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CONFLICT BETWEEN COMMERCIALISM AND PUBLIC TRANSPORT POLICY PURPOSE: UNIQUE FEATURE OF POLICY DISPUTE IN JAPAN

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ABSTRACT

In Japan, a liberalization policy was implemented over railways and buses in 2000 and 2002 respectively. Under that policy, quantity regulations for railways and buses were abolished, withdrawal regulations were eased, although fare regulations were maintained. However, even after this liberalization, institutional design remains considerably different between Japan and EU countries. An argument for competitive tendering is missing in Japan as 87.5% of rail passenger transport in the three major metropolitan areas is provided by profitable private railway companies that enjoy high social evaluation in respect to managerial efficiency, quality of transport services, and the adequacy of are levels and systems. The major private railway companies in the big cities have built their present status by 1）being blessed with favourable transport markets, 2）developing commercialism in their investment activities, 3）pursing efficient management, and 4）engaging in business diversification. The Japan Railways group companies（former Japanese National Railways）and Tokyo Metro co., which is in the midst of privatization, are now copying the style of corporate management of major private railway companies. The problem for public transport policy in Japan is its inability to cover some "market failure" issues occurring in big cities and rural areas under the existing institutional design. After the liberalization, new trials appeared where third sector companies were founded to retain unprofitable railway lines in local cities. New bus transport services were also introduced under a newly established cooperative relationship between local authorities and residents and so on. Paradoxically, as a result of liberalization, a change began to appear in the common sense of Japanese people that commercialism is rather natural to the management of public transport. Especially in metropolitan areas, many market failures issues are left behind such as the incompatibility of a continued commercialism with providing comfortable commutation services. In Japan, private railways have, so far, performed their

transport operations without governmental subsidy, except for some unprofitable services in local cities or rural areas. Although rail commutation transport in big cities is no exception, it has become very difficult for private railways to engage in large-scale investment activities to expand their capacity which is indispensable to realize comfortable commutation services. Since private railway companies may not receive public assistance of the government, vertical separation of ownership (not operation) is more and more used in order to allow for public spending in the construction of new commutation railway lines (infrastructure).

INTRODUCTION

When we look at the transport policy of economically advanced countries, we find that there are many similar features. For example, in most countries, roads and highways and accompanying infrastructure are provided as public goods,: further, in transport markets where competition is dominant, liberalization and abolition of economic regulations has been promoted. On the other hand, some of the features vary greatly across the countries. The large difference between the local (regional) public transport policies of Japan and the EU countries is a conspicuous example.

In Japan, maintaining the self-supporting rule of transport companies and ensuring a lively and efficient management that is focussed profitability are preferred: further this has resulted in desirable results. On the other hand, in the EU countries, measures corresponding to the 'market failure' phenomenon which tends to appear in the local public transport sectors of both big cities and rural areas, is preferred.

This paper discusses the factors that give rise to the unique features of the policy dispute in Japan and also discusses the policy disputes with regard to certain types of market failures issues that have seemingly vanished in Japan.

UNIQUE FEATURES OF THE RAILWAY INDUSTRY IN JAPAN

In Japan, the rail and bus transportation sector was liberalized in 2000 and 2002, respectively. Under this policy, quantity regulations were abolished, and the withdrawal regulations were eased, although fare regulations were maintained. However, even after this liberalization, institutional design remains considerably different between Japan and the EU countries.

In the three major metropolitan (transport) areas of Japan, 87.5% of rail passenger traffic is carried by private railway companies, including the three mainland Japan railway companies (former Japanese National Railways), which were privatised in 1987 and became completely private between 2002 and 2006, and Tokyo Metro Co., which was privatized in 2004. There are more than 70 large, medium, and small railway companies offering passenger services in the three metropolitan areas. A 'metropolitan area' comprises local divisions within 50 kilometres from the city centre. A 'transport area' comprises areas in the same circle from where we can s commute to the city centre.

Table 1: Volume of Passenger Traffic (in million persons) in the Three Major Transport Areas by Transport Mode（2005）

Major Urban areas	Railways（including Light Rail)	Buses	Hired cars & taxies	Private cars	Total
Tokyo Area	13,575 (57%)	1,685 (7%)	738 (3%)	7,918 (33%)	23,916 (100%)
Osaka Area	4,790 (48%)	745 (8%)	298 (3%)	4,165 (42%)	9,998 (100%)
Nagoya area	1,139 (22%)	187 (4%)	108 (2%)	3,784 (73%)	5,218 (100%)

Population (in thousands）:Tokyo Area: 29,322, Osaka Area: 15,815, Nagoya Area: 9,061

Table 2: Railway Passenger Traffic (in million persons) in the Three Major Transport Areas carried by JR, Private Railways, Subways, and Streetcars（2005）

Areas	JR East, West & Central	Private railways	Subways（Tokyo Metro*）	Street cars	Total
Tokyo Transport Area	5,381 (40%)	5,123 (38%)	3,031（2,102*） (22%)	40 (0.3%)	13,535 (100%)
Osaka Transport Area	1,354 (28%)	2,138 (45%)	1,267 (27%)	31 (0.7%)	4,790 (100%)
Nagoya Transport Area	230 (20%)	487 (43%)	419 (37%)	3 (0.3%)	1,139 (100%)
Total	6,965 (36%)	7,748 (40%)	4,717 (24%)	74 (0.4%)	19,464 (100%)

*Tokyo Metro Co. only runs the subway, but is considered to belong to the group of 16 major private railways

In addition to the self-sufficiency of these railway companies, another unique feature of the industrial organization of railways, which is very unusual in advanced nations, is that with the exception of a small number of railway infrastructure companies, private railway companies in the three metropolitan areas are running profitable railway businesses. Above all, the 16 major private railways companies that account for 46% of total railway passenger traffic in these large cities are parts of industrial groups that enjoy high social prestige with regard to their managerial efficiency, quality of facilities, hospitality, and fare structure and systems. It can be said that these companies are the locomotives of the Japanese railway industry. After privatization, the Japan Railways group companies (former Japanese National Railways) have been adopting the corporate management style of major private railway companies and have attained considerable success in revitalising their railway businesses. This unique situation of

Table 3: Industrial Organization and the Profitability of the Passenger Railway Companies (fiscal 2005)

Classification of Japanese railway Companies	Number of companies		Profitability	
	Japan	(Three major cities)	Surplus	Loss
JR Passengers	6	(3)	3	3 §
Private－ Majors	16	(15)	16	0
－Semi-Majors	4+1*	(4+1*)	4+1*	0
－ Medium & Small Companies#	122+10*	(25+8*)	55+5*	67+5*
(Monorails , Guideways)	*(16)*	*(13)*	*(12)*	*(4)*
(ex-JNR or JR line)	*(39+1*)*	*(0)*	*(4)*	*(35+1*)*
Municipal Enterprises	12	(6)	9	3
Total	160+11*	(53+9*)	87+6*	73 +5*

including third sector local railway companies that took over the discontinued JNR, JR lines, *railway infrastructure companies, § the group of three JR island companies, whose deficits can be compensated using the special fund founded by the Japanese government that was transferred to the private owners at the outset of the privatization of the JR Group.

the Japanese private railway companies has led to questions as to why competitive tendering is missing in the local public transport policy in Japan.

In 2005, apart from the 21 cable-car companies operating in tourist destinations, there were 184 railway companies, 171 of which were offering passenger services while 12 were railway infrastructure companies. The total (heavy-rail) length of the 16 majors is 2,951km, mere 15% of the six JR passenger companies (19,999km). Nevertheless, the number of passengers transported by the 16 majors is 129% of the total number of passengers transported by the six JR companies, and also the passengers-km figure of the 16 railway companies is 54% of the six JR companies. In the Tokyo, Osaka, Nagoya metropolitan areas, in particular, the 16 majors carry far more passenger traffic than the JR companies (59% vs. 41%), confirming that the principal areas of activity for the major private railways are large cities.

FAVORABLE MARKET CONDITIONS FOR THE MANAGEMENT OF URBAN RAILWAYS

When it comes to railway operations in large cities, almost all private railway companies－with the exception of the three railway infrastructure companies that incurred a temporary loss because of the special conditions under which they were founded－are soundly managed and are in the black. However, outside the big cities, more than a few private railway companies are facing operational difficulties. This tendency is quite prevalent in the local private railway companies in the provincial transport sector and the group of third sector local railway companies that took over the discontinued local lines of JNR or the new lines under construction in the 1980s, on which the JNR renounced the right of succession.

Regardless, it is particularly noteworthy that almost all railway companies with operation in the big cities have been soundly managed for a long period of time. The urban railways companies' sound finances that make them independent of government subsidies are quite remarkable when looked at from the perspective of other countries. These major private railway companies have attained their present financial status by (1) being blessed with favourable transport markets, (2) developing commercialism in their investment activities, (3) pursuing efficient management practices, and (4) diversifying their businesses.

As is widely known, the transport markets in large Japanese cities are quite favourable to managers of railway companies. In particular, the Tokyo and Osaka metropolitan areas are densely-populated metropolises, and most commuters going to the city centres use railways. In Japan, in any discussion on the management of railway companies, the data of traffic density（number of passengers in transit per day-km）plays an important role. Most of the major private railways have an average traffic density of more than 100,000. In the case of companies whose traffic density is extremely high（Tokyu Railways., Tokyo Metro., Odakyu Railways., and Keio Railways. in the Tokyo area）, the average traffic density exceeds 240,000.

At the same time, even among the 16 major private companies, there are some companies who run large railway networks spanning rural areas have low traffic densities. For example, the traffic density of To-bu Railways.（Tokyo）whose network is 463km long is around 75,000, which is almost equivalent to that of JR Central（73,000）whose network is 1,971km. The average traffic density of Kintetsu Railways.（Osaka）whose network is 582km is about 57, 000, and is slightly higher than 46,000 of JR East, whose network is 7,527km long. Incidentally, the average traffic density of the 16 major private railway companies is 108,000. The corresponding figure are 33,700 for the 6 JR passenger companies, - 43,700 for the 3 JR Mainland companies, and mere 7,000 for the 3 JR island companies.

As mentioned above, the most outstanding feature of the Japanese private railway companies is that they operate on the principle of profit and that most Japanese take this as a given. This also illustrates how the investment behaviour of the private railway companies is much appreciated in Japan. In some instances, private railway companies have been very sensitive to investment risk and made decisions against the social expectancies with regard to network addition or capacity expansion.

However, the Japanese people seemed to be rather tolerant toward such 'egoistic' behaviour of the private railway companies. It is likely that the existence of national railways（JNR）and the public enterprises in big cities might have served as a reminder to private railway companies to stick to relatively risk-free investments. Before privatization, JNR and other public enterprises were allowed to take high-risk investments in line with specific objectives, and were, in turn, compensated by government subsidies.

In the past, there have been more than a few railway companies operating in big cities that undertook high-risk investments and ultimately went bankrupt, resulting in a their assets being acquired by the government and/or rival railway companies.

BUSINESS DIVERSIFICATION: PRIVATE RAILWAY COMPANIES AS URBAN DEVELOPERS

Business diversification is also an important feature of Japanese railway companies. In particular, the major private railway companies can no longer be viewed as mere railway or transport companies. These are akin to urban developers or local service providers supporting the lives of people living along the railway line. Today, JR passenger companies have also morphed into such life-supporting businesses. The JR Group companies run real estate businesses, hotels, leisure properties, and sometimes act as urban developers in both big cities and regional cities.

Most private railway companies have attempted to diversify their businesses ever since they started operations. Since there was a strong tendency to readily permit private railway constructions in areas with no railway lines, in order to survive, the newly-established companies had to increase the population near their lines and attract as many passengers as possible by creating shopping areas or entertainment avenues along their lines. This practice led to the adoption of business diversification practices by Japanese private railway companies in the big cities.

The new line, Den-en-toshi (garden city) line of Tokyu Railways－Japan's largest railway company with about 400 subsidiaries and affiliated companies and more than 100,000 employers－is the latest example of such business diversification. The company constructed the 20.1km (over 15 stations) long "Den-en-toshi" line in the southwestern suburbs of Tokyo between 1963 and 1984. At present, the population along the stretch exceeds 500,000. Teaming –up with its group companies, Tokyu Railways also constructed many shopping and recreational facilities, and educational and medical utilities. Life in towns developed by private railway companies sometimes referred to as providing 'cradle-to-grave security', however, these towns do seem to have a considerably good reputation.

Another example is the line constructed by Hankyu railways. in the Osaka area. The Hankyu Group－ with 117 subsidiaries and 31 affiliates－is a railway company that has indulged in vigorous urban development along its railway lines. While suffering from occasional setbacks, Hankyu was persistent in developing recreational facilities and tourist spots along the line, and department stores, hotels and office buildings at the terminals. The exclusive residential towns along the lines came to be collectively known as the "Hankyu Plain". － Generally speaking, the railway towns developed by private railway companies are planned and mostly well-maintained and offer affordable housing lots and high-quality houses. As such, private railway companies in large cities enjoy immense social prestige as urban developers.

COMPETITIVE AND COOPERATIVE RELATIONSHIPS AMONG RAILWAY COMPANIES

Efficient management in the private railway companies is the result of both their favourable market conditions and their daily earnest efforts towards high managerial and operational

efficiency. Besides, the strict fare regulation imposed by the Ministry of Land, Infrastructure and Transport on the railway and bus companies might also be a cause of high efficiency. However, the ongoing liberalization has led to the railway and bus fares only being bound for an upper limit. Nevertheless, the essential aspect of these fare regulations still retains the traditional characteristics of a 'natural monopoly' style. The basic fare for the 6 JR companies and 16 major private companies are estimated through the elaborate 'rate-base' procedures based on the traditional full-cost principle. Furthermore, the ministry uses 'yardstick evaluation' to assess the operating costs submitted to it by the railway companies while seeking approval for fare revisions. As per this evaluation, the ministry estimates the base cost using a series of regressive equations corresponding to the types of railway companies.（J R Group company, private railway company, and subway operator). The base costs evaluated are publicized and in the case where the actual cost of the undertaker exceeds the base cost, the ministry regards the base cost as a proper cost, and where the actual cost is less than the base cost, the average cost of the two is considered as the proper cost. In addition, the ministry compares the difference between the actual costs and the base cost and calculates the 'ratio of efforts' made toward attaining management efficiency over several years. The half of this figure is then added to or subtracted from the base cost.

Although this stringent and traditional method of fare regulation seems to be a likely cause of the high levels of management efficiency in Japanese railway companies, it should also be pointed out that this results in the companies having large disparities in their fare structures and in obstacles when introducing plain and attractive fare systems in big cities. Lack of a public compensation policy for the concessionary fares introduced for students and for other welfare purposes also indicate the backward character of the regional public transport policy of the Japanese government.

Further, in large cities, we observe some very interesting relationships among the railway companies,: we refer to these as 'competitive and cooperative relationships'. Railway companies, needless to say, are rivals and compete in terms of management efficiency, and profits to provide good services. The brand image that has been laboriously built further intensifies competition among the railway companies.

However, at the same time, these railway companies have a keen sense for building strong cooperative relationships with other railway companies for purposes of improving the competitive position of the railways or the public transport in the transport market. Joint train operations among railway companies, widespread in big cities are good examples of such cooperative relationships. New technologies system automation and convenient card-type tickets have been successfully introduced because of these cooperative relationships.

JOINT TRAIN OPERATIONS AND THE LARGE CARRYING CAPACITIES SEEN IN BIG CITIES

As a rule, individual railway companies in large cities hold monopoly in their territories. However, because of the circumstances leading to the formation of the present railway

Table 4: Route Kilometres of Public Transport in three Major Transport Areas（2006）

Major urban areas	J R	Private railways*	Subways#	Street cars	Buses
Tokyo Area	887.2	1,149.5	332.6	17.2	15,918.6
Osaka Area	502.6	788.9	177.4	51.3	10,827.7
Nagoya Area	238.8	596.3	89.1	0.0	5,864.9
Total	1,628.6	2,534.7	599.1	68.5	32,611.2
Japan	19,998.5	6,511.3	691.7	207.8	357,103.0

*excluding Tokyo Metro Co. # including Tokyo Metro Co.

network －most JR local lines were originally intercity lines－there are instances wherein a JR company and one or more than one private railway company maintain lines in the same area and compete with each other. In particular, in Osaka area where JR West and several private railway companies compete directly, the railways companies are very active in setting competitive fares and improving speed and comfort.

Even then, there are a number of joint train operations. The cooperative relationships have led to the unique features that are characteristic of the urban commuter railway system in Japan. In the Tokyo area, joint train operations are seen over ten subway lines that go to the Tokyo city centre. Further, the number of railway companies offering such services, has reached fourteen . JR East, eight major private railways, and three medium/small private railway companies run their commuter trains on to the Tokyo Metro Co., and the Tokyo Municipal Subway lines, and vice versa.

The previously mentioned Den-en-Toshi line of Tokyu Railways is connected to the Hanzo-mon line of the Tokyo Metro Co., and this connection enables both Tokyu and Tokyo Metro trains to run on the other company's lines. In the Osaka area, thirteen railway companies offer joint train services over seven subway lines. In the Nagoya area, two railway companies offer joint train services over two subway lines.

Other remarkable characteristics of Japan's urban railway system are the huge transport capacity, high train frequency, and extreme overcrowding during rush hours. In the Tokyo area, on double track sections, the number of trains per hour（in one direction）often 30 during the rush hour. In the Osaka area, the corresponding figure is 25 – 26. Despite the huge carrying capacity, extreme levels of congestion are common, often reaching more than 180% of the carrying capacity. For the more crowded lines in the Tokyo area, this figure exceeds 200%. In the Osaka and Nagoya areas, serious congestion was prevalent in the 1970s, but this is no longer the case. The ministry has set a target of 180% in the Tokyo area,; note that the actual conges-tion rate in the Osaka area and Nagoya areas is already less than 150%.

However, the causes behind the reduction in the congestion are different for the two cities. Apart from capacity augmentation,－common in both cities－, the long-term recession in the regional economy is an important factor in the Osaka area. Furthermore, direct competition between railway companies, especially between JR West and the major private railway

Table 5: Rail Transport in Big Cities（2005）: Data for the Most congested Hour（in one direction）in the Most congested Section

Railway line	Number of trains	Type of trains	Carrying capacity	Number of passengers	Congestion rate
Double track					
Tokyu Railways.Den-En-Toshi line	29	2	42,746	82,874	196 %
Keio Railways. Main line	30	3	42,000	71,313	170%
Tokyo Metro Co. Chiyoda line	29	1	41,296	74,113	179%
JR East. Chuo line（Rapid）	30	1	42,000	88,650	211%
JR East. Yamanote line	24	1	39,072	84,560	216%
Quadruple track					
JR East. Sobu line （Rapid）	19*	1	35,416	63,360	179%
（Local）	26	1	38,480	79,590	207%
Tobu Railways. Isesaki line	44*	4	50,712	70,653	139%
Keihan Ry. Main line**	44	5	40,248	50,296	125%

*excluding inter-city express trains ** Osaka area（the other examples are of the Tokyo area）

companies in the Osaka area, has led to decreased traffic in the major private railway companies. Between 1990 and 2005, the share of the 5 major private railway companies in terms of the total passenger traffic had dropped to 76%. If JR West is included, the corresponding figure is 93% . Further, unlike Osaka, Nagoya is rather less densely-populated and is susceptible to motorization. As such, it can be stated that the main cause of the decrease in the passenger traffic in Nagoya －the combined share of JR Central and Nagoya Railways decreased to 86% －is because of the increase in the use of private cars.

PUBLIC SUBSIDIES IN THE LOCAL PUBLIC TRANSPORT POLICY OF JAPAN

A difference between the EU or North American countries and Japan with regard to the local public transport policy is that Japanese railway companies, even the public ones, are responsible for arranging the capital investment needed to construct new lines, augment carrying capacity, or procure new rolling stock. As a rule, Japanese railway companies or enterprises should be self-supporting, and should be capable of covering their operation costs and infrastructure costs.

However, in the case of urban railways, some public subsidies are provided by the government for the construction of new railway lines. Public enterprises of local authorities, Tokyo Metro Co.（formerly, the Tokyo Rapid Transit Authority）, and the third sector railway companies are qualified for government subsidies. These government subsidies cover up to 70% of the construction costs of new subway lines, and up to 35% of the construction costs of ‘new town’ railway lines and so on. However, the JR Group companies and the private railway companies

are ineligible for these public subsidies, because there are laws in place to prohibit the appropriation of public subsidies for the creation of private assets by private companies.

Exceptions to this rule are the ‘three island" companies of the JR Group and the private railway companies in regional cities or rural areas. When the privatization of JNR was started in 1987, the government founded ‘management stabilization fund’ of 1,300 billion yen（around €100 billion）and transferred it to the three JR three islands companies（JR Hokkaido, JR Shikoku, JR Kyushu）. The government implemented a ‘break-even’ rule for the three island companies to compensate the operating deficits with the money acquired from the fund. This fund, though owned by the three island companies, is effectively acts as a government subsidy.

Further, local private railway companies are classified into two groups－traditional private railway companies and third sector local railway companies that took over the unprofitable rural lines of JNR. The ministry has been supporting unprofitable local railways that cannot be easily replaced by bus transport because of the lack of road infrastructure, heavy snowfall in winter, and the existence of lump demand during peak hours (which render buses insufficient).

However even in the provincial public transport sector, many medium & small private railway companies (mentioned in Table 3) are in profit and are efficiently managed. It is especially noteworthy that 16 of the 19 companies were in profit (as of 2005) even though they catered to routes where traffic densities are low between 3,000 to 9,999 persons per day-km.

When the traffic density is less than 3000, most railway companies go into the red, and have no choice but to seek public subsidies to continue operations. However, in Japan, revenue-support subsidies are not preferred. Up until 1996 there used to be a public subsidy policy to cover the deficits of local private railway companies,: thereafter, it was replaced by a new subsidy system that sought to modernize and/or replace the railway facilities to improve profitability. For example, these subsidies are used to introduce ticket-vending machines and/or devices that promote one-man operation of trains. It seems that the main purpose of these government subsidies is to bring the local private railway companies back into the black. A peculiar exception, however, would be the third sector local railways that were covered by revenue-support subsidies for five years after their establishment.

In large cities, the lack of public subsidies for J R companies and private railway companies has resulted in the emergence of serious ‘missing –links’. In particular, in the Osaka and Nagoya areas, where the private railway companies have trunk commuter lines, serious gaps in the railway network have appeared near the city centres. In order to solve such problems, the ministry expanded the existing public subsidies for the subway construction to cover the construction of subways by the third sector railway infrastructure companies in 2000. Consequently, some trunk commuter lines were constructed in Osaka and Nagoya.

Here, after the completion of new subway lines, private railway companies rent the infrastructure created by the third sector companies using government subsidies until the expiry of the repayment options for the borrowed money (after around 25% of the construction cost has been repaid）. Thereafter the private railway companies (train operators) purchase the infrastructure in instalments over a period of 30 years.

IMPORTANCE OF REALIZING MARKET FAILURES

As described above, the presence of excellent private transport companies (in both rail and buse transport) has led to the emergence of the unique characteristics of the Japanese local public transport policy. It can be said that Japan's policy of preferring self-supporting, profitable companies that are soundly managed has succeeded in a sense of .

Regardless, the Japanese public transport policy does suffer from one critical drawback. One problem worth examining is the country's inability to cover some 'market failure' issues in big cities and rural areas under the existing institutional framework. After privatization of JNR, new companies —referred to as third sector companies —took over unprofitable railway lines in regional cities. New bus transport services were also introduced under the ownership and operation newly established cooperative entities comprising local authorities and residents . With regarding to the construction of new railway lines in big cities and regional cities, vertical separation of ownership and operation is becoming increasingly prevalent. Paradoxically, because of liberalization, Japanese public perception that self-supporting rule and profitability are seen as essential for public transport companies has underwent a remarkable change.

Discussions on market failure issues in public transport policy are easily understood when it is associated with 'decreasing average (fixed) costs " of railway industry. We can assume that two types of market failure can occur in the domain of the local public transport policy. The necessary condition for the market failures in this domain is that the average costs of providing transport services are decreasing, and the sufficient condition is the lack of alternative transport services. The first is what occurs when there is decreasing demand for public transport, which is common in economically advanced countries. The Management Stabilization Fund for the JR three island companies is an excellent example to prevent market failures in a railway business wherein traffic density is not that high. Further, though limited at present, vertical separation policy (organizational or mere in accounting system) to sustain and possibly turn around unprofitable railways is becoming increasingly prevalent in the provincial areas in Japan.

The latter market failure relates to the public transport policy that aims to cater to trunk commuter services in big cities. Most non-Japanese perceive comprehensive and widespread commuter networks to not be self-supporting and requiring subsidies or other forms of governmental help. However, as mentioned above, the Japanese have been thinking otherwise. As such, in Japan's major cities, market failure issues related to the incompatibility of providing widespread network and comfortable commuter services with self-sufficient profitable companies, seemingly vanish.

However, in reality, at times, it becomes very difficult for private railways to make large-scale investments for capacity augmentation, which is indispensable for passenger comfort. The decrease in congestion in the commuter network of Osaka and Nagoya provided much relief to many commuters. However, Tokyo still experiences 'Tsu-kin jigoku (commuting inferno)' every morning and every evening. As such, the public transport policy ought to recognize the market failure issues related to capacity improvement and augmentation in the Tokyo area.

Since private railway companies may not receive public assistance by the government, vertical separation between ownership and operation is increasingly becoming prevalent to enable public spending in the construction of new commuter railway lines（infrastructure）.