

**UPPER MIDWEST TRANSPORTATION  
ISSUES AND OUTLOOKS**

**by**

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# UPPER MIDWEST TRANSPORTATION ISSUES AND OUTLOOKS

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## INTRODUCTION

Transportation serves as the arteries of commerce in the global economy in which we function. Transportation ties together the two dominant economic activities of production and consumption, and makes it possible for specialization to take place in different geographic sections of the world. Essentially, transportation permits trade to take place between countries, between regions, and even areas of the same country. Without trade we would not have specialization of certain production activities and the world as a whole would suffer as a result of lost production efficiencies and perhaps we would experience a severe reduction in global output. Production of commodities and products in which a geographic area had a comparative advantage would not be achieved if transportation did not exist and make trade possible.

Transportation is at least as important if not more important to production agriculture in the Upper Midwest than many other regions of the United States. The region as a whole has a locational disadvantage in the transportation of bulk agricultural commodities—principally wheat, corn, soybeans, sunflowers, and barley—to sea ports for export in terms of distance. The Upper Midwest as a producing region is farther from export locations and final destinations than any other producing region in the United

States. The Upper Midwest also has a locational disadvantage in terms of the growing season and the limited number of agricultural production alternatives which exist. The possibilities for geographic or product competition increase as production alternatives increase, which results in being less captive to a transportation system.

The sparse population of the Upper Midwest also puts that region at a disadvantage in that it cannot possibly consume the bulk agricultural commodities that are produced regionally. This fact means that a majority of the production must be exported to a consuming region if the commodities are to have any economic value.

To say then that transportation is critical to the Upper Midwest economic survival is an understatement. Transportation is absolutely vital to the economic viability of the Upper Midwest.

The importance and critical nature of transportation is further intensified by the fact that the demand for transportation of bulk agricultural commodities is inelastic, that is, a change in price will not significantly influence the quantity demanded. The nature of the demand for transportation is a result of the nature of the total world demand for grain which is inelastic and the fact that the demand for transportation is a derived demand. The significance of this lies in the fact that the cross elasticity between modes and competing producing regions is very elastic. Thus, if one competing region has a significant transportation advantage in either rates or service, it will be at the disadvantage of the other producing regions.

## ISSUES

### *Rationalization of the Rail Network*

The railroad system of the United States is currently struggling to become profitable and to remain in the private sector. To achieve this goal the railroad firms are doing a number of things including disinvestment of unprofitable plants and increasing the operational efficiency of their systems. Simply stated this involves the abandonment of existing track with particular emphasis on branch lines. The railroads as profit maximizers or cost minimizers will attempt to streamline their system to make it more efficient and will try to make better year around utilization of their equipment.

The railroad system will, in all likelihood, become more efficient operationally speaking in the years ahead. The question which arises is who will benefit from those efficiencies gained. Conceivably the railroads will retain some or all of the efficiencies gained by branchline abandonment and unit train or multiple car movements. However, some of the efficiencies gained may be distributed within the marketing system in the form of lower rates. The railroad firms will more than likely pass the efficiencies on to the extent that they have to offer an incentive to develop a more efficient system. They will retain as much of the cost savings as possible which is consistent with the goal of profit maximization.

Who will retain the rate concessions passed on by the railroads, if any are, within the grain merchandising chain is also speculative and will be dependent on the level of competitiveness of the various sectors in the marketing system. If the entire system is sufficiently competitive so that no one sector can capture economic rents (excess profits) then the rate concession would be passed on to producers assuming no additional costs

will be increased by the merchandising system. Rate concessions should, theoretically speaking, at least be great enough to cover additional farm truck transportation costs, increased highway maintenance and construction costs and any additional capital and operating costs for country, export, and domestic grain elevator facilities. If the increase in costs are not compensated for in the form of increased commodity prices then it simply becomes a transfer of costs within the private sector from one industry to another and/or a transfer of costs from the private sector to the public sector.

However, this does not mean that other benefits will not be derived from rationalization of the rail network. The more efficient movement of bulk agricultural commodities certainly has positive implications for society as a whole in that a reduced amount of resources will have to be committed to transport the same amount of commodities. Similarly, the producer will benefit by a more efficient system by increasing his ability to market grain during periods of high transportation demand, particularly if the increased demand for transportation is caused by a bull market. Relatively high commodity prices at the terminal markets are meaningless if they cannot be translated into cash sales at country merchandising points.

### ***Remaining Competitive with Other Producing Regions***

The bulk agricultural commodities produces in the Upper Midwest must compete with the same commodities, or good substitutes, produced in other regions of the United States and the world. As long as hard red spring wheat is produced in Canada, hard red winter in Kansas, Nebraska, Oklahoma and other states, corn in areas outside the Upper Midwest, soybeans in Brazil, and so on the commodities produced in the Upper Midwest will face competition from these other producing regions. The implications of such

competition, if the Upper Midwest does not remain competitive in both domestic and export markets, are that producers potentially become residual suppliers and are threatened with a decapitalization of the existing agricultural production and marketing sectors. Ideally the Upper Midwest would benefit if the region could gain a transportation advantage over other producing regions. This is only possible if greater efficiencies exist in this region's marketing system compared to others because of the locational disadvantage and distance to consumption centers. Because of the distance to markets and locational disadvantage, the Upper Midwest will have a greater freight rate than many other producing regions all other things being equal.

However, once in equilibrium with other producing regions, changes in competitiveness with other producing regions can have negative or positive impacts depending on in whose favor the scale tilts. Thus, if Canada takes positive transportation actions in the logistical or rate area to supply wheat for export without any reaction from the hard red spring wheat producing area of the Upper Midwest (principally Minnesota and North Dakota) producers in this region become disadvantaged in the market place. Similarly, if the hard red wheat producing regions obtain rate and service concessions vis-a-vis the Upper Midwest to common markets the impact could possibly be reduced market price available to the producer, residual supplier or both.

To remain competitive the Upper Midwest must have an efficient transportation system which provides comparatively reasonable rates and service. The issue of service is equally as important as comparatively competitive rates. The bulk agricultural commodities which are produced in the Upper Midwest must be moved to processing



points or positioned for export in an efficient manner if they are to take on an economic value. Efficient manner means that they must be moved when the demand for grain is manifested in a transportation demand.

Thus, as other producing regions both in the United States and in other regions of the world improve their logistical system and obtain rate concessions, the Upper Midwest should, if it wants to remain competitive, strive to achieve similar improvements in its own transportation system. At the very least it must remain cognizant of changes in transportation occurring outside the region.

### ***Changes in Markets and Distribution Patterns***

The Upper Midwest has experienced certain fundamental changes in markets for such commodities as hard red spring wheat and has also experienced changes in the volume of movement during the past few years. These changes will probably continue in the near future and have implications for the viability of ports and markets and for the number of options to market Upper Midwest commodities.

The development of the wheat market of the Pacific Northwest during the past twenty years has been a positive development for wheat producers of the Upper Midwest. It has provided alternative markets and increased competition, while at the same time reducing some of the peak period congestion at the traditional eastern markets of Minneapolis/St. Paul and Duluth/Superior.

During the latter part of the time period that the PNW wheat market was developing, Duluth/Superior was evolving as a major market and shipping point for the growing sunflower production of the Upper Midwest. While the development of this port and market was mutually beneficial to the producers and merchandisers it is currently

being threatened by processing in the interior. As crushing capacity is developed at the point of production the possibility of reduced activity in sunflowers at Duluth/Superior increases.

Other changing distribution patterns and markets could be influenced by the development of single factor rates by railroads which bypass traditional markets such as Minneapolis.

The question which arises is simply how important are the traditional markets and ports which serve the production and marketing system of the Upper Midwest.

### ***Reregulation of the Railroad Industry***

The Staggers Rail Act dramatically changed the economic regulation of railroads in the United States. What impacts this change will have on the transportation and marketing of bulk agricultural commodities is very speculative, however. It is an issue that will be of interest to the grain trade in the next few years. The surface transportation subcommittee of the Senate Committee on Commerce, Science and Transportation recently held an oversight hearing to ascertain the affect the Staggers Act has had thus far. It is probably much too early to determine the impact of such a dramatic change in regulation, and it will probably take several years to determine what the effect will be.

The Staggers Act implicitly stated that the railroad industry in the United States will remain in the private sector as opposed to being nationalized. Then, by that very fact, the railroad industry must become profitable given the nature of the capitalistic economic system which prevails in the United States. What was not stated explicitly in the bill was who will pay for this more profitable rail system. Some of the additional profits may come from a more streamlined system and more efficient operation of that system. However,

some of the additional profits will probably come from captive traffic as a direct result of an inability to obtain greater revenue on highly competitive traffic.

How the implementation of the marketing freedom that the railroads have will affect our traditional grain marketing system will depend on several factors including but not limited to:

- contract rates
- price competition
- rate structures which bypass traditional markets
- reduction in common carrier obligation
- rate increases on short notice (twenty days)
- price leadership

In the final analysis shippers can expect rates to continue to increase as inflation outstrips gains in productivity.

### ***User Fees on Inland Waterway Systems***

The railroads have contended for a number of years that federal transportation policy has discriminated against them by subsidizing competing modes, barge and truck, resulting in a shift in traffic (which would normally move by rail) towards the subsidizing modes. Regardless of the accuracy of this contention it appears quite likely that there will be a substantial increase in user fees on the inland waterway system. The Upper Midwest ships large volumes of commodities, principally corn, beans, and some wheat on the Mississippi and Columbia/Snake system. The implications of this increase in user fees are dependent on the degree of cost recovery achieved and type of user fee implemented. If a segmented toll or lockage fee is used it will impact the Upper Midwest more than many

other areas. On the other hand if the present fuel tax is continued the fiscal burden will be shifted to all inland waterway users regardless of specific costs to construct, operate, and maintain specific river systems. This, of course, has implications for the allocation of resources.

The increase in user fees regardless of type and amount will certainly result in increased barge transportation costs to position wheat, corn, and beans for export. This could result in a shift in modes from barge to rail, a shift in ports, possibly towards Duluth/Superior, or possibly a shift to Western ports. The corn and bean sector will probably be impacted more than the wheat producing sector.

### ***Seasonality of Movement***

The movement of bulk agricultural commodities from the Upper Midwest is very volatile and seasonal. For instance, it is common for North Dakota marketings in peak months to be 160 percent of average and as low as 50 percent during off-peak months. To make matters worse it appears that the intensity of this peaking has been increasing since 1967. The cause is the traditional marketing system coupled with the volatility of commodity prices. The result is an overtaxed transportation system at times and an under-utilized system typified by idle equipment at other times. Producers and merchandiser alike are impacted since they cannot sell in a bull market at times and society pays for excess capacity during periods of under-utilization. The solution to this problem is not readily apparent, however, if it were possible for producers and merchandisers to merchandise or price grain according to their marketing plans and move grain in a more equal or even pattern, all participants would benefit.

## OUTLOOK

The grain handling, transportation, and merchandising system in the United States as well as in the Upper Midwest appears to be going through an evolutionary process. The system is striving to gain efficiencies and to remain competitive with other exporting regions and countries. The railroads in particular will be trying to improve efficiencies and increase profits. Barges and trucks will be trying to hold their own. As a result of these changes each participant within the system will try and capture efficiencies for their own benefit. The traditional marketing system will change allowing for the merchandising and transportation of wheat in large lots.

The railroad system will be rationalized, competition with other producing regions will be maintained, market patterns will emerge in response to changing markets and transportation conditions; if not, the alternative could be quite grim.