
Dr. Chin Hyung-in

Economic Outlook For The Eurasian Railroad

Dr. Chin is vice president of the Korea Maritime Institute (KMI), a government research institution under the South Korean Prime Minister's Office. He is also president of the Korea Logistics Society, which deals with all modes of transportation across Asia. He has been a railroad and inter-modal consultant to the UN ESCAP for the Trans-Asia Railroad Project. He received his Ph.D. in Economics from the State University of New York at Binghamton, in 1985. The full title of his speech is "Eurasian Railroad: Current Operation, Prospects, and Its Meaning to the Northeast Asian Economy." A selection of his graphics is published here. EIR will print a more extensive documentary presentation in a future issue.

Thank you for allowing me to speak about the Eurasian Land-Bridge. Usually, as a transportation authority, many times I speak about these kinds of things as a very serious subject; and frequently, I'm talking in a foreign language, about a serious analysis in an academic setting. Here I think you are

already very serious and sincere, so I will try to help you with your desire to learn something important.

I have been working for some time as a Korean advisor to the Ministry of Construction and Transportation in Seoul, regarding the entire Eurasian Land-Bridge. In this presentation, I summarize our own work at the Korea Maritime Institute on the Eurasian Land-Bridge. I had already planned to visit Russia to further our own research there, when *EIR* asked if I could address your seminar in Germany, so we adjusted our schedule, and we came here. Actually, I was speaking in the United States in 2000, in Seattle, and a researcher, Mr. Hal Cooper, gave me the *EIR* report on the Eurasian Land-Bridge. I found it to be a wonderful and very fine report, so I contacted *EIR*, saying, "You produced a very good report." That's how my relationship with *EIR* began. I think *EIR* also has very good inputs and improvements in making the Eurasian Land-Bridge possible. Also, we have many problems.

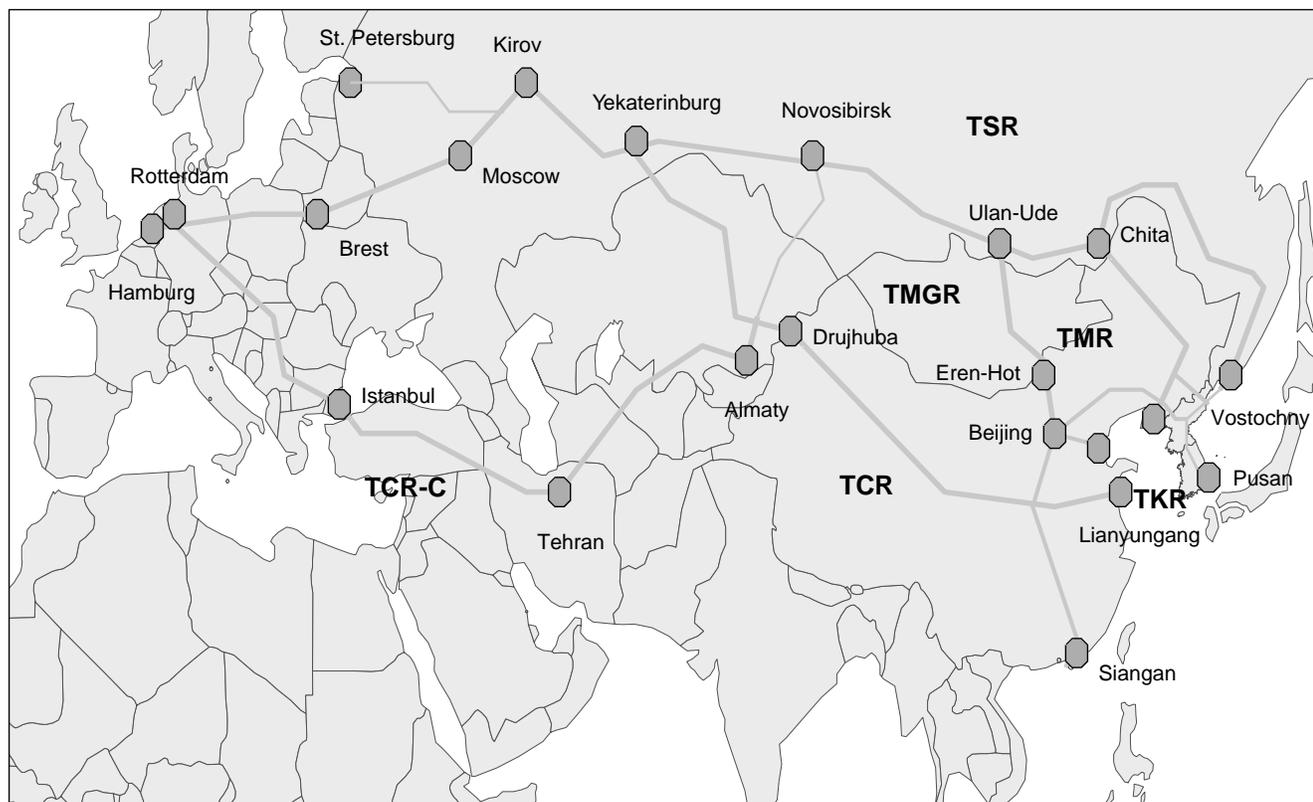
So now, I will talk about, as a researcher, I will present to you what the economic advantages will be, and what the potential is, and some operational and management aspects, and required investments, and government regulations—there are so many aspects to be achieved, and to be considered and pursued.

This is the Eurasian Land-Bridge proposal for five systems (**Figure 1**), and until now, most important has been the Trans-Siberian Railroad [TSR]; but there is also the Trans-Mongolian Railroad [TMGR], Trans-Manchurian Railroad [TMR], Trans-China Railroad [TCR] (obviously also a very important railroad), and the Trans-Korean Railroad [TKR].



Dr. Chin Hyung-in: "If we construct both [East and West Railways], it will be better."

FIGURE 1
Eurasian Railroad



You see here the TSR, from all the way from Vostochny to Moscow, Brest, and you can go even farther west to Hamburg, and Rotterdam. Then the Trans-China Railway, starting from the main port in China at Lianyungang, to connect with Chita, to the north of China; and there is Beijing, Eren-hot, and Ulan-Ude, also very important for Korea.

Here (Figure 2) you can see the Trans-Korean Railway connection. One, at the left, is going from the west side of Korea to China, the Kyongui Line. The other, at the right, is going from the east side of Korea, to Russia, the Donghae Line. And, there are several different interest groups debating as to which one should be connected first, or which is more important.

But as a specialist, I think both are important, so it's no problem. If we construct both, it will be better! Meanwhile the construction of both is under way, and one will go through Shinuiju, as you see on the left side, and on into China. And the other one will go through Tumengang on the right, at the mouth of the Tumen River, where North Korea, China, and Russia meet, and into Russia. Russia is naturally very concerned about completing the railroad on the right, so that cargo can then go all the way through, starting from Vostochny, through to Moscow and Europe.

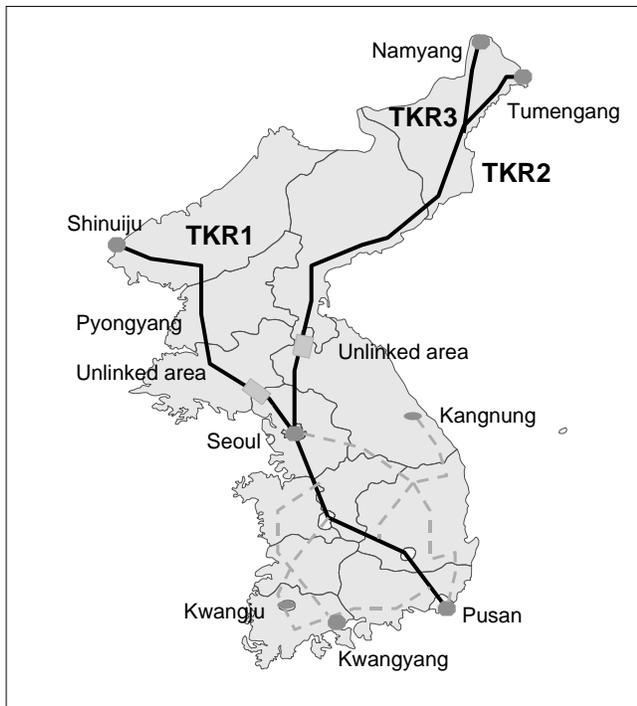
But personally, as a researcher and area expert, I'd prefer the priority to be the left side, because we need more cargo and communications there right now (between Seoul and Pyongyang), and we already have very well-developed shipping channels, from Pusan to the right-hand line (TSR to Russia). But anyway, both are very important, so both will be constructed soon, and very energetically.

Please note the grey shaded boxes marked "Unlinked Area." Please imagine the Demilitarized Zone (DMZ), the 38th parallel, as a line dividing Korea crossing from left to right, passing through the center of these unlinked areas. Inside these unlinked areas, this is where we are now concentrating our efforts to re-construct the Trans-Korean Railroad for the first time in 50 years. As one North Korean official told former U.S. Ambassador to South Korea Donald Gregg: "We are ripping up 50-year-old trees and tearing up all the land mines, to rebuild the railroads and highways, which shows that we would prefer to have peace."

There is one unlinked area on the west side at left, running from Seoul northwest to Pyongyang and Shinuiju.

There is the second unlinked area on the east side at right, running from Seoul northeast across the DMZ and then up the northeast coast to Tumengang where the three countries

FIGURE 2
Trans-Korea Railway



meet, to the lines of the TKR in Russia. And you can see that Seoul is a kind of center of a large “X” connecting all the rail lines on the Korean Peninsula.

Here (Figure 3), I’m showing the details inside the “un-linked areas” on the previous slide, where these two rail lines are now being re-connected. The top of this slide shows the western Kyongui Line from Seoul northwest to Pyongyang, Shinuiju, and into China. The bottom half of the slide shows the eastern Donghae Line, from Seoul northeast to Wonsan, Tumengang, and Russia.

At the top of the slide is the western railway, and you see there the Demilitarized Zone, in the middle of the line. And on the left you see, starting from the south, in South Korea: Seoul, and then Munsan at the southern edge of the DMZ, and then you see the DMZ, and then the town of Bongdong in North Korea at the northern edge of the DMZ. And this line continues to Kaesong in North Korea, where it is proposed to build the important Kaesong Industrial Complex as an Inter-Korean industrial project, and to Pyongyang, Shinuiju, and into China.

As you see, from Munsan at the southern edge of the DMZ, there is only remaining to be rebuilt 12 kilometers to the Military Demarcation Line at the center of the DMZ, and then only 8 kilometers more, north to Bongdong at the northern edge of the DMZ. As South Korean President Kim Dae-jung said many times, just 20 kilometers of Iron Silk Road will connect the whole Eurasian Land-Bridge grand transcontinental line from Pusan to Paris. And the total distance from Seoul to Shinuiju, where North Korea meets China, is 486 kilometers.

From Seoul up through Munsan, President Kim had already accomplished the completion of the railway inside South Korea, to the beautiful new Dorasan Station at the end of the line, visited by President Bush in February 2002. So there is no problem from the South Korean side of the line. There are, of course, many problems on the other side, technical and other problems. But South Korea has been preparing for this connection for so many years, that we even have a proverb in South Korea, “Come Spring, the connection of the ‘missing link.’” So, we are eager to connect the railroads, but things are not that easy, I assure you.

And the bottom of the slide shows the second unlinked area on the east side of the Korean Peninsula. On the left side of the slide you see South Korea, and we don’t show Seoul here; you have to

FIGURE 3
Unlinked Areas Along the TKR

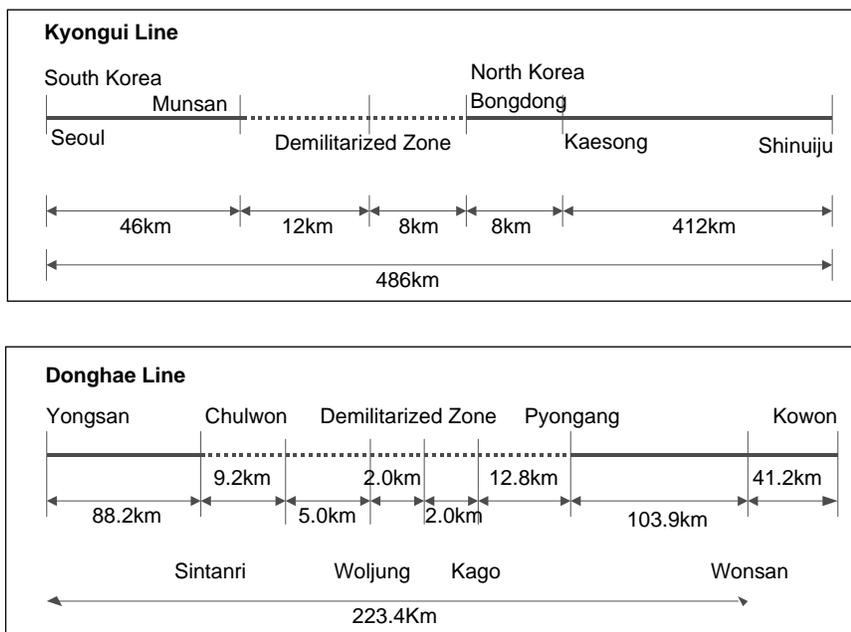


TABLE 1

Railroad Facilities of South and North Korea

	South Korea	North Korea
Length of Routes	3,125 km	5,214 km
Electrification		
Length	661 km	432 km
Percentage	21%	8.3%
Double Track Rail		
Length	901 m	156 km
Percentage	29%	3%

imagine Seoul is further to the left. This is the line running from Seoul to Yongsan at the southern side of the DMZ, then northeast across the DMZ eventually up the east coast to Russia. We tried to show that inside the DMZ, this line has several segments at different stages of development. For example, from South Korea, 9.2 kilometers to Cholwon is one segment. Then another 5.0 kilometers, a different kind of segment; and another 2 kilometers to the Military Demarcation Line at the center of the DMZ. And so on.

So the eastern line to Russia has, inside the DMZ, five different segments at different stages, with lengths of 9.2+5+2+2+12.8 kilometers, a total of only 31 kilometers. Anyway, this line runs by Cholwon, northeast into North Korea at the town of Pyongyang (please do not confuse this with North Korea's capital in the northwest, Pyongyang). It then runs to the key North Korean port of Wonsan, then to Kowon, up the east coast to Tumengang where the three countries meet, and into Russia connecting, as I said earlier, to the Trans-Siberian Railway. And despite all the problems with the rail connections, I am pleased to tell you that we did reopen the automotive and bus highway along this route in February, for the first overland crossing of the DMZ in over 50 years. Many South Koreans have already travelled this route by land to the famous Diamond Mountain or Mount Kumgang in the North, also commemorated in songs and legends in the 5,000-year history of Korea. . . .

As to rail length (**Table 1**), actually the length in South Korea is shorter than in the North; it has not been extended very much. In the South, however, we have more electrification (21% versus 8.3% in the North) and a higher percentage of double lines, which makes the system much better. And of course in the North, the facilities are very old, and not very efficient.

The Russian Connection

I'll now talk about some new developments, politically and in operational aspects.

Reviewing relations between Russia and the Trans-Ko-

rean Railway: First, regarding North Korea, with respect to the TSR, Russia wants to participate in the modernization of North Korea railroads related to the TSR. Russia intends to renew its political and economic relationship with North Korea. Russia also is also trying to solve North Korea's problem of debts owed to Russia, through cooperation among South Korea, North Korea, and Russia. They are all trying to devise some measures to solve that problem, by making new financial arrangements linked to the railroad project.

I have visited Moscow a few times, as a consultant on this railroad; and this week, traveling in Russia I learned new facts. So I would like to add here to what I had planned to say earlier: The concept of the Eurasian Land-Bridge seems to have changed a little bit.

Before, when we in Korea spoke of the Eurasian Land-Bridge in Russia, we usually thought about "transit costs." We are shipping goods through Russia, so that Korean cargo goes from the Pacific end from Pusan, or Seoul, or Vostochny, all the way to Europe, in such a way, that Russia can charge a transit fee. That is one concept of the Eurasian Land-Bridge, of Russia primarily as a transit corridor.

However, the economy right now in Moscow is growing, and trade between Russia and Korea is increasing. Trade volume is going increasingly high. So right now, the trade volume between Seoul—and not only Seoul, from Pusan—to Moscow, is increasing, which makes Moscow itself an important destination for Korean goods. The most important products are electronic goods, produced by Samsung and LG, other well-known Korean manufacturers. They have a large market share in Russia.

But further, I learned that now much of the cargo is moving not actually from Vostochny to Moscow, but from Vostochny to Finland, and from Finland to Moscow, due to the fees and regulations. So the goods are shipped over a longer route via Finland, to avoid some government regulations in Russia, especially customs regulations, because the Russians are imposing a very high customs tax. So certain Russian regulations are causing reduced efficiency of the overall shipping lines.

Another problem is that of empty containers. If you deliver container cargo from Point A to Point B, then you should be able to backload the empty containers, to load another cargo at Point B and ship it somewhere—but the cargo is unbalanced between Vostochny and Moscow in one direction, and back in the other direction, back into Eurasia. So, there are problems with empty containers.

This means, that we are talking about the Russian aspect of the Eurasian Land-Bridge a lot, but in reality, the Russian government does not fully utilize enough, the available facilities for making it more efficient and to make it an automatic system.

As to North Korea, of course, the Trans-Korean Railway project could offer them the opportunity to earn foreign capi-

tal which they desperately need to develop their economy. They could charge transit fees for allowing transit cargoes to go from South Korea to Russia, and encourage foreigners to invest in their development projects.

There has already been important dialogue between North Korea and Russia with respect to the TSR. North Korean Chairman Kim Jong-il visited Moscow and Russian President Vladimir Putin has been in twice in Pyongyang, where they have each time discussed putting strong efforts into the reconstruction of the TSR.

In February 2000, they signed a new North Korea-Russia Treaty of Amity and Cooperation. In July 2000, Putin and Kim met and agreed to pour all efforts into re-vitalizing the TSR along the east side of Korea. They also agreed that connecting the other western railroad between Seoul and Pyongyang (122 kilometers) and modernizing the railroad between Pyongyang and Khassan were important issues, among others.

In August 2001, Chairman Kim Jong-il visited Russia by TSR train, and talked about the TSR and TKR, and also their staffs have discussed it again since then. In August 2001, the Russian government expressed its intention to invest about \$500 million into modernizing the entire Kyong Won Railroad Line inside North Korea.

Problems To Be Overcome

As I told you earlier, there have been some barriers and problems to resolve. For example, the documents of the different countries have different Codes, different Document Requirements, and different Customs Clear Restrictions, and even the languages are different; as yet, no common language has been decided. This is causing delays by making it necessary to re-prepare the documents each time in each country. And if there are not easily usable documents, people and cargo will be pulled aside and not easily allowed to pass over the border, and the shipments are delayed while you have to send far away for proper authorization back home.

So next, we need the establishment of close cooperative relationships between bordering nations with respect to the Trans-Asian Railway (TAR) operations, to secure rapid and safe border crossings for TAR trains. We also need to set an institutional agreement to ensure effective and efficient through traffic, especially for transshipment of cargoes, among TAR nations.

For the transportation to be effective, trains should run regularly. It should be just like shipping vessels, often called liner vessels, because those ships usually leave on time. So also the trains should leave on time, regularly, once a day, or twice a day, or three times a week, in a precisely scheduled way. If we have regular train operations, this will allow the railway transport to be linked economically with ocean liner vessels' time schedules in the major regional ports such as Vostochny, Nahodka, Lianyungang, Pusan, and so on.

We also need to improve operating block trains between major cities such as Berlin, Moscow, Nahodka, and Brest. Operating block trains are those trains running for a certain block between certain cities, and these are not running well within Eastern Russia right now. Also, last year at this time, I heard that there are some block trains running between China and Russia, but they are very expensive. But as I said earlier, the cost of the regulations is very expensive, and so not many cargoes are coming directly into Moscow.

I am regularly visiting Moscow, and I see it's not modernized, and their facilities can be improved a lot. There is a lack of facilities, and extreme over-regulation, which is an obstacle against running the block trains—that's one of the major obstacles, I think.

Another issue is that currently, various TAR nations are applying different rate criteria to freight transportation, which also creates problems in communications and payments, and so it also delays shipments. For example, there are two rate application systems, ETT (European Common Tariff) and ITT (International Transport Tariff). In the ETT rate structure, the shipping rate increases in direct proportion with transport distances, whereas under the ITT structure, the rate increases in proportion with decreasing distances. Two different ways of thinking.

We need to have a recorded "through rate," which can be applied for cargo all the way from Seoul to Moscow, or Belarus, or Berlin, so that the freight forwarder can charge a uniform through rate for the shipper, and he can pay that cost to the railroad. This is very important, but it's very difficult to achieve agreement. When I was working at the UNESCAP on this, there were many railroad officials from many countries—Germany, Poland, and Belarus, of course Russia and China—who sat down together, and talked about that, many, many times; but this is the most difficult part.

So various nations will have to make concessions and compromises to achieve unified operations profitable to all. Russia has proposed that certain big international freight forwarders come out strongly and take the initiative to apply a certain uniform international rate, but still it has not been made to work well, and still we have problems.

Also, rail transport cost structures could be different from each nation to the other, because each TAR nation has a different rail transport structure. Sometimes costs are calculated differently, because the physical railroad structure itself is different from country to country, and so the unit cost for transit is actually rather different among nations.

Then we have to consider even the size of the railroads in different countries. Some have a long distance, some have a shorter distance. For example: Russia has a long length of rail transport, whereas a small nations such as Poland has a short length of rail transport. Therefore, the unit cost of transport (cost per km) could be higher in Poland than Russia.

Reaching an agreement to apply a uniform through rate across the TAR is not easy, due to these differences. A uniform acceptable rate which rationally reflects these differences remains to be developed.

Also, we need the establishment of multimodal transport rates, for not only railroad transport, but for ocean shipping, and port stevedoring, all together recorded as coherent multimodal transport rates.

In the case of ocean transportation, a multimodal transport rate is well developed in most of the routes. The TAR rate is composed of the ocean shipping rate, the port charges, the rail transport rates, the customs charges, the border passing charges, etc. At the present time, the consigner has to pay each of these expenses separately, so it causes a lot of inconvenience. A system needs to be developed so that the consigner pays a unified multimodal rate to the freight forwarder or to the multimodal transport operator, all at once.

The other matter that's important is the reliability and safety of the cargo. Securing safety of cargoes through all the procedures of the transport routes is a very important factor to further activate a wider use of the TAR. It has been improved a lot, but still the rail transport operation is not as dependable as the shipping operation. Shipping operations are very dependable, and they are very good, so the shipper does not have to worry about that at all. But on the railroad, still on the Eurasian Land-Bridge, sometimes the shipments get lost—so it can be improved a lot.

Also, the safe reverse flow of empty containers needs to be ensured. This factor is especially important to re-enforce TAR marketing. The difficulty of securing the safe back-haul transport of empty containers is one of the major obstacles to increasing the use of the TAR.

Developing an effective information system could be an adequate solution to this problem. Applying a discount rate for empty containers could also be a good measure to promote the use of TAR. This is also a very important factor.

As you might guess, the information network is also important in every aspect of the world, in business, and we need a more efficient information network system to be connected. Establishing a broad network of information is essential to promote the exchange of documents among various transport agents. Also, information can be stored and exchanged in real-time through this information system. Customers can locate their cargoes all along the transport route using this information system.

Development for Eastern Russia

Actually, this has been improving, so in Russian railways, for example, now, if they are asked to locate a shipment, they can now often find the location of the shipment and inform the shipper. But this was not true several years ago. And we should strive to make it more as it is in the United States, where you have an electronic identification tagging system

on the container or the shipment, so that when the train passes regular recording locations, each shipment is electronically identified and tracked, with a sophisticated system of automated identification. That kind of system needs to be exported for the TSR.

Currently, in order to get a container all the way to Moscow, since there is no Trans-Korean link yet, we need to use a ship from Pusan to Vostochny, and that ship unit rate per distance was normally very high, about \$1,000, even though the distance is only 500 miles. To compare, for example, the cost by ship from Pusan all the way to Lisbon is almost the same, at \$1,200, for a distance of about 10,000 miles. Recently the Pusan to Vostochny rate has been reduced to \$600, as fluctuations in the shipping market occur widely. But still, the unit distance cost of maritime shipping is high in Northeast Asia, shipping large cargoes over relatively shorter distances. The unit cost per distance over such local areas should be much lower by rail—if we had the new railroad.

Overall, however, right now, of course the cost of using the entire TSR railroad is a little bit higher than the cost of ship transportation, due to the reliability and other issues which we discussed. So, although container volume from South Korea to Europe was 468,270 TEU [20-foot-equivalent units] in 1999, among these, only 17,791 TEU was carried by TSR through Vostochny.

But scientifically, if we improve the railroads, we will get an ultimate great benefit in cost reduction for all goods per unit distance. And already the time is shorter by five days using TSR than by ship. So more and more, the shippers are concerned to reduce time rather than reducing transport costs, so they are increasingly using TSR. For example, in the case of electronic goods, the shippers don't care so much about the cost of the shipment; they are more concerned about the rapid time and whether it is dependable or not.

But still, the volume using TSR is very low, and if the TSR develops, it will be a good thing for the development of the Northeast Russian provinces. The Russian Northeast has some merits to activate its economy: It is close to Korea; has a labor supply with lower wage levels; and is linked to Siberia, where natural resources are rich. These factors, combined with the TSR, which connects this region with Northeast Asia and Europe through rail, could make the economy of this region develop fast.

The Russian government recently has poured its efforts into improving TSR operations. Recently for the passenger trains, the trip from Vostochny to Moscow is only seven days. This is a very good improvement, and it was done by changing government regulations, such as easing the border passing regulation, and lowering the rate for transit cargoes. Also, the duration of TSR transportation from Vostochny to Belarus has been reduced to seven days.

The Nahodka industrial complex, which is located near

Vostochny, could be the place where trade between Korea and Russia is centered. This also could be the spot where several large industrial projects between Russia and Korea, such as development of Siberian oil and gas fields, and UNPP projects, could be promoted actively.

Evaluation of TSR by the South Korean Government

What is the evaluation, in summary, of the TSR by the South Korean government? When the Koreans think this is very good, sometimes we are in too much of a hurry and make too much noise, but in fact, right now, the South Korean government is thinking very seriously and scientifically about re-connecting to the TSR, TCR, and TKR. We're trying to. After some time, Koreans will make things happen in reality. This is my personal opinion, and I told the South Korean Embassy in Moscow this, that the modernization part should be done by Russia, and of course China. It's not the work of the Koreans. We should wait until things improve.

Activation of TSR operation could be beneficial to the growth of the regional economy of such nations as South Korea, North Korea, Northeast Russia, Central Asia, and Russia as a whole. The TSR could promote trade among nations in the regions of Northeast Asia, Central Asia, the Middle East, and Northeast Europe.

Why is it so important that we have the policy to establish Korea as the logistics hub in Northeast Asia? We're taking logistics very seriously in Korea right now, because all the manufacturing companies are going to China; even major Korean manufacturers are moving factories to China, and then there will be enormous competition for our manufacturing industries, so how can they survive? We need to concentrate on our advantages, such as providing services for the manufacturing companies, so we are trying to emphasize logistics. . . .

In closing, I would like to say we are in an environment in which the Chinese economy is developing, and the Korean economy, both North and South, is developing, and we're in the center of it geographically—in the center of China, Japan, and Korea. We can offer all our routes for them as the hub for all transport in and around Northeast Asia and all of Asia.

Korea is connected by the ocean to every country, so if we complete the rail, we will be connected also to the entire Eurasian continent. Then it will be excellent for trade of every country to expand the entire Eurasian Land-Bridge, and it will definitely promote our economy much more.

We in Korea are thinking very seriously about this Trans-Korean Railroad, and we hope it will be connected soon, so that we can invest in the development of Northern Korea, and also Manchuria and the rest of China. I'm sure that will give Korea the best opportunity to improve our economy and to improve the economy of the entire region. Thank you very much.