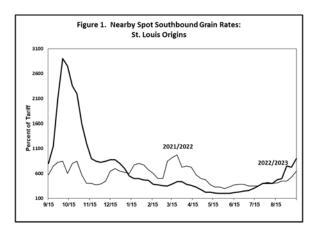


Reprinted with Permission from the September 18, 2023 Edition

Low Water Once Again Causes Havoc in Freight Markets

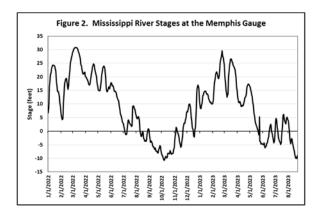
For the second year in a row, lack of precipitation and plunging river levels are having serious adverse consequences for the critical fall harvest season barge freight market. Southbound rates for nearby export grain shipments across all origin areas have soared over the last 21 days. Spot rates for export grain shipments from St. Louis harbor origins, for example have climbed to levels at or above 900 percent of the benchmark tariff from levels closer to 500 percent of the benchmark tariff three weeks ago. At this same time last year meanwhile, nearby St. Louis-origin grain freight was trading at 650 percent of the benchmark tariff. Those rates, however, were beginning their dramatic 2022 harvest season ascent to dizzying record highs above 2,500 percent of the benchmark tariff that was reached briefly in early October (see Figure 1).



Some of the recent increase in spot grain rates (and rates for other dry products) no doubt result from the traditional start of the annual fall corn and soybean harvests. The vast majority of the rate growth, however, has been due to the same factors that drove spot rates to record levels during the 2022 harvest: Severe freight capacity constraints due to extremely low water levels on the Mississippi River. As *RTN* went to press on September 15th, for example, the Mississippi River gauge at Memphis stood at -8.74 feet. The minor good news is level was up modestly from -10.23 feet recorded a few days earlier. Despite this short-term rise, Mississippi River levels are not forecast to experience any meaningful increase over the following five days. They also continue to challenge the extremely low levels reached during the



worst of the lower water crisis last fall (see Figure 2). River stages at other points on the Mississippi River are exhibiting similar patterns.



The effects of the low water levels are dramatically cutting fleet capacity through multiple vectors. At the most basic level, barges cannot be loaded to their optimal depths. Barge operators now are loading both northbound and southbound barges on the Mississippi River to a maximum draft of nine feet. Typically, jumbo hopper barges with 13- and 14-foot hulls (which account for the vast majority of the barges plying the Mississippi River) are loaded to 11 and 12 foot drafts, respectively. This gives a 14-foot hulled box barge an optimal capacity of just over 2.300 tons, while a 13-foot hulled box barge has an optimal capacity of approximately 2,060 tons. (Raked barges have somewhat lower carrying capacities). A nine-foot draft restriction cuts the 14-foot hulled box barge's carrying capacity to approximately 1,650 tons, a reduction of nearly 30 percent. The 13-foot hulled barge, meanwhile, will lose just under 430 tons of carrying capacity when loaded to a nine-foot draft.

The barge fleet's effective capacity also is adversely affected by the need to reduce barge tow sizes due to the low water-related narrowing of the navigation channel. The reduction in drafts results in increased demand for both barges and towboats to move a given volume of traffic. The reduction in tow sizes adds further to towboat demand. Additional pressure has been added to the fleet as a significant number of largerhorsepower towboats are experiencing significant operating difficulties at 9-foot drafts. Many of these vessels require 9¹/₂ feet of water. Industry sources indicate that a number of these high-horsepower large capacity towboats have been temporarily idled.

Shippers and carriers also have to contend with considerably longer transit times as tows have to contend with alternating one-way traffic at multiple points on the Mississippi River due to reduced channel widths. Transits also are being impaired by periodic river closures due to groundings and ongoing dredging activity.

Demand?

At this point, it seems that much of the recent surge in spot barge rates has been due to serious capacity constraints due to draft and tow size restrictions. These have caused unit operating costs to surge. Barge operators also have significant demands being placed on constrained fleets by their existing term contract customers or those that had previously purchased forward freight. As such, there is little or no capacity available to handle incremental spot traffic. Market observers indicate that what little freight is being traded is occurring in localized markets with carriers needing a barge "here and there" to fill previous freight commitments.

On a macro level, the fall harvest for both corn and soybeans has begun in earnest, though activity has not yet reached peak levels. As of September 10th, 34 percent of the U.S. corn crop was classified as mature

by the USDA. Five percent of the crop had been harvested, primarily in southern states.

Barge demand will no doubt increase as harvest activity expands. Barge markets, however, are not anticipating further major near term rate increases. Forward rates for full month October loadings are essentially even or up just 50 tariff percentage points from current nearby spot values. October St. Louis rates are being quoted at 950 percent of the benchmark tariff, up from the nearby 900 percent value. Similar patterns exist for Ohio River, Illinois River and upper Mississippi markets.

One factor keeping rates from spiking out of control is continued tepid demand from the export grain sector. Even as the USDA continues to forecast higher U.S. corn exports for the 2023/2024 marketing year (see related story this issue), actual export activity has been subdued. Unshipped U.S. corn export commitments for the current marketing year as of September 7th totaled 10.4 million metric tons compared with 11.8 million metric tons of unshipped commitments one year earlier. Unshipped U.S. soybean export commitments for the 2023/2024 marketing year, meanwhile, totaled 16.2 million metric tons as of September 7th. One year earlier, these unshipped commitments totaled 24.9 million metric tons.