Russian Federation

Post: Moscow

Overview of Russian Grain Port Capacity and Transportation

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Report Highlights:
Russia has continued to develop and upgrade port infrastructure, and Russian port capacity for grain is estimated at 25 MMT and increasing. Despite this increase, transportation and logistical problems with getting grain to the ports continue to be a major issue in Russia.
Russia’s Port Capacity

Russia does not publish aggregated statistical data on the capacity of its grain export terminals, and information below are FAS Moscow estimates based on a summary of media information, experts’ estimates and field visits. Grain analysts consider that at present Russia’s grain export port capacity is approximately 25 MMT (although with direct loading of railway wagons into ships as well as using ports from other countries, Russian exports are able to exceed this port capacity number). This estimate includes deep water ports on the Black Sea, shallow water ports of the Volga-Don basin and Azov Sea, and fairly insignificant port capacity on the Caspian Sea and in the Russian Far East. Russian traders also may export grain through the deep water ports of Ukraine, and through some ports of Baltic countries, but the competition with Ukrainian and Kazakh grain in these ports is very high. For all of the Russian ports, typically the constraint to exports is the speed and capacity of the intake of grain (due to rail logistics, documentation problems, etc.) rather than the actual speed of loading grain onto ships. Nevertheless, at times weather can delay ship loading at these ports, and for example in Rostov wind can reduce the river draft and thus delay the movement of exports for a number of days.

Chart 1. FAS Moscow Estimates of Russian Ports Grain Exports Capacity

Deep Water Ports of the Black Sea

Industry analysts estimate the capacity of Russia’s deep water ports of the Black Sea at 13-15 MMT a year. The deep water ports of the Black Sea include the Novorossiysk port with two terminals, and estimated capacity of grain exports at 11-12 MMT a year, and the new grain terminal in the Tuapse port with estimated capacity of 2 – 2.5 MMT a year, and the emerging port of Taman, which has very small
grain export capacity at present, but the port has ambitious plans to expand it in the near future.

**Novorossiysk port:** Novorossiysk port consists of two major grain terminals (the “old” terminal and the “new” terminal). Total Novorossiysk’s port grain handling capacity was estimated at 11 MMT per year at the beginning of MY 2010. The capacity of the “new”, privately owned terminal is estimated at approximately 6-7 MMT a year. The “old” terminal, so called Novorossiysk Bread Combine (NKHP), belongs to the state owned United Grain Company (UGC) which upgraded and modernized it during the grain embargo, and increased its capacity from 3.5 MMT to 4.5 MMT a year. From July 1 through the end of September, 2011, this UGC’s owned terminal dispatched 1.2 MMT of grain, or over 10 percent of the total Russian grain exports in this period. The United Grain Company continues modernization of NKHP by increasing the grain storage capacity, reconstruction of the railway infrastructure, and the construction of the new export gallery with new ship-loading equipment. After these changes the capacity of handling grain at this terminal will increase to 5 MMT a year.

Both terminals at Novorossiysk port can load Panamax-sized vessels, and grain is delivered to the port both by trucks and by railroad. At Novorossiysk and many shallow-water ports, grain from growing areas near the ports – within 250 kilometers - arrives primarily by trucks, while grain produced further away arrives typically by rail. Also, grain from inland elevators is primarily transported by rail. Because of this, the percentage of grain delivered by rail increases as the marketing year progresses. In Novorossiysk, delivery schemes are improving, and the terminals even organize automotive management of truck flow. However, intake logistics continue to remain a major constraint and frequent rail bottlenecks occur. In July – September 2011 Novorossiysk port loaded for exports approximately 3.3 MMT of grain, or 35 percent of the total Russian’s grain exports in these months.

**Tuapse port:** Tuapse port has one grain terminal which was opened in December 2009. The port can load Panamax-sized vessels (up to 50,000 MT). Storage capacity at the terminal is around 100,000 MT, and the export capacity is 2.5 MT a year. However, since it opened this terminal has not yet been able to operate at full capacity for two major reasons. First, shortly after the terminal came online the grain export ban was put into place. Second, even with the lifting of the ban, the high volume of railway traffic destined to Sochi (which is on the same railway line after Tuapse) for Olympic construction has reduced free railway capacity to supply the terminal. Also, this terminal can only be supplied by rail, as roads connecting Tuapse to key growing areas go over mountains and are too steep and windy for shipments by truck. So despite strong demand for port capacity in Russia, these logistical bottlenecks mean the grain terminal may not be able to operate at capacity until later in 2012. In July – September 2011, the port of Tuapse dispatched approximately 470,000 MT of grain.

**Port Taman:** The present grain storage and loading capacity of this port is not significant as this port does not have a grain terminal and does not currently have railway access. However, the port already has vegetable oil handling capacity, and several companies have investment plans for grain export facilities. In the end of September 2011 the United Grain Company, the Ministry of Transportation of the Russian Federation, and the Administration of Krasnodar Kray signed an agreement on the construction of a new grain terminal in Taman, and railroad access to this port, that will allow the handling of 6 MMT of grain a year by 2014, and to load vessels of up to 40,000 MT.

*Shallow Water Ports (Both River and Sea)*
Industry analysts estimate the total grain export capacity of all the shallow water ports in the Volga-Don-Azov basis at 8-10 MMT. Many companies, including major grain traders, have their own terminals and berths in the Volga-Don-Azov basin, and load 3-5,000 MT ships. Because of the large number of loading facilities and the proximity to the key growing areas, in July – September 2011 these ports shipped more grain than Russia’s deep water ports. According to industry analysts, in July – August grain exports from the shallow water ports of Azov-Don cluster reached 3,024,000 MT and exceeded by 40 percent grain exports from Novorossiysk (1,840,000) and Tuapse (297,000 MT) combined. Although facilities in the Azov-Don cluster in July – August loaded 1.5 MMT a month, because shipping from many of these facilities largely ceases in the winter, total capacity is only estimated at 8-10 MMT. Most of these ports stop functioning in the end of November, and navigation is opened in March. Some of these ports can function with the help of ice-breakers, although upriver this is not feasible.

The major shallow water ports are Rostov-on-Don, Eysk, Azov, Temryuk, Kavkaz, Taganrog. Besides, there are several Volga-Don river terminals.

- **Rostov-on-Don:** Grain export capacity of this port is estimated at 3 MMT a year. The port is a shallow draft facility loading 3-5,000 MT vessels, mostly to nearby Mediterranean countries.
- **Eysk:** Port handling capacity is over 2 MMT a year. In July – September 2011, Eysk port loaded over 980,000 MT of grain for export in vessels that can carry up to 6,000 MT each. Thus, if berths of this port work at full capacity only 7-8 months a year, this port can load more than 2.5 MMT;
- **Kavkaz, Temryuk, Azov, Taganrog:** These are small ports in the Kerch channel and on the Azov Sea. They have small grain loading facilities that belong to grain trading companies, and directly load grain from trucks or railway cars (if railway lines reach the berth), to 3-5,000 MT vessels.
- **Small Volga-Don River Terminals:** that load grain to 3–5,000 MT vessels. The export capacity of these terminals is estimated at 0.6-0.8 MMT a year. Usually the weather conditions do not allow functioning of these terminals in December - March.

**Other Russian Port Options**

**Russia’s Baltic ports:** These ports have total grain export capacity of up to 2 MMT. However, grain exports from these ports are not significant. They have small channels, and the competition with other cargoes, including imported cargoes, is very high. Also these ports are far from key Mediterranean markets which are the largest buyers of Russian grain.

**Far Eastern ports:** Russia had plans to build a grain terminal with capacity of 1.5 MMT a year in Vladivostok (the Far East) in order to export Siberian grain into the Asian markets. However, these plans have not been implemented so far. Some analysts estimate that the cost of transporting grain from Siberia to Vladivostok is higher than from Siberia to European ports.

**Ports in Baltic Countries and in Ukraine**

Ports in the Baltic Sea countries and in Ukraine may be considered as an alternative to export Russian grain. Some Estonian ports offer very favorable rail rates for shipping grain from the Russian-Estonian border to Estonia’s port of Muuga.
Grain Transportation Problems

Analysts consider that actual port capacity will not be a problem this year, as the real bottleneck is in getting grain to the ports as a result of poor management of railway logistics, high cost of transportation from Siberian regions, and competition with grain from Kazakhstan (for markets, for Russian grain cars, etc.). Thus, Russian railway officials complained that in October 2011, Russian railways shipped 0.5 MMT less grain than they could have if traders had loaded and unloaded railcars faster and avoided detention of cars. These delays are connected with inadequate management and lack of forward planning, the poor conditions of grain handling facilities at railway stations, and delays in preparation of shipping documents. While for transporting grain in trucks the shipper needs to receive only one document (permit) from the state regulatory bodies, for shipping grain by rail, the shipper needs to receive nine documents from government officials, which usually work only 5 days a week. As for the cost of rail transportation, in Russia grain is considered a product of the second tariff group (not socially important, unlike ore, coal and concrete), and as a result freight rates are high. Also, the poor condition of the Russian railway cars fleet is also a problem, although this situation has improved and RusAgroTrans, the leader in railway grain shipments, has been purchasing new cars in 2010 and 2011. At present this company owns 30,000 grain cars, or 90 percent of the Russian grain cars’ fleet, but it has been reported that the company leased out 5,000 cars to Kazakhstan for transporting Kazakh grain to export terminals.

As for trucks, when the grain embargo was introduced many truck companies switched to non-grain cargoes, and when exports renewed they increased transportation fees. Traders complain that in some cases the fees increased by 30-50 percent compared with fees in summer 2010.

The cost of shipping grain from Siberia to European ports is the major constraint for increasing exports of Siberian grain. Siberian provinces produce in average approximately 18 MMT of grain, but domestic consumption of grain in these provinces varies from 11 MMT to 12 MMT. The annual grain surplus may amount to 6 MMT in certain years, however due to the high cost of transportation it is very expensive to ship this grain to export points. The road from the major railway station Novosibirsk-Vostochnyi (Novosibirsk-Eastern) is:
  - 5,900 km to Vladivostok port;
  - 4,100 km to Novorossiysk port (Black Sea);
  - 3,600 km to St. Petersburg (Baltic Sea port)
  - 3,330 km to Zabaikalsk (the major border point with China).

According to analysts, the delivery of Siberian grain to export terminals varies from 1,500 rubles ($50 [1]) to 2,000 rubles ($67) per MT. For comparison, transportation of grain from the Southern European Russia and even from the Volga Valley to the export terminals usually does not exceed 500 rubles ($17) per MT. Also, the returns from grain production in Siberia are lower than in Southern European Russia as input costs are higher and yields are significantly lower. Although quality is typically higher as spring wheat is produced in Siberia, the price premiums for high baking quality of Siberian grain have been very small. This year there is a large grain crop in Siberia, and grain farmers complain that they do not have enough storage capacity to store all grain, given that Siberian elevators still store intervention grain. Distances from ports and this shortage of storage have dampened domestic prices in Siberia, but even with these lower prices, exports of Siberian grain have not been feasible, although this may change with new railroad tariff decisions (see below).
On October 6, 2011, the Russian Federal Service on Tariffs set a temporary 0.5 coefficient to railway tariffs for transporting grain and grain products from Siberia and Kurgan oblast to Russian ports and to the border points with North Korea, China and Mongolia, if the distance exceeds 1,100 kilometers. This coefficient will be in force from September 21, 2011, through June 30, 2012. For transporting grain from Siberia and Kurgan oblast to Ukraine the coefficient will be in force from September 21, 2011 through December 31, 2011. The losses of the Russian state owned railway monopoly “Russian Railways” (RZhD) from this measure will then be compensated from the federal budget, which should be confirmed by a special resolution of the Russian government. Despite this announcement, implementation of these measures can often be delayed by the railroads and can be spotty, and industry analysts have not yet reported significant increase in grain shipments from Siberia to Russian ports or to the Ukrainian border.

[1] For simplicity of calculations of domestic tariffs and prices in US Dollars the exchange rate is 30 rubles per 1 US Dollar, although the exchange rate in September –October 2011 fluctuated within 28.5 to 32.5 rubles per 1 US Dollar.