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SOME ASPECTS OF RUSSIA'S INTEGRATION INTO THE EUROPEAN TRANSPORT SYSTEM

ABSTRACT

While the Russian space has extended over very large parts of Eurasia its economic consistency and growth was primarily depending on the development of a huge railway net. It was also paramount for the strength of the Soviet empire. Technically and administratively, however, the transport system has been isolated from its neighbours. This may prove disadvantageous in the future when much closer economic cooperation in particular with Europe will gain in importance. To satisfy these needs, a dual transport system - Russian railways plus trans-continental maglev lines, may be the key solution.

KEY WORDS

transport in Russia, transport integrations, European transport

It is natural that the eve of the new century, as well as the end of the Cold War and the disintegration of the socialist system with its decades of self-isolation brought with them some real chances for the European integration, in particular – changes for the creation of a solid basis for such integration. And now we are faced with the question, is such unification possible on the basis of a traditional approach to transportation or are new approaches necessary to create a new transportation network corresponding to the present and future demands of the economy and of the society as a whole?

The analysis of the so called Kondratyev waves of the World economy shows that the technological and the scientific progress do not always go hand in hand with the economic development, sometimes outstripping it, sometimes lagging behind and in some cases even leading to a deadlock. Technical innovations have the highest effect if they respond to the actual demand. In such cases these innovations can spark new demand.

The latest works by Dr. W. Tietze and his colleagues deal with the very important problem of creating the united Pan-European Maglev Network covering the entire continent. The Transrapid is supposed to incur less unit costs and environmental damage than the already running High Speed Trains. The new

Network will enable trains to run at higher speeds and reach them more rapidly and climb steeper gradients. The investments are also comparable with HST. However, that is where the phenomenon of inertia of the infrastructure objects comes in, caused by their capital-intensity and low sectional efficiency. This problem can be elucidated if we consider the major differences between Russian and West European transport systems.

Since the 30s the main task of the Soviet transport was to support the industrialisation process, the opening-up of Northern and Eastern areas, the collectivisation of agriculture. Functioning in the isolated framework (even now foreign trade goods transportation in Russia accounts for only up to 30%), the transport system was aimed at moving enormous amounts of bulk freight on long distances as part of a larger goal of concentrating and monopolising production and shifting the economy to the East.

The tariff system was also designed to meet these tasks. As to the social functions i.e. passenger traffic – here the approach of labour supply for production process prevailed.

Transport development in Russia was obviously lagging behind the industrial growth. Subsidisation of bulk cargo tariffs as well as high concentration of transport flows, predominance of railways and pipelines in the model split deprived the transport sector of the status of an equal partner in the productive process.

The situation was aggravated by the lack of competitive environment, the monopolisation tendency (30% of overall industrial output was produced by a limited number of large enterprises), as well as by the absence of alternative transport and industrial decisions.

The Russian transport system essentially served a rigidly fixed development scheme based upon autarchian principles. At the same time, the Western experience showed that the new market demand in the post-industrial economies is inevitably connected with the inter- and intra-sectoral and spatial restructuring.

At this stage, the transport system was modified, acquiring new functions and turning into a propulsive sector of the economy. This, however, became possible in the result of restructuring and changing development priorities and goals. The quality of transport services became the determining factor. The propulsive role of transport manifests itself as a complicated distributive and logistic system adjusted to the shifts and allocations of productive branches, the appearance of new and the modifying of the existing industrial centres.

Due to rise in the cost of transported cargo, the pattern of consumer cost (CIF) changes drastically – the share of transportation cost (F) is going down while the role of quality of transportation is rising considerably. This is partly reflected in the lowering of I (insurance) component. Such changes allow introduction of more costly but more efficient haulage schemes (for instance – an intermodal container system):

On their part, the Russian economists increasingly realise the need to transform the former Soviet command economy, which thrived on the following Marxist principles:

- centralised management of the economy,
- prevalence of large enterprises-monopolists (following the “large-scale economy” principle),
- directive planning,
- spatial concentration of economic activity,
- the East-Northward shift of the opening-up process,
- very strict productive specialisation of large regions,
- state monopoly of foreign trade which causes an autarchy and self-isolation,
- implicit priority of mining and heavy manufacturing as a basis of industrialisation (more than 70% of industrial output),
- an unusually high share of centrally planned defence industry (to provide safety by achieving strategic parity with the US) in the GDP,
- disproportionate allocation of funds in favour of industry diminishing the role of agriculture,
- financing.

The result of this system was the residual principle of social and services development. To satisfy these principles a specific economic policy has been elaborated in the field of:

- management (centrally directed distribution of resources and planned allocation of productive powers),
- financing (heavy subsidisation of heavy industry and at the same time residual principle for the “non-productive” branches including passenger transportation),

- labour distribution (restriction of movement, violation of right to leave/enter the country, broad employment of forced labour and the army),
- transport policy (tariff subsidisation of the bulk cargo movement, fuel price reduction, as well as withdrawal of meagre road-user taxes).

All these features have determined the absence of a common market space as well as of the competitive base of the Russian economy. As a result, these peculiarities caused:

1. Very high amount of losses – they account for up to 1/3 in the mining and 1/5 in agriculture.
2. Unwieldy economic structure with prevailing basic and resource branches.
3. Extremely high resource and energy intensity of GDP. Russia in spending about 25 to 30% of the GDP on fuel and energy while the US – only 6 to 7%.
4. Low efficiency of the economy as a whole due to the low incentive for labour productivity growth as well as the low turnover of inventories. This is for peace period partly connected with the extremely high share of military expenses in GDP (due to some estimates up to 10% while in the US only 3%).
5. Isolation of the economy – the export quota in Russia accounts for 6-7% (in Western Europe 5-7 times higher) and the foreign trade structure reflects a typical colonial feature: the share of minerals and fuel in export accounts for 44%, metals 26%, timber 4%, but machinery 10%.
6. Low intercity transport mobility of the population: 4 thsd. Pass.-km per person, in Western Europe 10 thousand, in the US 14 thousand.

All these points mentioned above show that the idea of speeding-up of Russia's integration in the European economy does not correlate with competitive level of particular branches, with the foreign trade structure and with the development level of transport infrastructure.

Up to now, in Russia's transport system wasteful and expense-oriented approaches have been prevailing. The system still retains a very archaic composition of lorry, ships and rail wagon fleets with a weak reaction on changing requirements, an out-of-date modal split and differentiation of haulage zones (17% of railways cargo is being transported over a distance less than 100 km).

The “just-in-time” logistic cargo delivery system is not yet developed. The monitoring of right-in-time cargo movement is very weak. As a result, more than half of all cargo deliveries is being performed behind schedule. The average speed of delivery is going down. The forwarding performance in terminals is inadequate. The non-transport revenue part of transport enterprises accounts to 5% only while in Western

countries their share exceeds $\frac{1}{4}$. There are still two main bottlenecks in the distribution system – the intermodal terminal transshipment of cargo as well as an informative provision of delivery. The containerisation rate of consequent goods in Russia is no higher than 49%, in the Western countries – more than 80%.

In spite of the very high internal branch-effectiveness of the Russian transport system (relative cheapness of freight delivery) the available system is practically invalid for transformation to market economy, for integration into the Western economic structures. The main hindrance on this way is the super-monopolistic position of Russian railways.

Now, the Russian transport system has to make a choice – how to overcome the crisis. There is a unique opportunity to perform a large-scale structural change (including investment redistribution). There is an urgent need to over-comprehend the transport's role in the market post-industrial economy.

The priorities in Russia's transport paradigm based on the railways monopoly position and on predominance of heavy cargo handling as well as on undermining of passenger services should be drastically changed. The four extremely backward elements of Russian transport system should be given a high priority status:

- road transport (incl. private passenger transport),
- road network (main roads and local network),
- intermodal container system,
- air cargo transportation.

Returning to the Maglev system issue, it is necessary to resolve the problem of the correlation of the main and local (regional) networks. It was already shown that the Russian population and economy (as well as of other East European countries) is suffering heavily from the lack of good roads, from the shortage and depreciation of transport facilities. About 60% of the Russian population is living in unsatisfactory transportation conditions, and 30% of the small and middle-size towns and townships don't have any links to the highway system. It is quite clear that, without improving the transport connections of remote regions, real integration would be impossible.

The high priority of establishing the planned traffic corridors or HST lines (be it conventional or Maglev-type) can be realised only if a certain part of derived operational revenue (if any) could be transferred to cover the needs of local and regional transport system improvement.

As to the Maglev-line in Russia, first, the route Moscow-S.Petersburg is taken into account. The conventional HST project has been under consideration doubled – from \$ 7 bln. to almost \$ 14 bln. (according to the "Spiegel", 42/98, the cost of Berlin-Hamburg Transrapid project has also increased from DM 7.5 bln. to DM 10 bln. and even to DM 15 bln.). Besides,

the proposed HST project will have a negative impact on the environment since it has to cross the area of the Valday National Park. The main problem, however, is the economic feasibility of the project. The HST Moscow-S.Petersburg will be feasible at transport flows amounting to 30-50 mln. passengers annually. However, the total traffic turnover between the two Russian capitals by rail, road and by air does not reach 10 mln. passengers. Therefore this project implementation (hardly pushed by the Ministry of Railways) should not have a high priority rank. As to the Maglev-project, it will probably become viable in 10-15 years on this route, provided the HST project is abandoned.

The Maglev-projects should be considered taking into account the "large-scale economy" principle. In this case –with due regard for two rather contradictory factors – the shortest distance between points of origin and destination, as well as the largest possible transport flow should be assessed. Therefore in the future, only some of the most busy routes could be viable for introducing the Maglev-trains. Among them, besides Moscow-St.Petersburg route, Moscow-N.Novogord-Kazan (branch to Samara) – Ekateringubr; Moscow-Orel-Kursk-Khazkov (by the Russian-Ukrainian border transparency)-Rostov; and Moscow-Smolensk-Minsk-Warsaw. All other shown routes could be regarded as additional (subsidiary) ones and will probably be served for by conventional transport modes.

As to the West European Maglev-projects, the intermodal competition should be taken into account. In the post-war period, the European railway companies have silently observed the drastic change of the transport market pattern. Actions for railways modernisation have, nevertheless, not been undertaken (except for some HST projects), the state subsidies capable of meeting exclusively the network servicing needs. Almost every railway enterprise was unprofitable.

At the same time, the road transport was rapidly developing: the share of the private cars in the passenger traffic rose from 49% in 1960 to 79% in 1995, consequently the railways share went down from 31% do 7%, in the freight traffic: 35% and 72% (road transport) and 45% and 13% (railways) respectively. Besides enormous economic advantages, the road transport was actually released from the burden of infrastructure financing.

Generally, it should be admitted that the time of railways dominant position has passed irreversibly. It is doubtful whether during the following decades the relatively dense Maglev network would be able to attract sufficient additional transport flows. The only solution now is to change the tendency of the intermodal competition. It means using governmental and EU mechanisms to reduce the rate of growth of the road (and on certain distances of the air) transport. This

would create favourable conditions for the implementation of some of the Maglev projects. One should, for instance, consider in this context the question of increasing the level of fuel taxation, of introducing more broadly the toll roads system, etc.

The Maglev projects should be considered taking into account the "large-scale economy" principle. In this case - with due regard to the shortest distance between points of origin and destination, as well as the largest possible transport flow should be assessed. Therefore in the future, only some of the most busy routes could be viable for introducing the Maglev-train. Among these routes: Moscow-St.Petersburg route, Moscow-Moscow (Kosovo branch to St.Petersburg) - Brest-Litovsk-Moscow-Orel-Kursk-Kharkov (to the Russian-Ukraine border) - Rostov - Moscow and Moscow-Sankt-Petersburg. All other routes could be regarded as additional (subsidiary) ones and will probably be served by conventional transport modes.

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At the same time, the road transport was rapidly developing. The share of the private car in the passenger traffic rose from 40% in 1960 to 70% in 1997. Consequently the railways share went down from 51% to 29% in the freight traffic, 33% and 23% (road transport) and 43% and 13% (airways), respectively. The intermodal economic advantage of the road transport was actually released from the burden of infrastructure financing.

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All these measures will definitely increase the competitiveness of railways as a whole and will establish the basis for the development of the Maglev System, which will become an important element of European economic integration.

Now, the Russian transport system has to make a choice - how to overcome the crisis. There is a unique opportunity to perform a large-scale structural change (including investment reduction). There is an urgent need to overcome the transport's role in the market post-industrial economy.

The priority in Russia's transport paradigm based on the railway monopoly position and on the dominance of heavy cargo handling as well as on the dominance of passenger services should be drastically changed. The four extremely backward elements of Russian transport system should be given a high priority status:

- road transport (incl. private passenger transport);
- road network (main roads and local network);
- intermodal container system;
- air cargo transportation;
- returning to the Maglev system (even if it is necessary to reduce the problem of the construction of the main and local (regional) networks. It was already shown that the Russian population and economy (as well as of other East European countries) is suffering largely from the lack of good roads. From the shortage and stagnation of transport facilities. About 60% of the Russian population is living in unsatisfactory transportation conditions, and 30% of the small and middle size towns and townships don't have any links to the highway system. It is quite clear that without improving the transport connections of remote regions, real integration would be impossible.

The high priority of establishing the planned traffic corridors of HST lines (as it conventional or Maglev-type) can be realized only if a certain part of detailed intermodal network (if any) could be transferred to cover the needs of local and regional transport system improvement.

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