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POTEN TANKER OPINION

Cloudy with a Chance of Rate Falls

The impact of lower US production on the Jones Act

The U.S. Flag tanker market has received a boost from the increase in domestic U.S. crude oil production, in particular from tight oil formations in Texas (Eagle Ford and Permian Basin), North Dakota (Bakken) as well as other (smaller) fields. Tight oil production increases pushed U.S. crude oil production from 6.0 million b/d (mb/d) at the end of 2011 to 9.4 mb/d in 2014 and rates for Jones Act tankers, ATB's and barges followed suit (see Fig. 1). However, Jones Act shipping rates weakened in 2015 as the prospects for further growth in tight oil production started to dim. Is this a temporary dip or are we at the start of a prolonged downturn?

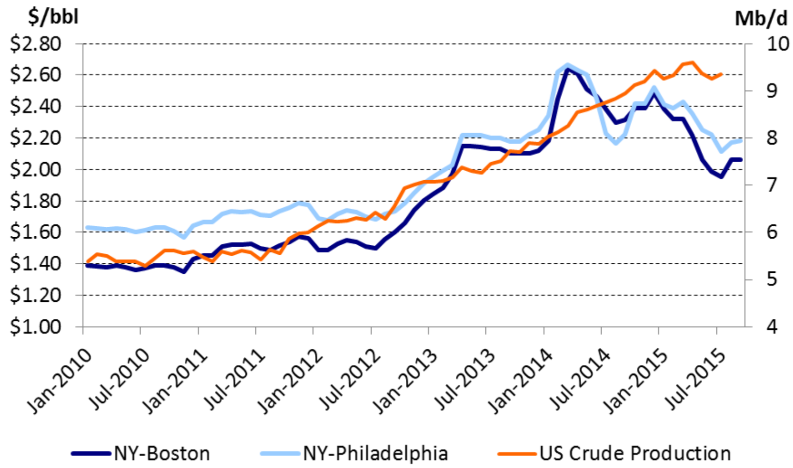
When the growth in tight oil production started to accelerate, the infrastructure in the U.S. was not ready for the significant increase in domestic crude oil flows. This situation, exacerbated by the fact that U.S. law restricts the export of domestically produced crude oil, created a significant price differential between domestically produced grades and international benchmarks. Discounted pricing made U.S. tight oil increasingly attractive for domestic refiners. As a result, oil producers, refiners, pipeline companies and shipowners alike all started to invest significantly in infrastructure to debottleneck the domestic crude oil distribution network.

Over the last four years the volume of crude oil that is moving by rail has increased dramatically. Statistics from the EIA show that intra-U.S. movements of crude oil by rail increased from one million barrels per month in January 2010 to almost 29 million barrels per month in December of 2015, equivalent to a compound annual growth rate of 96%!

Pipeline capacity has expanded as well, although adding pipeline capacity is slower due to the lengthier permitting and building process. Since 2012, pipeline capacity from PADD 2 (U.S. Midwest) to PADD 3 (U.S. Gulf Coast) in particular has expanded dramatically, de-bottlenecking Cushing, OK and allowing more crude from the Bakken and Permian Basins to reach the Gulf Coast. Movements of crude oil by pipeline from PADD 2 to PADD 3 almost tripled from 80 million barrels in 2012 to 223 million barrels in 2014. Pipeline movements continued to expand in 2015.

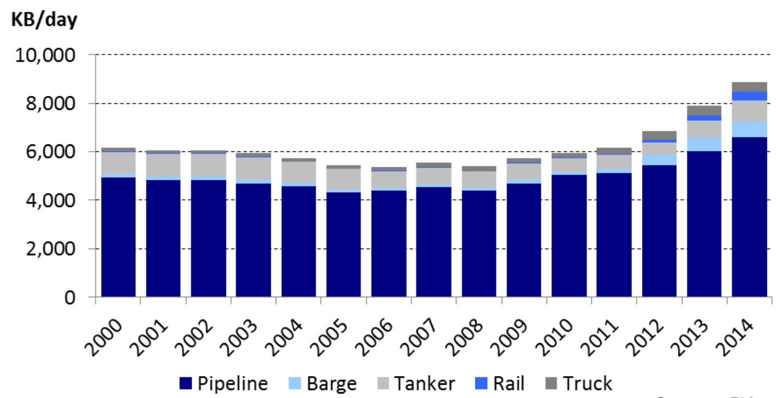
Shipowners have also expanded capacity, encouraged by rapidly increasing rates and the willingness of oil companies to enter into long-term charters at attractive terms. More vessels may have been ordered if it was not for two (related) factors holding shipowners back: very high prices and limited shipbuilding capacity. The contract price of a Jones Act MR at a U.S. shipyard is some $150 million (more than four times the going rate for an equivalent vessel built in Korea). These high

Fig 1: Jones Act Barge Spot Rates versus U.S. Crude Production



Source: Poten & Partners / EIA

Fig. 2: Domestic Crude Delivered to Refineries by Mode of Transportation



Source: EIA

prices discourage speculative new orders. Most of the large units that are currently on order already have fixed employment for at least 5 years. Limited shipbuilding capacity is also a key constraint. There are only two shipyards in the U.S. that build tankers at the moment: Aker Philadelphia Shipyard and the NASCCO shipyard in San Diego. Both have limited capacity and cannot deliver a vessel before 2018.

Developments in the U.S. crude oil markets over the last 6-12 months have started to resemble a perfect storm: at the same time that significant new rail, pipeline and shipping capacity is coming on stream, the impetus to this investment boom – increasing tight oil production – seems to be coming to an end, possibly creating significant overcapacity in the system. On top of the threat of lower production, the narrowing WTI-Brent spread has made foreign crudes more competitive, stimulating more imports.

The outlook for the Jones Act tanker has definitely darkened as a result of the above developments. While higher cost rail shipments will be the first to absorb reduced volumes, expanded pipeline capacity will also reduce demand for tanker movements. Tanker newbuildings without fixed employment as well as the vessels that will come off charter the coming years will face a more challenging rate environment.