined material costs has also begun to exhibit an exponential growth pattern. Traffic which may have been marginally profitably when diesel fuel was 20 cents a gallon may be unprofitable at 30 cents a gallon. As costs change rapidly unprofitable commodities must be identified quickly.

Figure 5

CHANGES IN THE FUEL INDEX AND THE WEIGHTED INDEX OF COMBINED MATERIAL PRICES AND WAGE RATES



A standard cost system is one method of tracking management performance and costs. A variance from the predetermined standard cost (for example, if rehabilitation costs for mainline track are projected at $100,000 per mile and actual expenses are $250,000 per mile for a particular stretch) is a warning to management that operations may be losing money. While rehabilitation at $100,000 per mile may have allowed a sufficient return on investment, $250,000 per mile may not. Implementation of a standard cost system is an intricate and time consuming venture.

USRA has already begun to identify noncompensatory freight traffic for which $54 million in rate increases will be requested. This represents an improvement in tying costs to freight movements. Previously railroads used the standard ICC form both to request rate increases and as the basis for cost control, though it is recognized as inadequate for the latter function.

Implementation of an ongoing cost management system, however, will be much more difficult than a one time identification of unprofitable traffic. Standard cost systems take years to design and implement before savings are fully realized. The bankrupts currently have inadequate performance standards for men and equipment. In addition, management information systems have not been integrated which is a prerequisite to improved cost control. Overcoming these problems will require more attention from management that is likely to be available during the start up period. Short term problems of greater immediate impact are likely to take precedence over a cost control system.

While the need for a better cost control system is recognized as essential to achieving the operating improvements projected in the FSP, it may be delayed in implementation. Management will probably focus on projects such as car management or good rehabilitation which will have a more immediate impact on system profitability. Consequently, the information necessary to make decisions, for example on the desirability of retaining a given traffic movement,will probably not be available and some possible operating improvements will not be recognized.

IMPROVEMENTS IN LABOR PRODUCTIVITY

USRA assumed that 90,000 employees would be transferred to ConRail under the reorganization, and that by 1985 the work force would have grown to over 93,000. The mix of labor classes, however, does not match the projected system needs so some workers would be terminated and new ones hired. The FSP projects that by 1985 60% of the present work force will have been replaced due to attrition.

Although work rules, pay structures, and craft distinctions were considered obstacles to better productivity, the FSP assumed no changes in these areas. Thus, no improvements in labor productivity are expected other than those occurring incidentally through system modifications.

The importance of the labor component nationally in rail expenditures is illustrated in Table 15 Over half of every revenue dollar is spent on labor. In the bankrupts which are considerably more unprofitable than the national average, this ratio is probably considerably higher. Table 16 compares some of the labor productivity measures for the bankrupts with industry averages. Compared to the national averages, the bankrupts: produce only 78% as many gross ton miles per crew hour, generate only 92% as much revenue per crew hour, and spend 12% more crew time switching than other Class I railroads.

Table 15

DISTRIBUTION OF OPERATING REVENUES

FOR THE RAILROAD INDUSTRY 1974

(normalized so that all figures are per dollar of revenue)

Total operating revenues	$1.00	
Labor Cost	$ .51	(Doesn't include those capitalized)
Fuel Materials and Supplies	$ .24	
Other Expenses	$ .10	
Depreciation	$ .05	
Other Taxes	$ .04	
Net Railway Operating Income	$ .06	

SOURCE: Yearbook of Railroad Facts 1975 edition AAR p. 11

Table 16

DIRECT LABOR PRODUCTIVITY

(Stated as averages)

	Bankrupts	Class I	Southern District	Western District
1000 gross ton-mile per crew hour (1973)	22.8	29.2	25.3	35.5
Dollar revenues per crew hour (1973)	200.0	217.0	184.0	241.0
Percent of crew hours yard switching (1973)	58.6	52.3	47.6	49.5

SOURCE: Preliminary System Plan p. 57

These reduced productivity figures reflect in part the congested, yard-intensive nature of the Northeastern railroads and the poor condition of the track and equipment.

Labor productivity improvements have been dramatic. Since 1960, 33 percent fewer employees have been needed to produce 49 percent more revenue ton miles. Industry employment has dropped while traffic (revenue ton miles) has increased steadily. These improvements will probably continue. Wage increases however, have offset the absolute drop in employment, rising by 52 percent since 1960. Thus, despite improved productivity, compensation as a percentage of operating revenue decreased only 7 percent from 1960 to 1974.

ConRail could trade labor protection for labor productivity improvements through work rule changes but this is unlikely. The problems of labor productivity, work rules, etc. are long standing industry problems. ConRail management with its numerous other responsibilities can hardly be expected to lead in the difficult and controversial area of labor reform.

MANAGEMENT GENERATED IMPROVEMENTS

Improvements in ConRail operating performance will depend heavily on implementation of the numerous studies conducted by the USRA in developing the FSP. While management will not be obligated to follow the FSP, it represents a $30 million investment to study ConRail's problems . After conveyance the time

ll Yearbook of Railroad Facts 1975 Edition, AAR, p. 12, 29, 58.

and resources to repeat the process will not be available. The viability of the plan will depend on management's ability to adapt it to changing conditions.

While considerable criticism has been levelled at the Penn-Central management, USRA staff members, consultants and railroad industry people have quite divergent views on the exsiting management's capabilities. Several people indicated that Penn Central management was out of date and incapable of implementing the reforms suggested by USRA. A more prevalent attitude, however, described Penn-Central management as capable and well intentioned but constrained by the deterioration in the Northeast and the lack of funds in the company to implement reforms.

The major unknown when control of the bankrupts passes to ConRail will be the ability of new management to make a difference in the operating efficiency of the bankrupt railroads. Optomists point out that new management will:

- have the benefit of the USRA studies which have evaluated the operations of these railroads more thoroughly than any railroads in the nation.

- have flexibility to implement necessary changes because of the available federal financing. Previous managements have not had adequate funding.

- include a new group of non-railroad men who can apply the systems analysis techniques developed at USRA and innovate without being constrained by the traditional railroad mentality.

Some felt that the techniques developed by USRA were sufficient to guide almost any management to successfully operate the restructured system. Consequently, management was not a particularly crucial factor.

A more prevalent view however, held that the impact of new management would be minimal. This pessimistic view concludes that:

- ConRail must integrate the managements and operating systems of six firms into one. Historically, mergers of this type have not been very successful or have taken a long time to complete. (i.e., Pennsylvania RR - New York Central merger and C&O, B&O merger) .

- The new president succeeds two presidents who were successful managers with railroads outside the Northeast indicating that the problem may be systemic.

- Existing staffs cannot be rapidly "shaken up" without disrupting the ongoing operation of the companies. These staffs have been decimated by the loss of young staff due to the stagnancy of the company, demoralization and the stringent controls of the bankruptcy court.

CHAPTER 5

FINANCING: ACQUISITION COSTS, REHABILITATION EXPENSES, AND ACCOUNTING METHODS

The principal role of the Federal government in the reorganization of the bankrupt railroads will be to inject massive amounts of Federal funds. Because the return on investment (ROI) in the railroad industry is so low, it cannot attract private capital. In fact, the collapse of the Penn Central was precipitated by the inability of the railroad to "roll over" its existing debt and obtain new debt to finance future operations. Given the low return on investment in the industry and the dismal profit performance of the bankrupts, creditors prefer to invest money elsewhere. Table 17 compares the average ROI for Class I Railroads and alternative investments. The railroads' lack of attractiveness is striking.

The magnitude of Federal funding will be contingent on two variables besides railroad operating performance: the cost of the properties to be acquired from the bankrupts, and the cost of rehabilitating those properties for ConRail's use. USRA has estimated that $1.85 billion of Federal funds will be required for rehabilitation and operating expenses. Another $1.05 billion will guarantee that the former owners of the bankrupt railroads are adequately compensated for the properties conveyed to ConRail. Other guarantees, subsidies, loans, etc. are included under the plan to insure the financial viability of the system.

The form of Federal funding is a key to creating a profitable railroad. The proposed mechanism allows ConRail to initially use Federal funds without paying interest in cash. Much later (the process is not completed until the year 2016 when the railroad will presumably be strong enough to support the Federal debt), interest is paid in cash and the outstanding debt and stock are redeemed.

INCOME BASED REORGANIZATION

The greatest potential liability for taxpayers may be hidden in the form of deficiency judgments against the government for failing to adequately compensate creditors for the properties conveyed to ConRail. Two key questions are: Can ConRail produce a profit to support an income based reorganization? Is $422 million adequate compensation for the creditors? Because of the laws of bankruptcy, answering the second question may be contingent on a positive answer to the first.

TABLE 17

RATE OF RETURN ON NET WORTH

LEADING CORPORATIONS

Calendar Year 1972

Industrial group	Percent return on net worth
1. Soft drinks	22.4
2. Soups and cosmetics	20.4
3. Drugs and medicines	19.7
4. Common carrier trucking	19.4
5. Autos and trucks	17.2
6. Instruments, photo goods, etc.	16.8
7. Tobacco products	16.2
8. Hardware and tools	15.9
9. Restaurants and hotels	15.7
10. Household appliances	15.4
11. Baking	14.8
12. Brewing	14.7
13. Mail order	14.0
14. Lumber and wood products	13.9
15. Office computing equipment	13.8
16. Printing and publishing	13.7
17. Other food products	13.1
18. Automotive parts	13.1
19. Electric equipment and electronics	13.0
20. Other business services	13.0
21. TOTAL SERVICES	12.9
22. Real estate	12.8
23. Commercial bank holding companies	12.8
24. Dairy products	12.6
25. Miscellaneous manufacturing	12.6
26. Glass products	12.5
27. Chain stores - variety, etc.	12.3
28. Farm construction, material-handling eqpt	12.1
29. TOTAL MANUFACTURING	12.1
30. Property and liability insurance	12.0
31. Rubber and allied products	11.7
32. Building, heating, plumbing equipment	11.6
33. Furniture and fixtures	11.6
34. Department and specialty	11.6
35. Construction	11.3
36. Chemical products	11.3
37. TOTAL TRADE	11.3
38. Electric power, gas, etc.	11.2
39. Amusements	11.2
40. Clothing and apparel	11.1
41. Other machinery	10.9
42. Petroleum production and refining	10.8
43. Wholesale and miscellaneous	10.7
44. Distilling	10.7
45. Shoes, leather, etc.	10.6
46. TOTAL PUBLIC UTILITIES	10.6
47. Other stone and clay products	10.6
48. Paint and allied products	10.6
49. Miscellaneous transportation	10.5
50. GRAND TOTAL	10.5
51. Metal mining	10.4
52. Sales finance	10.3
53. Other metal products	10.2
54. Telephone and telegraph	9.8
55. TOTAL MINING	9.6
56. Sugar	8.8
57. Aerospace	8.8
58. Cement	8.8
59. Paper and allied products	8.7
60. Other mining, quarrying	8.7
61. Textile products	7.8
62. Food chains	7.3
63. Nonferrous metals	7.2
64. Meatpacking	7.1
65. TOTAL FINANCE	6.7
66. Air transport	6.6
67. Iron and steel	6.2
68. TOTAL TRANSPORTATION	4.8
69. CLASS 1 RAILROADS,	3.0
70. Investment funds	1.5

Source: First National City Bank of New York, Monthly letter, April 1973.

USRA argues that $422M is a reasonable value for the assets converged given the risks being taken by the government to salvage the bankrupt railroads. USRA assumes that the reorganization will be successful and that ConRail will operate as a profitable entity. If the creditors can prove that ConRail is not financially viable, then the mandatory conveyance requirements in the Act make the acquisition a "taking" of private property under the governments right of eminent domain. Under these circumstances a much higher valuation may be awarded by the courts.

An "income based reorganization" requires proof that the bankrupt railroads can be restructured so as to produce a profit. The return to creditors then includes not only the $422 million offered initially for the property but also the stream of earnings which follows. USRA claims to have proven that the reorganization is income based through the FSP projections that ConRail will generate enough profit to raise the value of ConRail Common and Series B Preferred Stock to $1.575 billion by 1985. This value is in excess of the Certificate of Value based on the $422 million valuation plus 8 percent annual interest. Critics of this approach argue that the machinations required to make the system appear profitable (including use of depreciation accounting, Federal debt that pays interest by distributing stock rather than cash, and remarkable projected operating efficiencies) make profitability an "accounting fiction." These critics argue that normal Section 77 bankruptcy can represent an income based reorganization because the same entity continues in operation with a revamped capital structure. ConRail is a new entity with less assurance of producing any income, and to offer a minimum valuation in the hope that this untried new rail system will produce a profit is inconsistent with the Section 77 principles of reorganization. Precedents do exist, however, for operating railroads at a marginal rate of return even where creditors might prefer liquidation and investment in higher yielding ventures. This stems from the concept that railroads are "public service enterprises" which have received special considerations such as land grants in return for a necessary public service. Under this definition, ConRail can produce a marginal profit and still be considered a successful income based reorganization.

If ConRail fails to produce a profit and the assets of the creditors erode (i.e., rails and ties deteriorate as cash generated by the railroad is used to pay off operating expenses instead of for rehabilitation), then it may still be argued that the reorganization was not income based. Under this scenario, the government has appropriated the creditors' properties at a low value based on expected future income. However, since they did not produce an income the Court could consider that conveyance constituted "taking" private property under the right of eminent domain. The valuation would then be the cost of reassembling these properties at market value or perhaps their value on the open market if sold for purposes other than railroading. In any event,

ConRailcs profit producing potential remains the critical issue.

VALUATION

The creditors and stockholders of the bankrupt railroads are being offered $422 million for their properties. Table 18 indicates the manner in which value has been assigned to the various properties and the liabilities that will be assumed by ConRail. The valuation was determined by examining the assets of the various line (some by actual site visits) and assuming that the railroad was to be dismantled and sold piecemeal. Costs were assigned for managing the system's liquidation. In addition, some economic factors were included to determine how the sharp increase in supply coupled with the limited demand for many of the assets being sold might depress prices. The returns to creditors were discounted at a 15% rate back from the presumed date of sale to the date of conveyance.

TABLE 18

ASSETS AND LIABILITIES CONVEYED TO CONRAIL

Assets Acquired:	$M
Road & Facilities	290
Transportation equipment	340
Land	44
Net Passenger Assets	22
Other Assets	71
TOTAL ASSETS	767
Liabilities Acquired:	
Equipment Obligations	250
Unfunded Pension Benefits	31
Section 215 Government Loans	64
TOTAL LIABILITIES	345
TOTAL NET ASSETS	422

SOURCE: FSP, p. 57

The Supreme Court, in upholding the constitutionality of the Act, held that creditors have a right to sue the U.S. government for damages under the Tucker Act if they can prove that $422 million is less than the "constitutional minimum" to which they are entitled. The argument turns on the resolution of three issues: 1) the valuation method used to determine the value of the assets conveyed (i.e., liquidation value if the assets are sold piecemeal; assemblage value, meaning the price of repurchasing the bankrupt's properties on the open market minus depreciation; or book value meaning the depreciated value which the bankrupts used in their accounts for the assets); 2) the basis of the reorganization (i.e., will the new ConRail be profitable and provide the creditors with a stream of earnings implying an "income based reorganization"or will the new Conrail lose money continuing to dissolve the assets of the old creditors); 3) value of the securities conveyed depends on the type of securities issued (i.e., USRA has suggested using stock with a minimum value guaranteed by the U.S. government) . The Act allows ConRail to take control of the bankrupts' assets before a final conveyance price has been determined. If the final price is significantly different than $422 million, two principal effects occur. First, if the value is more than $422 million the assets conveyed to ConRail may be increased in value which would increase the depreciation charges. For example, if the value of transportation equipment conveyed is assessed to be $700 million instead of $340 million, and the depreciation rate is 5 percent annually, the depreciation deductions from income would increase from $17 million to $35 million annually. Second, the U.S. Government investment in Conrail could increase indirectly under the proposed financing scheme through Federal "Certificates of Value" guaranteeing the value of stock issued to the creditors. Presently the Government would guarantee $1.05 billion worth of securities issued to the creditors (this is the $422 million plus 8 percent annual interest because the certificates are redeemable on or before November 1, 1987).[1]

Many industry members and USRA staff members believe that a court case to settle the value of the properties conveyed is inevitable. Table 19 indicates the results of some alternative evaluation methods. The USRA valuation is the lowest, with alternative methods producing values 3 to 30 times higher. Further payments by the Federal government, however, would be contingent on resolution of the court case which USRA staff members indicated would take years to reach a judgment. USRA argues that $422 million is more than adequate because creditors are continuing to lose money on these assets, giving them no real earning power, only a liquidation value. The increased government investment will be responsible for the turnaround in the bankrupts' earnings, yet the taxpayers will not share in the appreciation of the assets since their investment will carry fixed returns. Additional federal grants and subsidies above the $422 million will protect creditors' assets for example by

[1] Final system plan p. 95.

TABLE19

ALTERNATIVE VALUATION TECHNIQUES

	Total Value ($B)	
USRA net liquidation value	.6	
Book value 12/31/75	4.4	
Cost of Reconstruction New (less depreciation)	17.9	(excludes LH, AA, CNJ)
Gross proceeds from Liquidation	3.6	(includes only PC)
Net Proceeds from Liquidation	1.8	(excludes L&H)
Penn-Central Creditors assuming continued rail use	7.4	(Penn-Central only)
Penn-Central Creditors minimum value assuming liquidation	3.5	(Penn-Central only)
RANGE	$ .6 - 17.9B	

SOURCE: FSP, p. 142-43, 155.

[2] Washington Post 7/17/75, p. '14

subsidizing passenger service. The taxpayer is exposed to substantial losses and potential deficiency judgments while even the most successful outcome would be a return of the initial capital over a very long period of time at an interest rate that scarcely justifies the risk. Allowing the government to participate directly in the proceeds from ConRail, for example by reviewing dividends, would use up cash that will now be used to pay the creditors and increase the value of their stock. It is the government's willingness to postpone cash interest payments during the startup period that makes the venture viable. In sum, the taxpayers are taking substantial and unrewarded risks in addition to the initial $422 million that more than compensates the creditors.

The creditors argue that they would receive more than $422 million for their properties if they could liquidate now. USRA'S valuation technique reduces the asset valuation unreasonably. For example, the 15 percent after tax discount rate is too

high, reducing the net present value of the assets below the proper rate. Without discounting, net proceeds from liquidation equal $1.8 billion and gross proceeds (i.e., before the administrative costs of liquidation) are $3.6 billion.[3] Common sense would dictate a higher value for the land owned by the Penn Central than $422 million.

Resolution of the valuation question will probably require court action and USRA staff members expressed considerable doubt about the probable outcome. Any increase in the $422 M figure, however, will come directly from the taxpayers and could materially increase the cost of the ConRail venture.

REHABILITATION EXPENSES

As shown in Table 20 ConRail will spend $4.2 billion for rehabilitation of road property and $1.78 billion for additional freight equipment during the planning period. To calculate roadway rehabilitation costs, USRA determined which tracks were to be upgraded and to what level. Contractors developed engineering estimates of anticipated rehabilitation expenses.

The rate of rehabilitation increases markedly to accomodate for previously deferred expenditures. Between 1976 and 1985 ConRail will more than double the number of ties and triple the miles of rail replaced by the bankrupts in the previous ten year period (1965-1974).[4] The increase results from the infusion of Federal cash which may be used for rehabilitation of roadway and structures. Railroads nationally have had problems financing capital expenditures. In the ten year period, 1965-1974, the railroads spent $14.4 billion for equipment, roadway and structure additions and betterments. Cash generated in the railroads during that period covered only 63 percent of the cost with the remainder borrowed against equipment because loans for roadway improvements are generally not available. At the same time, the AAR estimated that as of November 1974, $7.2 billion in maintenance and capital improvements had been delayed.[5]

Because rehabilitation expenditures are a significant use of Federal funds and because there are no alternative external sources for those funds, the accuracy of the estimates are a critical factor in determining the sufficiency of the $1.85 billion request.

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[3] FSP p. 155

4A Final System Plan p. 87

[5] A Financial Analysis of the Preliminary System Plan as proposed by the USRA, First National City Bank, 5/15/75 p. 59-60.

TABLE 20

REHABILITATION

	Road Property Expenditures
Additions & Improvements	$1.lB
Deferred Work	1.4B
Current Maintenance	1.7B
	$4.2B

	Freight Equipment Additions
Locomotives	.74
Freight Cars	1.00
Misc. Equipment	. 0 4
	1.78

SOURCE: FSP, p. 61

The USRA estimate was based on information from four independent sources. USRA integrated the results and eliminated gross errors. Rehabilitation costs for track vary widely depending on the traffic which the rail must bear and the funds available for rehabilitation. For example, funds may be allowed for upgrading a stretch of track from 10 mph to only 30 mph because the savings from increased train speeds would not justify the cost of upgrading it further. Rehabilitation estimates were revised downward from the PSP to the FSP because USRA carefully specified the level to which each line would be upgraded. All track must be upgraded to a level which ensures safety, prevents derailments and reduces equipment operating and repair costs. USRA and outside commenters generally felt that the $4.2 billion for road property rehabilitation allowed management sufficient flexibility to perform necessary repairs and cover potential cost overruns.

The major criticism on the subject of rehabilitation is the fear that ConRail management cannot resist pressures to “gold plate the rail.” Once the precedent is set of providing rehabilitation funds from the Federal Treasury, political pressure may be applied to ensure that one community’s branch

line is upgraded to as high a level as another's. Rehabilitation costs could spiral if ConRail attempts to achieve equity among jurisdictions. Minimizing road rehabilitation costs is essential because costs are hiqh and returns in terms of increased system efficiency may be very low. Under normal private enterprise incentives the profit motive will force management to reuse old materials and replace only the necessary rail. Whether these incentives will function for ConRail remains to be seen.

In summary, the rehabilitation estimates seem reasonable, but managements ability to stay within those estimates by resisting political pressures and rehabilitating only where necessary remains unproven.

CHOICE OF DEPRECIATION METHOD

USRA tried to choose a method of depreciation which accurately reflected the real cost incurred by ConRail. Depreciation should reflect the decrease in the value of ConRail's assets resulting from use, decay and obsolescence. Three depreciation methods were considered:

- Betterment accounting is used by almost all railroads for depreciating track structures. Under betterment accounting all track structure replacement expenditures (i.e., replacement of rails, ties, etc.) are subtracted directly from income. Consequently, the value of track structures on the balance sheet is low because some items may be 100 years old. Another consequence of betterment accounting is that higher rehabilitation expenditures result in lower reported income. Thus, railroads hoping to report higher profits over the short term simply reduce rehabilitation expenditures. The ICC accepts betterment accounting as standard practice partly because record keeping is easier. Under normal depreciation procedures, it would be necessary to record the date of installation of all ties, ballast and track and to depreciate them at various rates depending upon the degree of wear. Betterment accounting eliminates the need for such calculations.
- Modified betterment accounting was developed by USRA and used in the PSP to depreciate track structures. USRA argued that expenditures for replacement of track structures resulting from the previous managements' failure to perform timely maintenance should not be subtracted from income (as under betterment accounting), Instead those expenditures related to such deferred maintenance would simply be added to the balance sheet. This method was ultimately rejected by USRA for the FSP because it was impossible to separate expenditures

related to deferred maintenance existing prior to ConRail from other maintenance expenditures, and more importantly because the accounting profession would probably have refused to certify it as a valid means of public reporting.

- Depreciation accounting was chosen as the basis for reporting the FSP results. Under depreciation accounting, only 3.33 to 6.66 percent of the rehabilitation expenditure is subtracted from income in a single year.[6] Thus, rather than subtracting all rehabilitation expenses from income in a single year as in normal betterment accounting, the expenses are spread over 15 to 30 years, ConRail's reported income is much higher than would be reported by other railroads using betterment accounting. While depreciation accounting requires record keeping similar to that required under modified betterment accounting, it eliminates the necessity of making arbitrary decisions about which expenditures stem from pre-ConRail deferred maintenance.

Using depreciation accounting, ConRail profits are considerably higher than would be reported by railroads using normal ICC accounting procedures. Table 21 illustrates the impact of depreciation accounting on reported income. Using betterment accounting, income would be reduced by $2.4 billion. Rather than producing a $2.0 billion profit in the planning period, ConRail would have reported a $400 million loss. This loss will be reported for tax purposes because the IRS uses the betterment approach.

The choice of depreciation method only affects ConRail's profits on paper. Cash flow would remain the same regardless of the accounting method chosen, however, the attitude of investors towards the railroad may be improved by the choice of an accounting method which reports a $2 billion profit rather than a $400 million loss. Unfortunately, ConRail's operating results will no longer be comparable to other railroads.

[6] FSP, p. 58.

TABLE 21- PROFIT IMPACT OF DEPRECIATION ACCOUNTING

INCOME (inflated $M)

		ConRail Depreciation Accounting ($M)	ICC Betterment Accounting ($M)
1976		(332)	(464)
1977		(220)	(375)
1978		(79)	(271)
1979		36	(192)
1980		259	(2)
1981		354	81
1982		413	129
1983		475	180
1984		544	237
1985		597	275
TOTAL	Profit (Loss)	$2,000M	($400M)

SOURCE: Final System Plan, p.66.

CHAPTER 6

SENSITIVITY ANALYSIS

Chapters 3, 4 and 5 discuss critical areas in USRA'S Final System Plan and raise questions about the reliability of some of the assumptions. To test the sensitivity of the FSP to changes in critical assumptions is difficult without using the models available to USRA. However, based on data in the FSP the impact of some alternative assumptions on revenues, profitability and required federal investment may be deduced. Four alternative assumptions were identified, one each from the revenue, operating and financing categories and finally a systems option.

- Revenue: assume that USRA coal revenue projections are increased beyond the FSP predictions.
- Operating Expenses: assume that ConRail fails to achieve projected operating improvements.
- Financing: assume that a deficiency judgement is entered against ConRail.
- Systems option: assume that Unified ConRail is selected as the systems alternative.

While other assumptions could be tested, these indicate that the financial viability of ConRail is very sensitive to changes in the underlying assumptions of the FSP.

IMPROVED COAL REVENUES

The variable promising the most upside potential is coal. First, it is a commodity that cannot be easily diverted to trucking, and barge competition is limited to areas accessible by water. Second, rapid growth in coal usage is resulting from the increasing scarcity of alternative fuels and the rise in oil and gas prices. Third, because much of the traffic is not divertable and coal prices have risen rapidly, rate increases could significantly improve profits.

Two assumptions were changed to consider the impact of improved coal revenues. USRA predicted that between 1976 and 1980, coal tonnage shipped on ConRail would rise from 85 million tons (MT) to 94 (MT) (10.5 percent). EEA projections indicate that coal shipments may increase to 110 MT (29 percent) by that date.

Over the planning period using EEA estimates, an additional 165 MT of coal could be shipped on ConRail.[1] In 1973, Conrail received $2.48 per ton, so uninflated revenue would increase by

[1] Assumes a ratio of 110/94 and total USRA predicted coal shipments of 975 tons over the planning period.

about $409 million. Considering inflation, the increase could be $752 million.

In addition, a 50¢ per ton rate increase on coal was considered. ConRail divides revenue with other railroads because shipments are often split between two lines and therefore ConRail is likely to receive only **33¢** of the **50¢ increases This increase** would generate revenues of $321 million on the 975 MT which USRA projects that ConRail will carry during the planning period; and it will add to that another $54 million if EEA projections are correct. Table 22 summarizes the results.

TABLE 22

INCREASED COAL REVENUE

	FSP Assumption	Revised FSP Assumption	Increases
Coal tonnage shipped 1976-1985	975 MT	1140 MT	165 MT
Uninflated Revenue from coal shipments	$ 2377 M	$ 2786	$ 409 M
Inflated revenue from coal shipments	$ 4373 M	$ 5125 M	$ 752 M
Added revenue from a 50¢/ ton rate increase	$ 321M	$ 375 M	$ 54 M

[2] Ratio of inflated to uninflated revenue over the planning period in 1.84

[3] In 1973 when the average rail for coal was $3.71 per ton, ConRail received only $2.48 per ton.

Adding the increases from both higher rates and greater tonnage could provide ConRail with an additional $1127 million (752 million from increased tonnage and $375 million from increased rates) in revenue during the planning period. The $375 million rate increase would go directly to income. The $752 million from increased tonnage however, net of expenses, should generate $304 million in cash using the USRA methodology (FSP p. 78). Since the primary sources of cash from operations divide almost equally between income and depreciation, income could increase by an additional $150 million. Income could therefore be increased by $525 million based on more optimistic coal projections.

FAILURE TO ACHIEVE OPERATING IMPROVEMENTS

USRA tested the sensitivity of the ConRail financial projections to a failure to achieve many of the operating improvements projected. For each of four categories, expected savings were reduced as follows:[4]

Category	FSP Assumptions	Revised FSP Assumptions	Increased Expenses
Equipment Utilization	28 % car utilization improvement; 223 fewer locomotives	Achieve only 50% savings, 2 year delay in achievement (assume net car hire drops from 8.7% of operating revenue to an average of 7.5% rather than 6%).	Net Car Hire + 453 M
Yard Rehabilitation	Reduction of 6% in yard operating expenses	No savings from yard rehabilitation	Transportation Expenses + 264 M
Blocking Improvements	Reduction of 8% in yard operating expenses	Implement only 75% of blocking improvements with less reduction in yard operating expenses	Transportation Expenses + 88'M
Cost System Implementation	Allows identification of non-compensatory traffic and a $53 million rate increase	Operating expenses increase 3% due to delay in cost system implementation.	Operating Expenses + 1040 M
		TOTAL INCREASE	+ 1845 M

[4] FSP p. 79.

USRA concluded that required funds would increase by $1 billion primarily to pay for the extra equipment which would be needed to handle growth. If existing equipment cannot be utilized more efficiently through better car management, yard and track rehabilitation, and other operating improvements then more freight cars and locomotives must be purchased. A portion of this equipment could probably be financed by external equipment obligations but during the startup period ConRail cannot assume a larger interest burden. Consequently, much of the capital needs must be met with Federal funds.

Using data provided by USRA an attempt was made to calculate the increase in expenses that would occur due to these operating failures. The total reduction in income is estimated at $1.8 billion which exceeds the estimated $1.5 billion in income generated during the planning period.

Serious consequences would result from an operating failure. The concept of an 'Income based reorganization" could be placed in jeopardy if ConRail fails to produce profits. The creditors' argument that their property had been taken would be strengthened and a sizable deficiency judgement could be entered against the government. The Certificates of Value issued by the government would be exercised by the creditors because ConRail stock would be virtually worthless thus further draining federal funds. The rehabilitation program could be delayed as management attempted to use rehabilitation funds to cover operating deficits. Rather than redeeming Series A Preferred Stock for cash, ConRail would continue to pile up interest-bearing securities virtually eliminating the prospect of ever becoming a private corporation. Penn-Central calculated an alternative estimate of savings achievable through cost reduction. If ConRail handled 1985 tons at the 1976 expense level, costs in 1985 would increase by $463M (1973 dollars). Penn-central predicts, based on an "exhaustive study" of savings achievable through plant rehabilitation and elimination of deferred maintenance that only about $200M (1973 dollars) could be saved once the rehabilitation is complete. A loss of $263M (1973 dollars) in operating savings in 1985 would translate into approximately a $657M (inflated dollar) decline in profits in that year. This far exceeds the $397M projected in profits for 1985 and implies that ConRail would not generate a profit during the planning period. ConRail would improve somewhat on these savings by reducing Penn-Central costs through consolidation of the bankrupts' facilities and by increasing volume which reduces per unit costs. However, for ConRail to make a profit, operating improvements would have to substantially exceed Penn-central cost savings estimates.

In summary, if ConRail fails to achieve the planned operating improvements and produce a profit during the planning period, it will remain a public entity that will cost the government significantly more than the proposed $1.85 billion.

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[1] Penn-Central: Memorandum on FSP 9/5/75.

DEFICIENCY JUDGEMENT

If USRA and creditors of the bankrupt railroads cannot agree on a valuation for the properties to be conveyed, then the issue will be resolved in court. If the Court rules that the $422 million offered to the creditors is insufficient then the Federal government will be liable for the difference.

For illustrative purposes, assume that the court accepts Penn Central's asset valuation of $7.4 billions The $422 million value offered to the creditors represented the difference between USRA'S $767 million estimate of assets and $345 million estimate of liabilities. If the assets are increased to $7.4 billion from $767 million then the depreciation charges must be increased to reflect the higher value of the assets being used by ConRail.

Thus, a deficiency judgement would have two effects: the Federal treasury would have to pay the creditors the difference between the assumed value of the assets ($767M) and the court determined figure; and ConRail's income would be reduced by the increased depreciation charges.

Assuming the $7.4 billion asset valuation, the treasury would have to pay approximately $6.7 billion to the creditors ($7.4 B - $.7 B = $6.7 B). The Certificate of Value scheme would not work because ConRail could not earn enouqh income to raise the value of its stock to $7 billion. In fact, through increased depreciation charges, which would lower income, the value of the originally distributed stock would decrease.

Table 23 illustrates the impact of a deficiency judgement on depreciation charges. Over the planning period (1976 - 1985) depreciation of the assets conveyed to ConRail assuming the original $767 million asset value would have been $366 million. With assets revalued to $7.4 billion, depreciation expenses would total $1363 million. Consequently, net income would be reduced by $977 million.

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[5] Letter from Paul R. Duke stating Penn-Central claims 6/17/75.

TABLE 23

IMPACT OF ASSET REVALUATION

$7.4B valuation	Value[6] ($M)	Depreciation Rate (%)	Depreciation ($M) Expense (1976-1985)
Land	4000	0	0
Track	1100	5.0%	550
Cars and Locomotives (net)	700	6.5%	455
Grading	500	5.0%	250
Bridges	200	3.75%	75
Buildings and Equipment	800	3.75%	33
TOTAL	7300	- - -	1363

Using a $767M asset value, depreciation is $366M.
- Net depreciation addition = $1363M - $366M = $997M

[6] Washington Post article 7/17/75 - letter from Paul R. Duke 6/17/75
7 FSP p. 58.

UNIFIED CONRAIL

The Unified ConRail option (i.e., not selling any of the acquired properties to competing carriers) promises a more profitable railroad requiring less Federal investment. The option was rejected as a first choice primarily due to political and competitive ramifications. USRA felt that this option did not adequately fulfill the non-financial goals of the Act. Specifically, Unified ConRail did not provide for rail-rail competition in markets exclusively served by the bankrupt carriers. Shippers argued strongly for maintenance of competition and Congress declared it one of the goals of the Act. USRA also felt that Unified ConRail could damage the profitability of competing railroads by diverting traffic to the larger system.

In balancing the goals of the Act, USRA determined that a smaller ConRail would be politically more palatable than the Unified ConRail option. However, a decision that the proposed FSP does not adequately protect taxpayers interests might warrant a closer examination of Unified Conrail. Unfortunately, USRA has not yet released a full analysis of the Unified ConRail option so all the required data were not available.

Existing information however, demonstrates that Unified ConRail is financially a stronger system. Data from "Pro Forma Financial Forecasts" MAY 29, 1975, were used for the analysis. The data indicated that over the planning period, Unified ConRail would generate 18% more revenue and 66% more profit than the proposed structure. In addition, USRA personnel estimated that the required Federal investment would be only $1.2 billion or two thirds of the planned $1.85 billion investment. Table 24 illustrates the results.

TABLE 24

UNIFIED CONRAIL

Item	FSP Assumption	FSP Assumption Revised
Revenue	$43.7 B	$51.1 B
Income	1.5B	2,5B
Federal Investment	1.85 B	1.2B

SOURCE: Pro Forma Financial Forecasts May 29, 1975, p. I-9, II-4, II-22.

In addition to general arguments about the virtues of selling portions of the bankrupt carriers to competing railroads some specific issues deserve attention. USRA has proposed to sell to the Chessie a major coal producing line in West Virginia. This may increase competition at the expense of ConRail profitably and future growth. Another example involves offering the Pittsburgh and Lake Erie Railroad trackage rights between Ashtabula and Pittsburgh, an important coal and iron ore shipping connection. Again, future growth markets and profits may be sacrificed to produce competition.

CHAPTER 7

FINANCIAL ASSESSMENT AND CONSEQUENCES FOR THE FEDERAL GOVERNMENT

Based on the sensitivity analysis in Chapter 6, it is possible to project the impact of changes in some basic assumptions on the financial viability of ConRail and the required Federal commitment.

To factor the results of the sensitivity analysis into the FSP financial projections a pro forma income statement and sources and uses of funds statement were prepared. The income statement (Table 25) aggregates all of ConRail's revenues and expenses for the planning period (1976-1985) and computes an aggregate income. Figures are expressed in current dollars. USRA projects that ConRail will generage $43.7 billion in operating revenues and $1.5 billion in income during the planning period. Over 34% of the expenses are attributable to transportation costs. Income represents only 3% of revenue indicating how quickly an increase in operating costs or a revenue decline could eliminate profits. Ninety-seven cents of every revenue dollars is devoted to expenses, many of which are not variable with volume. Trucks, for example or barges can ease operations during slack periods. This decreases their tolls or taxes because the government owns the right of way. Railroads however, must continue to pay property taxes and maintain their own right of way. Assuming that one-third of ConRail's costs are variable, a 45 percent drop in revenue would eliminate all profits during the planning period. Similarly, a 4.5 percent increase in revenue would more than double profits.

The sources and uses of funds statement (Table 26) indicates that during the planning period, ConRail will take in and disburse $8.96 billion in funds. The largest sources of funds will be Federally financed debentures and Series A Preferred Stock (27%). Income will generate only 13 percent of the funds requirements. Seventy-five percent of the funds will be used for addition to road, facilities and transportation equipment. The Table obviates the need for ConRail to draw on funds other than those generated internally (i.e., depreciation and income) to replace its physical plant.

The $1.85 billion figure used to represent the Federal commitment includes the $1,000 million of 7.5 percent debentures and $850 million of the $1392 million of Series A Preferred Stock shown in Table 26. The remaining $542 million in Series A Preferred Stock represents additional stock accepted by the taxpayers in lieu of cash interest payments. The Federally guaranteed Certificates of Value worth $1.05 billion in 1987 do not represent a source of funds for ConRail but only a guarantee to the creditors.

These two tables provide the baseline data from the FSP necessary to apply the results of the sensitivity analysis.

TABLE 25

INCOME STATEMENT (1976-1985)
(Current dollars)

REVENUES :		
Freight & Other Revenue	36,326	83%
Passenger Revenue	5,694	13%
Passenger Subsidy	1,650	4%
Total Railway Operating Revenues	43,670	100%
OPERATING EXPENSES:		
Maintenance of Way	4,710	10%
Maintenance of Equipment	5,346	12%
Transportation	15,222	35%
Gen. & Admin. & Other Expenses	2,119	5%
Passenger Operating Expenses	7,344	17%
Total Railway Operating Expenses	(34,741)	79%
OTHER INCOME (EXPENSES):		
Net Car Hire	2,735	6%
Payroll Taxes	2,560	6%
Other Taxes	704	2%
Other Income and Expenses	99	>1%
Total Other Expenses	(6,098)	14%
Interest Expenses	(784)	2%
Net Tax (After Extraordinary Item)	(520)	1%
INCOME	1,527	3%

Source: Final System Plan pp. 51

TABLE 26

SOURCES AND USES OF FUNDS (1976-1985)

SOURCES OF FUNDS	(Inflated $M)	Percentage of Total
Income	1,156	13%
Depreciation	1,357	15%
Deferred Taxes & Tax Credits	891	10%
Series A Preferred Stock	1,392	16%
Series B Preferred Stock	400	4%
Common Stock	21	>1%
7.5% Debentures	1,000	11%
Equipment Obligations	1,502	17%
Passenger Assets & Reimbursements	677	8%
Salvage Value for Retired Assets	162	2%
Increase in Noncurrent Liabilities	402	4%
TOTAL	8,960	100%

USES OF FUNDS	(Inflated $M)	Percentage of Total
Dividends	569	6%
Accretion of Series A Preferred	86	1%
Additions to Road & Facilities	4,582	51%
Addition to Transportation Equip.	2,121	24%
Increase in Net Passenger Assets	488	5%
Repayment of Equipment Obligations	414	5%
Increase in Other Assets	121	1%
Increase in Working Capital	579	7%
TOTAL	8,960	100%

Source: Final System Plan pp. 54-55

IMPACT OF SENSITIVITY ANALYSIS

The analysis in Chapter 6 calculated the impact of alternative assumptions on revenues, expenses and the required Federal investment. Table 27 summarizes the results.

TABLE 27

THE IMPACT OF ALTERNATIVE ASSUMPTIONS ON REVENUE, INCOME AND INVESTMENT REQUIREMENTS (1976-1983)

Alternative	Revenue	Income	Investment
Final System Plan	$43.7B	$1.5B	$1.85 B Federal investment
1 Increased Coal Revenue	$44.8B	$2.OB	More rapid repayment of Federal debt
2 Lags in Operating Improvements	$43.7B	$-.3B	Require increased Federal investment Of $lB
3 Deficiency judgement (assume assets valued at $7.4B)	$43.7B	$ .5B	Increased Federal payments directly to creditors of $6.7B deficiency
4 Unified ComRail	$51.lB	$2.5B	$1.2 B Federal

The results in Table 27 illustrate that the financial viability of ConRail may be jeopardized by failure to achieve the operating improvements projected in the FSP. The Federal commitment could be increased substantially by an adverse deficiency judgement or failure to meet operating goals. The latter case could eliminate the possibility of ConRail ever returning to private ownership. Coal provides the most optimistic possibility but an increase in coal rates would require a decision by the entire railroad industry, not only ConRail. Unified ConRail requires further analysis to examine the adverse impacts which could result from a monopolistic rail system. In addition to the in-depth sensitivity analyses, several other aspects of ConRail's financial projections deserve consideration.

The $1.5B profit is in part an accounting fiction= If ConRail were to depreciate rehabilitation expenditures using normal ICC betterment accounting, a $900 million loss would have been reported rather than a $1.5 billion profit.

Failure of ConRail to achieve the average industry operating ratio will mean that rate increases will not cover cost increases and profits would decline. The losses predicted under the “operating failure” assumption would be magnified.

USRA assumed that ConRail would receive $1.65 billion in subsidies primarily from the Federal government. Failure to receive this subsidy would convert the $1.5 billion profit to a $100 million loss ($50 million of the subsidy is for capital replacement) .

If ConRail is required to continue operating light density lines without a subsidy after the initial two year "reexmination" period losses could increase substantially.

Numerous additional variables could be cited reconfirming Conrail’s susceptibility to changes in the operating environment. On balance, however, the FSP seems to be optimistic with a considerable downside risk for the taxpayers should ConRail fail to meet operating expectations.

CONSEQUENCES FOR THE FEDERAL GOVERNMENT

The Final System Plan requests $1.85 billion in Federal funds to be invested in ConRail during the first 5 years. $1.0 billion will be injected as debt in the form of debentures earning 7.5% interest annually. In case ConRail fails they are the first securities to be repaid except for secured debt (i.e., equipment mortgages) .85 billion will be invested as equity in the form of Series A Preferred Stock, which earns dividends at 7.5% annually. If there is not sufficient “cash available” (as defined by USRA) to pay dividends in cash then ConRail will issue more Series A Preferred Stock.

In fact, the Federal investment exceeds $7 billion rather than $1.85 billion because guarantees and subsidies are also expected to be provided during the planning period. By 1985, the U.S. will have invested about $7.3 billion in the reorganization, including loans, grants and guarantees. Potential deficiency judgments against the government could more than double that amount. Table 28 details other Federal costs implied by the Plan. These calculations assume that the FSP profitability projections are achieved. A poorer performance could increase the need for Federal assistance.

There are five basic types of financial commitments which the Federal government will incur in support of ConRail. (Table 28).

Direct Investment: The Federal government could potentially invest $3.4 billion in ConRail by 1985. $2.7 billion will definitely be invested in the form of cash $1.85 billion and postponed interest ($880 M). The remainder are discretionary funds which could be used if ConRail fails to meet FSP projections. The government may forgive interest payments if ConRail requests it and the Government Investment Committee approves.

TABLE 28

Type of Commitment	Form of Funds	Value ($M)	Total ($M)
Direct Investment	7.50 % debentures	1000	
	Series A Preferred Stock	850	
	accrued interest (1985	880	
	Secretary of Transportation Discretionary Funds	400	
	Government Investment Committee Discretionary Funds	250	
			3380
Subsidies	Passenger Subsidies	1650	
	Light Density Lines	180	
	Reimbursement for Northeast Corridor conversion	211	
			2041
Grants and Loans	Section 215 interim assistance	300	
	Section 213 emergency assistance	282	
			582
Guarantees	Certificates of Value (1987)	1050	
	Labor Protection Costs	250	
			1300
TOTAL			7303
POTENTIAL DEFICIENCY JUDGEMENT			0-6800
POTENTIAL TOTAL			7303-14103

Subsidies: The government will provide over $2 billion in subsidies primarily to support passenger operations. Table 29 outlines the uses of the $1.65 billion requested for subsidies. USRA concluded that freight traffic should not subsidize passenger service and that local or federal authorities would have to provide the necessary subsidies.

TABLE 29

PASSENGER OPERATIONS

	1976 - 1985 ($ billion inflated)
Operating Revenue	$6.07
Operating Expenses	($7.34)
Operating Loss	($1.27)
Government Subsidies:	
Operating Loss Reimbursement	$1.27
Additional Depreciation (betterment accounting)	$ .33
Additional Working Capital Needs	$ .05
	$1.65

In the FSP, USRA estimated that passenger subsidies and revenue would increase from a 1973 level of $322M to a 1976 level of $377M (1973 dollars). This 14 percent increase will result from a renegotiation of contracts with passenger authorities. After 1976, USRA predicts that subsidies and revenues will rise to cover the inflated cost of passenger operations. Reimbursements would cover the allocated cost of passenger service which includes all those costs attributable to passenger operations.

Penn-Central, in reviewing the FSP, noted that historically railroads have not succeeded in recovering inflationary cost increases. In 1976 ConRail may be able to negotiate contracts with passenger authorities such that all passenger costs are covered. However, beyond 1976 if passenger authorities fail to raise rates sufficiently to cover inflationary cost increases, ConRail will be forced to cover the shortfall. Historically, this has been the experience of the railroads.

Once ConRail agrees to provide passenger service, an ICC ruling will be required before service can be terminated. In the past, the ICC has not even allowed abandonment when a passenger authority failed to pay a bankrupt railroad for inflationary cost increases beyond avoidable costs (less than fully allocated costs) . It is even less likely that the ICC would allow abandonment if passenger authorities do not raise rates to pay ConRail for inflationary cost increases. Penn-Central estimated that the $1.5B in profits projected for ConRail would be reduced by $1.3B or 87% if relationships with passenger authorities follow existing patterns.

Grants and Loans: The government has already provided the bankrupt railroads with $582 million in loans to meet current operating and maintenance deficits. USRA expects that $236 million of this will be converted to a grant.

Guarantees: $1050 million will be authorized to guarantee creditors the value of their assets ($422 million plus 8 Percent annual interest to 1987) . The FSP projects that if operating projections are achieved, these funds will not have to be expended. An additional $250 million of labor protection guarantees are provided but ConRail expects to use only $200 million.

Deficiency Judgement: The Federal government will be liable for any deficiency judgement entered against ConRail. Because ConRail will not be able to issue more stock to pay off these claims, they will probably be paid directly from the Federal treasury. Payments could range from zero to nearly $7 billion.

Table 30 summarizes the potential Federal costs under each of the alternatives discussed in the sensitivity analysis. Improving profitability through higher coal revenues will not decrease the Federal investment although the payback period would be shortened. On the other hand, operating failures could increase the Federal commitment by more than 30%. A large deficiency judgement could do the most to increase the Federal contribution. Unified ConRail could decrease the Federal investment by more than 17 percent.

TABLE 30

Alternative	Direct Investment	Subsidies	Grants and Loans	Guarantees	Deficiency Judgment Payments	Total
FSP	$2.7B	$2.OB	$ .6B	$ .2B	O	$5.5B
Increased Coal Revenue	2.7	2.O	.6	.2	0	5.5
Operating Failures	>3.4	2.0	.6	103	0	)7.3
Deficiency Judgment	2.7	2.0	.6	1.3	6.8	13.4
Unified ConRail	1.8	2.0	.6	.2	0	4.6

In every case, the taxpayers investment far exceeds the publicized $1.85B figure. The government could further protect their investment by adding indenture agreements and restricting ConRail activity. For example, if FSP projections are not achieved further loans could be restricted. The opposite " reaction, however, is more likely. Once taxpayer's funds are invested, the government may feel committed to infuse more capital to salvage the existing investments. In addition, because ROI in the railroad industry is so low, few railroads will be able to obtain long term financing. ConRail sets a precedent for substituting Federal funds for conventional sources of long term debt and over the next ten years as $1.3 billion in debt comes due, the US may have to supply funds to other railroads.[1] The Federal investment in ConRail may signify the beginning of a new Pattern in relationships between the Federal government and the railroad industry.

A Financial Analysis of the Preliminary System Plan as proposed by the USRA, First National City Bank 5/15/75.

APPENDIX

Congressional
Letters of Request

WARREN G. MAGNUSON, WASH., CHAIRMAN
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JAMES L. BUCKLEY, N.Y.

United States Senate

COMMITTEE ON COMMERCE
WASHINGTON, D.C. 20510

FREDERICK J. LORDAN, STAFF DIRECTOR
MICHAEL PERTSCHUK, CHIEF COUNSEL
ARTHUR PANKOPF, JR., MINORITY COUNSEL

March 20, 1975

Honorable Olin E. Teague
Chairman
Office of Technology Assessment
Room 2311 Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Chairman:

Within the next six months, the Senate Commerce Committee will be expected to evaluate and make recommendations to the Senate concerning the Final System Plan for reorganization of rail service in the 17 state region covered by the Regional Rail Reorganization Act of 1973. The Preliminary System Plan has already been submitted to the Congress by the United States Railway Association and is now being reviewed by the Rail Services Planning Office of the Interstate Commerce Commission, and by the staff of the Committee.

The Preliminary Plan has brought into focus a number of very important questions concerning the largest industrial reorganization ever attempted. The Senate Commerce Committee would very much appreciate any assistance that the Office of Technology Assessment could provide in reviewing this Plan and the issues it raises about the future of rail service in this region which contains 42% of the Nation's population and over 50% of the Nation's manufacturing production.

The Office of Technology Assessment could provide this Committee with assistance which would be tremendously useful and important in connection with our statutory responsibilities and we respectfully urge your favorable consideration of this request. In view of the extremely limited amount of time remaining to evaluate the Preliminary Plan, an expeditious consideration of this request will be appreciated.

Sincerely yours,

Warren G. Magnuson — James B. Pearson

WARREN G. MAGNUSON, Chairman — James B. Pearson, Ranking Minority Member

Vance Hartke — Lowell P. Weicker, Jr.

Vance Hartke, Chairman, Surface Transportation Subcommittee — Lowell P. Weicker, Jr., Ranking Minority Member, Surface Transportation Subcommittee

CLIFFORD P. CASE
NEW JERSEY

COMMITTEES:
APPROPRIATIONS
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TECHNOLOGY ASSESSMENT
BOARD

United States Senate

WASHINGTON, D.C. 20510

March 14, 1975

Honorable Richard Schweiker
United States Senate
Washington, D. C. 20510

Dear Dick:

Thank you for your letter concerning a proposed Office of Technology Assessment of the United States Railway Association's preliminary system plan for restructuring the bankrupt railroads in the Northeast and Midwest.

It does seem to me that an independent review of this proposal will be useful if it can be completed in about 90 days, in time for Congress to have full benefit of findings before receiving the final systems plan next July 26.

I suggest that the OTA study be directed at the basic question of whether ConRail can be expected to be profitable.

This question raises many issues. The main one, I think, has to do with the amount of money ($2 billion) which must be spent to rehabilitate 15,000 miles of trackage and facilities.

Obviously ConRail's track and rail facilities will have to be rehabilitated. Yet, I must also agree with the New York Times that the volume of federal funds involved in rehabilitation "raises doubts about the propriety of such commitments to a private company organized for profit."

The U. S. Railway Association suggestion that a separate corporation ConFac be established to rehabilitate, maintain and hold trackage is intriguing.

It would be valuable to me to have a thorough discussion of this suggestion since I agree with the U. S. Railway Association that a number of public policy, legal and tax questions "remain to be resolved." Obviously this bears directly on concern about the profitability of ConRail and inevitably consideration of national ownership of trackage leads to the question of nationalization of the total rail system.

Certainly I would expect that the Office of Technology Assessment study would consider nationalization--perhaps limited to the Northeast--as another alternative.

There is also the problem of the branch lines and I suggest that the OTA study be drafted so as to answer the following questions:

Is the federal-state subsidy program adequate for allowing continuance of lines which are necessary to the economic and social health of local communities, but which the U. S. Rail Association finds should not be included in ConRail?

What are the alternatives to the federal-state subsidy program?

At what point can so-called marginal lines be made part of the ConRail system without adverse effect to the profitability of the system?

I do think that we can depend on public hearings and the Rail Services Planning Office (RSPO) of the Interstate Commerce Commission to inform us of state and community response to the U. S. R. A. proposals and it seems to me that the OTA group should work with RSPO rather than attempting to gather the same material on its own.

Sincerely,

Clifford P. Case
U. S. Senator

CPC:td

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Congress of the United States
OFFICE OF TECHNOLOGY ASSESSMENT
WASHINGTON, D.C. 20510

EMILIO Q. DADDARIO
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DANIEL V. DE SIMONE
DEPUTY DIRECTOR

February 26, 1975

Honorable Olin E. Teague
Chairman
Technology Assessment Board
Congress of the United States
Washington, D.C. 20510

Dear Mr. Chairman:

The Office of Technology Assessment was created in part of provide advice to Congress on the social and economic impacts of new or modified technologies.

The United States Railway Association (USRA) today released its Preliminary System Plan for restructuring the Northeast Railroads as called for in the Rail Reorganization Act of 1973. The modifications of rail service suggested in the report will have profound economic and social consequences - not only for those who live within the region and whose jobs and well being depend on the transportation provided by railroads, but also for those who live in the entire nation and whose tax dollars will be used for the necessary subsidies or compensation of creditors if CONRAIL can not be made financially viable.

Congress has approximately 60 days in which to consider the Preliminary System Plan and comment upon it. Thereafter, USRA will work towards preparing a final system plan for submission to Congress on July 26 of this year.

Clearly, now is the time for assessing the impacts of CONRAIL so that the concerned Congressional Committees and individual members may have the benefit of these objective and unbiased analyses when they make their response on the Preliminary System Plan.

Therefore, as a member of the Technology Assessment Board I request Board approval for OTA to undertake an immediate review of USRA's plan. Such a review should be in cooperation with the Committees of the Senate and the

House which must authorize or appropriate funds for CONRAIL. I believe a method similar to the one that OTA used to review the ERDA budget could be employed to this review.

Because of the short time until comments are due, I would appreciate your urgent attention to this request.

Sincerely,

Richard S. Schweiker
8United States Senator

cc: Members of the Technology
Assessment Board

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