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**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

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**Docket No. EP 665 (Sub-No. 1)**

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**RAIL TRANSPORTATION OF GRAIN  
RATE REGULATION REVIEW**

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**COMMENTS OF UNION PACIFIC RAILROAD COMPANY**

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June 26, 2014

*Contains Color Images*

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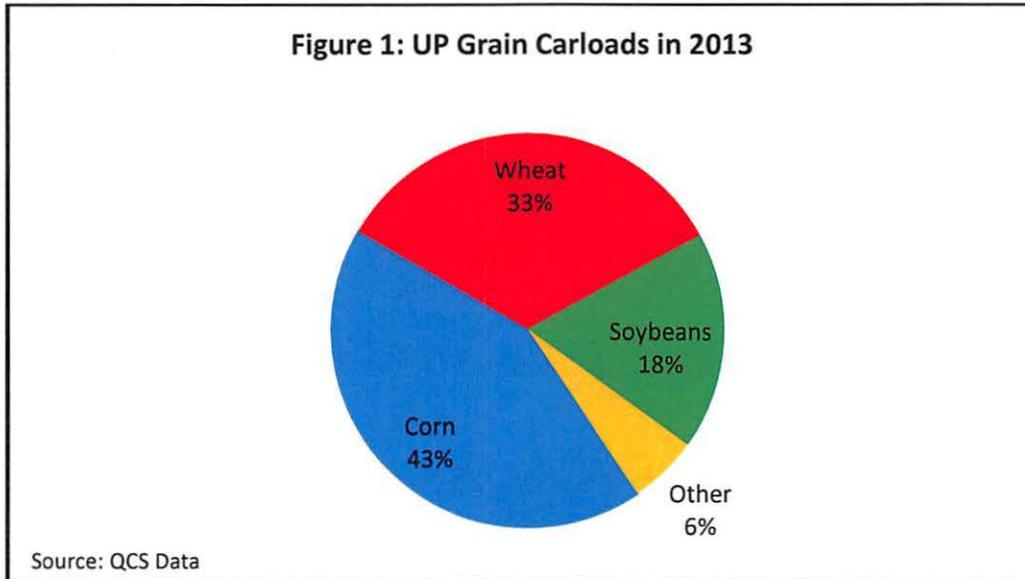
**COMMENTS OF UNION PACIFIC RAILROAD COMPANY**

Union Pacific Railroad Company (“UP”) submits these comments in response to the Board’s request for input from interested parties on grain shippers’ ability to effectively seek relief from unreasonable rates. UP transports grain in highly competitive markets. In view of the extensive direct and indirect competition for transportation of grain, UP believes unreasonable rates could not survive in the marketplace. If unreasonable rates do exist, grain shippers can effectively seek relief using the Board’s existing rate case procedures, so there is no need to adopt alternative rate relief methodologies for grain shippers.

Part I of these comments describes UP’s grain traffic. Part II discusses competition for transportation of grain. Part III discusses the application of the Board’s existing rate case procedures to grain shippers.

**I. UP’s Grain Traffic**

UP is currently the second-largest grain-carrying railroad in the United States. In 2013, UP handled approximately 292,250 carloads of grain. Corn, wheat, and soybeans made up the vast majority of UP’s grain shipments, as shown in Figure 1.



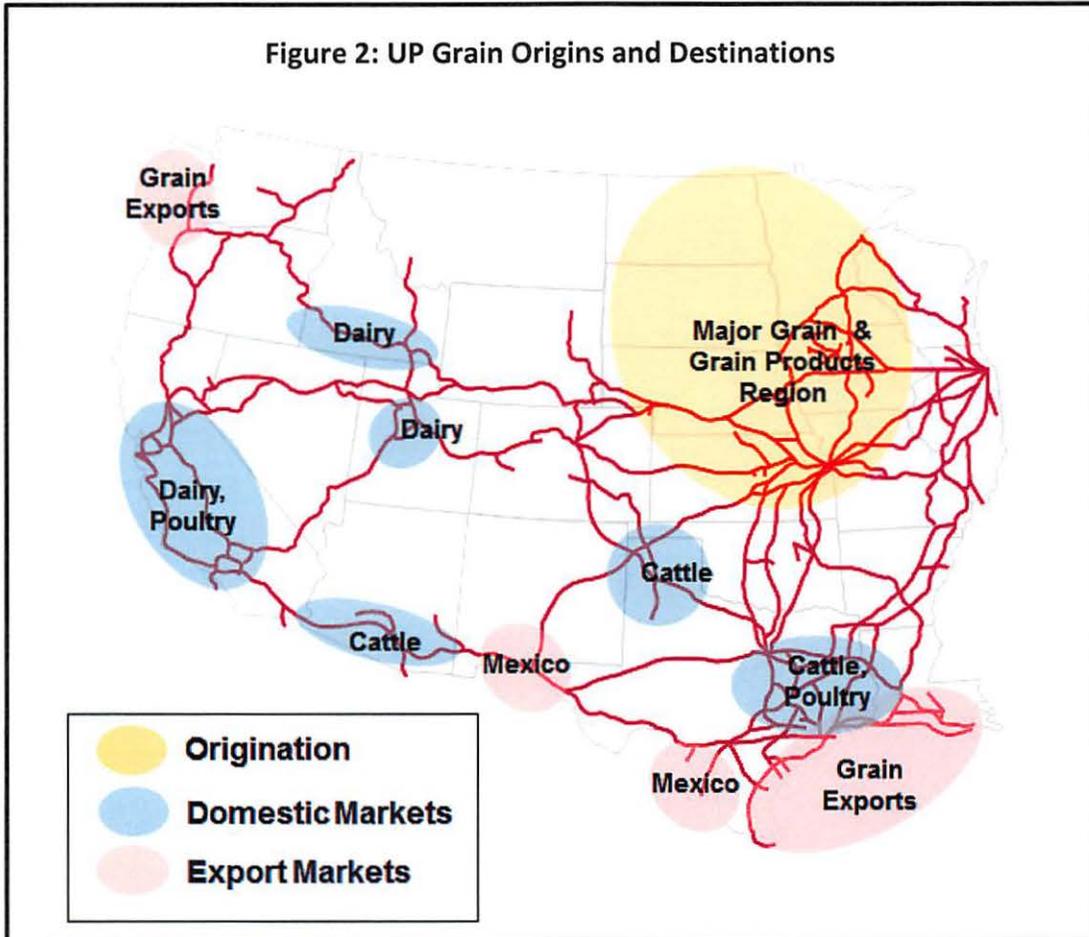
**A. Sources and Destinations of UP Grain**

UP’s corn and soybean traffic originates primarily in Illinois, Iowa, Kansas, Minnesota, Nebraska, North Dakota, and South Dakota.<sup>1</sup> UP’s wheat traffic originates primarily in Colorado, Idaho, Kansas, Nebraska, North Dakota, Oklahoma, and South Dakota. UP’s network provides grain shippers with access to: (i) processor and ethanol markets in the Midwest and, through connections, in the eastern U.S.; (ii) livestock feeding and industrial markets in California, Arizona, Colorado, Texas, Idaho, Utah, and Arkansas; and (iii) export markets in Mexico, the Pacific Northwest, and the Gulf Coast. The major sources and destinations of UP’s grain traffic are shown in Figure 2.

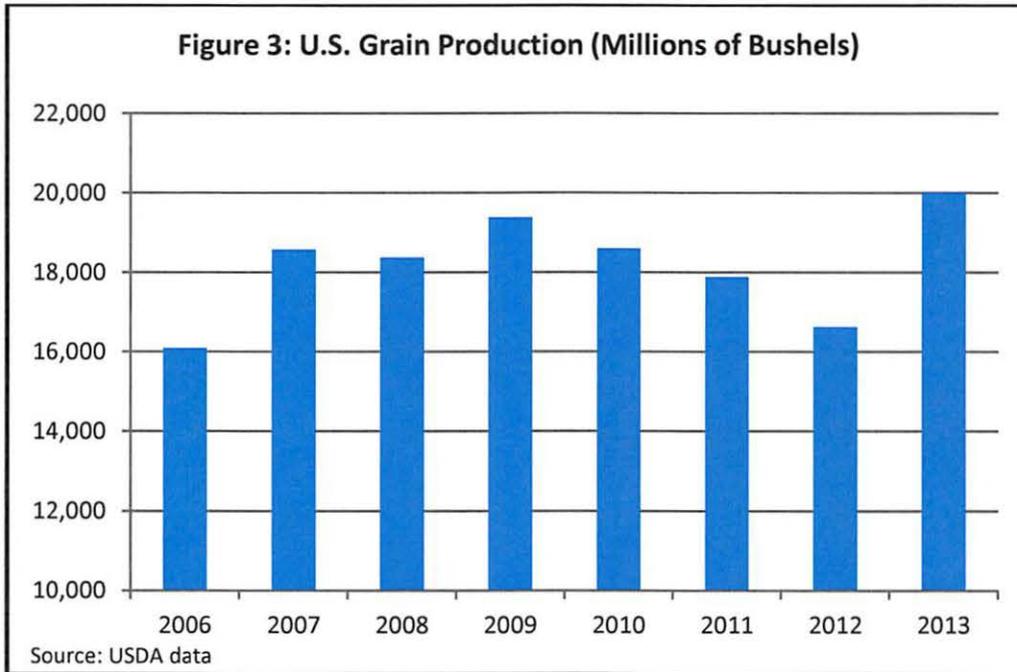
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<sup>1</sup> UP does not originate any grain traffic in North or South Dakota, but it receives traffic in interchange that other railroads originate in the Dakotas.

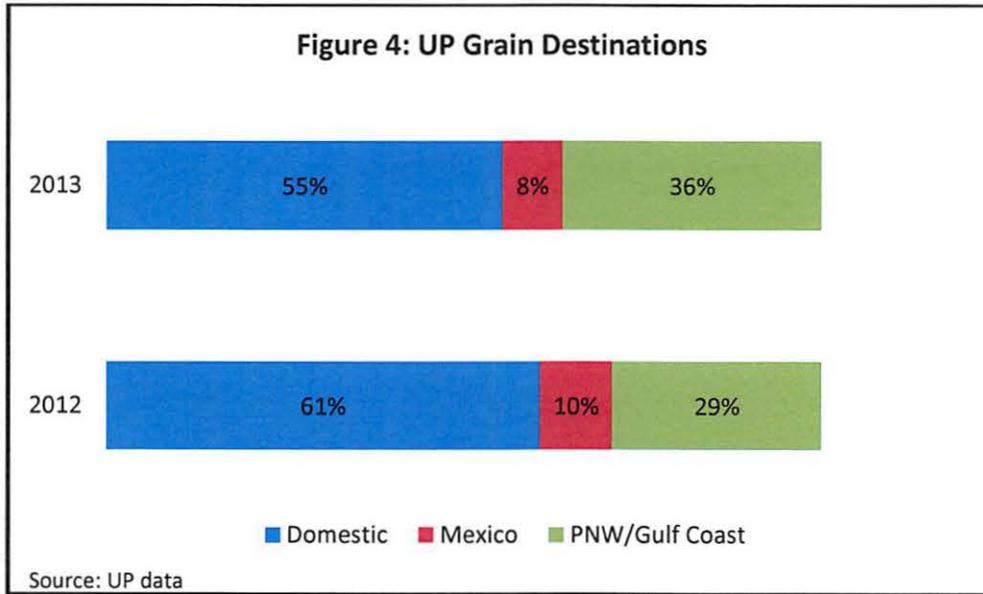
Figure 2: UP Grain Origins and Destinations



Demand for transportation of grain can vary from one year to the next, which requires UP to be flexible and adaptable. U.S. grain production is the fundamental driver of UP's grain business: there will be demand somewhere for what the U.S. farmers produce. However, large variations in production are common, both for the nation as a whole and for the regions UP serves. For example, U.S. grain production dropped by 9 percent from 2011 to 2012, and then rose by 20 percent from 2012 to 2013, as shown in Figure 3.

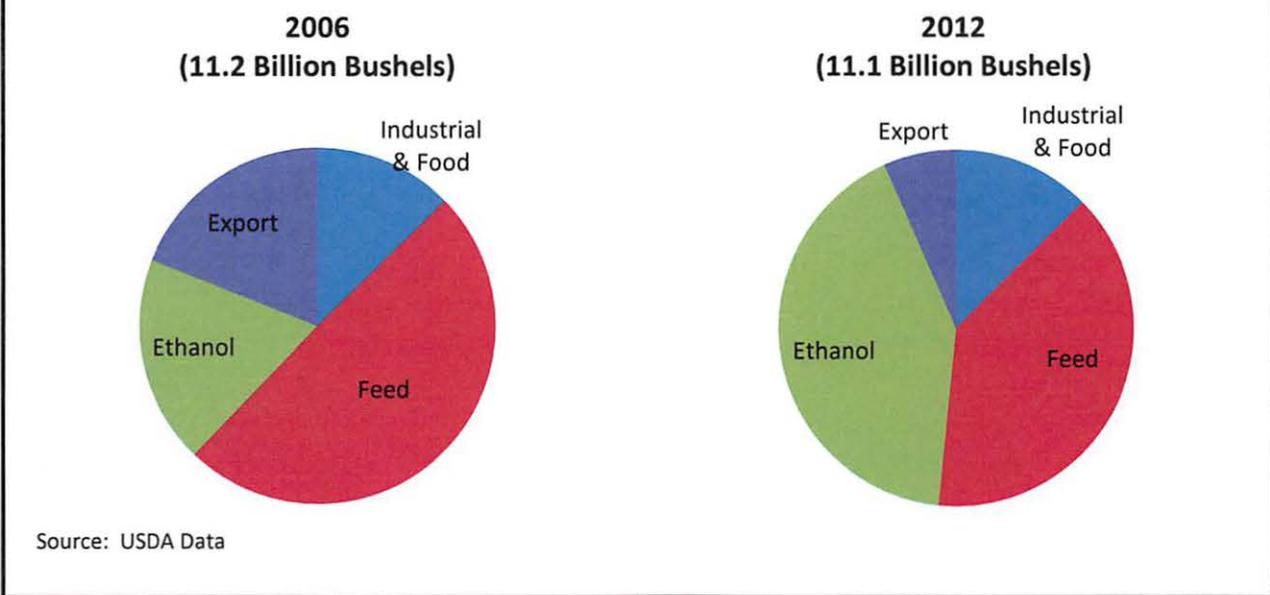


UP's grain business is also affected by variations on the consumption side, including changes in the relative strength of domestic and export markets. UP might be called upon to ramp up its service to domestic feedlots and processors, or to port facilities, depending on the conditions in national and global marketplaces. For example, from 2012 to 2013, UP's domestic traffic dropped by 12 percent, and traffic to Mexico dropped by 20 percent, while export traffic through the Pacific Northwest and Gulf Coast rose by 20 percent, as shown in Figure 4.



UP's grain business is also affected by shifts in the use of grain products. For example, use of corn for animal feeding dropped from 49 percent to 39 percent between 2006 and 2012, while use for ethanol rose from 19 percent to 42 percent, as shown in Figure 5. This means that UP had to adjust to less corn moving to feed lots, but it gained the opportunity to transport more ethanol and DDGS (a byproduct of the ethanol distillation process).

**Figure 5: U.S. Corn Usage**



**B. How UP Grain Is Handled**

When the Staggers Act was enacted, UP’s grain shipments were almost exclusively single-car or small multi-car shipments in manifest service. Over the past 35 years, rail grain transportation has evolved to place much greater reliance on trainload service. This evolution was driven by marketplace demands to create a more productive and efficient transportation system as improving crop yields created more grain production in the U.S., and to keep U.S. grain competitive in international markets. UP has supported this evolution by providing rate incentives for shippers and receivers who make the capital investments in track infrastructure, storage capacity, and faster loading and unloading systems needed to handle trainload traffic efficiently.

Most of UP’s grain trains are “shuttles” – typically, 110-car trains moving under arrangements that require shippers to load trains in 15 hours and receivers to unload trains in 15

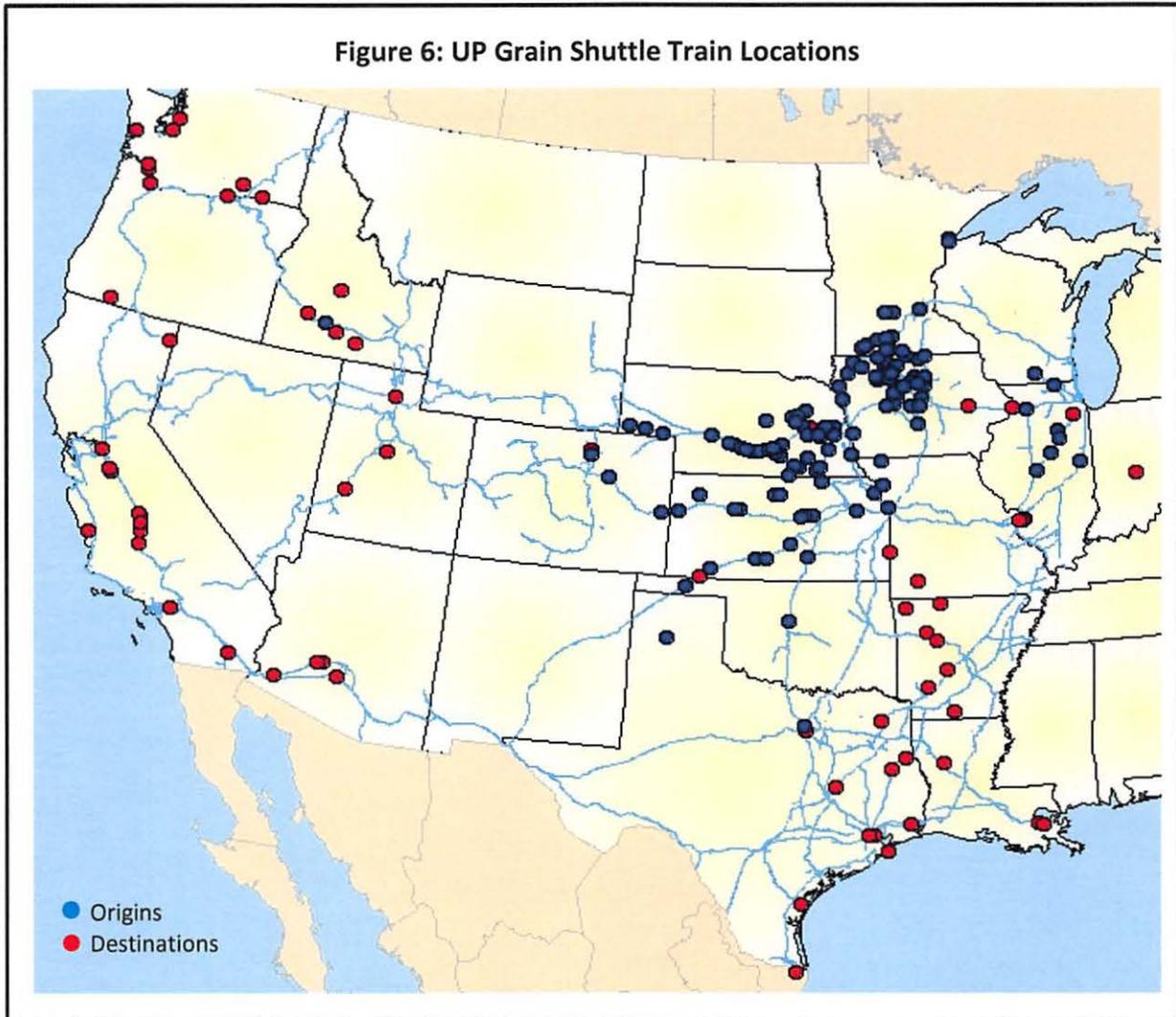
hours.<sup>2</sup> Shuttle trains are dedicated trains that stay together from trip to trip – that is, they are not broken up once they are unloaded, but are moved intact back to an origin for another load. Also, the locomotives remain with the trains during loading and unloading. Shuttles are therefore able to cycle back and forth between origin and destination very rapidly, which allows them to handle large amounts of grain quickly and efficiently. In 2013, shuttles carried more than 72 percent of all grain originated by UP and connecting short lines. While shuttle service is UP’s predominant means of moving grain, UP handles about 15 percent of grain shipments from UP origins in non-shuttle trainloads, and it handles approximately 13 percent of grain shipments from UP origins in its manifest network, which supports smaller shippers and receivers.

UP currently has 126 origins and 76 destinations in the U.S. that are capable of shipping and receiving grain shuttle trains, as shown in Figure 6. UP also has 32 approved shuttle train destinations in Mexico.

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<sup>2</sup> UP has some 75-car shuttles where customer facilities cannot accommodate 110-car trains.

Figure 6: UP Grain Shuttle Train Locations



The increased productivity achieved by the transition to mostly shuttle train service has been significant, and it has provided substantial benefits to farmers in the areas served by UP.

*First*, the incentives that UP gives to shippers who develop shuttle train facilities allow these shippers to offer higher prices to farmers for grain, and to draw grain from a much wider area, than they otherwise could. This is a key reason that shuttle train loaders normally have a major effect on local shipping patterns wherever they are developed.

*Second*, shuttle train service allows UP to move far more grain than it otherwise could at a lower cost by expanding the effective car supply. Car supply is a function not only of the

number of cars, but also of the cars' velocity – that is, the number of times a car can be loaded in any given period. On average, grain cars in manifest service complete approximately 1 trip per month. Cars in non-shuttle trainload service complete approximately 1.75 trips per month. Cars in shuttle service complete approximately 3.5 to 3.75 trips per month.<sup>3</sup> Thus, although shuttles carried approximately 72 percent of all grain that moved on UP in 2013, as noted above, they consumed only about 46 percent of UP-owned and UP-controlled rail cars used for grain.

UP has focused substantial effort on improving the efficiency and reliability of shuttle service. As a result, UP has increased the monthly turns on shuttles from just over three in 2007 to nearly 3.8 in 2013.<sup>4</sup> UP has also improved the performance of shuttles by using distributed power. At the beginning of 2008, none of UP's grain shuttles used distributed power. Today, approximately 60 percent use distributed power. Use of distributed power allows UP to increase train length without increasing the number of locomotives needed to power the train. This creates more capacity for grain customers. Train length for grain shuttles has increased nearly 10 percent since 2007. Trains with distributed power also have improved brake control and reduced slack action as a result of having multiple locomotives at various points in the consist. This creates a more reliable train, which also benefits grain customers.

### **C. How UP Grain Is Priced**

UP charges market-based, reinvestable rates, to remain competitive for grain traffic. In developing rates and service terms, UP takes into account the many alternatives grain shippers

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<sup>3</sup> Cycle times will vary depending on the origin and destination. Shuttle trains from the Midwest to the Gulf Coast can make approximately 3.5 to 4 trips per month; shuttle trains from the Midwest to the Pacific Northwest can make 2.5 to 3 trips per month; shuttle trains going into Mexico can make 1.5 to 1.75 trips per month.

<sup>4</sup> As discussed in note 3, the mix of destinations from year to year will also affect the average number of monthly trips.

and receivers enjoy and seeks to be competitive with other modes. UP has strong incentives to offer reasonable rates and terms to grain shippers. UP wants to be sure that grain elevators and other gathering facilities located on UP lines are competitive and attract substantial volumes of business.

UP grain rates are generally structured to apply from defined geographic groups. All locations within a group, regardless of whether they are served only by UP or have access to multiple railroads, normally take the same rates to any given destination. It is rare for UP to differentiate rates between individual origins or origin facilities in a group for any reason. A good example is UP's "Fremont NE Group," which comprises nine stations. BNSF Railway also serves two of the stations in this group (Fremont and Lincoln), and Kansas City Southern Railway has access to Lincoln through a haulage arrangement. All of the UP grain facilities at Fremont and Lincoln are jointly accessed, either directly or by reciprocal switching. The remaining seven stations are served only by UP. UP applies the same rates to all the origins in this group. If UP tried to charge higher prices at those locations, grain would move from other, nearby locations and UP would lose the traffic.

The vast majority of UP's grain traffic moves under rates that are published in public price documents. The documents are available on UP's website. UP's experience is that most grain customers want price transparency to accommodate their methods of doing business. UP has also found that its customers desire a stability in pricing, to allow the market to trade grain for future delivery with some predictability in rail transportation costs. UP tries to meet this need by minimizing the number of rate increases during the crop year and providing customers with notice of rate increases well before they are made. There are exceptions in some years, but UP

tries to limit price increases (other than fuel surcharge changes) to one per marketing year. And, UP generally provides customers with 60-90 days' notice of planned rate increases.<sup>5</sup>

**D. How Cars Moving UP Grain Are Supplied and Allocated**

UP currently has a fleet of nearly 27,560 large covered hopper cars capable of carrying grain or grain products. UP offers a variety of grain car distribution programs to meet the varied needs of the marketplace and the preferences of its customers. UP has programs that allow both larger and smaller customers to obtain the cars they need, and many customers obtain cars using more than one program. UP's programs also allow market demand to govern distribution of cars. UP distributes many cars through programs that require some degree of advanced commitment, but customers who participate in the programs retain the flexibility to designate the loading and delivery points in response to changes in supply and demand, and they can resell their right to capacity to other customers in secondary markets as their own needs change.

UP supplies grain cars using four different systems: grain shuttles, the guaranteed freight program, the voucher program, and general distribution.

UP's use of grain shuttles is described above. Under UP's shuttle programs, UP allocates shuttle trains to customers by offering them at auctions. A one-year commitment to continuously cycle the train is generally required. The customer is not locked into any one origin-destination pair. Rather, the customer can direct UP to move the train between any UP shuttle origin and destination. The customer can also sell its capacity to other customers in a secondary market.

UP's "guaranteed freight" ("GF") program allows customers to obtain cars by entering into an agreement – typically for a three-year period – to load a specified number of cars each

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<sup>5</sup> On June 13, 2014, UP provided customers with notice of planned rate increases as of October 2014. UP also notified customers that certain rates might increase again on January 1, 2015, depending on market conditions.

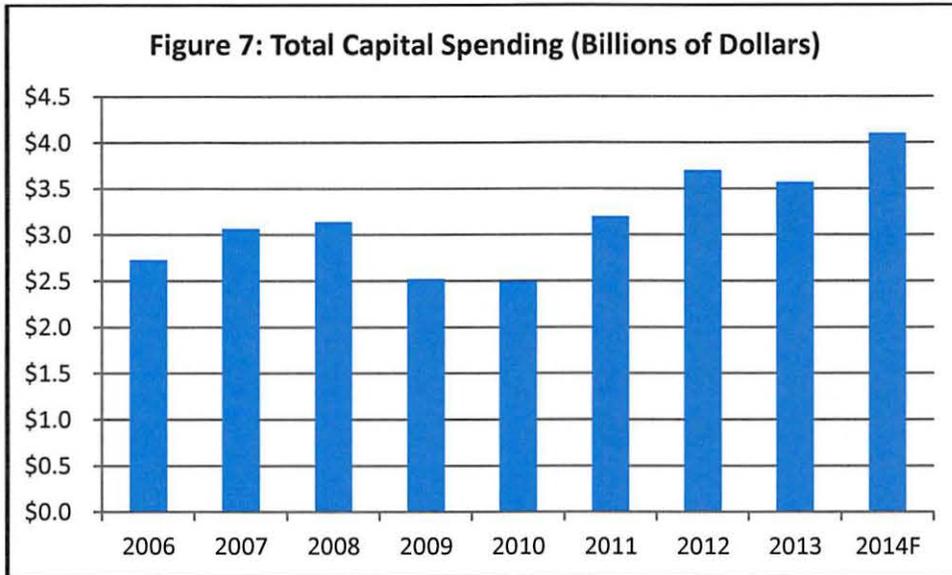
month. Again, the customer is not locked into any single origin-destination pair. Rather, it can designate the loading and delivery sites for the cars. The customer can also sell its capacity to other customers in a secondary market.

UP's "voucher" program allocates cars to the market using an auction. Unlike the shuttle program and the GF program, the voucher program involves only a single-use commitment. UP offers approximately 20 percent of its available grain car supply to the market in weekly auctions for placement within designated "origin regions" in half-month and weekly periods. "Half-month" vouchers are auctioned in lots for single cars or for trainloads of 50, 75, or 100 cars. "Week of" vouchers are auctioned as 75, 90, and 100-car trainloads. Customers may trade vouchers in secondary markets.

Finally, UP's "general distribution" allocates available cars based on a "round robin" method to customers who participate in this program. Unlike the other three programs, the "general distribution" program does not involve an advance commitment by UP.

#### **E. UP's Investment in the Grain Business**

UP has invested billions of dollars of capital that benefits grain shippers by expanding capacity and enhancing service. This includes investments in building new track and terminal facilities, replacing and hardening existing track and infrastructure, and acquiring new locomotives and rail cars. Between 2006 and 2013, UP devoted approximately \$24.5 billion to capital expenditures, as shown in Figure 7. In 2014, UP plans to invest an additional \$4.1 billion.



UP's grain traffic flows in multiple directions across the Western U.S., as shown previously in Figure 2. This means almost all of UP's capital investment in its network benefits grain shippers. For example, a substantial amount of UP's grain traffic flows over the Central Corridor, which runs from Chicago to Northern California, with extensions to the Los Angeles Basin and the Pacific Northwest. In recent years, UP has spent major resources hardening the infrastructure, upgrading the signaling system, and adding capacity in this corridor. For example, UP has begun double-tracking its route between Missouri Valley, Iowa, and Fremont, Nebraska, via Blair, Nebraska. When completed, this \$260 million project will allow UP to save 25 miles, and two to four hours, for dozens of trains daily that now use a longer route via Omaha. UP is also planning a new bridge over the Mississippi River at Clinton, Iowa. This project, which is expected to cost approximately \$450 million, involves replacing a century-old swing bridge that delays rail traffic when it must be opened for barges.

UP has also been investing in its routes to export markets in the Pacific Northwest, the Gulf Coast, and Mexico. On UP's route to Portland and Seattle, UP has been extending sidings and adding terminal tracks to improve velocity and reliability and to permit operation of longer

trains. On UP's North/South Corridor, UP has rebuilt its "OKT" line from Wichita to Ft. Worth and beyond using new rail and ties. UP has also added or extended sidings and double-track at numerous locations between Kansas City and Ft. Worth on other north-south routes. This has increased capacity and decreased transit times for grain heading for the Gulf and Mexico. UP also has added staging tracks at Clark's Park, Texas, which allows for more throughput at the Eagle Pass border crossing. In addition, UP recently accelerated renewal and capacity spending in the upper Midwest. Over \$70 million of improvements to mainlines and terminals south of the Twin Cities will improve capacity and service on grain-heavy routes.

Another example of UP's investment to serve export traffic is its recent development of a first-of-its-kind, intermodal "plant-to-port" service. The new service involves transportation of covered hopper unit trains from the Midwest to a new facility in Yermo, California. There the product is transloaded to marine containers, and then moved in double-stack intermodal train service to UP-served on-dock terminals at the ports of Los Angeles and Long Beach.

Finally, UP has invested in equipment for its grain business. Since the beginning of 2008, UP has acquired approximately 1,985 covered hoppers through purchase or lease. This includes more than 880 covered hoppers that UP recently added to its fleet in response to strong demand in the grain market in late 2013. UP also plans to add at least 700 additional covered hoppers to its fleet in 2014. UP's new covered hoppers are C5's, which are capable of carrying more than 5,000 cubic feet of product. In 2008, only about 50 percent of UP's grain cars were C5's, and the remainder were lower-capacity C4's, which carry about 4,750 cubic feet of product. Today, approximately 97 percent of UP's grain fleet consists of higher-capacity C5's.

## **II. Competition For Grain Traffic**

UP competes for grain traffic in a highly competitive marketplace. Shippers have readily available transportation alternatives to UP service, and receivers have readily available supply

options to the origins UP serves. Any attempt by UP to set above-market prices would simply result in grain traffic shifting away from UP service and UP-served origins. Efforts to charge unreasonable rates would be self-defeating.

#### **A. Transportation Alternatives**

Rail's share of grain traffic is small. According to a recent study, only 29 percent of grain and oilseed traffic moved by rail, while 58 percent moved by truck.<sup>6</sup> In fact, all grain that is shipped *starts* its journey to market in a truck. And that truck, once loaded, can be driven to many different places, including locations on other railroads or barge terminals.

##### **1. Direct Truck.**

A truck can be driven directly to market. The product may be moved to market by the farmer, it may be sold to a trucker who resells it at the market, or the buyer may arrange for the pickup of the product on the farm. Direct trucking from field to market or barge terminals is very common in UP's service territory. It is particularly common in areas near the Mississippi River System in the Midwest (the Mississippi, Missouri, Illinois, Arkansas and Ohio Rivers) and the Columbia/Snake River System in the Pacific Northwest.

Truck's share of the market has increased in recent years as a result of three significant trends: the growth of ethanol production, the growth of biodiesel production, and changes in animal feeding practices.

*Ethanol.* The increased production of ethanol has significantly reduced the share of corn transported by rail. As ethanol production has grown, new plants have been sited within trucking distance of corn-producing areas. Ethanol production increased from 1.6 billion gallons in 2000

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<sup>6</sup> Marvin E. Prater, Adam Sparger, Pierre Bahizi & Daniel O'Neil, Jr., *Rail Market Share of Grain and Oilseed Transportation*, Journal of the Transportation Research Forum, Summer 2013, at 127.

to 13.9 billion gallons in 2011, and producing those 13.9 billion gallons of ethanol consumed approximately 40 percent of U.S.-produced corn.<sup>7</sup>

*Biodiesel.* The increased production of biodiesel has reduced the share of soybeans transported by rail. As production increased from 2 million gallons in 2000 to 1.07 billion gallons in 2011, more of the soybean crop moved by truck to biodiesel refineries.<sup>8</sup>

*Animal Feeding.* Rail's share of corn and soybeans has also declined because DDGS and soybean meal have been increasingly substituted for corn and other grains in animal feed. Corn and soybeans are moving by truck to ethanol facilities and soybean crushing plants, rather than moving by rail to feed lots. For example, in 1994, 58 percent of U.S. corn was used for feed purposes, and only 6 percent was used for ethanol.<sup>9</sup> In 2011, only 37 percent of U.S. corn was used for feed purposes, and nearly 40 percent was used for ethanol.<sup>10</sup> Rail's share of grain traffic has also declined as more cattle feedlots have been located within trucking distance of grain production areas.<sup>11</sup>

## 2. Truck to Elevator

A truck can also be driven from the field to an elevator, where it is unloaded. The product will eventually be sold to an exporter, a processor, or a feeder – that is, a receiver who uses the product in animal feed – and shipped to market either by truck or rail.<sup>12</sup> Unless trucks coming

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<sup>7</sup> *Id.* at 131.

<sup>8</sup> *Id.* at 132.

<sup>9</sup> *Id.* at 142.

<sup>10</sup> *Id.*

<sup>11</sup> U.S. Dep't of Agric., *Study of Rural Transportation Issues* 192 (2010).

<sup>12</sup> In some cases, the product may be moved to another elevator before it is shipped to market. For example, many elevators that have lost rail service over the years have chosen to market themselves as storage facilities and then truck the grain either to market or to a rail-served (continued...)

from farms are driven to UP-served elevators, UP will likely never see the product. Thus, UP competes to locate elevators in its service area. For example, UP recently convinced two new customers to select UP-accessible locations in Minnesota to establish new elevators.

However, in UP's service area, there are normally alternate elevators on other railroads in the area to which the product could be driven to just as easily. And, even if the product does go into a UP-served elevator, there is no assurance it will ever be transported out by UP. The elevator operator can easily choose to sell into a truck market. There is extensive trucking of grain from elevator to market in UP's service territory, and this is true even of rail-served elevators.

#### **B. Supply Alternatives**

Grain is grown extensively in areas that UP does not serve. This grain can satisfy both domestic and export demand just as easily as product from within UP's service territory. These sources compete with UP-served sources to supply the same end markets. For example, there are considerable corn and soybean production areas in the Midwest that UP does not serve, such as Indiana, Ohio, and portions of Illinois. In many other areas, such as Iowa, Nebraska, and Kansas, large portions of crops are located closer to competing rail carriers or to the river system than to UP lines. Similarly, there are major wheat producing areas, such as North Dakota, South Dakota, and Montana, which UP does not serve directly (though UP participates in interline traffic that originates in the Dakotas). Finally, the areas from which most of our corn and soybean traffic originates are 150 miles or more from the river system (generally central Iowa and southwestern Minnesota). This is considered "residual draw territory" in the export trade. This means that

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facility. Rail-served elevators that do not have shuttle train loading capability may also choose to truck grain to a shuttle train loader, a practice that is common in UP's service territory.

exporters will not draw product from the “residual” area unless they are unable to fill their demand from areas close to the Mississippi River System, or if UP is able by its pricing to overcome the disadvantage of its more distant origins. The Columbia/Snake River System has a similar effect in eastern Washington and Oregon and western Idaho. As previously discussed, areas closer to these river systems are served mostly by truck.

### **C. Transportation/Supply Alternatives and Market Discipline**

The transportation and supply options described above are powerful constraints on railroad pricing. Any attempt by UP to set rates above competitive levels would set off a sequence of events causing grain to flow around and away from UP. UP-served elevators would reduce their bids to area farmers and increase their use of trucks to reach markets, and they may shift to markets other than the ones they are now accessing via UP. Area farmers, reacting to lower bids, would sell less product to UP-served elevators and more product to elevators on competing lines or directly to markets. The draw areas of UP-served elevators would shrink, while the draw areas of elevators on competing lines would expand. All of these actions would remove traffic from UP, thus punishing it for setting above-market rates. In this environment, UP has no “market power.”

### **III. Application Of Rate Case Procedures To Grain Shippers**

The Board should not adopt special rate case procedures for grain shippers. The Board’s existing rules provide ample opportunity for grain shippers to pursue rate relief. Under existing rules, shippers who believe they are being charged unreasonable rates can challenge their rates using one of three methodologies: Full SAC, Simplified SAC, or Three Benchmark. Shippers of coal and other products have obtained relief using these methodologies. Grain shippers could also obtain relief under these methodologies – if their rates were set at unreasonable levels.

Moreover, the Board recently addressed grain shippers' complaints about the regulatory framework by raising the limit on relief in Three Benchmark cases. In *Rate Regulation Reforms*, the National Grain and Feed Association ("NGFA") stated that "a primary reason why none of its members have found the current [Three Benchmark] rules to be useful for seeking relief from high railroad rates is that the current damage limit of \$1 million over five years is far too low."<sup>13</sup> NGFA urged the Board to raise the relief limit to \$4 million,<sup>14</sup> and the Board raised the limit.<sup>15</sup>

In addition, the Board should not credit assertions that the lack of rate complaints means that its rate case procedures are not "accessible." UP believes that grain shippers are not filing rate complaints because their rates are reasonable. Indeed, given the extensive rail, truck, barge, and source competition for transportation of grain, it should be no surprise that "rates for land transportation of agricultural commodities in the United States remain among the lowest in the world."<sup>16</sup>

UP will evaluate any proposals for simplifying rate reasonableness cases that are submitted in this proceeding. UP believes the Board should be open to changes that would improve the accuracy of rate reasonableness determinations while reducing litigation costs. However, UP does not believe there is any need for special procedures for grain shippers.

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<sup>13</sup> Opening Comments of the National Grain and Feed Association at 9, *Rate Regulation Reforms*, EP 715 (Oct. 23, 2012).

<sup>14</sup> *Id.* at 10.

<sup>15</sup> See *Rate Regulation Reforms*, EP 715 (STB served July 18, 2013). On June 20, 2014, the D.C. Circuit remanded the case so that the Board could address a mathematical issue associated with its decision to increase the relief limit. See *CSX Transp., Inc. v. STB*, No. 13-1230 (D.C. Cir. June 20, 2014).

<sup>16</sup> U.S. Dep't of Agric., *Study of Rural Transportation Issues* 240 (2010).

Respectfully submitted,

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