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Railroad Management

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viduals involved too great, cross-functional experience too insufficient, and management demands too different to be feasible in all but a few isolated railroads.

However, with these discouraging observations aside, it is necessary to note that the Burlington Northern is attempting divisionalization with allocated revenues and costs. At the time of this writing, it is still too early to judge the results of this experiment.

Also, the Canadian National Railroad has established its Grand Trunk lines as separate profit centers. They were partially aided by a clearer means of division of revenues (over the United States-Canadian border) and other considerations. Reports from top management of the Canadian National and Grand Trunk indicate satisfaction with the results and serious consideration of extending the concept to other portions of the system. The Canadian Pacific has taken several steps toward decentralization, but there has not been a movement toward separate profit centers for each portion of the Canadian Pacific Railroad yet.

Reconfiguration

I discuss here two different concepts of reconfiguration: (1) breaking up existing railroads into units of more manageable size, and (2) decoupling track ownership (the predominately fixed-cost portion of railroading) from operating companies, thus reducing the need for large companies to spread fixed costs over a broader base.

The alternative of breaking up the present short-haul railroads into smaller systems is conceptually related to the decentralization alternative described in the previous section. The major difference is that it creates formal, legal entities between the new units (i.e., separate companies) that will probably minimize the opportunities to achieve savings associated with central services. Also, it requires additional transactions between companies in the already Balkanized railroad industry.[3] These additional transactions increase costs and delays, reduce reliability, and increase the transactional problems to be managed.

Such a restructuring would certainly create smaller and more manageable units and would constrict the size of the profit center (even if it is on the level of the firm) since the firms would be smaller.

Besides all of the conceptual arguments against this alternative listed above, there is the fact of the existence of the USRA and Conrail. Rather than break up what some observers described as the most unmanageable railroad in the United States, it is to be enlarged. At this time, the practical matter is that increased integration and management vigor through this form of reconfiguration is a dead issue among these railroads.

The second form of reconfiguration that is possible with unbundling track and operating company ownership may not yet be dead. While the process of unbundling or decoupling the track from the operating companies is difficult to conceive of, its benefits are attractive. For the moment, assume that the federal government could acquire and restore to satisfactory quality a sufficient portion of the track of the American railroads to provide an interstate system. What implications would this have for the structure of the operating companies? What constraints might be relieved, and what innovative railroad configurations might be developed?[4] The concept of federal ownership of the nation's railroad tracks is not new, but what I am considering under this alternative is not simply the old proposition of the passive purchase of the roadbed as a means of creating a capital infusion for sick railroads. Rather, I am looking at the aggressive development of a modern, well-maintained, public railroad track system that would be made available to private carriers, as well as authorized for-hire carriers as alternate routes of convenience. Such a system would mirror the concept of the well-designed, safe, high-speed, super-highway system, and it would be paid for through user taxes.

Presently, substantial portions of the railroad track of the country are in bad order. Whether deferred maintenance, which has led to this situation, was the result of "hard times," excessive regulation, or poor management, the reality is that major parts of the nation's railroad track cannot be operated safely at reasonable speeds. This slow-order track, which places serious limitations on many railroads' ability to provide competitive service, is on their main as well as their secondary lines.

It is relatively easier for railroads to attract capital for rolling stock than for improvement of roadbed. Given the present financial conditions of many railroads that most need track improvement, a lender is wise to demand the security of the pledge of easily retrieved property. The minimum security might be something that the lender can physically take possession of and make alternate use of in case of the failure of the lendee. Rolling stock certainly meets this requirement much better than improvements in roadbed. Thus, because of the conditions of the industry and the nature of the necessary investments, it is questionable whether a prudent private lender would consider track improvement as a reasonable risk at any interest rate without adequate guarantees from the federal government.

There is substantial duplication of trackage over several major traffic lanes that would result in considerable overcapacity if truly productive, high-speed operations were possible.

Privately owned track is a vulnerable sitting target of massive local taxation by every town and county it passes through. It is estimated that $160 million in taxes on right of way are paid annually by the railroads.

This represents approximately 1.5 percent of their total revenue. The situations on individual roads are even more extreme than the average would indicate. For example, the Delaware and Hudson paid "7 percent of its modest $45 million in revenues for local real estate taxes."

However, the greatest concern to me in examining the nature of the railroad management task is the massive fixed cost associated with track ownership and maintenance. In many respects, it is the ownership, construction, and maintenance of private rights of way by railroads that make them natural monopolies and drive them towards increasingly larger, but less manageable, enterprises. Once the ownership of the right of way is separated from the operations, it appears that many markets can support several competitors because of the reduced fixed costs. As demonstrated in chapter 6, the best way to reduce the variable costs of a short-haul carrier are to reduce its volume of transactions. The best way to reduce the costs of the long-haul carrier is to increase its freight density. Both are possible once railroading is shifted from a fixed-cost-oriented to a variable-cost-oriented business.

Under this alternative, I propose that the federal government undertake a project to purchase major segments of railroad track and right of way for the purpose of developing a modern, highspeed railroad-track system for public use. This would mean the purchase of some of the existing track and right of way, although that is not mandatory. The railroad would be allowed to continue to own and operate as a private right of way any of its track. Similarly, the federal system would not be obligated to buy undesirable track. The railroads would be responsible for development of classification yards and track connecting their own roads with the federal track system. This feeder track would be analogous with the secondary road that now connects the Federal Interstate Highway System.

Operations on the Public Track System would be in conformance with federal operating regulations. Traffic control through signalling systems would be provided by federal traffic controllers in a role similar to that of the air traffic controllers of the FAA.

Charges for the use of this track system would be made on a user-tax basis, again shifting fixed costs of railroading into variable costs, more like the cost structure of the motor carriers.

As it would be a government-provided facility, it makes sense for several operators to use it jointly. In fact, there are several instances in which railroads are already exchanging trackage rights to each other.

This proposal of nationalization of tracks is certainly preferable to nationalization of railroads, including tracks and operating companies. The federal government has demonstrated greater competence as a developer and provider of facilities than as a manager of operating organizations.

Also, the government has had success in such development projects that were too large an undertaking for any single firm or group of firms in the private sector. The Federal Highway System is a good case in point. One of the greatest criticisms frequently heard is that it has been too successful. Other examples of the skill of the federal government in providing transportation facilities that are then used by firms in the private sector for providing private and for-hire transportation are the federal airways and inland waterways. Other national governments have not proved to be very adequate managers of railroad operations. The foreign railroads operated by national governments that so frequently impress American tourists have not achieved very attractive levels of productivity, and the levels of service that are provided by such railroads are often achieved only through massive subsidies and restrictions on competition from other modes by the governments. This may be for several reasons: First, the governments usually take over failing businesses with substantial social responsibilities. The political manager cannot ignore the claimed social obligations of even the most absurd claim. Second, the governments typically perpetuate old management and conventional railroad organizations. Third, nationalized railroads become employers of last resort. Because of this role, the federal government cannot achieve a normal arm's-length advocate relationship with labor.[5] However, the record of the government acting as cashier for and developer of large transportation facilities has been excellent. Also, the labor relationships in these cases have tended to be relatively stable, perhaps because of the project rather than ongoing orientation of such relationships. I am aware of the Canadian situation, however, and accept the argument that for the two railway systems to maintain some degree of competition for the nationalized industry does reduce the objections listed above.

By creating a public track system, there is the opportunity to salvage the concept of private enterprise in the operation of for-hire transportation. Certainly many railroads do need cash inflow to supply working capital, rolling stock, and improvement of classification and assembly yards. The purchase of some portions of the track to resupply it to the railroads in an improved condition on a pay-as-you-go basis would generate necessary cash flow. This would also secure assets for the government in the event the railroads do eventually fail.

How practical is the concept of federal ownership of railroad tracks? Railroad rights of way are assets that lack a general market appeal. Because of configuration and nature, they hardly make attractive general-purpose real estate. For these reasons, their values are most closely related to their use for railroad track and railroad operations. Some rights of way have been used for highways and transit right of way, but these are

fairly isolated situations. Because of the local tax situations that often exist along many rights of way, their ownership may constitute substantial liabilities.

However, it is unlikely that the federal government would take any substantial action until the railroad situation had reached crisis proportions. The political situation would likely have to be a decision between nationalization alternatives. Given the existence of Conrail, there appears to be less chance of such an alternative being implemented unless Conrail were to fail. At that time, the problem of evaluating the value of the rights of way would have to be faced as part of nationalization anyway.

Another reason why this may not be a viable alternative solution at the present time is the resistance from the railroads themselves. While many railroad managers support the concept of federal aid for trackage, they also fear the threat that such participation will include with it the joint-user concept. The Association of American Railroads argues that federal ownership of the tracks:

1. Complicates the problem of optimizing track construction and maintenance standards with equipment design, operating policy, and traffic growth expectations. The result will necessarily be some increase in the overall cost of rail transportation.
2. Presents difficult (although not insurmountable) problems in train control and operations, problems that will necessarily increase the cost associated with the installation and operation of train control systems, to say nothing of the cost of the additional trackwork, which probably will also be involved.
3. Presents special difficulties (*not* readily surmountable) in terminal design and operations, difficulties that will further increase both capital and operating costs.
4. Generally *insures* an increase in the cost of providing railroad fixed plant, because of the intrusion both of politics and of bureaucratic inefficiencies into management decisions.
5. Generally politicizes decisions on:
   a) Fixed plant improvement and maintenance
   b) Abandonment of uneconomic and redundant rail lines
   c) Railroad operating rights
   d) Use of terminals
   e) Grade crossing elimination
   f) Railroad labor contracts, including, most importantly, contracts with operating crafts
6. Opens up the use of railroad fixed plant to private and restricted-commodity carriers, who will enter into rail operations under the guise of providing "competition" for existing common carrier railroad operating companies. These new carriers will skim the cream (heavy, long-haul, base-load traffic) off the railroad common carrier market, all to the direct benefit of the largest industrial corporations.[6]

These operating objections may not be as telling as the Association of American Railroads would suggest. There are certainly those who would argue that opening the railroad fixed plant to competitors would restore *vigorous* railroad competition to the industry. With the separation of the track ownership and operating company ownership, the barriers of entry for the protection of the existing natural monopolies are no longer as justified. So this may only be a disadvantage to the existing business entities that certainly would like to perpetuate themselves.

In many ways this is one of the most conceptually attractive alternatives. But, the political setting precludes it at present. On that basis, it fails.

Minimizing Local Operations

One way to minimize the problem of managing a large volume of transactions is to reduce the volume of transactions rather than to change to better accommodate them. In a sense, this is the reverse of contingency management theory, that is, here we would make the task contingent on the organization. This is not intended as a criticism of the alternative. Given the serious limitations of the other alternatives, limiting or restructuring the operations of railroads is worthy of careful consideration.

The major sources of transactions are in the terminal operations at the origin and destinations, intermediate yards, and interline connections. As discussed in chapter 3, each time a car enters a yard and transactions occur, there is additional cost, delay, error, and potential for missed schedules. At present, there is substantial support for this position among railroaders, even among those who in the past promoted the large automated yards. There is substantial agreement that avoidance of yards (i.e., run-through operations) is highly desirable. Similarly, many railroaders see great advantage in moving cars as large groups (blocks), again to minimize transactions.

However, these steps are already being followed by most railroads. What can be done to further minimize transactions?

If the railroads were permitted to restructure their service offerings to eliminate some terminal functions, substantial reductions in the transactions could be realized. Unfortunately, the area of most likely reduction is reduction of pickup and delivery services, and these are integral to the services the railroads have to offer. So, unless railroads can conceive of