A Review of Alternative Approaches to Federal Funding of Rail Rehabilitation

September 1975

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A Review of

Alternative Approaches to Federal Funding of Rail Rehabilitation

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Federal Funding of Rail Rehabilitation

A REVIEW OF ALTERNATIVE APPROACHES

PREPARED AT THE REQUEST OF

THE SENATE COMMITTEE ON COMMERCE

SURFACE TRANSPORTATION SUBCOMMITTEE

PREPARED UNDER CONTRACT OTA C-25 BY

HARBRIDGE HOUSE, INC,

AUGUST 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: A Review of Alternative Approaches to Federal Funding of Rail Rehabilitation.

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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EMILIO Q. DADDARIO
DIRECTOR
DANIEL V. DE SIMONE
DEPUTY DIRECTOR

The Honorable Warren G. Magnuson
Chairman, Commit tee 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: A Review of Alternative Approaches to Federal Funding of Rail Rehabilitation.

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, 1975, 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 Harbridge House, 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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EXECUTIVE SUMMARY

This report provides a conceptual framework for the evaluation of alternative approaches to federal assistance for the rehabilitation of the nation's railroad fixed plant. The report is not intended to provide an analytic evaluation of the alternatives. Rather, it identifies the pros and cons involved in the major issues raised by the alternatives.

The conceptual framework identifies five major areas of interest (or components) essential to an assessment of alternative proposals for federal involvement. They are:

- Objectives--The stated objectives of various proposals are couched in fairly general terms. A significant difference emerges, however, between those approaches with a primary emphasis on the use of federal assistance to promote the rationalization and contraction of railroad fixed plant and those which emphasize an expansion of rail service.

- Scope--Two aspects of scope emerged from the study. They are geographic coverage (that is, regional versus nationwide) and the types of facilities included in the rehabilitation.

- Government Funds--The conceptual framework indicates four areas of concern arising from the funding aspects of the proposals:

  --Amount and Timing. Wide differences exist in terms of the total amount of rehabilitation proposed and the period of time over which this rehabilitation should be accomplished.

  --Source. Alternative sources of public monies to support rail rehabilitation include general revenues; rail freight surcharges; freight surcharge, all modes; fuel taxes; and "no-cost' sources such as the ability of the government to guarantee private loans. There are many significant implications in the choice of funding sources.

  --Form. The alternative forms of government involvement range from ownership, as in the case of the 'Confac'? proposals, through grants, soft or hard loans, and several forms of equity; to loan guarantees. The pros and cons of each are explored.

--cost. Four kinds of cost are identified. They are the commitment cost, which is the amount of public funds deliberately planned to be spent per $ billion of rehabilitation; the risk cost, or the amount which may become a federal liability (in the event of default in a guaranteed loan, for exarnple); the administrative cost; and the cost of acquiring rail rights-of-way in those cases involving federal ownership.

- Government Control--This category covers a range of important issues involving the degree of government control over route structure, industry structure, railroad operations, and other control aspects such as railroad dividend policies. These control aspects of the various proposals for federal assistance in rail rehabilitation are of great interest to the industry as well as to other observers of the rail scene.

- Related Actions--Other aspects of proposed rail legislation, while outside the scope of this study, are inextricably linked to a valid perspective on rehabilitation in the eyes of most observers. Such actions include rate reform, regulation of industry restructuring, relief from discriminatory taxation and passenger service losses, and the prescription of improved accounting systems.

The conceptual framework summarized above is applied in this report to a selected group of specific legislative proposals. A comparison chart of these proposals appears at the end of this summary.

As noted above, this is not an evaluative study, nor was it designed with the objective of recommending a particular legislative path. Some of the impressions gained in the course of the study are highlighted in the following paragraphs. These impressions, held by at least a majority of the industry, shipper, labor, state, and administration officials interviewed, are pertinent to any legislative efforts. They are as follows:

- The problem of deteriorating rail fixed plant is national in scope, although by no means uniform. Priorities lie in the Northeast and the Midwest regions of the country.

- Public ownership of rail rights-of-way raises many problems. It should be seriously considered in terms of whether it is necessary or whether alternative solutions which have yet to be tried have sufficient probability of success to warrant the deferral of nationalized rail plant.

- There is no cheap solution. Hard, or highly leveraged, financing will not get rehabilitation money where it is needed most, and a small program will not really test the role that federal funding of rehabilitation can play in establishing a viable rail industry.

- The cost of soft loans may approach the cost of an outright grant as the term of the loan, the repayment schedule, and the interest rate become more liberal.

- A trust fund is generally regarded as a desirable device to provide a secure stream of funding for rail rehabilitation and to permit, through the authority to issue bonds, large initial outlays to be made based on a limited, but longer term stream of receipts.

- Care should be taken to ensure that the necessary control over what facilities get rehabilitated is used to promote a rational rail system. The potential for excessive politicization of the process can be minimized with a legislative requirement for all analysis used as the basis for route decisions to be made available for public review.

- In terms of the corporate structure of the rail industry, the current 'Balkanized" structure is not ideal. A more desirable structure is achievable through means other than federal coercion based on rehabilitation funding.

- Many unknowns are involved in the question of federal investment in rail fixed plant. Among them, as noted above, are:

  --What is the need?

  --What is the return on the investment (both internal to the railroads and external to society as a whole)?

  --What other legislative actions are necessary or desirable to enhance the effectiveness of federal financing of fixed plant?

  The existence of these unanswered questions requires that some means of determining the answers be set in motion, and that sufficient flexibility be built into the program to avoid making lasting mistakes in the early stages while answers are being sought.

ALTERNATIVE APPROACHES TO FEDERAL FUNDING OF RAIL REHABILITATION

	A United States Rail Trust Fund	Railroad Rehabilitation and Improvement Act of 1975	National Transportation Rehabilitation and Modernization Act of 1975	Financial Procedures to Assist Conrail's Viability	Railroad Revitalization Act	Railroad Revenue Act of 1975	Transportation Development Act of 1975
Stated Objective	To [illegible] privately owned railroads to obtain sufficient funds to modernize and expand all of their facilities in order to better [illegible] the public	To improve the nation's rail system through efficiency gains, strengthened competition, and enhanced carrier profitability	To provide 'o' employment, conservation of resources, sound economic conditions in rail transportation, and improved services.	To assist Conrail's viability, during [illegible] first 8 years of its operation, by virtually eliminating debt service in that period on capital required for rehabilitation.	[illegible] provide needed financial assistance to the railroad industry, and to encourage rationalization and restructuring [illegible]	To obtain modern and efficient rail service.	To efficiently accomplish the reconstruction and [illegible] zation of the rail system.
Scope							
Geographic	Nationwide	Nationwide	Nationwide	Northeast and Midwest	Nationwide	[illegible]	Nationwide
Facility Types	All lines	All lines	All lines	All lines	All lines	All lines	All lines [illegible] system designated by U.S. DOT, intrastate system designated by [illegible] government)
Government Funds							
Amount & Timing	[illegible] 9 billion over 6 years	$10 billion over 10 years	$6.25 billion over 5 years	$2 billion or more over 8 years	About $2 billion over 10 years (includes terminals, rolling stock, and data systems)	Not specified, but [illegible] major rehabilitation	$2 billion/year, plus $1 billion in discretionary funds (all modes); plus [illegible] inputs from user charges; subsequent funding unspecified
Source	5% surcharge on all rail freight revenues	Diesel and residual fuel tax of approximately 5¢/gallon for 20 years	[illegible] ¢/gallon tax on fuel + 014¢/KWH of electricity used by rail and water carriers and road vehicles (except buses)	Loan guarantees default covered out of general revenues	General revenues	1% tax on all freight surface transportation, [illegible] and for hire; appropriations from general revenues; user charges [$1 per thousand [illegible] tonmiles (adjusted for inflation)]	5% tax on all modes of freight (private and for hire); non-compensatory user [illegible] set [illegible] 75% [illegible] 1974 ownership co
Form	Grants, no matching or repayment, from proceeds of bonds issued by trust fund	Preferred stock, interest and principal deferred for 10 years; repaid [illegible] 30 years at effective interest rate of 2%; trust fund, issuing bonds to accelerate rehabilitation payments	Matching grants, plus "soft loans"	U.S. guarantees, USRA borrowing; USRA advances the proceeds to Conrail either in the form of grants or through the purchase of Conrail preferred stock (dividend [illegible] 1% above USRA borrowing rate; dividend cumulative, if earned, but deferred 8 years)	[illegible] guarantees (loans through federal financing bank); allows deferral of principal and interest	Government ownership (federal interstate, state-intrastate); voluntary dedication of property; [illegible] compensatory user charges	Ownership (by state) Grants [illegible] 100% for capital [illegible] provements, 70% federal/30% [illegible] for routine maintenance
Cost	Commitment per $ billion: $1 billion Risk: None Administrative Collection: Medium Distribution: Medium Acquisition: None	Commitment per $ billion: $754 million Risk: Medium Administrative Collection: Medium Distribution: High Acquisition: None	Commitment per $ billion: $500 million+ Risk: Low Administrative Collection: [illegible] Distribution: High Acquisition: None	Commitment per $ billion: [illegible] Risk: High Administrative Collection: Low Distribution: - Acquisition†	Commitment per $ billion: Low Risk: High Administrative Collection: Low Distribution: High Acquisition: None	Commitment per $ billion††: $1 billion Risk: None Administrative Collection: High Distribution: Very High Acquisition††† Very High	Commitment per $ billion: $1 billion Risk: None Administrative Collection: High Distribution: Very High Acquisition: Very High
Government Control							
Route Structure	Railroads design projects and apply for grants based on their priorities; 90% of funds are allocated, proportionate to the surcharge	Railroads apply; DOT designates main and branch lines and approves specific projects	Extensive control by Secretary of Transportation		Railroads initiate and Transportation Secretary approves, subject to guidelines which include ability to repay, efficiency of rail operations, and management's fulfillment of its "obligations" as a common carrier	Total control	Total control
Industry Structure	None specified	[illegible] specified**	None specified	Not addressed since this is a financing mechanism [illegible] Conrail	Transportation Secretary can require applicant railroad to [illegible] merger, consolidation, joint use, or purchase or sale [illegible] assets as condition of loan guarantee	Carriers remain as operating companies; [illegible] affected by control over joint [illegible]	Limited; [illegible] coordination, but protection of current carriers' service rights
Operations	None specified	None [illegible]	Joint use may be directed by ICC		Satisfactory operations can be a factor in decision to guarantee loans	[illegible]	Extensive
Other Control Aspects	None specified	DOT sets terms and conditions	None specified		None specified	None specified	None specified
Related Actions	None specified	None specified	Improved account [illegible] system	None specified	Rate reform; expedited procedures for restructuring; prohibition of discriminatory taxation uniform accounting system	[illegible] specified	None specified

*Rehabilitation – Road and Track, $6.9 billion; Electrification, $3.2 billion; Modernization – Road and Structure, $1.9 billion; Modernization – Yards, $0.9 billion.

**Government has minority representation on railroad's board of directors in the event of default

Cannot be calculated with available data estimated to be fairly low due to interest rate at 1% above market for guaranteed loan

†Not addressed

††Assumes non compensatory nature of user charge in part of acquisition cost

†††See Part II

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I. INTRODUCTION

A. Purpose and Scope of the Study

The purpose of this study is to explore the proposed mechanisms for injecting federal funds into the rehabilitation of railroad fixed plant--that is, the roadbed, ballast, ties, signaling systems, yards, and terminals that make up the nation's physical rail system. Such proposals are generally motivated by recognition that the railroads play a vital role in the nation's economy and that their fixed plant is deteriorating to the extent that it interferes with that role.

The study accomplishes two specific tasks:

(i) It identifies and describes selected alternative mechanisms in a way that facilitates comparison among them.

(ii) It identifies key issues arising from the wide range of funding mechanisms and informally reviews the reactions of major interests to these issues.

In the course of the study, contacts were made with railroad executives, the Association of American Railroads, shippers and labor representatives, spokesmen of competing modes, and the administration. While an attempt was made to secure unbiased representation (interviews were conducted with strong and weak railroads, Eastern and other railroads, and so forth), this was not a rigorous sampling and no quantitative results were derived.

The study is fairly narrow in scope. It accepts as a starting point the assumption that some federal involvement in rail rehabilitation is desirable, without evaluating the wisdom of that popularly held assumption. It does not embrace the related question of whether or to what extent service on the so-called light-density branch lines should be curtailed or subsidized. This question has been widely discussed and analyzed elsewhere. Finally, the study is descriptive and expository in nature and does not involve analysis or evaluation of the various points of view expressed. For this reason, the study is not intended to result in a recommendation regarding a preferred alternative.

A recurring observation by railroad industry sources and others contacted in the course of the study is that federal assistance in rail rehabilitation is not, in itself, enough to achieve a viable rail system. Many of those who feel that rail should play an expanded role believe that other government actions are required to complement the beneficial effects of rail rehabilitation.

Those who desire a contracted level of rail activity argue, as noted below, that the effect of rehabilitation without other actions would be detrimental to the nation's rail system in that it would postpone the needed reduction in excess capacity. Among the other rail-oriented actions being discussed are the reform of rate regulation and regulatory procedures for industry restructuring (for example, through mergers); the subsidization of light-density branch lines (or the easing of procedures for their abandonment); the prohibition of discriminatory taxation; and the encouragement of integrated transportation companies to promote efficient allocation of traffic between modes.

Many of the proposals for federal assistance in rail fixed plant rehabilitation are presented as legislative packages which incorporate one or more of these related actions. While the current focus on mechanisms for rehabilitation is a valid and useful one, a broader perspective embracing other federal actions is also necessary.

Although this study was precipitated by the impending congressional review of the U. S. Railway Association's final system plan for the Northeast and Midwest regions, the majority of the proposals for federal involvement in rail rehabilitation are national in scope; consequently, a national focus was taken in the research. The establishment of Consolidated Rail Corporation (Conrail), an entity formed under the Rail Reorganization Act of 1973, is a special case in the sense that it reflects much more direct government involvement than other railroads. Conrail is also special in that its funding has implications in terms of the liability of government, through a claim under the Tucker Act. It is not a special case, however, except in degree, in terms of the existence of deteriorating fixed plant or the availability of internally and externally generated capital, without government assistance, for rehabilitation. Where the unique aspects of Conrail appear to be important, they are pointed out in the balance of this report; otherwise, the observations made can be assumed to apply to Conrail as well as to other railroads.

B. Organization of This Report

Following this Introduction, Part II describes and discusses the essential components of the range of alternative mechanisms, including their objectives, scope, funding considerations, and degree of government control. It does this largely without reference to the proposals themselves, in an attempt to lay out the fundamental considerations involved. Part III surfaces some additional key issues, or impacts. Part IV describes selected alternative mechanisms, and Part V closes with some general observations arising from the study effort. An abbreviated format showing the pros and cons of key issues related to the proposed alternatives for federal involvement in rail plant rehabilitation is appended.

II. ESSENTIAL COMPONENTS OF ALTERNATIVE PROPOSED MECHANISMS

A. Introduction

The primary task of any effort to describe a series of alternative proposed mechanisms for government assistance in rail rehabilitation is to isolate the essential elements, or components, which account for the differences among them. Such a description is provided below. Section B discusses the objectives of the various proposals. Section C explores issues of scope, both geographic and types of facilities involved. Issues related to government funds are presented in Section D. These include the amount, timing, source, form, and cost of funds. Finally, issues of government control are discussed in Section E.

B. Objectives

At a sufficiently high level of generality, all of the proposed mechanisms share the same objective. At such a level, a general articulation of this shared objective might be:

> . . . to enable the nation's rail system to play its appropriate and necessary role in a balanced transportation system that provides service in an economical and efficient reamer, taking into account energy and environmental concerns.

Below this level of generality, two contrasting philosophies emerge. One is that the railroads' appropriate role is an expanded one and that government assistance in rehabilitation, necessary because of a variety of historical causes (including inequitable government treatment of the modes, railroad management incompetence, or whatever), is primarily needed to nudge the industry to a new threshold of earning power through improved service, reduced costs, and increasing revenues, whereupon natural market forces will lead it into the appropriate expanded role. The other basic philosophy is that the primary cause of the industry's ills has been the gradual restructuring of the national economy and the development of competing modes to the point where rail fixed plant is far in excess of the need, and that rehabilitation of plant should only be supported to the extent that it moves the industry toward an appropriate, contracted level of service which enables the industry to achieve viability at a new and lower equilibrium point.

As might be expected, these two objectives produce rather different proposals for federal involvement in rail rehabilitation. Proponents

of the latter view, favoring a contracted fixed plant, emphasize limiting the amount of dollars flowing into the rail system and maximizing control over what plant gets rehabilitated. In fact, proponents of this view within the administration argue that large amounts of federal support are not only an inefficient use of public resources, but they would also have the perverse effect of enabling the industry, in its current and inappropriate form, to survive longer and resist movement toward the new and lower equilibrium.

Proponents of the more optimistic view favor mechanisms which maximize the dollars flowing into rail plant, prefer “softer" forms of federal assistance (that is, less insistence on repayment by the railroads) in order to improve the industry viability, and are less concerned with exercising control over what gets rehabilitated.

Clearly, the views of most concerned individuals are more complex and less “black and white" than those painted above. Nevertheless, these general differences in perspective do exist and do influence the assessment of mechanisms for federal support, to an extent that policymakers on this issue are required to identify their own view of the future level of rail’s place in the nation’s transportation system.

One objective which is a valid and important consideration is that of promoting employment to counter the effects of the current recession. This study deals with long-range, large-scale programs for rail rehabilitation. All of the proposals presented, regardless of the funding mechanisms involved, will have a positive impact on employment. An examination of their specific impacts, however, is beyond the scope of this study.

C. Scope

Two dimensions of scope have surfaced in the course of this review: geographic coverage and the types of facilities for which rehabilitation should be supported.

1. Geographic

This component revolves around the question of whether the rail reorganization problems which rehabilitation assistance addresses are national or are limited to the Northeast and Midwest railroads. With the exception of the U.S. Railway Association, whose mandate from Congress was specifically limited, all proposals address the problem as a national one. This is supported by informed observers representing every major interest who feel that although the priorities may lie in the Northeast, the existence of deteriorating fixed plant and the inability to rehabilitate it without federal assistance is a nationwide

problem. A minority of sources within the industry feel that some railroad companies have the long-term viability to maintain their fixed plant. The clear majority feel that these seemingly fortunate roads are merely behind the rest in terms of the inevitable appearance of inadequate long-range earning power.

Exhibit I shows deferred maintenance and capital improvement projects, and indicators of car and track conditions for major railroads. Although of only general value because of imprecise measures of deferred maintenance and deferred capital projects, the exhibit supports the predominant view that rail fixed-plant deterioration is a national concern.

Despite the national scope of the problem, the current differences among regions and individual roads in terms of plant condition and financial strength suggest that federal involvement, either explicitly or through the administrative process, provide for the establishment of priorities for assistance and perhaps some flexibility in the softness (that is, repayment requirements) of the financial assistance provided.

2. Facility Types

Some of the proposals for rehabilitation focus on high-density mainlines; others do not limit federal assistance to any specific type of fixed plant. Two areas of agreement emerge from discussions with industry and shipper spokesmen. One is that although service-oriented priorities may favor the high-density mainlines, secondary mainlines are also important, and in the process of deferred maintenance tend to suffer before the higher usage lines. They, therefore, should not be excluded from any program of rehabilitation assistance. The other area of agreement is that the rehabilitation or modernization of yards and terminals may have more impact in terms of service improvement and reduction in railroad costs than that of line-haul track. A caveat to this is the view raised by one senior industry official that because of the complexity of the system and institutional constraints, such as local labor agreements, the benefits of yard and terminal improvements are absorbed into the system very slowly.

D. Government Funds

Clearly, the use of government funds is an essential component of proposals to assist in the rehabilitation of rail plant. It is not, however, a simplistic question of a lot or a little, or cheap versus expensive, which sheds light on this aspect of rehabilitation. Five aspects of hinds have been chosen for discussion here. They are (i) the amount of federal funds; (ii) the timing of expenditures; (iii) the source of federal funds (for example, general revenues versus specific taxes); (iv) the form in which funds are injected (such as debt, equity, or grants); and (v) the cost (per $ billion of rehabilitation).

EXHIBIT I
SUMMARY OF RAILROAD REPORTS
(Required by Ex Parte 305 for the 4th quarter 1974
(dollars in thousands)

Railroad	Deferred Maintenance	Deferred Capital Improvement Projects	% Revenue Cars Awaiting Repair	Miles of Slow Orders	% of Track Slow Order
Boston & Maine	$ 14,725	$ 7,093	5.9	39.8	1.7
Burlington Northern	54,804	392,249	5.3	4,710.8	13.8
Chessie*					
Chicago & North Western	692,159	289,971	8.9	7,960	53.6
Delaware & Hudson	22,534	61,167	9.4	443	35.8
Denver Rio Grande	10,013	26,929	5.2	45	1.4
Erie Lackawanna	24,030	124,806	15.1	658.3	10.8
Illinois Central Gulf	99,024	186,005	9.3	1,153	7.6
Kansas City Southern	14,559	65,171	8.1	247	9.4
Louisville & Nashville	48,192	89,129	7.1	1,053.6	9.8
Missouri-Kansas-Texas	65,434	42,567	12.4	1,931	57.8
Missouri Pacific	44,823	171,155	3.4	178	1.4
Milwaukee	81,612	68,700	4.3	3,254	21.5
Norfolk & Western	64,060	162,627	2.9	895.8	6.0
Penn Central	920,290	1,138,466	10.7	10,494	26.7
Reading	69,843	77,882	3.2	27.9	1.1
Rock Island	234,564	1,726	10.0	4,710.8	43.3
Santa Fe	--	363,000	5.8	1,494	7.2
Seaboard Coast Line	77,594	83,177	4.8	666	4.7
Soo Line	--	--	5.0	1,358	28.8
Southern	32,854	161,091	3.9	1,503.5	15.2
Southern Pacific	61,134	100,305	3.5	3,736	20.3
St. Louis San Francisco	26,842	47,974	1.3	65	9.7
St. Louis Southwest	13,257	9,409	3.2	634	29.3
Union Pacific	8,722	36,185	2.1	144	.9
Western Pacific	7,382	2,010	1.7	67	2.8
TOTAL	$2,668,478	$3,708,794		47,469.5	

*Chessie System failed to file reports.

Source: Pennsylvania Department of Transportation, based on ICC data.

1. Amount

Current proposals for federal assistance in rail rehabilitation call for sums of money ranging from $2 billion or less to more than $12 billion. But what is the real requirement?

A primary determinant of the answer to this question lies in the objectives which prompt federal involvement, In terms of the underlying philosophies discussed above, someone whose objective is to use federal assistance to contract the rail system will, of course, come up with a different requirement than someone whose objective is to expand service from its current level. Looking first at the contracted system, desired by those who feel that excess capacity is at the root of the industry problem, the analysis which would answer the question of 'how much contraction" has simply not been done. On the low side, therefore, there really is no valid estimate of the requirement. On the high side, some measures of the requirement for fixed plant to support expanded service nationwide his been provided by the Pennsylvania Office of State Planning and Development:

Development:

Rehabilitation of Roads and Track	$ 6.9 billion
Electrification	3.2 billion
Modernization and Expansion of Roadway and Structures	1.9 billion
Modernization of Yards and Terminals	.9 billion
Total	$12.9 billion

Efforts to narrow the range from that of $2 to $13 billion run head on into many difficult questions. For example:

- To what standard do you rehabilitate? Possible standards include:

  --Some historic level of utility or speed. This has some nostalgia value, but reflects past traffic patterns which may no longer prevail.

[1] A United States Rail Trust Fund: Prescription for Modern Rail Transportation, December 1974.

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--Specified mile per hour or Federal Railroad Administration track standards related to traffic flows. This appears workable if flexibility is provided to adapt to specific local conditions. For example, freight service at 60 miles per hour on some mainlines in mountainous areas would require relocation at enormous financial and environmental expense, and is therefore not warranted.

--Rate of return on investment. This is a rational approach, but requires a line-by-line analysis of the costs of rehabilitation or modernization and the estimated returns in terms of reduced costs and increased revenues resulting from improved service. To accomplish this in a consistent, site-specific manner is an enormous task that would take several years.

- How do you select projects? If the data were available for a project-by-project analysis of the rate of return, the question of a cutoff point below which one would not invest remains. Any investment of federal funds with a return above zero will improve the economic viability of the railroads somewhat . . . but is it a valid investment from the public policy perspective? The standard 10 percent opportunity cost of federal funds can be used as a cutoff point. Currently, some railroads with limited capital use a cutoff point of 25 percent return for discretionary capital improvement projects. No clear picture is available of the impact of a cutoff on federal spending.

- What kinds of returns will be considered? Virtually every public statement favoring federal involvement in rail rehabilitation mentions the energy, safety, and environmental benefits of rail freight transportation. Presumably, these benefits are among the returns on a federal investment, but no one appears to have measured them. The tools to do so are available; it is possible to estimate, for example, that a shift of one billion ton-miles of long-haul traffic from truck (three-tenths of 1 percent of 1970 truck traffic) to an efficient rail system will save roughly 11 million gallons of diesel fuel. Many individual

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[1] Office of Management and Budget, Circular A-94, revised 27 March 1972.

[2] Methodology for Determination of Environmental and Energy Consumption Impacts, Harbridge House, Inc., November 1974.

studies have addressed pieces of the problem. No one, however, has related this kind of benefit to the rehabilitation of rail fixed plant. Such an analysis is far outside the scope of this study, but would seem to be an indisputably valid input into the estimation of the amount of rehabilitation which represents a requirement for federal funding.

- What private capital is available to meet the total requirement for rail rehabilitation? During the period from 1961 to 1970, the Class I railroads devoted approximately $3.25 billion to capital expenditures for road and structures. During the same period they "disinfested" to the extent of about $4.5 billion paid out in cash dividends. What portion of these sums might be available for further investment in fixed plant in partnership with the federal government ? While many of the proposed mechanisms for federal rehabilitation imply the availability of private capital (for example, loan guarantees, matching grants), no analysis of the quantity or distribution of this private capital in relation to needs has been done. This facet of the problem has a direct and significant bearing on the requirement for federal funds.

The thrust of this discussion of the amount of the requirement for rehabilitation assistance leads to the somewhat disconcerting conclusion that the answers are not currently available. Several observers, however, feel that this need not bar an immediate attack on the problem of deteriorated rights-of-way, provided:

(i) That a mechanism is established to secure the answers to these questions, and that any firm commitment to a total dollar requirement is deferred until the answers are at hand.

(ii) That initial government expenditures on the rehabilitation of rail fixed plant are made through a mechanism which ensures that only high-priority, high-return projects are undertaken before the answers are found. Those projects will probably be defensive in nature (that is, situations where significant deterioration has occurred on lines which are clearly a part of a stringently rationalized national rail system).

2. Timing

The consensus among the sources contacted during this study is that the need for federal rehabilitation assistance is now. They point out that

inflation is increasing the cost of rehabilitation, as is the continuing deterioration of the fixed plant. There is also wide agreement that additional railroad bankruptcies of significant import will occur if something is not done quickly. As noted above, the need to start quickly on the higher priority projects does not necessarily conflict with the need to assess the true extent of the total need; the two can be done simultaneously.

Advocates of the "go-slow" approach feel that it is dangerous to begin without an assessment of the whole need, and that the danger of further rail bankruptcies, though real, does not outweigh the advantage of a more cautious approach. Further, some feel that the financial crises of the railroads which might result from the deferral of federal assistance would facilitate the needed rationalization of the rail system.

3* Source

Five main sources of funds are discussed in the various proposals for federal involvement in rail rehabilitation. They are general revenues; rail freight surcharges; freight surcharge, all modes; fuel taxes; and what might be called “no-cost" sources. Some discussion of each of these and their associated pros and cons as seen by informed sources follows.

a. General revenues. Justification for the use of general revenues for assistance in rail rehabilitation has not been formally articulated. However, it would include the assertion that the railroads are so embedded in the national economy that their well-being is of general concern. Indeed, the economic impacts of a collapse of rail service would reach every citizen and every corporation in the country. In addition, the energy and environmental advantages of rail freight transportation are shared by all. The main disadvantage of appropriations out of general revenues as a funding source is that this is a highly visible source, it is viewed as “expensive” compared to other sources, and it is perhaps too uncertain for the planning of a long-range rehabilitation program.

b. Rail freight surcharge. This source, proposed in conjunction with a trust fund mechanism, is essentially a user charge and has the advantage of placing the funding burden upon those who most directly benefit from improved rail service: the shippers. Proponents of the rail freight surcharge point out that it provides a secure source of funds, that it is not a drain on the public treasury, and that it allows accelerating the timing of rehabilitation by issuing bonds backed by income from the surcharge.

Those opposed to the surcharge, including the bulk of the rail industry executives contacted, argue that it does nothing for the industry because it “gives with one hand while taking away with the other, ” and that it would cause

further diversion of the freight to competitive modes because of the added cost of rail. Interestingly, from the perspective of the big shippers, at least, the freight surcharge is not viewed as unthinkable, perhaps because other proposals such as fuel taxes (discussed below) would, on an overall basis, cost the shippers more.

c. Freight surcharge, all modes. As opposed to the rail freight surcharge, a tax on all intercity freight has several advantages. It is a user charge across all shippers which preserves the current intermodal competitive situation. When used for rail rehabilitation, it addresses the historical inequity, perceived by the railroads, among modes. For a given revenue requirement, the all-modes freight surcharge can be at a much lower level than that applied to rail waybills alone.

Proponents of the freight surcharge, all modes, say that although the surcharge will be passed onto consumers, its effect will be so diffuse that it will not be burdensome; further, the consumer will simultaneously be gaining from the efficiencies generated.

Those opposed to the freight surcharge argue that it is inequitable to assess other modes to assist the railroads and that it presents difficult and expensive problems of administration, particularly in its application to public carriage.

d. Fuel taxes. Several variants of a fuel tax are being widely discussed as sources for public support of rail rehabilitation. They share some major advantages:

- By discouraging fuel consumption, and particularly petroleum products, they serve a national purpose quite unrelated to railroads. In fact, fuel taxes have been proposed as conservation incentives independently of railroad problems.

- By bearing more heavily on trucks than on railroads, fuel taxes, to some extent, redress the perceived imbalance in historical government treatment of rail's major competitors. Another perspective on the same point is that fuel taxes would tend to divert traffic toward the rails (rather than away, as with the rail freight surcharge) because fuel is a proportionately smaller component of rail cost than of truck cost.

- Fuel taxes are broadly enough based taxes, particularly those including a gasoline tax, to raise sufficient money to fund even a very aggressive rehabilitation program while representing only a small burden on any single economic entity.

- Fuels and fuel uses covered by the taxes can be varied, as can the amount of the taxes, to fine tune the overall effect to reflect a variety of objectives, estimates of need, and political realities.

Against these advantages is the inevitable feeling of those who are taxed that the tax is an inequitable burden (particularly when it is being used to assist a competing mode), as well as the fear that a special tax creates a form of revenue which is typically easier to initiate than to terminate and which may therefore outlast the need for which it is created.

In terms of specific proposals, the major choices appear to be in the breadth of the fuel tax and in the amount. Three major alternatives in terms of breadth are:

(i) All surface transportation modes (except bus), all fuels.

(ii) Freight modes, all fuels.

(iii) Freight modes, diesel and residual fuels only.

An informal analysis of these alternatives prepared by the Rail Services Planning Office of the ICC demonstrates two important points (see Exhibit II). One is that as the tax base is broadened to include non-diesel trucks, and then to include private automobiles, the cents per gallon tax required to provide about the same annual revenues decreases markedly (from 15¢ to 6¢ to 2¢). The second effect of broadening the tax base is to lower the share borne by freight modes (except trucks, whose share increases when the tax is extended to non-diesel freight fuels, but then decreases if the tax is applied to private passenger vehicles).

Rail industry, shipper, and government sources interviewed in the course of this study did not feel strongly about alternative fuel tax proposals, but generally preferred a broader based tax as being easier to swallow because of the lower level of tax required.

The second major choice regarding a fuel tax relates to the amount raised, and is a choice between a larger amount for a shorter period and a lesser amount for a longer period. The analysis in Exhibit 11 reflects an approximate revenue of $2.3 billion per year, which could provide over $11 billion of federal money for rehabilitation in five years. However, through a trust fund or other mechanism, the same amount of rehabilitation money could be raised with a much lower tax extending over a 20- or 30-year time span. For example, a 3/4 cent per gallon tax for 25 years could support the same expenditures as the 2 cents per gallon tax in Exhibit II (assuming an 8 percent interest and discount rate).

EXHIBIT II
ESTIMATED ANNUAL YIELDS FROM FOUR TRANSPORTATION TAXES

	2¢ per Gallon* 0.14¢ per KWH			6¢ per Gallon** 0.4¢ per KWH		15¢ per Gallon*** Diesel & Residual Only		
	Fuel-Gals or KWH (millions)	Est. Tax Revenue (millions)	% of Total	Est. Tax Revenue (millions)	% of Total	Fuel-Gals (millions)	Est. Tax Revenue (millions)	% of Total
Passenger Autos & Motorcycles	78,011	$1,560	67.2	$ --	--	-	$ -	--
Buses	847	--	--	--	--	847	127	5.6
Total--Highway Passengeres	78,858	1,560	67.2	--		847	127	5.6
Trucks--Single Unit	22,755	$ 455	19.6	$1,365	59.8	--	--	--
--Combinations	8,860	177	7.6	532	23.3	7,973	$1,196	52.3
All Trucks	31,615	$ 632	27.2	$1,897	83.1	7,973	$1,196	52.3
Domestic Water Carriers--Diesel	784	$ 16	0.7	$ 47	2.1	784	$ 118	5.2
--Residual	1,402	28	1.2	84	3.7	1,402	210	9.2
Total--Water Carriers	2,186	$ 44	1.9	$ 131	5.8	2,186	$ 328	14.4
Railroads--Diesel Fuel	4,145	$ 83	3.6	$ 249	10.9	4,145	$ 622	27.2
--Electricity	1,247	2	0.1	5	0.2	1,247	12	0.5
Total--Railroads		$ 85	3.7	$ 254	11.1		$ 634	27.7
Total Annual Revenue		$2,321	100.0	$2,282	100.0		$2,285	100.0

Estimated from 1973 data.

*Assumes 2¢ per gallon on all fuel used by highway vehicles (except buses), railroads, and water carriers; ≒ 14¢ per KWH on railroad electric power.
**Assumes 6¢ per gallon on fuel used by trucks, railroads, and water carriers; 0.4¢ per KWH on railroad electric power.
***Assumes 15¢ per gallon on diesel and residual fuel used by highway vehicles, railroads, or water; 1¢ per KWH on railroad electric power.

Note: KWH and gallons equated at 10,000 and 150,000 Btu, respectively.

Source: Rail Services Planning Office, ICC.

e. "No-cost" sources. This phrase refers to several proposed mechanisms for federal involvement in rail plant rehabilitation where the funding source is actually railroad earnings. Examples include proposals for federal guarantee of railroad loans and for federal takeover of existing railroad debt secured by fixed plant.

The main advantage of a funding source such as a loan guarantee is that it is "cheap" in terms of government expenditures. Proponents, who hold that the industry needs contraction of its physical plant, argue that loan guarantees are all that are needed, and that more generous funding programs would only defer the inevitable contraction to the detriment of the national interest.

The main disadvantage is also that such a solution is "cheap. " Opponents within and without the rail industry point out that a least a part of the problem is that railroad earnings are inadequate and that a solution which relies heavily on those earnings as a source of funds is no solution at all. Further, they feel that a guaranteed loan program which requires the ability to repay the loan puts money where it is needed least (that is, into the healthier roads). Observers who hold the view that the industry needs to be turned around to fill an expanded role in the nation's transportation system almost unanimously feel, as the president of one financially weak railroad put it, that 'there is no cheap solution."

Of course, a loan guarantee does represent a potential government expenditure, due in the event of default. The likelihood, timing, and amount of the expenditure are uncertain, depending largely on the way in which such a program is administered.

4. Form

The form in which government funds are introduced into the rehabilitation of rail fixed plant has wide implications. Alternative forms proposed range from ownership (that is, full or partial nationalization); through loan guarantees, loans of varying degrees of hardness (that is, low interest, deferred interest, or deferred principal repayment); to matching grants or outright grants. Three major choices involving the form of funding are discussed below. They are ownership versus non-ownership, soft versus hard, and through a trust fund versus direct assistance.

a. Ownership versus non-ownership. This is clearly a heavyweight issue. It surfaces through several serious proposals for legislative action which involve federal ownership of all or some of the nation's rail fixed plant. These proposals would create a situation analogous to that of the highways and waterways, with government ownership and maintenance of the fixed

plant, and of the airways with public rights-of-way and government control. The term ‘f Confab" (for Consolidated Facilities Corporation) was coined within USRA to identify a plan (later rejected by USRA) in which the government acquired ownership of the rights-of-way of Conrail, Full nationalization, in which the government not only owns the fixed plant but operates the rail service, is not currently represented by any fully articulated proposals and, therefore, will not be discussed here.

Proponents of Confac solutions on a nationwide scale point to several major advantages (many of those who favor a Confac solution do so reluctantly because they do not see workable alternative solutions):

- It avoids criticism of windfall profits or ‘bailoutf" which result from the infusion of public funds into the rehabilitation of privately owned assets.

- It affords the opportunity to centrally plan and implement a truly national rail system.

- It frees the private railroads of fixed debt and potentially converts them to viable operating companies with primarily variable costs.

  [Note: Many observers feel that viability can only be enhanced if user charges are non-compensatory (that is, if the government does not attempt to recoup the full cost of ownership and maintenance, or even the cost of maintenance alone if it reflects an expanded maintenance program).]

- It makes it easier to plan and provide a national passenger service network.

Against this array of advantages are a list of perceived (and often strongly felt) disadvantages:

- Confac, because of the absence of a profit motive in public enterprise, or ‘Bureaucracy," or “politicization," will be an inefficient way to own, rehabilitate, and maintain the fixed plant. (Amtrak and the Post Office are most often mentioned as examples of this phenomenon.)

- Related to the above, foreign nationalized railroads are described as leaving huge deficits and high-cost service. [A counterpoint is that, in many cases, these public railroads

are deliberately seeking public benefits (for example, better passenger service, employment, energy, and environmental improvements) and, consequently, deliberately incur losses.]

- The separation of operations from maintenance and ownership of fixed plant will create practical problems in train control, scheduling, use of terminals, and so forth, which will increase the cost of rail service.

- The 'public way concept" is felt to be very threatening among large segments of the industry. The concept that "anyone can operate trains over the government right-of-way" may lead to cream-skimming competition by shippers or new entrant car - riers. [On the other hand, public ownership need not mean free entry. Airways and communication bands are examples of the regulated use of public facilities. In addition, several legislative proposals for public ownership make specific provision for protection of the service rights of existing rail carriers.]

- The purchase of all rail fixed plant will be very expensive (estimates within the industry range from $9 billion to $60 billion).

- If the Confac proposal is a voluntary exchange of real property for relief from ownership expense, it will not be feasible unless user charges are much less than compensatory, because current bondholders will not release their security. A user charge which is much less than compensatory, of course, will also result in a high public cost overall.

- A final argument against Confac is that it is unnecessary: there are alternatives (of which rehabilitation is only a part) which can create a viable, privately owned national rail system.

b. Soft versus hard. This imprecise terminology is used to indicate the degree to which a proposed form of funding represents a net infusion of public dollars into the railroad industry. The range of possibilities is almost limitless. A sampling, arranged in descending order of 'hardness, " might include:

(i) Straight debt, full repayment, at market interest rates.

(ii) Same as (i) but with government guarantee; therefore, less than market interest rates.

(iii) Same as (ii) but with principal and/or interest payment deferred, but accruing.

(iv) Same as (iii) but with interest accruing only if earnings permit.

(v) Same as (iv) but interest waived for some period of time.

(Note: Any of the above can be made softer by extending the time period of deferral or repayment.)

(vi) Confac with non-compensatory user charges.

(vii) Matching grants, in which the railroad funds about 50 percent of the project and receives a grant with no financial strings attached (except in the event of sale or taking of the property) for the other 50 percent.

(viii) Outright, 100 percent grants.

This list could be extended for pages with income preference bonds, debentures, preferred stock, all with the fine tuning of terms and conditions. As it stands, however, it is sufficient to illustrate one key point: that there is a line, probably between (v) and (vi), above which no real enhancement of the economic viability of the rail industry will be achieved. This is regarded as true, and of critical importance by most observers of the rail scene. (The assertion ignores absurd extremes such as a 200-year" loan with principal repayment deferred and interest waived for the first 100 years.) This point surfaced in conversations with rail executives, shipper representatives, state and regional transportation officials, labor, and some members of the administration. It was expressed in many ways:

> ‘f There is no solution unless the Congress is willing to bite the bullet and spend real money. "
>
> "If you spend pennies, it’s pennies down a rat hole. "
>
> "No scheme . . . will be of any practical help to the railroad unless it produces a substantial direct cash subsidy free of future repayment obligations. "

Even those who feel that the economic viability of the current railroad industry is not a primary objective, or those who point out that even large grants for rail rehabilitation are not enough to achieve viability, generally agree with the assertion that the economic viability of the railroad industry cannot be enhanced with public funds in the form of debt.

Two other key points arise from discussions of the softness of government funding. One is that although the harder forms of assistance (for example, low-interest loans) may be attractive to the sounder railroads, they do not get the money where it is needed most, into the fixed plant of the weaker railroads. A second point is that there are weaker and stronger railroads, and rehabilitation projects with higher and lower returns, which suggests to some observers that different forms of government assistance may be appropriate for different railroads or for different projects (for example, low-interest loans to strong roads, matching grants to less strong roads, and 100 percent grants to weak roads). Alternatively, debt may be appropriate for a project which provides a high return to the railroad, while defensive projects (such as rebuilding a bridge to enable a weak road to keep a line in service) may be more usefully funded with a very soft form of assistance.

A logical conclusion from the last two points is that some flexibility in terms of the form of funding might be a criterion for the evaluation of funding mechanisms. That flexibility can, of course, be explicitly legislated or left in the hands of the organization which administers the assistance program.

c. Through a trust fund versus direct assistance. One aspect of the form in which public funds are used to rehabilitate rail plant is the structure established to administer such a program. While this study does not review the appropriate roles of the DOT, ICC, USRA, Congress, and so forth, one issue deserves comment, and that is whether financial assistance (loans or grants) should be provided through a trust fund or similar device, or directly.

A trust fund is suggested in several of the proposals under review. One advantage of such a mechanism is that it facilitates the acceleration of the timing of the funding (see Section D2, above); that is, a trust fund where the income is a small but secure stream of payments (from a tax or a surcharge) can issue bonds in order to make large grants or loans in the early years from the proceeds, and use the continuing income stream to repay the bonds over the longer term. Through such a mechanism, as noted above, a 3/4 cent per gallon fuel tax over a 25-year span could be used to pay for a $2.3 billion per year rehabilitation program over the first five years. The same program with direct funding would require a 2 cent per gallon tax, although for only five years.

A second major advantage of a trust fund approach is that it is a fairly secure form of funding and is not subject to changing political or economic conditions. This is considered a disadvantage by some, because the existence of an income stream creates a tendency to spend, a tendency which may persist even after events have reduced or invalidated the need.

For the purposes of this study we have not discussed the issue of an integrated trust fund versus a separate rail trust fund because the impacts under review are the same in both cases. The issue, however, may be the subject of much public debate.

5. cost

The public cost of assistance in the rehabilitation of rail fixed plant has two main determinants. One is the amount of rehabilitation required or provided, as discussed above. The other, the subject of this section of the report, is related to the form of the particular program under review. In an attempt to isolate these costs, the cost per $ billion of rehabilitation is used here as a measure.

The five cost elements discussed below are commitment, risk, administrative, acquisition, and financing. The basis for subjective estimates of these cost elements is outlined in Exhibit III.

a. Commitment. This cost relates to planned public expenditures per $ billion of rehabilitation. If the form of assistance is a direct 100 percent grant, the cost of that public commitment is $1 billion per $ billion of rehabilitation. A 50 percent matching grant program has a commitment cost of $500 million. A loan which the government expects to be repaid in full, bearing interest at a rate which equals the government's cost of capital, involves no commitment cost whatsoever. A soft loan, which is expected to be repaid but at an interest rate below the government cost of capital, does have a commitment cost. That cost is related to the difference between the two interest rates. For example:

> If the government, with a cost of capital of 10 percent, loans $1 million to a railroad, to be repaid at the end of 10 years at an interest rate of 2 percent payable annually, the present value of the interest and principal payments, discounted at 10 percent is $508,900. The commitment cost is $1 million less the $508,900, or $491, 100.
>
> Alternatively, the same loan for a 20-year period has a present value of $321, 800, for a commitment cost of $678,200.
>
> Finally, a 10-year loan at 2 percent, but with the principal repaid in 10 equal annual installments, has a commitment cost of $309,800.

EXHIBIT III
BASIS FOR SUBJECTIVE ESTIMATES OF COST ELEMENTS

Commitment Cost - Calculated if proposal provides sufficient data.

Risk Cost - Dependent on extent of loans, and "softness. "

No loans	None
soft loans plus grants	Low
Soft loans only	Medium
Hard loans	High

These costs are highly dependent on the actual administration of a program, and thus are difficult to quantify.

Administrative Cost

Collection - Dependent on the source of funds.

General revenues or an increase in an existing tax	**Low**
New tax	Medium
New tax including complexity, such as tax on the value of private carriage services	High

Distribution - Dependent on degree of planning and control required.

No central planning	**Low**
Limited central planning	Medium
Full central planning, and designation of national system	High
Ownership	Very High

Acquisition Cost

Very High in all cases involving ownership. (See text, Part II.)

These examples illustrate two points about the commitment cost of soft loans. One is that a longer term loan has a higher cost than a shorter term loan. The second is that for a given term, delayed or deferred repayment increases the cost, which is also increased by a lower interest rate. In general, it is interesting to note that the cost of a soft loan can approach that of an outright grant as the term of the loan, the repayment schedule, and the interest rate become more liberal.

Commitment costs are not affected by financing mechanisms such as a trust fund.

Part IV of this report, where specific proposals are discussed, presents a dollar estimate of the commitment cost per $ billion of rehabilitation associated with each proposal.

b. Risk. While commitment cost represents planned benefits conferred on the rail industry, risk costs are the result of unplanned failure to repay. With any loan, the lender assumes that the risk may be partially offset, for example, by the value of the property pledged as security for the loan. One function of the private capital markets is to assess the degree of risk present in a loan and reflect it in the interest rate charged.

For the purposes of this study, perhaps the best measure of the risk cost is the difference between the cost of capital and the interest rate charged by private money markets for the same loan. Thus, if the government cost of capital is 10 percent (at which rate the govermnent would theoretically be willing to make risk-free loans), and the railroad would be forced to pay 15 percent interest on private loans, the difference would be a reflection of the risk assumed by the government.

For example, a $1 million government loan at 10 percent interest to a railroad whose riskiness is reflected in a private capital interest rate of 15 percent, for a 10-year period with repayment at the end of the 10 years, would "cost" the government $251, 100 in risk-associated cost.

A soft loan may bear both risk cost and commitment costs. For example, the loan in the example above, if made at 2 percent rather than at 10 percent interest, would carry a $508,900 commitment cost and an additional $251,100 risk cost.

The above discussion and computation is a very much oversimplified treatment of some very complex concepts. The resulting cost estimates, however, are believed to be useful, if rough, approximations of the costs involved.

In the discussion of specific proposals, risk cost is presented as High, Medium, or Low. Although these costs may be substantial, they are very difficult to measure and are primarily dependent on the way in which the program is administered.

c. Administrative. Administrative costs are the public expenditures required to administer the collection of income to both support a rehabilitation program and administer the distribution of funds, including planning, the review process for applications, and monitoring of the results.

The collection and distribution of administrative cost is estimated in Part IV as High, Medium, or Low. The estimate of collection cost is based on the extent to which new revenue sources are tapped, as well as their complexity. For example, funds from general revenues have a low administrative collection cost because little or no incremental administration is involved. On the other hand, a new surcharge on the value of freight services has a high administrative cost because of the need for an organization to establish procedures, arbitrate disagreements, and monitor compliance.

Distribution costs associated with the alternative proposals vary, primarily according to the degree of central planning and rationalization expected to accompany rehabilitation funding. The exception is a proposal involving government ownership of rights-of-way. The notation used in this case is Very High, to reflect the cost of the extensive organization that would be established to administer such a program.

d. Acquisition. The cost of acquisition of rail rights-of-way, associated only with those proposals which involve government ownership, is noted in Part IV as being Very High. This is a judgment of the study team, based on its discussions with industry sources and a line of reasoning whereby acquisition is either through purchase/condemnation or voluntary dedication of rail properties by the owners and creditors. The purchase/condemnation price tag for the national rail system is not known, but industry estimates are in the neighborhood of $9 billion (net salvage value) to more than $60 billion (net reproduction value). Allowing for some possible self-interest reflected in the estimates, that is rather expensive. If voluntary dedication is the means of acquisition, it will have to be through clearly and significantly non-compensatory user fees which make the transaction attractive to rail owners and creditors (which would be a large and continuing cost to the government).

e. Financing. In the context of this study the cost of financing is an elusive concept relating to the cost of transferring a long, small stream of receipts (such as those from a rail freight surcharge) into a shorter, larger stream of rehabilitation expenditures. The mechanism proposed for doing this

is most often a trust fund which can issue bonds whose proceeds finance the rehabilitation program, and which are repaid over, say, a 20-year period from tax receipts.

Such a mechanism can be described as expensive, because it results in large expenditures over time for interest charges on the money borrowed. It can also be described as cheap, because it requires a much smaller (although longer lasting) tax rate to support a given rehabilitation program than that required by a direct funding mechanism. Actually, however, it is neither.

If one views the government as a large bank, with the ability to borrow at 10 percent (cost of capital) and a large range of spending projects available which return 10 percent in public benefits, then the trust fund mechanism has no relevant financing cost. In this example the government would be financially indifferent to the choice of direct financing or a trust fund.

The picture presented above is not clearly and precisely true, however. The cost of capital and the return on public spending are extremely complex, both conceptually and in terms of practical problems of measurement. For example, the cost of capital does not remain constant in time or over an infinite range of amounts. At times, public funds are spent on programs with low returns; at other times, high-return projects are rejected. Moreover, many government programs have returns which are not measured quantitatively at all. The essential point remains, however, that the trust fund versus direct funding choice should not be made on the grounds of financing cost. It is essentially a public policy choice between two different but equal-cost approaches to the same problem. Appropriate considerations include the need for secure funding of a major capital spending program, the danger of ''too secure' funding in the view of the uncertainties surrounding the need, and perhaps the matching of the time period over which benefits from the spending are expected to be received.

E. Government Control

In the course of this study it became increasingly clear that a central issue raised by the proposed mechanisms for federal funding of rail rehabilitation is that of control. This is not to suggest a simple equation such as "the more control the government gets for its money, the better the deal. " It is a complex issue, raising emotional responses based on philosophical beliefs, and involving degrees and forms of control. None of the study sources indicated that the government should not attempt to control the spending of public funds at all, but all were concerned with the extent and nature of the control proposed. The discussion below centers on three main areas of control: route structure, industry structure, and operations. A final paragraph comments on other aspects of the control issue.

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1. Route Structure

This refers to the question of "who decides what lines get rehabilitated," which has strong implications for the future route structure of the rail system. Proposed federal control over route decisions accompanying alternative funding programs ranges from total control in the case of Confac solutions, to very tight control in some non-ownership proposals, to fairly loose control. The minimum degree of control still consists of an approval process which would presumably prevent gold plating, or clearly uneconomic duplication, and would provide government monitoring to ensure that funds are spent as planned.

The basic issue here is whether the government, in return for financial assistance, should be able to rationalize the rail system by reducing duplicate mainline capacity. To a large extent, feelings on this question reflect the split in basic philosophies mentioned above. Those who feel that rail activity should be expanded do not see long-run excess capacity as much of a problem, and thus are not desirous of tight federal control over route decisions; those who feel that contraction is in order see any federal financing as an opportunity for a federally planned rationalization of the system. Many of the former group, who do not favor a forced government rationalization, would welcome government assistance in the analysis and planning required for a more modest, and voluntary, rationalization process.

Those who argue that free ‘market forces, acting through private railroad management and investor decisions, are preferable to centralized planning, have two counterarguments to contend with. One is that market forces are not free at all because of the extensive regulation of transportation. The other is that considerations of public benefits in terms of energy consumption and environment are not reflected in private sector decisions and require a central, governmental role in the rationalization process.

Two problems surface repeatedly in discussions of government control over route decisions. One is that where duplicate mainline capacity exists, the choice of one or two routes as the high-density throughlines, and their rehabilitation to high standards, decreases the value of the other routes. This can be “made up to” the losing railroads through rehabilitation of their lines elsewhere or by the granting of operating rights, but it remains a very thorny problem in the eyes of many railroads and others.

A second problem is that rationalization, although it may fulfill its proponents!” hopes of <u>better</u> rail service overall, may result in <u>worse</u> rail service for shippers served by current mainlines not selected as through routes. Industry sources point out, however, that this problem reflects a widely held misconception. They note that quality of service on a route is not related to the density of through traffic but to the frequency of local service, which is likely to improve if through service is removed from a route.

2. Industry Structure

Government control over the corporate structure of the railroad industry, such as required mergers or the transfer of property as a condition of financial help, is closely related to the issue of control over routes but deserving of special comment. Most of the funding proposals do not envisage such control, but some provide for it explicitly.

While the consensus of views on the control of route structure (other than those of the administration) reflect an uneasy recognition that there is a government role in that decision process, most sources interviewed were opposed to government control of the corporate structure of the industry. The opposition came from railroads, shippers, labor, and others, despite the fact that many of them felt that a more desirable industry structure could be achieved. The majority expressed the view that government control was not necessary (and, therefore, inadvisable), but that government facilitation, through relief from burdensome regulation of structural changes and other means, was an appropriate role. The Rock Island merger case was frequently mentioned as an example of government frustration of private sector attempts to move toward a more rational industry structure.

3. Operations

Government control of, or involvement in, railroad operations is inherent in the funding mechanisms which include federal ownership of rights-of-way. It is ‘also inherent in government control of rehabilitation, since track work must be coordinated closely with train operations. This aspect of control was troublesome to almost all sources, since they felt that the railroads know railroad operations and the government does not, and bureaucracy and politics can potentially result in inefficient operations. The clear consensus was that it is important for government involvement in railroad operations to be minimized.

4. Other Control Aspects

Other aspects of government control related to the public funding of rail rehabilitation include the control of railroad fund flows for other than rehabilitation, such as future deferred maintenance, dividends, or non-transportation investment, and the more general control of railroad management expenditures.

By far the most important of these is the control of major railroad fund flows. The essence of this issue lies in the question: If the government provides financial assistance to the railroads, should it attempt to prevent disinvestment by railroad investors in the form of future deferred maintenance, cash dividends, or reinvestment of railroad earnings in nontransportation

ventures ?" This question does not appear to have been extensively considered, but some general observations were made in the course of the study:

- Some control is probably necessary to prevent windfall profits to investors or to prevent the waste of public money through failure to maintain federally rehabilitated plant.

  Such controls are difficult to legislate, and as one industry representative put it, "They will keep the accountants and lawyers busy searching for ways to circumvent them. "

- Perhaps the best way to control disinvestment is for the government to take the right steps, including but not limited to rehabilitation assistance, to improve the economic viability of the railroad industry to the extent that it again becomes an attractive investment for private capital.

A secondary aspect of the control issue is the concern expressed by at least one source interviewed that the government should try to prevent exorbitant salaries or luxurious perquisites for the management of assisted railroads. One response to this was the fear that clumsy bureaucratic attempts to interfere with railroad management and investor prerogatives would compound the problem of attracting competent management to the industry. No resolution of this issue has been forthcoming and it is not generally regarded as important.

III. POTENTIAL IMPACTS OF PROPOSED MECHANISMS

A. Introduction

Some of the potential impacts of various federally assisted rail rehabilitation proposals are categorized and described below. There is no set of impacts which is universally viewed as desirable. This is not surprising, however, since those persons who are proposing the different alternatives do not even agree on the objectives to be achieved. The potential impacts are interrelated in complex ways, and any attempt to isolate them for individual examination risks oversimplification. It is all of these impacts which determine whether a specific form of public investment in rail plant is "good" or "bad" public policy.

The impacts selected for brief discussion here relate to the economic viability of the railroads, the quality and cost of rail service, the competitive position of rail service versus other modes, and the nature of intramodal railroad competition.

B. Economic Viability

The impact of federal assistance on the viability of the rail industry is of unquestionable importance. For many, enhancement of rail profitability is the objective of such assistance. Even those persons whose objective is more in terms of improved service, or more efficient allocation of energy and environmental resources, regard the impact of public investment in rights-of-way on rail viability as the determinant of whether the nation moves toward or away from a nationalized rail system.

Looking first at those forms of assistance which do not involve ownership, there is a general assumption that federal involvement will enhance the viability of the railroad companies. The extent to which this is true is largely determined by the amount of money injected into each railroad's system, the cost of that money to the railroad, and the return on investment for those rehabilitation projects. (Considerations of amount and cost--soft versus hard forms of assistance--were discussed above.) The return on railroad rehabilitation projects is the subject of much debate, and no consensus emerges as to whether it is high or low. The question is of critical importance, however. For example, if the railroads are to spend money costing 5 percent on projects returning 4 percent, their viability is not enhanced. On the other hand, providing money at a cost of 5 percent to railroads with rehabilitation investment opportunities returning 20 percent will clearly have a positive impact on their economic viability. (More generally, if returns are low it is difficult to justify public investment,

even if made at no cost to the railroad, unless the external returns such as energy and environmental benefits are measurable and high enough to bring the total return above the cost of public capital.)

Much public debate has centered on the return on new capital investment for the rail industry as a whole. Calculations indicating a low return were presented in the report of the Task Force on Railroad Productivity. [1] Those people who feel that the return is potentially high point out that the task force's analysis does not distinguish between investment in plant and investment in equipment, and that it ignores the possibility that old investment was producing negative returns which brought average returns on old and new investment down to very low levels.

Despite uncertainty as to the level of return on fixed plant investment for the industry as a whole, two conclusions about return seem clear. One is that the rate of return on new plant investment differs among individual railroads. This fact is a function of the differing access to, and cost of, capital over the last five or ten years; it suggests the need for flexibility in federal funding mechanisms The other conclusion is that any single railroad has plant investment opportunities with a range of returns and different objectives. For example, the rebuilding of a bridge whose collapse will interrupt service over a wide area is a defensive investment which produces no short= run financial return. Such a project may more justifiably require soft federal financing than a project whose objective is primarily short-run financial return through cost reduction.

Proposals which involve public ownership of rail fixed plant, (Confac, for example) introduce some confusion into consideration of the economic viability of the railroad industry. If the resulting industry is defined as a partnership of government roadbed owners and private operating companies, it seems clear that the shift in ownership by itself has no direct impact on industry viability. The main determinant of the viability of the system is still the return on rehabilitation investments, although the main determinant of the viability of the operating railroad companies is the relationship of user charges to ownership costs of which they have been relieved.

c. Quality and Cost of Rail Service

There is a general assumption that federal involvement in rail rehabilitation will result in better and less costly service. The extent and nature of

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[1] Improving Railroad Productivity, A Report to the National Commission on Productivity and the Council of Economic Advisers, Washington, D. C. , November 1973.

the improvements made, however, is a function of the mechanism by which public assistance is infused; it is also a critical component in an attempt to evaluate alternative mechanisms.

Quality improvements are expected to result directly from rehabilitation in the form of speed (from higher line-haul speeds and, more important, from improved switching and terminal operations); reliability (regarded as very important by shippers); and reduced damage. Cost reduction is expected to be achieved both directly through reductions in the cost of maintenance; crew costs (due to higher speeds); switching and terminal operations; train derailments; and so forth; and indirectly from the spreading of existing fixed costs over the greater amounts of traffic attracted by the quality improvements.

The benefits of improved quality and cost of service are not necessarily universal. For example, specific features of some funding mechanisms may provide the assumed improvements, but at increased rather than reduced cost.

Finally, there is a question of the relationship between reductions in cost to the railroads and reductions in cost to shippers. Many observers argue that railroad prices bear no rational relationship to railroad costs or to "value of service, " but merely reflect decades of individual regulatory decisions. This murky relationship between the cost of rail service and the price of that service means that, from the shippers ' (and the consumers perspective, reductions in the cost of rail operations do not translate into readily discernible reductions in the price of service. This cost/price relationship is outside the scope of this particular study, but it should be incorporated into any broad consideration of rail-oriented legislative action.

An interesting facet of the service quality impact is the possibility of a positive impact which is greater than the sum of its parts. An assumption which is largely implicit in general discussions of railroad problems is that a significant and quickly perceptible upward shift in service quality provided by federal rehabilitation assistance can start a cycle of increased traffic, reduced costs, improved viability, further service improvements, and so forth, which will result in the equilibrium at an expanded level of activity discussed above. Those who view rail's appropriate equilibrium point as being at a lower level of activity do not accept the possibility that this phenomenon may occur. Even industry sources, with a generally positive view of the desirable level of rail service, recognize that many changes, in addition to federal rehabilitation assistance, would be needed to start this kind of upward cycle.

D. Intermodal Competition

The impact of federal rehabilitation assistance on rail's ability to compete with highway and waterway transportation modes is very much intertwined as both cause and effect, impacting both economic viability and the quality and cost of service. Because of its central importance and a general lack of confidence in understanding the extent of this impact, however, it is worthy of separate consideration. In part, the central importance of the impact of rehabilitation on intermodal competition derives from its impact, in turn, on the cost of service and the viability of the railroads. In large part, however, this impact is important because it determines the external, societal benefits, such as energy conservation and environmental protection. If rail traffic is in an inevitable long-term decline (in relative terms), it may still be desirable to maintain its efficiency and viability as part of a balanced transportation system. However, if a reversal of historical traffic shifts is possible through federal rehabilitation of fixed plant (and other steps), then a significant, though largely unquantified, public interest emerges.

Some analytic work has been done on the ability of rail to attract or reattract traffic through service improvement. USRA studies indicate a potential upward shift of up to 15 percent in rail carloadings, with large variations by individual commodities. This kind of analysis should be extended to consider the extent of a large-scale nationwide public investment in rail fixed plant.

The impact on intermodal competition lends special importance to those aspects of the proposed assistance mechanisms which most affect the ability of rail to compete for traffic. As noted above, the funding sources (particularly fuel taxes and freight surcharges) are key determinants of this impact.

E. Intramodal Competition

The impact of federal assistance on competition among the railroads is viewed by industry observers in terms of two potential problems. One is that in any mixed system, with federally assisted (or owned) railroads competing against unassisted private roads, [1] problems of equity and of the viability of the the latter carriers arise. These problems come about not only through direct competition in service and rates (if permitted by regulation), but also in more subtle ways. An example given by one railroad executive was the possibility of a federally owned road acting to hold down a general rate increase to the

[1] This situation can occur through a regional approach such as Conrail, through attempts to rationalize the rail plant, or through uneven participation in a voluntary government program.

detriment of its private competitors. In the Northeast, the USRA has avoided major problems of this sort (in the opinion of most observers), but it is still a potential impact associated with many proposed programs of national scope.

The second potential problem relating to intramodal competition is that government assistance or ownership may be accompanied by the "public way" concept noted above. This concept, that anyone can run trains over publicly rehabilitated rights-of- way, leads to a fear on the part of some railroad spokesmen that destructive intramodal competition will result. This destructive competition would lead to the cream-skimming of lucrative traffic by new entrants or shippers who have no broad service responsibilities. Generally, non-railroad sources do not regard this as a likely or significant problem. However, some proposed legislation for rehabilitation funding contains specific provisions to prevent, or limit, this problem.

Set against these potential negative impacts of intramodal competition is the more general consideration, expressed by several railroad spokesmen, that the nature of the industry involves as much cooperation as competition between the railroads. Therefore, despite competitive-problems arising from a rehabilitation program, an improvement in service provided by any railroad or line would allow the entire industry to provide better service to its customers.

IV. SPECIFIC PROPOSALS

A. Introduction

The earlier parts of this report were designed to provide a basic framework with which any proposed mechanism, or approach, for federal involvement in the rehabilitation of rail fixed plant can be examined. Part II discussed the components essential to any federal rail rehabilitation program as well as the important advantages and disadvantages of each component. Part III briefly summarized some of the key impacts in terms of which the proposed mechanisms must be assessed.

With Parts I through III as a foundation, selected specific proposed mechanisms are described below, using the framework developed in Part II, and highlighting some of the impacts of each proposal as viewed by the sources interviewed during this study. Each proposal is briefly introduced, with a reference made to the source document where full details of the proposal are presented. Individual Summaries of each of the alternative proposals, with the essential components briefly described, are also included. A composite of these individual exhibits appears in Exhibit XI (see Part V, below).

The selection of proposals was a joint effort of Harbridge House, Inc., The Office of Technology Assessment, and several Congressional Committee staff members. The proposals chosen were intended to embrace those proposals which are being widely discussed today and those which are interesting conceptually. Some valuable proposals have not been included here because they were either formulated or articulated in detail too late to be incorporated in the study.

The sequence in which the proposed mechanisms are addressed reflects no evaluation or preference. In general, the options not involving federal ownership are arranged, first, in rough order by softness (that is, the extent to which they represent new infusions of capital into the railroad industry), then by several ownership alternatives.

B. Selected Alternative Proposals

1. A United States Rail Trust Fund
(see Exhibit IV)

This proposal, presented by Governor Shapp of Pennsylvania, is intended to "enable privately-owned railroads to obtain sufficient funds to modernize and expand [their] facilities. " It provides for rehabilitation funding for all lines.

The amount of funds estimated to be required for this proposal is $12.9 billion over a six-year period. The funding source is a 5 percent surcharge on all rail freight revenues. A trust fund with bond issuing authority is used to translate the continuing income stream into the six-year rehabilitation program. Grants made from the trust fund carry no repayment obligations.

The government controls expenditures to the extent of approving railroad grant applications, but that control is not intended to force major system rationalization. No explicit control is gained over the railroad industry structure or railroad operations. Ninety percent of the trust fund distributions are made to the railroads, proportionate to the trust fund income they generate through the waybill surcharges. Ten percent of trust fund distributions are discretionary.

In addition to the provision of fixed plant rehabilitation, the proposal includes a $1 billion revolving fired to facilitate the purchase of rolling stock.

EXHIBIT IV
COMPONENTS OF "A UNITED STATES RAIL TRUST FUND"

Stated Objective	To enable privately owned railroads to obtain sufficient funds to modernize and expand all of their facilities in order to better serve the public.	
Scope		
Geographic	Nationwide	
Facility Types	All lines	
Government Funds		
Amount & Timing	$12.9 billion over 6 years*	
Source	5% surcharge on all rail freight revenues	
Form	Grants, no matching or repayment, from proceeds of bonds issued by trust fund	
cost	Commitment per $ billion	$1 billion
	Risk	None
	Administrative	
	Collection	Medium
	Distribution	Medium
	Acquisition	None
Government Control		
Route Structure	Railroads design projects and apply for grants based on their priorities; 90% of funds are allocated, proportionate to the surcharge	
Industry Structure	None specified	
Operations	None specified	
Other Control Aspects	None specified	
Related Actions	None specified	

*Rehabilitation – Road and Track, $6.9 billion; Electrification, $3.2 billion; Modernization – Road and Structure, $1.9 billion; Modernization – Yards, $0.9 billion.

Source: Pamphlet by Milton J. Shapp, Governor of Pennsylvania, Rev. December 1974.

2. Railroad Rehabilitation and Improvement Act of 1975 (see Exhibit V)

This proposal was developed in draft legislative form by the Union Pacific Railroad. Its stated objective is "improvement of the Nation's rail system through efficiency gains . . ., strengthened competition, and enhanced carrier profitability." Its scope is nationwide (including the Northeast), and it embraces all lines.

The proposed legislation calls for a $10 billion program spread evenly over a 10-year period, although the authors of the proposal ackmowledge the difficulty of estimating the amount required. The source of funds is a diesel and residual fuel tax on all railroads, trucks, and water carriers (except passenger, farm, and foreign commerce use).

The form of financial assistance is purchase from the railroads of preferred stock which is subordinate to secured debt and preferred stock currently outstanding. No principal or interest payments are required during the first 10 years after issuance of the preferred stock. Level interest and principal payments are required over the subsequent 20 years, at an effective 2 percent interest rate. This is equivalent to a 75 percent grant with 25 percent of the principal amount covered by a loan to the railroad at 10 percent interest. A trust fund with bond issuing authority is used to translate the 20-year stream of receipts of the fuel tax into a 10-year outflow for rehabilitation.

The proposal provides for designation by the U.S. Department of Transportation of a national system composed of main and branch lines. Applications by the railroads for rehabilitation funds are approved or rejected by the DOT in accordance with loose guidelines included in the act. The DOT can set terms and conditions to ensure that the rehabilitation is performed as represented in the application.

This proposal gives the government no explicit control over industry structure or rail operations; however, if a railroad fails to meet the repayment provisions, the DOT may appoint two members of the carrier's board of directors to represent the government's interests.

EXHIBIT V
COMPONENTS OF
"RAILROAD REHABILITATION AND IMPROVEMENT ACT OF 1975"

Stated Objective	**To improve the nation's rail system through efficiency** gains ... , strengthened competition, and enhanced car- **rier profitability.**	
Scope		
Geographic	**Nationwide**	
Facility Types	**All lines**	
Government Funds		
Amount & Timing	**$10 billion over 10 years**	
Source	**Diesel and residual fuel tax of approximately 5¢/gallon for 20 years**	
Form	**Preferred stock, interest and principal deferred for 10 years; repaid in 30 years at effective interest rate of 2%; trust fund, issuing bonds to accelerate rehabilitation payments**	
cost	**Commitment per $ billion**	**$754 million**
	Risk	**Medium**
	Administrative	
	Collection	**Medium**
	Distribution	**High**
	Acquisition	**None**
Government Control		
Route Structure	**Railroads apply; DOT designates main and branch lines and approves specific projects**	
Industry Structure	**None specified***	
Operations	**None specified***	
Other Control Aspects	**DOT sets terms and conditions**	
Related Actions	**None specified**	

***Government has minority representation on railroad's board of directors in the event of default.**

Source: **Preliminary draft for discussion purposes only, developed by Union Pacific Railroad, 14 July 1975.**

3. National Transportation Rehabilitation and Modernization Act of 1975 (see Exhibit VI)

This proposed legislation was developed by the Rail Services Planning Office of the Interstate Commerce Commission. Its objective is to provide "Federal funding for the rehabilitation and modernization of railroad properties." It is national in scope and it applies to all types of facilities, although it calls for the designation of interstate, secondary, and branch line systems.

The proposal suggests a $6.25 billion program over a five-year period, based on a fuel tax over the same period. The source of funds is a 2¢ per gallon tax on all liquid fuels for highway, rail, and waterway uses (except buses, government vehicles, and farm use). Expenditures are in the form of matching grants, with a provision for soft loans to railroads which are not able to provide matching funds.

Extensive control, through a central planning process, is envisioned over the route structure and over joint use of rehabilitated facilities.

EXHIBIT VI
COMPONENTS OF "NATIONAL TRANSPORTATION REHABILITATION AND MODERNIZATION ACT OF 1975"

Stated Objective	**To provide for employment, conservation of resources, sound economic conditions in rail transportation, and improved services.**	
Scope		
Geographic	**Nationwide**	
Facility Types	**All Lines**	
Government Funds		
Amount & Timing	**$6.25 billion over 5 years**	
Source	**2¢/gallon tax on fuel + .014¢/KWH of electricity used by rail and water carriers and road vehicles (except buses)**	
Form	**Matching grants, plus "soft loans"**	
cost	**Commitment per $ billion**	**$500 million +**
	Risk	**Low**
	Administrative	
	Collection	**Medium**
	Distribution	**High**
	Acquisition	**None**
Government Control		
Route Structure	**Extensive control by Secretary of Transportation**	
Industry Structure	**None specified**	
Operations	**Joint use may be directed by ICC**	
Other Control Aspects	**None specified**	
Related Actions	**Improved accounting system**	

Source: **Rail Services Planning Office, ICC, undated draft.**

4. Financial Procedures to Assist Conrail's Viability
(see Exhibit VII)

This proposal, as its title suggests, focuses on the rehabilitation and other needs of Conrail only. Essentially a financing mechanism, it is not concerned with control aspects. It was proposed by Mr. Richard Dicker, Chairman of the Penn Central Institutional Creditors Group, and is described in a statement made by John Ingraham of the First National City Bank before the Surface Transportation Subcommittee of the Senate Commerce Committee on 15 May 1975.

The proposal calls for the U.S. Railway Association to borrow with federal guarantees. The proceeds are advanced to Conrail in the form of grants, or through the purchase of Conrail preferred stock. The stock would have a dividend rate set 1 percent higher than the USRA borrowing cost. Dividends are cumulative, if earned, but are not paid during the first eight years of Conrail's operation.

EXHIBIT VII
COMPONENTS OF
"FINANCIAL PROCEDURES TO ASSIST CONRAIL'S VIABILITY"

Stated Objective	To assist Conrail's viability, during the first 8 years of its operation, by virtually eliminating debt service in that period on capital required for rehabilitation.
Scope	
Geographic	Northeast and Midwest
Facility Types	All lines
Government Funds	
Amount & Timing	$2 billion or more over 8 years
Source	Loan guarantees; default covered out of general revenues
Form	U.S. guarantees USRA borrowing; USRA advances the proceeds to Conrail either in the form of grants or through the purchase of Conrail preferred stock (dividend rate 1% above USRA borrowing rate; dividend cumulative, if earned, but deferred 8 years)
cost	Commitment per $ billion' –
Risk	High
Administrative	
Collection	Low
Distribution	—
Acquisition* *	—
Government Control	
Route Structure	Not addressed since this is a financing mechanism for Conrail
Industry Structure	
Operations	
Other Control Aspects	
Related Actions	None specified

*Cannot be calculated with available data; estimated to be fairly low due to interest rate at 1 % above market for guaranteed loan.

**Not addressed.

Source: Annex B of letter from Richard Dicker to Art Lewis, 25 April 1975.

5. Railroad Revitalization Act
(see Exhibit VIII)

This legislation, proposed by the U.S. Department of Transportation, is intended, among other things, to "provide needed financial assistance to the railroad industry" and to "encourage rationalization and restructuring. " It is nationwide in scope, and it does not distinguish between main, secondary, and branch lines.

In terms of funding, this proposal provides a revolving-loan guarantee program over a 10-year period with a maximum government exposure of $2 billion at any time. Coverage of defaults, if any, on guaranteed loans are paid from general revenues. The deferral of interest and principal (through the Federal Financing Bank) is permitted, but eventual repayment is mandatory.

The proposed government control is extensive. The routes for rehabilitation can be approved or rejected, based on loose guidelines which include "efficiency of rail operation. " The DOT can require, as a condition of the loan, that the applicant railroad participate in a merger, consolidation, joint use, or the purchase or sale of assets. No operational control is specified, but loans may be conditioned on the railroad's carrying out its common carrier obligations satisfactorily.

In addition to the rehabilitation program, the act provides for rate reform, expedites restructuring procedures, prohibits discriminatory taxation of rail property, and provides for a uniform accounting system.

EXHIBIT VIII
COMPONENTS OF "RAILROAD REVITALIZATION ACT"

Stated Objective	To provide needed financial assistance to the railroad industry, and to encourage rationalization and restructuring.	
Scope		
Geographic	Nationwide	
Facility Types	All lines	
Government Funds		
Amount & Timing	About $2 billion over 10 years (includes terminals, rolling stock, and data systems)	
Source	General revenues	
Form	Loan guarantees (loans through federal financing bank); allows deferral of principal and interest	
cost	Commitment per $ billion	Low
	Risk	High
	Administrative	
	Collection	Low
	Distribution	High
	Acquisition	None
Government Control		
Route Structure	Railroads initiate and Transportation Secretary approves, subject to guidelines which include ability to repay, efficiency of rail operations, and management's fulfillment of its "obligations" as a common carrier	
Industry Structure	Transportation Secretary can require applicant railroad to participate in merger, consolidation, joint use, or purchase or sale of assets as condition of loan guarantee	
Operations	Satisfactory operations can be a factor in decision to guarantee loans	
Other Control Aspects	None specified	
Related Actions	Rate reform; expedited procedures for restructuring; prohibition of discriminatory taxation; uniform accounting system	

Source: Proposed by the U.S. DOT, undated draft.

6. Railroad Revenue Act of 1975
(see Exhibit IX)

This proposal, S. 1143, is a complex one. Its objective includes the promotion of modern and efficient rail service. It is national in scope, and it provides for federal ownership of a high-density mainline network and state ownership of the balance.

The amount and timing of rehabilitation funding is not specified in the act; however, the amount envisioned is clearly large. Sources of funds include a 1 percent tax on the value of all surface freight transportation, including private carriage, and a flat $1 per thousand gross ton miles user charge (adjusted for inflation).

The form of investment is ownership, as noted above, through voluntary dedication of rail property in exchange for relief from ownership expenses. If it is assumed (see Part II, above) that the non-compensatory nature of the user charge reflects the acquisition cost, then the commitment cost is virtually 100 percent of the rehabilitation program. The administrative costs, relative to other proposals, are estimated to be high.

The government control implied by ownership is very extensive, including total control over route structure, a significant impact on industry structure, and a deep involvement in operations.

EXHIBIT IX
COMPONENTS OF "RAILROAD REVENUE ACT OF 1975"

Stated Objective	**To obtain modern and efficient rail service.**	
Scope		
Geographic	**Nationwide**	
Facility Types	**All lines**	
Government Funds		
Amount & Timing	**Not specified, but include major rehabilitation**	
Source	**1% tax on all freight surface transportation, private and for hire; appropriations from general revenues; user charges [$1 per thousand gross ton miles (adjusted for inflation)]**	
Form	**Government ownership (federal-interstate, state-intrastate); voluntary dedication of property; no compensatory user charges**	
cost	**Commitment per $ billion***	**$1 billion**
	Risk	**None**
	Administrative	
	Collection	**High**
	Distribution	**Very High**
	Acquisition* *	**Very High**
Government Control		
Route Structure	**Total control**	
Industry Structure	**Carriers remain as operating companies; structure affected by control over joint use**	
Operations	**Extensive**	
Other Control Aspects	**None specified**	
Related Actions	**None specified**	

***Assumes non-compensatory nature of user charge is part of acquisition cost.**
****See Part I 1.**

Source: S.1143

7. Transportation Development Act of 1975
(see Exhibit X)

This proposal, developed by the Illinois Department of Transportation, is directed at the efficient accomplishment of reconstruction and modernization of the rail system, and the achievement of healthier railroads and improved service. It is national in scope, and it covers all rail facilities.

Although the amount and timing of financial assistance depend on how discretionary funds are used as well as on decisions made at the end of an initial two-year program period, the proposal provides at least $4 billion over the first two years.

The source of funds includes a 5 percent tax on the value of all surface freight transportation, private and for hire, and non-compensatory user fees set at 75 percent of each carrier's 1974 ownership cost.

The form of funding is ownership (by the states) through voluntary dedication in exchange for relief from some portion of the ownership costs. Grants (100 percent for capital projects, 70 percent for routine maintenance) are made to the states from the rail segment of a unified trust fund whose receipts derive from the freight surcharge.

As with the other approaches involving ownership, a great deal of government control is associated with this proposal. Route structure is designated by the federal (interstate) and state governments (intrastate). Some coordination is planned, although protection of the current service patterns is given to the carriers. State and federal government involvement in operations is extensive.

EXHIBIT X
COMPONENTS OF "TRANSPORTATION DEVELOPMENT ACT OF 1975"

Stated Objective	**To efficiently accomplish the reconstruction and modernization of the rail system.**	
Scope		
Geographic	**Nationwide**	
Facility Types	**All lines (interstate system designated by U.S. DOT, intrastate system designated by state government)**	
Government Funds		
Amount & Timing	**$2 billion/year, plus $1 billion in discretionary funds (all modes); plus state inputs from user charges; subsequent funding unspecified**	
Source	**5% tax on all modes of freight (private and for hire); non-compensatory user charge set at 75% of 1974 ownership cost**	
Form	**Ownership (by state)** **Grants (100% for capital improvements, 70% federal/ - 30% state for 'routine maintenance)**	
cost	**Commitment per $ billion**	**$1 billion**
	Risk	**None**
	Administrative	
	Collection	**High**
	Distribution	**Very High**
	Acquisition	**Very High**
Government Control		
Route Structure	**Total control**	
Industry Structure	**Limited; some coordination, but protection of current carriers' service rights**	
Operations	**Extensive**	
Other Control Aspects	**None specified**	
Related Actions	**None specified**	

Source: Illinois Department of Transportation, undated draft.

V. SUMMARY AND OBSERVATIONS

The selected specific proposals described in detail in Part IV are arrayed side by side in Exhibit XI, using the framework developed earlier. Displayed in this manner, the information can be used as a decision-making tool. What is missing is the reader's resolution of the pros and cons of each issue, together with an underlying personal hunch about the future of the railroad industry, an estimate of the political realities, and so forth.

The entire framework can be used to analyze (i.e. , break down into essential components) any new proposals as they emerge and to formulate individual new, preferred mechanisms for federal involvement in rail fixed plant.

As noted earlier, this is not an evaluative study, nor was it designed with the objective of recommending a particular legislative path. The following paragraphs highlight some of the impressions gained in the course of the study. These impressions, held by at least a majority of the industry, shipper, labor, state, and administration officials interviewed, are pertinent to any legislative efforts. They are as follows:

- The problem of deteriorating rail fixed plant is national in scope, although by no means uniform. Priorities lie in the Northeast and the Midwest regions of the country.

- Public ownership of rail rights-of-way raises many problems. It should be seriously considered in terms of whether it is necessary or whether alternative solutions which have yet to be tried have sufficient probability of success to warrant the deferral of nationalized rail plant.

- There is no cheap solution. l-lard, or highly leveraged, financing will not get rehabilitation money where it is needed most, and a small program will not really test the role that federal funding of rehabilitation can play in establishing a viable rail industry.

- The cost of soft loans may approach the cost of an outright grant as the term of the loan, the repayment schedule, and the interest rate become more liberal.

- A trust fund is generally regarded as a desirable device to provide a secure stream of funding for rail rehabilitation and to permit, through the authority to issue bonds, large initial outlays to be made based on a limited, but longer term, stream of receipts.

EXHIBIT XI
ALTERNATIVE APPROACHES TO FEDERAL FUNDING OF RAIL REHABILITATION

	A United States Rail Trust Fund	Railroad Rehabilitation and Improvement Act of 1975	National Transportation Rehabilitation and Modernization Act of 1975	Financial Procedures to Assist Conrail's Viability	Railroad Revitalization Act	Railroad Revenue Act of 1975	Transportation Development Act of 1975
Stated Objective	To enable privately owned railroads to obtain sufficient funds to modernize and expand all of their facilities in order to better serve the public	To improve the nation's rail system through efficiency gains, strengthened competition, and enhanced carrier profitability	To provide for employment, conservation of resources, sound economic conditions in rail transportation, and improved services	To assist Conrail's viability, during the first 8 years of its operation, by virtually eliminating debt service in that period on capital required for rehabilitation.	To provide needed financial assistance to the railroad industry, and to encourage rationalization and restructuring.	To obtain modern and efficient rail service.	To efficiently accomplish the reconstruction and modernization of the rail system.
Scope							
Geographic	Nationwide	Nationwide	Nationwide	Northeast and Midwest	Nationwide	Nationwide	Nationwide
Facility Types	All lines	All lines	All lines	All lines	All lines	All lines	All lines (interstate system designated by U.S. DOT, intrastate system designated by state government)
Government Funds							
Amount & Timing	$12.9 billion over 6 years *	$10 billion over 10 years	$6.25 billion over 5 years	$2 billion or more over 8 years	About $2 billion over 10 years (includes terminals, rolling stock, and data systems)	Not specified, but include major rehabilitation	$2 billion/year, plus $1 billion in discretionary funds (all modes); plus state inputs from user charges; subsequent funding unspecified
Source	5% surcharge on all rail freight revenues	Diesel and residual fuel tax of approximately 5¢/gallon for 20 years	2¢/gallon tax on fuel + .014¢/KWH of electricity used by rail and water carriers and road vehicles (except buses)	Loan guarantees; default covered out of general revenues	General revenues	1% tax on all freight surface transportation, private and for hire; appropriations from general revenues; user charges ($1 per thousand gross ton miles (adjusted for inflation)	5% tax on all modes of freight (private and for hire); non-compensatory user charge set at 75% of 1974 ownership cost
Form	Grants, no matching or repayment, from proceeds of bonds issued by trust fund	Preferred stock, interest and principal deferred for 10 years; repaid in 20 years at effective interest rate of 2%. trust fund, issuing bonds to accelerate rehabilitation payments	Matching grants, plus "soft loans"	U.S. guarantees, uSRA borrowing; USRA advances the proceeds to Conrail either in the form of grants or through the purchase of Conrail preferred stock (dividend rate 1% above USRA borrowing rate; dividend cumulative, if earned, but deferred 8 years)	Loan guarantees (loans through federal financing bank). allows deferral of principal and interest	Government ownership (federal-interstate, state-intrastate); voluntary dedication of prop. rtv. no compensatory user charges	Ownership (by state) Grants (100% for capital improvements, 70% federal/30% state for routine maintenance)
Cost	Commitment per $ billion: $1 billion Risk: None Administrative: Collection Medium; Distribution Medium Acquisition: None	Commitment per $ billion: $754 million Risk: Medium Administrative: Collection Medium; Distribution High Acquisition: None	Commitment per $ billion: $500 million+ Risk: Low Administrative: Collection Medium; Distribution High Acquisition: None	Commitment per $ billion**. Risk: High Administrative: Collection Low; Distribution Acquisition†: –	Commitment per $ billion: Low Risk: High Administrative: Collection Low; Distribution High Acquisition: None	Commitment per $ billion††: $1 billion Risk: Nom Administrative: Collection High; Distribution Very High Acquisition††† Very High	Commitment per $ billion: $1 billion Risk: None Administrative: Collection f + *; Distribution Very High Acquisition: Very High
Government Control							
Rome Structure	Railroads design projects and apply for grants based on their priorities; 90% of funds are "allocated, proportionate to the surcharge	Railroads apply; DOT designates main and branch lines and approves specific projects	Extensive control by Secretary of Transportation		Railroads initiate and Transportation Secretary approves. subject to guidelines which include ability to repay, efficiency of rail operations, and management's fulfillment of its "obligations" as common carrier	Total control	Total control
Industry Structure	None specified	Norm specified*.	None specified	Not addressed since this is a financing mechanism for Conrail	Transportation Secretary can require applicant railroad to participate in merger, consolidation, joint use, or purchase or sale of assets as condition of loan guarantee	Carriers remain as operating companies; structure affected by control over joint use	Limited; some coordination, but protection of current carriers' service rights
Operations	None specified	None specified*	Joint use may be directed by ICC		Satisfactory operations can be a factor in decision to guarantee loans	Extensive	Extensive
Other Control Aspects	None specified	DOT sets terms and conditions	None specified		None specified	None specified	None specified
Related Actions	None specified	None specified	Improved accounting system	None specified	Rate reform. expedited procedures for restructuring; prohibition of discriminatory taxation; uniform accounting system	None specified	None specified

Rehabilitation – Road and Track. $6.9 billion; Electrification, $3.2 billion; Modernization – Road and Structure, $1.9 billion; Modernization – Yards, $0.9 billion

* "Government has minority representation on railroad's board of directors in the event of default

*** Cannot be calculated with available data, estimated to be fairly low due to interest rate at 1% above market for guaranteed loan

† Not addressed.

†† Assumes non-compensatory nature of user charge in part of acquisition cost

††† See Part II.

- Care should be taken to ensure that the necessary control over what facilities get rehabilitated is used to promote a rational rail system. The potential for excessive politicization of the process can be minimized with a legislative requirement for all analysis used as the basis for route decisions to be made available for public review.

- In terms of the corporate structure of the rail industry, the current 'Balkanized' structure is not ideal. A more desirable structure is achievable through means other than federal coercion based on rehabilitation funding.

- Many unknowns are involved in the question of federal investment in rail fixed plant. Among them, as noted above, are:

  --What is the need?

  --What is the return on the investment (both internal to the railroads and external to society as a whole) ?

  --What other legislative actions are necessary or desirable to enhance the effectiveness of federal financing of fixed plant ?

  The existence of these unanswered questions requires that some means of determining the answers be set in motion, and that sufficient flexibility be built into the program to avoid making lasting mistakes in the early stages while answers are being sought.

APPENDIX A

Analysis of Issues

The following pages represent what is essentially an abbreviated presentation of the material contained in Part II of the report. They lay out a series of issues in a format which is useful for assessing the components of the alternative proposals for federal involvement in rail plant rehabilitation. Each issue is articulated in the form of a declarative statement which favors one side of the issue. The major pros and cons of that statement, as expressed by the sources contacted during the study, are then listed side by side below the statement, and are followed by questions intended to further clarify the issue. All of the issues covered in the report are included here, and are in the same sequence. They are:

- Scope
  - Geographic
  - Density (Facility Types)
- Government Funds
  - Amount
  - Timing
  - Source
    - General Revenues
    - Rail Freight Surcharge
    - Freight Surcharge, All Modes
    - Fuel Taxes
    - "No-Cost" Sources (Guaranteed Loans)
  - Form
    - Ownership vs. Non-Ownership
    - Soft vs. Hard
    - Trust Fund vs. Direct Assistance
- Government Control
  - Route Structure
  - Industry Structure
  - Other Control Aspects

THE NEED FOR FEDERAL ASSISTANCE IS NATIONWIDE

PRO	*CON*
● Deferred maintenance and capital projects exist throughout the rail system.	● The most pressing problems are in the Northeast and Midwest regions.
● Further deterioration should be halted on a national basis.	. Some experience should be acquired in these regions before attempting a national program.

QUESTIONS

!. What are the needs for rehabilitation on a region-by-region basis?

2. To what extent are the needs increasing outside the Northeast and Midwest regions?

FEDERAL ASSISTANCE SHOULD BE LIMITED TO HIGH-DENSITY MAINLINES

PRO

- The federal government has a clearer interest in long-haul mainline traffic between major population centers. States and communities should be responsible for local problems.
- The only lasting role for rail freight transportation is in long-haul mainline service. Other service will, and should, be handled by trucks.

CON

- The rail system is an integrated one; therefore, rehabilitation should seek system-wide improvements.
- The worst of the deferred maintenance is on lower density branch lines and secondary mainlines.
- State and local governments do not have the funds required for secondary and branch lines.

QUESTIONS

1. If only high-density mainlines receive major rehabilitation, what will be the impact on service? On industry costs?
2. What is the cost of mainline-only rehabilitation as opposed to rehabilitation of the entire system?

THE AMOUNT OF FUNDS REQUIRED FOR RAIL REHABILITATION IS MORE THAN $10 BILLION

PRO

- Due to rail's energy and environmental advantages, it should play an expanded role in our transportation system. This will take major investments.
- Rail's competitors have been subsidized over the years to a larger extent than $10 billion.
- It is possible that a large investment will evidence a threshold effect (i.e., that it will take a massive infusion, but the result will be a growing, economically viable industry). Smaller amounts will be wasted.

CON

- The federal government shouldn't have to pay the whole bill.
- Rail as an industry is in a long-term decline. Pouring large amounts of money into it is a waste of public funds.
- The major problem with the industry is excess capacity. Rehabilitation will increase that capacity and defer the needed contraction.

QUESTIONS

I. What is the appropriate role for rail over the next few decades? Will it represent a greater or smaller portion of our transportation system?

2. What route structure will be required to support that role?

3. To what standards should that route structure be rehabilitated?

4. What is the cost of that rehabilitation?

5. What is the return on that investment in terms of economic return? In terms of social benefits?

THE RAIL REHABILITATION THAT SHOULD BE DONE SHOULD BE ACCOMPLISHED WITHIN THE NEXT SIX YEARS

PRO

- The financial condition of a number of railroads means that timely rehabilitation could prevent further bankruptcies.
- The effect ‘of inflation is to make any delay increase the cost of rehabilitation.
- Further deterioration of rail fixed plant means that any delay will increase the cost of rehabilitation.
- Appropriate legislation can allow a quick start and simultaneous refinement of the total requirement.

CON

- It is best to proceed slowly because the real need for rehabilitation is not yet known.
- Further rail bankruptcies will facilitate the ultimate rationalization of the system.

QUESTIONS

1. What will be the costs of deferring the rehabilitation program, in terms of inflationary impacts, further deterioration of rail plant, and the financial condition of the weaker railroads?

GENERAL REVENUES ARE THE BEST SOURCE OF FUNDS FOR RAIL REHABILITATION

PRO

- The nation's rail system is so integral to the economy that everyone benefits from its rehabilitation; therefore, general tax revenues are an appropriate funding source.
- In terms of administrative expense of collection, general revenues cost less.

CON

. Appropriations out of general revenues are highly visible and appear to be expensive.

. Planning a long-range program, such as rail rehabilitation, which involves major capital investments by suppliers (e.g., rail fabrication plants) requires a secure source of funds. Appropriations are too uncertain.

QUESTIONS

1. What are the supply implications of a nationwide rehabilitation program?

A RAIL FREIGHT SURCHARGE IS THE BEST SOURCE OF FUNDS FOR RAIL REHABILITATION

PRO

- It is a user charge applied to those who benefit most directly from it.

. It is a secure source and is not a drain on the public treasury.

CON

- It will degrade the economic viability of the rail industry by increasing the cost of rail service vis-a-vis truck and barge.

QUESTIONS

1. How much traffic will rail lose to its competition if rehabilitation is funded through a rail freight surcharge?

? How will the cost of a rail freight surcharge be distributed among consumers?

A FUEL TAXIS THE BEST SOURCE OF FUNDS FOR RAIL REHABILITATION

PRO

- It is desirable as a conservation incentive.
- It bears more heavily on trucks than on railroads, and thus partially redresses the historic inequity in government support.
- It is broadly enough based, particularly if it includes private use of gasoline, to raise substantial revenues with a very small tax per gallon.

CON

- Any tax is viewed as an inequitable burden by those who are taxed.
- Rail's freight competitors should not be asked to pay for rail rehabilitation.

QUESTIONS

1. Will the nation benefit if rail rehabilitation is achieved at the expense of some increase in fuel cost?

2. Of the alternative fuel taxes (all fuels for all surface transportation; all fuels for freight modes only; freight modes, diesel and residual fuel only), which is the most appropriate?

LOAN GUARANTEES ARE THE BEST SOURCE OF FUNDS FOR RAIL REHABILITATION

PRO

- Loan guarantees are a "no-cost" solution except in the event of default.
- They make low-cost capital accessible to the rail industry.

CON

- They are available only to the railroads which can repay them, and these are the railroads which need assistance the least.
- The government liability is uncertain as to timing and amount.
- Inadequate railroad earnings are part of the problem. A solution which relies on those earnings as a source of funds is no solution at all.

QUESTIONS

1. To what extent is the rail plant needing rehabilitation owned by railroads which are able to repay a low-cost loan?

GOVERNMENT OWNERSHIP OF RAIL RIGHTS-OF-WAY IS AN APPROPRIATE FORM OF REHABILITATION INVOLVEMENT

PRO

. It avoids criticism of federal assistance to privately owned companies.

- It affords the opportunity to centrally plan and implement a truly national rail system.

. It permits a viable industry of private railroad operating companies.

- It facilitates the planning and implementation of a national rail passenger service.

CON

. Bureaucracy or politicization make nationalized rights-of-way an inefficient arrangement, even with a rehabilitated system.

- The separation of plant ownership and train operations creates practical operating problems.

. Publicly owned rail rights-of-way invite "destructive" competition.

- The acquisition of rail fixed plant will be very expensive, in terms of either purchase/condemnation or noncompensatory user charges needed to make a voluntary turnover feasible.

QUESTIONS

1. Is nationalization of rail rights-of-way necessary now? Or are there alternative "private" solutions (with government assistance) which may create a viable private industry, with public ownership available as a fallback position if they fail?

GRANTS, MATCHING GRANTS, OR "SOFT" LOANS ARE PREFERABLE TO FULL REPAYMENT LOANS AS A FORM OF FINANCIAL ASSISTANCE FOR REHABILITATION

PRO

- Hard loans will not enhance the economic viability of the rail industry.
- Hard loans are of no use to the financially weaker railroads which need rehabilitation the most.

CON

- Hard loans are cheaper.

QUESTIONS

1. Can flexible assistance be provided so that the softness of the assistance varies according to the individual owning railroad's ability to repay?

A TRUST FUND ISA DESIRABLE MECHANISM FOR RAIL PLANT REHABILITATION

PRO

- A trust fund is a good way to provide the secure funding program required for a rehabilitation plan which involves major capital investment by suppliers.
- A trust fund facilitates the conversion of a long-term, lower level of income into a short-term, higher level of outflow for rehabilitation.

CON

- A trust fund approach is too secure for a program with as many unknowns as the rehabilitation program. It is difficult to "turn off" if the need turns out to be less than initially estimated.

QUESTIONS

1. Can flexibility be built into a trust fund mechanism to avoid overfunding as the true measure of the rehabilitation requirement emerges over time?

GOVERNMENT CONTROL IS DESIRABLE OVER THE ROUTES AND FACILITIES REHABILITATED

PRO

- If the government puts money in, it ought to be able to control how that money is spent:
- The central problem of the rail industry is excess capacity. Federal rehabilitation is an opportunity to take charge of the rationalization process.
- System rationalization requires a major, centralized analysis and planning function which is best performed at the federal government level.
- Only the government can be expected to plan a system which reflects social benefits as well as financial returns.

CON

- Centralized planning does not work as well as free market forces, so the focus should be on freeing the market forces from regulatory control, not on taking over the rationalization function.
- The government should help with analysis and planning, but should leave the decisions to the railroads.

QUESTIONS

1. What administrative mechanism is best for exercising control (e.g., the USRA/DOT/ICC approach used in the Northeast)?
2. **How** can a nationwide government rationalization effort avoid placing a financial burden on those railroads whose lines are not selected for a rationalized system?
3. How can shippers who are subject to reduced service, through rationalization be compensated? Should they receive compensation?

GOVERNMENT CONTROL OVER THE CORPORATE STRUCTURE OF THE INDUSTRY IS DESIRABLE

PRO

- The current "Balkanized" structure is a major contribution to the industry's problem.

CON

- While a more desirable structure is needed, it will evolve without government control if the current procedures for restructuring (10 years for the Rock Island merger) are expedited.

QUESTIONS

1. Can the procedure for the approval of industry-initiated restructuring be improved?

GOVERNMENT CONTROL OVER RAILROAD INDUSTRY SPENDING FOR OTHER THAN REHABILITATION IS DESIRABLE

PRO

- If public money is invested in rail rights-of-way," the railroads must be prevented from simultaneously disinfesting through cash dividends, or from wasting funds in exorbitant salaries or management perquisites.

CON

- A bureaucracy established to monitor railroad spending will reduce the efficiency and effectiveness of railroad management.

QUESTIONS

1. What mechanisms can be set up to protect the public investment in rail rehabilitation without creating a bureaucracy or interfering unduly with private management functions?
2. Will rail rehabilitation, and related government actions, enhance the viability of the industry to the extent that private owners are no longer motivated to "disinvest" in the rail system?

APPENDIX B

Congressional Letters of Request

WARREN G. MAGNUSON, WASH., CHAIRMAN
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HOWARD W. CANNON, NEV.
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JAMES L. BUCKLEY, N.Y.

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

United States Senate
COMMITTEE ON COMMERCE
WASHINGTON, D.C. 20510

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

WARREN G. MAGNUSON, Chairman

James B. Pearson

James B. Pearson, Ranking Minority Member

Vance Hartke

Vance Hartke, Chairman
Surface Transportation Subcommittee

Lowell P. Weicker, Jr.

Lowell P. Weicker, Jr., Ranking Minority Member, Surface Transportation Subcommittee

CLIFFORD P. CASE
NEW JERSEY

COMMITTEES:
APPROPRIATIONS
FOREIGN RELATIONS
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:

Thankc you for your letter concerning a proposed Office of Technology Assessmcnt of the United Stateds Railway Association's preliminary system plan for rcstructuring 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 beforc 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 Con Rail and inevitably consideration of national own c r ship 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 adequatc for allowing continuance of 1ines which a r e necessary to the economic and social health of local communitics, 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 margina1 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 t.o inform us of state and community response to the **U. S. R. A. proposals** and it s e ems 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

TECHNOLOGY ASSESSMENT BOARD
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EMILIO Q. DADDARIO

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

EMILIO Q. DADDARIO
DIRECTOR
DANIEL V. DE[illegible]
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
United States Senator

cc: Members of the Technology Assessment Board

P.S. Do you have Connecticut, Utah.

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