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.