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Russia's Railroad Technology: New Source for Southeast Asia?

By Wu Shang-su

Synopsis

Russia's deals with Indonesia and Vietnam about railway construction reveal Moscow's potential to meet the rising demand for land transportation in Southeast Asia. However, some technological factors put Russia in a less competitive position, especially at a time when Southeast Asia is going for high-speed trains.

Commentary

THANKS TO continued economic growth, most Southeast Asian states have to meet the increasing demand for land transportation, including railroad. Due to the door-to-door convenience, highway systems absorb most additional traffic generated by the economy. However, most ASEAN states' railroad systems are struggling for modernisation and bear a relatively small portion of the load for land transportation. Electrification, central traffic control or other modern facilities for efficient railroad transportation are not popularly applied in Southeast Asian rail networks.

Nevertheless frequent traffic jams due to over-loaded highway systems and relatively low fuel efficiency of automobiles demonstrate the importance of railroad systems. With almost none or insignificant railroad industry extant in most ASEAN states, external sources of trains and railroad technology are crucial. So far, the major suppliers are China and Japan, while European countries, such as France and Germany, play a considerable role as well.

Enter Russia

Since the reorganisation of its railroad industry in 2003, Russia has become active in securing international contracts, not only in neighbouring countries, such as the Confederation of Independent States, but also in other states such as Libya. In Southeast Asia, Russian Railways (RZD), a state joint venture company, obtained a contract to build a 183 kilometre line mainly for transporting coal in Kalimantan in 2012 which was extended by another 60km in 2014. In April 2015, Moscow and Hanoi agreed to build a railway line in southern Vietnam as well as locally assembling Russian railcars and manufacturing rolling stocks.

Due to the economic sanctions imposed by Western countries and the falling price of oil, Moscow is

searching for alternatives to the European market. Southeast Asia presents a great opportunity. Apart from energy, tourism and agriculture, the region's increasing demand for infrastructure, including constructing or upgrading railroad systems, presents another potential-sector.

As a continental power, Moscow inherited a huge railroad industry which develops and produces a large variety of diesel and electric locomotives and trains as well as other rolling stocks. Such industrial capacity attracts investment from European companies such as French Alstom and German Siemens with eyes on the Russian domestic market and export as well. The recently weakened Russian rouble would be advantageous for export.

At a time when most Southeast Asian countries are looking to upgrade and extend their railroad systems while Russia with its rail industry wants to strengthen its trade, further deals may appear following Indonesia and Vietnam. Unlike Beijing and Tokyo, Moscow's less geostrategic concerns in Southeast Asia may lower the political sensitivity for regional states, particularly those in Indochina which may be included into the Chinese "one belt, one road" framework. Moreover, relatively cheap prices of Russian locomotives and rolling stocks could be more attractive than their European and American rivals.

Actually, due to their low price, Chinese locomotives, electric trains and railcars have achieved a considerable portion of the rail market in Southeast Asia, and Russian rolling stock may follow the same approach. Although Russia chooses German and French trains rather than indigenous design for its high speed services in the 2000s, its development and practice of high-speed freight trains would be valuable for the regional states that concentrate on manufacture and trade.

Limitations and challenges

Moscow's penetration of the Southeast Asian rail market will, however, be constrained by several factors. Firstly, most Russian trains are designed with a unique wide gauge track, 1.520 metre, which is much larger than the popular narrow gauge in ASEAN states, either 1 or 1.067 metre. Considering different sizes of train and axle weight, direct application of Russian railroad products would be unlikely and redevelopment for smaller versions would require additional costs with less certain quality. Although the Soviet Union supplied narrow gauged locomotives to Vietnam during the Cold War, to handle narrow gauge trains with new technology would be still a challenge.

Secondly, railroad projects are usually involved with large budgets so that financial support would be essential. Russia's difficult financial conditions since the economic embargo and the falling price of oil would not leave much resources to support its railroad industry for export. The international funding facilities, either the US-led World Bank, Japan-led Asian Development Bank or China-led Asian Infrastructure Investment Bank, would be unlikely to cooperate with Russia due to the leading states' political and economic concerns. Compared with Beijing's loose conditions for funding, Moscow's deal would be less attractive.

Finally, ASEAN states seem to still prefer passenger high-speed railroad systems. Although Russian indigenous passenger trains can reach 160km or even 200 km per hour, its lack of its own passenger high-speed railroad system or any achievement of reverse engineering may not perfectly match with the developmental goals of regional countries.

If Moscow is unable to overcome its problems of funding and lack of indigenous capability for high-speed passenger railroads, local lines similar to the deals in Vietnam and Indonesia would be the most they can do in the near future. Another marketing solution could be a large package deal including railroad and other major subjects, such as nuclear and arms sale.

In terms of the Southeast Asian rail market alone, Russia's influence would be still limited in the near future, and the Sino-Japanese competition would remain the key play driven by the economic and political motives of China and Japan. However, railroads could still be as yet untapped policy and economic tool for Moscow.

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