

**MULTIMODAL TRANSPORTATION COMPANIES
IN THE 21ST CENTURY**

by

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In 2003 two steam generators, each weighing approximately 500 tons and 73 feet in length, were shipped from Cambridge, Ontario to Duke Energy's nuclear power plant in Seneca, S.C. The shipment was by ocean, rail, and highway using special equipment for all three modes. No government bureaucrat, politician, or special interest group decided by what means the shipment would be made. Economic efficiency was the single consideration with each mode contributing its unique capabilities. What efficiencies and savings can only be dreamed of if such were the case for all freight moving over the U.S. transportation system.

Introduction

In its September 1967 issue, U.S. News and World Report featured an article "*Trucks, Trains, Planes, Boats, All in One Company.*" (1) The article described the growing interest in multimodal transportation companies, citing some major transportation firms that operated two or more transport modes under a single corporate roof.

In 1978, eleven years later, the American Enterprise Institute, a Washington DC based think tank, sponsored a one day seminar "*Forming Multimodal Transportation Companies: Barriers, Benefits and Problems.*" (2) Participants included the Secretary of Transportation, representatives from other interested government agencies, Members of Congress, shippers, transportation company executives, and labor leaders of unions representing transport employees.

*This paper incorporates a large amount of material found in a July 2004 Special Report "The Coming North American Rail Mergers by Clinton H. Whitehurst, Jr. and Richard L. Clarke published by the Strom Thurmond Institute of Clemson University.

Points of view were as divergent as the conferees. In general, railroads and ocean carriers favored multi-modal ownership, not surprisingly since these two modes fathered intermodalism. Truckers were generally opposed; inland water carriers noted that there were minimal barriers to rail ownership of inland water carriers but should that occur, there should be anti-trust safeguards. Air freight participants believed there were some combinations of different modes that would benefit but offered no overall objection to the concept (3)

In 2005 what is the attitude of carriers, government agencies, Congress, shippers, forwarders, and labor unions with regard to multimodal companies? What changes have occurred in transportation systems and technology in the 27 years since the 1978 Washington, D.C. conference? In assessing the changes that occurred it should be noted that interest in multimodal companies probably peaked with a 1972 article (A Single Inter-modal Transportation Company) by W. Graham Claytor, then Chairman of Southern Railway, later Secretary of the Navy and President of Amtrak. (4)

In the 1970s and early 'eighties the largest North American surface multimodal transportation companies were rail based — Norfolk Southern, CSX, Canadian Pacific, Canadian National, Southern Pacific, among others. Combinations included rail-ocean, rail-truck, rail-barge and rail-pipeline. Air freight combinations were air-truck. By the mid 1980s, however, many railroads had shed their non-rail modes. Norfolk Southern sold its North American van Lines, while CSX and Canadian Pacific split off their ocean carriers. Only air freight with its multimodal air-ground combinations continued a sustained growth.

A logical question is why diminished rail interest in the multimodal concept? Two reasons are suggested. First, at the peak of multimodal interest by railroads, rail rates of return were relatively low compared to alternate investment opportunities. Rail companies probably concluded that integrating non-rail modes into their systems was a long-term proposition with respect to making a contribution to the bottom line and that their limited capital could be better employed in rail projects. Second, inter-modal cooperation between different ground transport companies, primarily ocean, rail and highway, continued to grow thereby negating the requirement of different mode ownership to insure the efficient movement of freight.

Thus, is an interesting question posed. In the 21st century is the multimodal transportation concept dead or only sleepth?

Arguments in Support of Surface Multimodal Transport Firms

*A multimodal transportation company with centralized decision-making can more quickly match transportation assets to changing shipper requirements, geographic markets, competitor strategies, production costs (fuel would be a good example) and transport technology.

*With respect to a multimodal firm's bottom line, diverse sources of revenue can cushion the effect of a decreased demand for a particular modal service. This is an important consideration given that at any point time demand for transportation services is not uniform among the different modes. Demand for container freight can differ markedly from demand for refined petroleum products. So too may demand for grain or coal transport needs (largely seasonal) differ from truck dependent retail demand, while demand for transport to service foreign trade will not uniformly effect all transport modes.

*Rail-highway multimodal companies, for example, having centralized decision-making can more efficiently consolidate long haul (rail) movements. This ability is critical with respect to spreading high rail fixed costs and minimizing truck variable costs. To some extent the same would be true with respect to other modal combinations.

*Other things equal, large capitalization firms have better access to capital markets than smaller ones. Railroads are a capital intense industry given that 15-18 percent of revenues earned are earmarked for capital expenditures. In 2005 railroads return on equity (ROE) is not sufficient to entirely fund their capital requirements. While there is not guarantee that a rail based multimodal firm would gain easier access to capital, it is reasonable to expect that a well structured, fully integrated multimodal transportation company would be better received in capital markets than a rail alone company.

*A multimodal transportation company with centralized decision making can more efficiently manage fuel requirements for its different modes. This ability cannot be overstated in a world where the demand for

fuel is increasing exponentially. For example, railroads are 2-4 times more fuel efficient per ton-mile moved than trucks. Equally important in an environmentally conscious world is that central management can better control fuel pollutants emitted by the different modes comprising the multimodal firm.

*Multimodal transportation firms with their ability to more easily expand their service areas make it less likely that transportation monopoly power can exist in a particular market. Figure 1 illustrates the concept. Consider the three first circles (venns) as representing non-competitive markets, i.e. monopolies. Now enlarge the three vennis around the same center. The shaded area represents the geographic area of competition. Market areas can, of course, be represented by any geometric shape.

*With respect to total government expenditures for surface transportation, multimodal transportation firms have the ability to minimize government expenditures for the “path” component of the U.S. highway system. For example, movement by rail decreases highway congestion concurrently making the highway system more efficient and safer while decreasing the demand for highway construction funds. In this respect, one freight train has the capability of moving an amount of freight that can take a hundred or more trucks off the nation’s highways. And equally important is the fact that railroads have sufficient land on their existing right of ways to double-track where necessary, thus avoiding a major portion of highway construction cost --- land acquisition.

Possible multimodal combinations include rail-highway, ocean-highway, rail-waterway, highway-waterway, pipeline-rail, and pipeline-highway. Combinations of three modes are, of course, also possible. Although not considered in detail in this paper, air-highway combinations have proved successful and profitable. Also there is growing interest in developing air-highway-rail combinations.

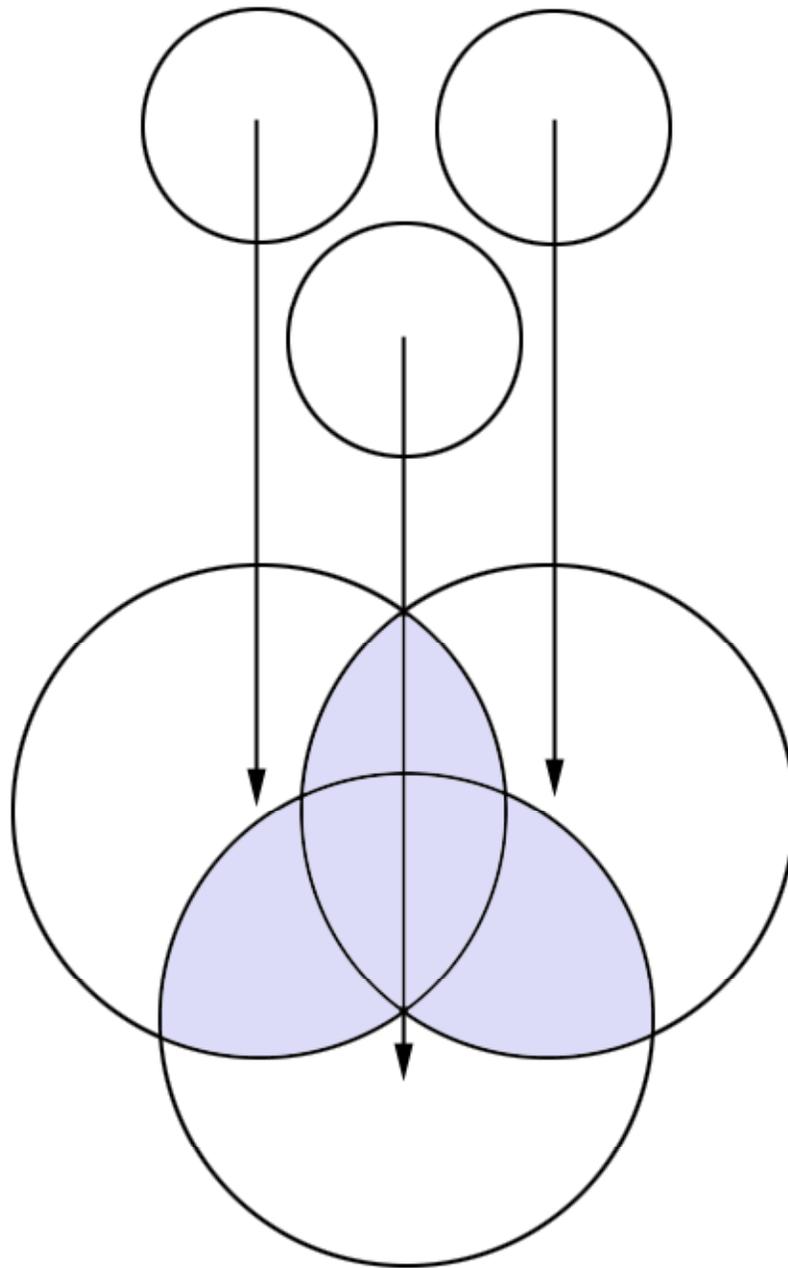


Figure 1.

Potential For Multimodal Transport Firms
To Increase Competition by Expanding Market Area

Arguments Opposing Multimodal Transportation Firms

One major argument against development of multimodal transportation companies is that, by definition, such firms would be larger with the possibility of acquiring monopoly power. A second objection is that present cooperative agreements between the different modes serves the nation's transportation requirements quite well and "if it isn't broke, why fix it." A third objection, one with political consequences, is the loss of jobs.

As to the first concern, as Figure 1 suggests, multimodal combinations have the potential to increase competition rather than stifle it. Nor is there any reason to expect a few large multimodal firms rather many, ranging from the large to the very small. Nonetheless, a number of obstacles to forming multimodal transport firms exist. First, passing muster by the Department of Justice, an agency with a proclivity to view large *per se* as anti-competitive, is by no means assured. And while recent legislation has somewhat curtailed DOJ's ability to interfere with the market place transactions, residual power still exists. In this respect DOJ support for the multimodal concept will largely depend on multimodal companies satisfying shipper's concerns over "captive shippers" and monopoly pricing.

A second hurdle is the Surface Transportation Board (STB), successor agency to the Interstate Commerce Commission. The Board's year 2000 decision to put a hold on the proposed merger of the Canadian National and Burlington Northern railroads is indicative of its attitude to further rail mergers. In the STB's opinion, not only must a proposed rail merger preserve competition but, if effect, increase competition.

A third objection to multimodals can be expected from some transport worker's unions, particularly in cases where loss of jobs can be anticipated. Should Congress become involved in the multimodal process, as it did in a mid 1980s attempt by Norfolk Southern to purchase CONRAIL, multimodal advocates would be tasked with demonstrating that benefits greatly outweighed losses, i.e. loss of jobs.

A last objection would likely come from the nation's 400 plus short line railroads. These carriers operate approximately 30 percent of the rail industry's route miles. By and large they serve areas where freight densities are small. Many compete head to head with highway carriers. Their

concern is that the formation of multimodal transportation firms would threaten their niche markets, in particular, rail-truck combinations

Conclusion

The first point to make, and the one above all others, is that the private sector, not government, should determine the practicability and profitability of multimodal transportation companies. In this regard, government should not impede the formation of multimodal transport firms if the private sector is willing to invest capital in the concept. Conversely, government should not be so enamored of the multimodal concept as to directly or indirectly subsidize their formation. Amtrak is example enough of where good intentions did not match anticipated results.

In the continental United States formation of multimodal transportation firms would largely, but not necessarily be, rail-based as was the case in the 1960 and 1970s. In international trade the ocean mode would be an important component in a multimodal firm. Granting the above, the question becomes -- what role does highway transport play? Simply stated, trucks give multimodal systems flexibility. The "path" numbers speak for themselves. In the United States railroads operate on approximately 143,000 miles of track; domestic water carriers on 11,000 miles of primary waterways; oil and natural gas firms own approximately 406,000 miles of pipeline. The above totals approximately 560,000 path miles. On the other hand, truck firms operate on approximately 4 million miles of roads including 55,000 miles of interstate and expressways and 380,000 miles of arterial highways. The total path miles of rail, waterway, and pipeline is less than 18 percent of the total path miles of trucking firms. The obvious conclusion is that motor carriers are and will be into the foreseeable future a major component of the American transportation system and as such give the required flexibility to multimodal concept.

The Staggers Rail Act of 1980 encouraged the merger of 14 Class I railroads into the present day (2005) five, and in so doing increased average rail return on equity from under 4 percent in the 1970s to approximately 8 percent in 2005.

As noted above, the Surface Transportation Board blocked the merger of the Burlington Northern Santa Fe and Canadian National railroads

essentially arguing that further rail mergers, and by extension, multimodal transport firms, would be anti-competitive. Carried to a logical conclusion the STB position is that there are no more economic efficiencies to be realized by further rail mergers seemingly ignoring the positive results of successful rail mergers after passage of the Staggers Rail Act of 1980.

No one can be sure what the corporate profile of America's transportation companies will look like if the remaining barriers to rail mergers and the formation of multimodal transportation firms are removed. What can be stated is that transportation innovation in management and technology are absolutes if America's economy is to grow but also grow efficiently which means the ability to freely substitute transport modes in the movement of goods and raw materials as necessary to achieve that efficiency, a point made in the preface to this paper and one that cannot be overstated.

NOTES

- (1) U.S. News & World Report. "Trucks, Trains, Planes, Boats—All In One Company (September 25, 1967. Pp. 118-120.
- (2) Whitehurst, Clinton H., Jr. (Ed.) *Forming Multimodal Transportation Companies: Barriers, Benefits, and Problems*. American Enterprise Institute, Washington, D.C. 1978. p. 73.
- (3) Clarke, Richard L. and Whitehurst, Clinton H., Jr. *The Coming North American Rail Mergers*. The Strom Thurmond Institute, Clemson University. July 2004. p. 16.
- (4) Claytor, W. Graham, Jr. "A Single Intermodal Transportation Company" *Transportation Journal* (Spring 1972) pp. 31-38.