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Introduction

A great deal of study and literature have been devoted to the pricing behavior of and price competition between railroads. One of the explicit purposes of the Staggers Act was to create an environment which would result in changes in the pricing behavior of railroads and increase competition between railroads. The purpose of this paper is to examine changes in the grain pricing practices of railroads in the Upper Great Plains pre- and post-Staggers. This paper will attempt to determine if any observable pricing practice changes have taken place and if product and geographic competition have been effective in preventing rate discrimination.

The Staggers Rail Act of 1980 and the Railroad Revitalization and Regulatory Reform Act of 1976 (4R Act) significantly altered federal rail transportation policy for the first time since the passage of the Transportation Act of 1920. A primary intent of these two pieces of legislation was to minimize federal and state regulation of railroads and to encourage competition. This was accomplished by (1) minimizing the jurisdiction of rate bureaus, (2) increasing rate flexibility for regulated rates, ((3) eliminating the regulation of rates on traffic which is not considered market dominant, and (4) exempting certain traffic from economic regulation.

The essence of the transportation policy established by the Staggers Act is embodied in the first two statements of the policy section of Title I of the Act. These statements read as follows:

> The stated policy of the United States Government as a result of the act in regulating the railroad industry shall be to:
>
> (1) to allow, to the maximum extent possible, competition and the demand for services to establish reasonable rates for transportation by rail;
>
> (2) to minimize the need for federal regulatory control over the rail transportation system and to require fair and expeditious regulatory decisions when regulation is required.

Thus, the general thrust of the Staggers Act was to promote and rely on competition between and among the various transportation industries, i.e., rail, barge, and truck, as a means of providing adequate service and reasonable prices to shippers in lieu of comprehensive and complex regulation.

The sixth provision in the policy section of the Act also ensures reasonable rates for shippers. This section states that it shall be a national policy:

> (6) to maintain reasonable rates where there is an absence of effective competition and where rail rates provide revenues which exceed the amount necessary to maintain the rail system and to attract capital.

This policy statement is obviously intended to provide the basis for including market dominance and the protection of captive shippers in the Staggers Act. The concept of market dominance was originally introduced into rail regulation in the 4R Act. The threshold criteria for market dominance which were initially established by the Interstate Commerce Commission were later replaced by standards of geographic and/or product competition as well as intermodal and intramodal competition. The Commission contended that if product or geographic competition existed it would be difficult if not impossible for railroads to have market dominance over a particular movement and that reasonable rates would therefore result.

There has been a great deal of debate over whether or not price competition between railroads on grain would evolve in the Upper Great Plains as a result of the passage of the Staggers Act since the region is served predominately by only two railroads. Furthermore, it has been questioned whether or not geographic and/or product competition will provide competitive rates for similar agricultural commodities produced in other producing regions.

THESIS STATEMENT

Rail rate flexibility existed prior to the passage of the Staggers and 4R Acts and the railroads operating in the Upper Great Plains utilized such flexibility in the pricing of grain in North Dakota prior to the 4R and Staggers Act. This flexibility was, however, generally perceived to be primarily only downward. The railroads were therefore reluctant to make significant downward reductions prior to the 4R Act and/or the Staggers Act unless they were assured that it was necessary to do so for competitive reasons.

The rate flexibility granted in the Staggers Act has led to less reluctance on the part of pricing managers to reduce rates. It has, however, resulted in little if any increase in price competition between railroads. It was, in fact, the 4R Acts' effective elimination of rate bureau activity on single line rates that led to increased price competition. The subsequent rail price competition on grain that was observed in North Dakota was short lived, however, and probably will not occur again.

Truck and truck/barge competition and a change in pricing and operating policy by the railroads have resulted in rate reductions in the Upper Great Plains. Staggers Act changes did, however, probably produce quicker and deeper reductions than might have otherwise occurred.

Conscious parallelism has emerged between rail firms and price cuts that have been made to conform to oligopoly theory which states: "an oligopolist....is unlikely to taken an initiative in reducing prices unless he feels certain that his industry's total sales will be enhanced."[1]

Geographic and product competition have also proven to be sometimes ineffective in maintaining equitable rate relationships between the Central and Upper Great Plains producing regions and between similar commodities.

PRE-4R ACT PRICING

Prior to 1960 the historical basis for virtually all of North Dakota's country-to-market grain rail freight rates was ICC Docket 17,000, Part 7. The decision in that 1930 case administratively set the upper limit for grain gathering rates for western rail carriers. Those rates remained intact except for Ex Parte increases until 1960.

In 1960, the Upper Great Plains rail carriers responded to increasing motor carrier competition and reduced their rates on wheat moving from country origins to the primary markets of Duluth and Minneapolis. Similar reductions were accorded shipments of oats, flax, corn, etc. A notable exception to this commodity list was barley.

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[1]Clair Wilcox, Public Policies Toward Government, Third Edition, Richard D. Fruin, Inc., Homeward, IL, 1966, p. 234.

(This matter will be discussed in the following section.) Additional reductions were initiated in 1963 and 1971; again to meet competition from unregulated motor carriers.[2]

All of these reductions took place without any apparent differences in pricing policy between the four major rail carriers which served the region. The rates were, in fact, set in concert by the Northern Lines Committee.

The Northern Lines Committee was a railroad rate bureau that functioned within the western trunk line territory. The Committee's membership included the Burlington Northern, Soo Line, Chicago and Northwestern, Milwaukee Road, and a number of short line carriers.

The Committee, like other rate bureaus, received and reviewed member line rate proposals. The Committee's rate jurisdiction entailed movements to, from, and within virtually all of North Dakota, extreme northern South Dakota, and the northern two-thirds of Minnesota. The primary movements affected by the Committee were grain moving from the country into the primary markets of Duluth-Superior and Minneapolis-St. Paul.

As a practical matter most of the traffic handled within the Committee's territory was single line in nature since each of the major carrier members served both country origins and both of the territory's primary markets. Despite the single line nature of most of the movements involved, Northern Lines Committee action kept carrier rates relatively identical. As discussed above, however, rail grain gathering rates were nonetheless susceptible to changes as a result of intermodal competition.

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[2]Interstate Commerce Commission, I & S 8939, Seasonal Rates on Grain to Minnesota and Wisconsin, November 7, 1979, 362, I.C.C., p. 80.

PRICING UNDER THE 4R ACT

As mentioned in the preceeding section, the basis for grain gathering rates in North Dakota has long been ICC Docket 17,000, Part 7. As discussed earlier, one of the outcomes of that 1930 case was that the gathering rates on grain moving to the Minneapolis-Duluth markets were equalized. Unlike wheat, corn, oats, and flax which experienced rate reductions in the 1960's and early 1970's barley rates remained unchanged, except for Ex Parte increases, for over 45 years.

In 1976 Congress enacted the Railroad Revitalization and Regulatory Reform Act. The 4R Act impacted Upper Great Plains rail carriers and the Northern Lines Committee because it specifically prohibited railroad rate bureaus from agreeing on or voting on single line rates. This provision coupled with the single line nature of the regions grain gathering system greatly inhibited the future usefulness of the Northern Lines Committee.

This fact is exhibited by a sequence of barley pricing events that occurred in 1977, shortly after the passage of the 4R Act.

In September of 1977 the Soo Line, independent of the other railroads belonging to the Northern Lines Committee, reduced rates on barley from the Upper Great Plains to Duluth-Superior to the same level as the wheat rates.[3] The impetus for the reduction was the intense motor carrier competition in the Duluth market. Trucks had captured 70-80 percent of the market.[4] There was also a surplus of rail equipment at this time.

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[3]John I. Finsess, Barley Rates From North Dakota, Minnesota, South Dakota and Montana, to Minneapolis, St. Paul, Duluth, Minnesota and Superior, WI, Verified Complaint Before the Interstate Commerce Commission, Docket No. 38627F.

[4]Dennis R. Ming, North Dakota Grain and Oilseed Statistics, Upper Great Plains Transportation Institute, North Dakota State University, UGPTI Report No. 48, January, 1893, p. 39.

Reacting to the Soo Line reduction, the Burlington Northern filed an independent notice of its own reducing rates on barley to both Duluth and Minneapolis. BN reduced its rates into Duluth-Superior to the same level as the Soo Line and took further action by reducing its domestic rates into Minneapolis to ten cents above the wheat rates. That same month the Soo Line matched the BN's new Minneapolis-St. Paul barley rates. Rate parity was restored.

Both the Soo and the BN allowed the Minneapolis reductions to expire in December of 1979 and rates were thereby returned to the Docket 17,000 level. The Duluth reductions remained in effect.

There are five important points that should be made regarding the barley rate adjustments that were made between September of 1977 and December of 1979. First, the rate reductions and eventual increases took place prior to the passage of the Staggers Act but after the 4R Act, thus demonstrating that rate flexibility did exist prior to the passage of the Staggers Act.

Second, the adjustments were all taken by independent action without the other roads knowing the action of the other prior to the notice of the rate adjustment.

The third point that should be emphasized is that the adjustments resulted in rate differentials between the markets of Duluth and Minneapolis. Prior to this time the rates to the two markets had been identical (with the exception of a few isolated stations).

A fourth and major point is that although there appeared to be price competition between the two railroad firms, it was triggered by truck competition. The price competition was really between truck and rail, not intra-railroad. This is supported by the fact that eventually the rates for both railroads settled or returned to the same level.

A final point is that, all this took place during the quote "car shortage" and resulted in a reduction in revenue for the railroads.

PRICING POST-STAGGERS

In the late 1970's and very early 1980's the railroads which serve the Upper Great Plains were developing and implementing multiple car rates on grain. The first permanent multiple car rates implemented in North Dakota were on wheat to the Pacific Northwest. These rates were docketed with the Trans-Continental Freight Bureau by the Burlington Northern on September 25, 1980 and took effect on December 1 of the same year. On December 17, 1980, the Soo Line responded to the BN's action by implementing multiple car rates of its own. Subsequent reductions were made by both carriers because of differing philosophies relative to rate spreads between varying shipment sizes. Rate equality was, however, re-established in July of 1982.

On July 1, 1981, the Burlington Northern also reduced its single car rates and introduced multiple car rates on wheat to Minneapolis-St. Paul and Duluth-Superior. The BN took these eastbound rate actions to meet truck competition and because of the need to offer the same type of transportation services to eastern markets as they had implemented going west. Trucks had captured as much as 50 and 60 percent of the eastbound wheat movement from eastern North Dakota and western Minnesota. This traffic had been diverted from the rail mode and the Burlington reduced prices in an effort to recover it. The Minneapolis market interests had also requested similar rate structures and concessions that had been introduced for wheat westbound from the North Central Plains states. The Soo Line countered the BN's action with the introduction of 3-car, 26-car, and 52-car rates for eastbound traffic. The following succession of events, as summarized in Table 1 describes the apparent intramodal price competition which took place following the implementation eastbound wheat shipments.

- -- July 1, 1981, the Burlington Northern reduced their single car rate and introduced their first multiple car rates on wheat to Minneapolis and Duluth consisting of:

  - -- 26-car multiple origin 15¢ below single car rate
  - -- 26-car single origin 20¢ below single car rate
  - -- 52-car single origin 25¢ below single car rate

- -- July 27, 1981, the Soo Line introduced reduced 26- and 52-car rates on wheat to Minneapolis and Duluth to meet Burlington's competition and introduced 3-car rates at a level equal to the BN's 26-car multiple origin rate.

- -- October 15, 1981, the Burlington Northern reduced its single car rate by 10¢/cwt and further reduced each of its multi-car rates in response to the Soo Line's 3-car 10¢ reduction.

- -- October 23, 1981, the Soo Line in response to the October reductions by the Burlington Northern reduced their 3-car rate an additional 5¢/cwt.

- -- January 18, 1982, the Burlington Northern in response to Soo Line reductions in October again reduced its single car rate 5-7¢/cwt and reduced the 26-car single origin and 52-car rate each by 5¢.

- -- February 1, 1982, the Soo Line reduced its single car rate by 17-20¢/cwt to meet the Burlington Northern's single car rate and reduced its 3-car, 24-car and 52-car rates by 5¢/cwt.

- -- February 16, 1982, the Burlington Northern canceled its 26-car multiple origin rate and replaced it with a 3-car rate to meet Soo Line competition.

- -- Since February of 1982 the rates for both railroads have remained within 1¢ of being identical.

As was mentioned earlier, the two reasons for developing multiple car rates were truck competition and the desire of the Minneapolis market for rate concessions similar to those offered westbound. The railroads would not offer such concessions unless they had something to gain. Their gain, of course, was increased efficiency in the multiple car movement of grain and a net increase in traffic.

It is interesting to note that as was the case with the earlier barley reductions all these adjustments were made independently. Another interesting point is that the rates for the two competing railroads leveled off at exactly the same level and that the types of service levels offered by the competing railroads became identical (Table 1).

GEOGRAPHIC AND PRODUCT COMPETITION

As the preceeding pages illustrate, it is relatively easy to recognize inter- and/or intramodal competition when competing carriers are transporting the same commodities within the same operating territory. The Interstate Commerce Commission has projected, however, that competition may also exist for the transportation of like products (product competition) and between competing producing regions (geographic competition). Questions remain, however, as to whether or not these forms of competition are indeed effective.

Geographic and product competition have been promoted as a criteria for the determination of market dominance by the ICC. The concept of market dominance was legislatively verbalized as a part of the 4R Act in 1976. It was not until after the passage of the Staggers Act, however, that the ICC administratively expanded its definition of market dominance to include the consideration of geographic and product competition.

In summary, the ICC has indicated that in cases where geographic or product competition exist, it would be difficult for a rail firm

TABLE 1. WHEAT RATE ADJUSTMENTS FOR THE BN AND SOO FROM MINOT, ND TO MINNEAPOLIS, MN.

BN				SOO			
Date	Adjustment	Service	Rate (¢/cwt)	Date	Adjustment	Service	Rate (¢/cwt)
7/13/81	Introduction of Multiple Car Rates	SC[a]	132	7/27/81	Introduction of Multiple Car Rates	SC	132
		26 m.o.[b]	116			3C[e]	122
		26 s.o.[c]	111			26 s.o.	111
		52[d]	106			52	106
10/1/81	X-003 Cost Recovery	SC	134	10/1/81	X-003 Cost Recovery	SC	134
		26 m.o.	118			3C	124
		26 s.o.	113			24 s.o.	113
		52	107			52	107
10/15/81	Reduction	SC	124	10/23/81	Reduction	3C	118
		26 m.o.	113			24 s.o.	107
		26 s.o.	107			52	102
1/1/82	X-082 Cost Recovery	SC	130	1/1/82	X-082 Cost Recovery	SC	140
		26 m.o.	118			3C	124
		26 s.o.	112			24 s.o.	112
		52	107			52	107
1/18/82	Reduction	SC	122	2/1/82	Reduction	SC	122
		26 m.o.	118			3C	118
		26 s.o.	107			24 s.o.	107
		52	102			52	102
2/16/82	BN eliminates 26-car multiple origin rate and replaces it with 3-car rate at the same level						

[a] single car
[b] 26-car multiple origin
[c] 26-car single origin
[d] 52-car single origin
[e] 3-car

Source: Burlington Northern Tariff ICC BN 4016 and Soo Line Tariff ICC Soo 4087-A.

to exercise market dominance and monopoly among particular movements. Observation of the rail movement of wheat and corn from the Upper and Central Great Plains to the Pacific Northwest could indicate that geographic and/or product competition can result in competitive rates in some instances while in other cases it can be quite ineffective.

The Milwaukee Road was the first railroad to introduce multiple car rates on corn to the Pacific Northwest. The Milwaukee introduced these rates in August of 1974, in an effort to stimulate movement in that direction. They introduced 25- and 50-car rates from Iowa, Minnesota, Nebraska and South Dakota. The Union Pacific followed suit in April of 1975 by introducing 50-car rates on corn to the PNW and in March of 1977 by introducing 25- and 75-car rates from the Central Plains states.

The Burlington Northern met Union Pacific competition in the Central Plains states sometime prior to 1978. They did not, however, provide competitive rates for North Dakota, Minnesota and South Dakota corn until August of 1980, six years after the Milwaukee and five years after the Union Pacific. The Soo Line met the BN's corn rates in July of 1981.

When the BN established multiple car rates from the Northern Plains states the rates were relatively competitive with the Central Plains states (Table 2). Rates on corn between the two producing regions remain competitive today with the Northern Plains states now having a slight edge at some service levels.[5]

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[5]Burlington Northern Tariff, ICC BN 4022-D, and Union Pacific Tariff, ICC UP 4011-A.

TABLE 2. BURLINGTON NORTHERN MULTIPLE CAR CORN RATES AS OF AUGUST 20, 1980.

	Eastern North Dakota	Eastern Nebraska
	¢/cwt	¢/cwt
54-car single station origin	125	120
52-car two station origin	131	125
54-car 3-5 station origin	137	131

Source: Transcontinental Freight Bureau Tariff, ICC TCFB 3029-P.

Producers and merchandisers of corn in the two regions are thus competitive with one another in the Pacific Northwest corn market because of the resulting parity in rail rates. However, it should be emphasized that it took six years for parity to be achieved.

Although corn rates to the PNW have been equalized as a result of geographic competition, the same does not hold true for wheat. Hard red spring wheat produced in the Northern Plains and hard red winter wheat from the Southern Plains are very good substitutes for one another. Both wheats are sold into the Pacific Northwest markets. Any inequity in freight rates would therefore be detrimental to the producers and the region with higher rates.

The Union Pacific reduced its single car rates and implemented unit train rates on wheat to the PNW from the Central Plains states in December of 1979. This rate adjustment resulted in a single car rate differential of 57½¢/cwt between the Central and Northern Plains producing regions. This differential was further widened by the introduction of new multiple car rates on wheat by the Union Pacific in December of 1979. The differential between the Northern Plains single car rate, the only service level available to those shippers at that time, and the Central Plains 50-car rate, its lowest rate, was approximately one dollar per hundredweight.

It was nearly a year before the Burlington Northern introduced multiple car rates on wheat westbound from Northern Plains states to the Pacific Northwest. The BN took this action on December 1, 1980. These reductions however, only reduced the differential, they did not eliminate it.

A rate differential still exists today on wheat to the PNW from the Central and Northern Plains producing regions for comparable service levels. The differential ranges from between 33¢/cwt for the single car shipments to 47¢/cwt for the 26-car movements. The differential still favors the Central Plains producing region. In this particular instance geographic and/or product competition have not been effective in providing rail rate parity.

SUMMARY AND CONCLUSIONS

Agrarian interests had direct and vocal concerns relative to transportation long before the creation of the Interstate Commerce Commission in 1887. These interests were, in fact, partially responsible for the passage of the Interstate Commerce Act and played a major role in the rules and philosophies adopted by the Commission in subsequent years.

Changing times and financial conditions, however, eventually resulted in pieces of deregulatory legislation such as the Railroad Revitalization and Regulatory Reform Act of 1976 and the Staggers Rail Act of 1980. These factors also contributed to philosophical changes at the ICC. It is doubtful, however, that a net result of these changes have resulted in increased intramodal rail rate competition relative to the movement of grain in the Upper Great Plains.

Prior to the passage of the 4R Act in 1976, Northern Plains wheat rates were reduced three times from the Docket 17,000 level, all done in concert via the Northern Lines Committee with no visable pricing confrontation between competing railroad firms.

The 4R Act prohibited the rail rate bureaus from jointly setting single line rates in concern. This factor coupled with the single line nature of Northern Plains grain movements gave rise to apparent price competition between rail lines relative to movements of barley into Minneapolis and Duluth. Similar pricing activity was observed on wheat following the passage of the Staggers Act.

In all three instances the rates of competing railroads settled to identical levels. Thus, oligopoly pricing theory was exhibited. The apparent price competition between railroads was, in fact, a reflection of truck/rail competition in combination with the post-4R Act lack of a mechanism to set rates in concert.

Relative to the existence and effectiveness of product and geographic competition, Northern Plains experience with movements of corn and wheat suggests that in some instances it will result in competitive or roughly equivalent rates while in other cases it will not. Product and geographic competition are conceptually appealing but may prove to be ineffective in practice. The nebulous nature of the concepts and the difficulties encountered in actually measuring the existence and effects of such forms of indirect competition make responsive rate actions a matter of perception within railroad pricing departments. These factors make it difficult or perhaps even impossible to predict how railroads will reach to apparent product and geographic competition. Competition is in the eye of the beholder.

In the final analysis, where an oligopoly or duopoly exists, the pricing of rail transportaion for a specific commodity within a given region always has, and probably always will, result in rate parity. Intermodal competition has and will continue to dictate at what level this parity is achieved. Rate parity cannot, however, be expected to evolve automatically for like products or between producing regions as a result of product and/or geographic competition.