

Highways can be true “free” way

Surpassing Kakuei Tanaka with the Proposal to convert the world most expensive highway system of Japan to toll free (“Nippon Retto Kaiso Ron”)

the best way to scrap the most collapse heart of the Japanese politics and revive the economy

Highway issues mirroring the structural problems in Japan

Privatization will never be the solution. Returning to the primary objective of providing an inexpensive infrastructure, of making highways toll-free life-oriented roads, will instantly break through the tangle of problems.

By Yasuyo Yamazaki

Discussion of highway issues conditioned on the privatization

The Koizumi structural reform started with great emphasis on privatization of the four highway-related public corporations. Even the discussion at the independent third party committee could not find a guidepost to point out the path to privatization. Some committee members expressed pros and others not, and amidst the confusion, the committee submitted its report at the end of last year. The report mirrors the contradiction between members, with some insisting on structural reform through privatization and others preferring to resist the reform as they benefit from the current status. Here we have to be careful. The issue on the Japanese highways is likely to be viewed as a contradiction between those supporting the reform and those resisting the reform or benefiting from the current system. But this is not so simple a problem. It encompasses in-depth issues that may affect the overall path to economic growth and the prosperity of the society in 21st century in Japan.

Prime Minister Koizumi named this third party independent committee the Promotion Committee for the Privatization of the Four Highway-related Public Corporations. In fact, as the name implies, this structural reform has been conditioned on their privatization. Moreover, the prime minister argues that the newly privatized corporation should be listed on a stock exchange. What does the listing mean? Corporations without sufficient profit and continuity or going concern would not be qualified for listing. The revenue of the highway operations mainly stems from tolls. This means that the highways in Japan will continue to charge the highest tolls in the world forever. Should we accept this? The highways in Japan were originally

constructed on the condition that the tolls would be free in the future. Are we certain to fail in finding any workable solution other than privatization?

The privatization of the four highway-related public corporations and the listing of the company thereafter established greatly contravene and depart from the object of the Special Highway Maintenance and Improvement Measures Law, which is the founding law of current highway system.

The Special Highway Maintenance and Improvement Measures Law prescribes that individual highways may charge the beneficiaries, namely, the users, tolls in an amount equivalent to the expenditures invested in construction and repair of the same highway. In other words, the Law does not permit the highways to charge tolls as a means of aggregating the expenditures for other highways.

According to the nature of the Law, the toll to the highways is a special exception to the fundamental principle of the national road improvement, i.e., toll free, and the toll may only be charged in cases where it is allocated to pay the expenditures for the same highways. Thus, when the toll revenue or treasury accounts can cover all the expenditures, no toll must, in principle, be charged. The legal basis for the highways is, in fact, based on the redemption basis bringing about the eventual toll-free highways.

Now let us review above principle according to the actual provisions of the Law. Article 12 of the Road Construction Law prescribes that the new constructions or improvements of national roads including highways shall be implemented by the Minister for Land, Infrastructure and Transport. Since national roads including highways are constructed with the national budget, the fundamental principle for them is toll free. Since the commencement of the operation of highways is an exception to this fundamental principle, the Special Highway Maintenance and Improvement Measures Law, the legal basis for highways which is primarily a special measure, has prescribed stricter provisions.

Article 3 limits the cases where the tolls can be charged. Specifically, it prescribes that tolls can only be charged when the users of the highways considerably benefit from the use of the highways. Furthermore, Article 3-2 of the Law clearly prescribes that no common tariffs shall be levied for two or more roads, except for cases where two or more roads are closely related due to their common use by a large number of the same users or common use as alternate routes or substitutes for one another.

Therefore, under the current nationwide pooling system, it should not be possible for users of the Tomei Highway or Meishin Highway to shoulder the expenditures for highways in Kyushu or Hokkaido.

Furthermore, the current nationwide pooling system, a system that charges the most expensive tolls in the world, contravenes the rules prescribed in the Special Highway Maintenance and Improvement Measures Law. As mentioned earlier, the Law enacted by the Diet representing the national people prescribes that the toll can be charged only to the users of the respective highways for the expenditures thereof in case there is a remainder. This is the route-based cost basis and the pay-as-you-use basis. When the expenditures are completely redeemed with toll charges, the highway is not subjected to the toll charge; in other words, the highway becomes toll free. This is the redemption basis, and this basis should still apply to the highways in Japan. However, this principle has in fact been ignored totally. The Meishin and Tomei Highways were constructed in 1969 with the expenditures of only ¥460 billion. The Japan Highway Public Corporation of the time took great efforts to curtail expenses, and the work was conducted under strict supervision and monitoring of the World Bank, whose loans funded the construction. Up to 2001, users paid a total of ¥7.44 trillion in tolls, as much 16 times the original construction expenditure.

But that is not all; there is another story to the construction expenditure. According to the “Highway First Episode Dictionary” and “Highway Construction Story,” both compiled by the Expressway Technology Center and supervised by the Japan Highway Public Corporation, the total construction expenditures for the Meishin Highway and Tomei Highway were ¥114.8 billion and ¥342.5 billion, respectively. Also, the Highway Handbook (2002 version) supervised by the Highway Bureau of the Ministry of Land, Infrastructure and Transport notes that the Japan Highway Public Corporation bore an aggregate construction expenditure of ¥690.2 billion to build the Meishin Highway from 1957, the first year of the construction, to 1969, the year of completion of the whole length of the Tomei Highway. Nonetheless, the data the Japan Highway Public Corporation submitted to the Promotion Committee for the Privatization in the course of the discussion on the privatization of four highway-related public corporations shows that the construction expenditures for the Meishin Highway and Tomei Highway were ¥1.9482 trillion and ¥1.5385 trillion, respectively, or ¥3.4867 trillion in total. This is a typical embellishment in accounting of the Japan Highway Public Corporation.

Why is it that the highways still levy tolls, now that these expenditures have been redeemed many times over? It is because a rule greatly deviating from the meaning of the law was established without deliberations at the Diet. In 1972, the Tanaka Cabinet

(Premier Kakuei Tanaka) adopted the nationwide toll pooling system in the enforcement regulations of the Special Highway Maintenance and Improvement Measures Law, the legal basis for the highways that prescribes technical details without deliberation at the Diet representing the national people. The nationwide toll pooling system completely contravenes the pay-as-you-use basis and redemption principle embodied in the Law, which prescribes that the toll shall be charged only to the users of the respective routes and that it shall be discontinued once the total expenditures are redeemed.

The nationwide pooling system sets the tolls by aggregating the expenditures of all the routes, regardless of their relation to one another, and charges users a toll for routes they do not use. This system is not permitted under the Law. Because of this, for example, the users of the Meishin and Tomei Highways have been forced to shoulder the expenditures for highways in Hokkaido. And as the toll is charged until the expenditures for all the routes in Japan are redeemed, the highways in Japan will essentially be tolled forever.

Why does not the Promotion Committee for the Privatization examine the current toll system from the perspectives of deviation from the legal basis? The term “structural reform” sounds hollow.

Next, what does the listing mean? The fundamental of joint stock companies is going concern. In the case of listed companies, the stock exchanges will never list the stock of a company likely to cease to exist, since the value of the said stock is likely to become nil at the cessation. When highways in Japan become toll free pursuant to the legal basis, the private company established subsequent to the privatization of the four highway-related public corporations will generate no revenue and certainly incur great losses. The company will never survive under such conditions and the listing will never last. The privatization and listing themselves primarily deviate from the meaning of legal basis. The principle of toll free (redemption principle) would make the privatization of highways totally different from the privatization of the Japan National Railway or Nippon Telephone and Telegram.

Today's highways are certainly plagued with major, deep-rooted problems: the most expensive tolls in the world, inefficient construction mechanism, abusive relations between the Corporation and its subsidiaries and associates, and corruption among political and bureaucratic entities. This very much mirrors the structural problems inherent in Japan. Further, the debts are expanding at an unmitigated pace. If this continues, the four highway-related public corporations will probably fail, leaving a

burden far exceeding ¥100 trillion on the shoulders of the national people. This is almost quadruple the ¥27 trillion shouldered by the people with the privatization of the Japan National Railway. The Promotion Committee's efforts to shed light on these issues and thoroughly disclose the information can be praised as epoch making and a mark of great progress. However, the answer for them will not be the privatization of the highway public corporations. If we deem the four highway-related public corporations as private companies, they will have already failed. Without subsidy from the government (amounting to ¥756.7 billion in fiscal 2001 alone), they could not sustain the revenue and expenditure balance. Naturally, the high revenue generation on an independent basis will never be possible. The discussions at the Promotion Committee for the Privatization has revealed that they could not attain the privatization and listing without a huge burden on the shoulders of the national people. Mr. Koizumi's proposed policy of privatization without imposing the burden on the national people has already proved to be impossible.

Worse, the current huge liabilities of over ¥40 trillion incurred by the four highway-related public corporations are to be transferred to the Holding and Debt Servicing Corporation, whereupon the national people will bear the cost in a non-transparent way. This scheme is quite similar to the so-called "*Tobashi*" scheme whereby a financial institution derecognizes bad debts that cannot be explained clearly on their balance sheet and transfers them to a subsidiary. When calculated using the current low expected rate of return on the pension premium invested, the debts incurred by the four highway-related public corporations stand at ¥120 trillion yen, including interest payments. As a privatized company would not have any liability to repay the debts, the Holding and Debt Servicing Corporation, in other words, the national people, would bear this liability. Although Mr. Koizumi argues that no national people will shoulder the debts of the four highway-related public corporations as they are privatized, the national people will in fact bear them through the Tobashi scheme.

Japanese highways too expensive to use

The exorbitant highway tolls are taken for granted by the Japanese people. In the US, England and Germany, highways are toll free, in principle. Those highways that impose tolls in France and Italy impose only very light ones. These countries subscribe to the underlying rationale that reduced time and cost requirements for mobility encourage inter-regional exchanges, resulting in the prosperity of the people, the emergence of new opportunities, the attainment of self-independence of regions, and heightened prosperity for the overall economy. For this purpose, highways must function as a social infrastructure. When revenues are collected through means such as tolls, capital

investments appear to be biased towards areas with large populations. Highways directly relate to the definition of the role of the social infrastructure.

The Interstate Expressway Program in the US was commenced in 1956. With the completion of the program, all the areas in the US were connected. The west and south, including California, Texas and Colorado, prospered, while the excessive density in the large metropolitan areas such as New York and Chicago was mitigated. Industrial society centering on large cities changed. A totally new economy and social activities with various life-oriented service industries and university-operated research institutes emerged. Moreover, the Interstate Expressway has an overwhelming number of entrances and exits, i.e., entrance and exit at every three-kilometer interval (total of 27,000). Thus, expressways connect smoothly to ordinary roads and are taken for granted as part of life. On the contrary, the Japanese highways have only 400 entrances and exits. The average distance between one interchange to the next is 14 kilometers, the chore of reaching an entrance and exit is a hardship in itself, and the total distance from departure point to destination is greatly increased. In addition, the toll collection process at the toll gate congests the roads and wastes both time and fuel. These factors keep people from using the social infrastructure.

Japan originally intended to make the highways toll free as early as possible. In 1956, the year when the US Interstate Expressway Program also commenced, Japan's highway program started based on a report made by the Brookings Institute. As the Japanese government suffered from a shortfall in its construction budgets, it borrowed from the World Bank to cover the construction. In the plan, each route was to charge a toll until the construction expenditure was redeemed, whereupon the highway of the route would become toll free (redemption principle prescribed in the Special Highway Maintenance and Improvement Measures Law).

Thereafter, Japan's fiscal budget enjoyed a large surplus. Despite a 100-fold jump in the revenue sources for highways from an annual ¥20 billion yen in the initial year to ¥2 trillion in 1972, the highways did not become toll free. Even worse, the then Tanaka Cabinet decided without the deliberation at the Diet in 1972 that the tolls collected from already constructed highways such as Meishin and Tomei Highways should be appropriated to new construction for highways until all the highways under the plan were completed (toll pooling system). Because of this system, the Japanese highways have become the most expensive highways in the world, and the tolls will be charged forever.

Amidst these conditions, few Japanese people, in particular, those in local areas, use

highways in their daily life. The tolls are simply too expensive. The Metropolitan Expressway running centering on Tokyo charges ¥700 no matter how far people drive. Yet, the toll for highways in local areas is expensive. For example, the distance between Kobe and Tokushima is approximately 90 kilometers and takes about one hour to cover one way. Yet a toll of ¥12,100 is charged for a round trip. Needless to say, this prevents ordinary people from using it in daily life.

By the way, we should not determine the true cost of highways based on the tolls paid. In fact, an overwhelmingly larger number of people do not use highways because of their exorbitant tolls. In fact, the cost arising from such opportunity loss is huge. For example, the Aqualine connecting Kawasaki city in Kanagawa prefecture and Kisarazu city in Chiba Prefecture runs only 15 kilometers. It takes people from Haneda Airport to Kisarazu in 15 minutes. When the Aqualine was completed, it was connected to two circulating major roads. Ordinarily Kisarazu would have prospered greatly, yet to this day the interchange in Kisarazu is still surrounded by paddy fields. As the toll is ¥3,000 and too expensive to use, only few use it. The land price of the paddy fields is about 20 times less than that of a similar area 20 minutes by car from the airport towards the center of Tokyo. It looks as if there were China at the area 20-minute from the Haneda Airport. If the Aqualine were toll free, Kisarazu might have developed greatly with residences, hotels, and shopping centers.

In the US, Germany, England, and Switzerland, where the expressways are toll free, drivers enjoy an 80-kilometer area of car mobility for activities such as commuting, living and playing. Since the expressways with many entrances and exits are toll free, they can be easily used for commuting, shopping, and work. Reduced mobility time expands the living area. Diversification to local areas is enhanced, bringing about a wide range of economic effects. On the contrary, the Japanese highways are now being used for the industrial demand, namely, mainly for truck cargo transportation. In spite of this, more trucks are driving on ordinary roads as the tolls are expensive. The highways have not promoted the decentralization of traffic, but instead accelerated the concentration on the highways along the Pacific. As these highways are inconvenient and expensive, they cannot be utilized in daily lives. As a result, the local economies are depressed.

New Highway System that brings about a “golden 21st century” in Japan

The US toll free Interstate Expressways brought about the economic prosperity, diversification to local areas, and quality of life in the golden 50's and 60's. The Japanese highways initially attained high economic growth. But such growth was

skewed by the abusive and corruptive connections between political and bureaucratic circles. At this juncture, the highways mirror the deadlock of the Japanese economy. When the proposals I hope to make concerning highways are implemented, a new politics and society truly good for the people will be brought about, as well as a new economy.

I nickname my plan to use highways to bring about a new society as the “Nippon Retto Kaiso Ron”.

We may say that the current highways are bullet-train-type highways, as they connect large cities, are expensive and do not allow people to get off midway. Since people cannot get off midway, the areas along the highways cannot grow and prosper. First, we will transform the current bullet-train-type highways into life-oriented roads, as seen in other developed countries. Tolls will be free, and that is not all. If the number of entrances and exits is increased largely to enhance the connections with ordinary roads, what will take place? Currently, an entrance and exit is located about every 14 kilometers. If this distance were reduced to 3 kilometers, another 1,500 entrances and exits would be added. If the highways were toll free and toll gates ceased to exist, it would be easy to construct them. Once they are connected to ordinary national and prefectural roads, the overall transportation capability and convenience of the road system in Japan will be greatly enhanced. Arteries of highways and a blood vessel system of ordinary roads will together function as a blood cycling system.

People can reach their destinations far more efficiently and quickly. Of course, the tolls will be free. The congestion at the toll gate, now the source of 30% of the total congestion on highways, will be eliminated, and the cursed cause for useless consumption of a large amount of time and fuels and environmental contamination can be removed.

Service and parking areas also cost us too much. Such facilities with large areas are basically used only for restrooms and parking. Although there are concessions and automated vendors, they are poor. However, the facilities enjoy great advantages as they are located on the highways and generate a large revenue of ¥300 billion annually. Almost all the revenue goes to subsidiaries or associates of the four highway-related public corporations. It is the monster of monopoly. The Koizumi privatization program proposes more active development of profit generating business on the highways. When the highways become toll free and people can enter the highways freely, this absurd monopoly can be totally eradicated. Will the service areas and parking lots be removed? Not at all. There is no distance from the highways and they can be reborn as facilities truly good for the areas.

First, facilities can be transformed into attractive ones as a part of life; they could be convenience stores, supermarkets, fast-food restaurants, shops selling vegetables and fruits brought directly from farms, movie theaters, sports facilities. Further, the location could be convenient for first aid and emergency hospitals. Also, areas surrounding entrances and exits could be “21st century station squares.” Bus terminals can be constructed, as well as various facilities for services such as shopping, restaurants, food and beverages, leisure, sports, hospitals, caring, financial services, and postal services. They could be best suited to areas for home relocation or company movements. If they are realized, schools will be necessary. Inhabitant-oriented new towns respecting life and the environment will be constructed nationwide.

New life brought about by changing highways to life-oriented roads :

- As commuting and life areas expand, people can implement affordable life with comfortable houses;
- The excessive density in major cities and depopulation in other areas can be mitigated;
- Lifestyles may change as the cost for shopping, tourism, travel, camping, villas, etc., declines;
- More substantial life-related facilities such as caring homes, hospitals, and schools can be implemented as mobility areas expand;
- Transactions for housing, construction and real estate will become more active;
- Cost and time for physical distribution and sales (distribution, retails, agricultural and fishery products) will greatly be reduced.

As understood from the above, if the highways become toll free and the number of entrances and exits increases considerably, they will turn into life-oriented roads that can be easily used by the general people. Over time, these life-oriented roads will bring about new towns and life. More simply, less expensive and further than now, people can take advantage of mobility. These will not be implemented only for this or next year. They will be implemented forever. As people cannot afford such expensive tolls, they rarely use highways. However, if the highways become toll free, people can attain works, houses, living and quality totally different from the present. The discrepancies between metropolitan areas and rural areas, novelty and tradition, and artificial and natural will become unique properties and attractions. When the burden arising out of time and cost declines, people can enjoy differences in lifestyles.

In this way, if new consumption, services, and lifestyles expand and prevail along the highways, naturally works and workplaces will grow nationwide. Local areas will also

generate various job opportunities. People can live their own life, respecting communities and families. Working people are also consumers and beneficiaries of services. The vast majority of them will live into old age. In the future, they will be given more options to attain different lifestyles without going to and living in metropolitan areas. When various lifestyles can be attained nationwide, those who wish to live in local areas will grow in number for the first time. How can the highways which attain such effects be toll-free?

Why are the highway tolls so expensive?

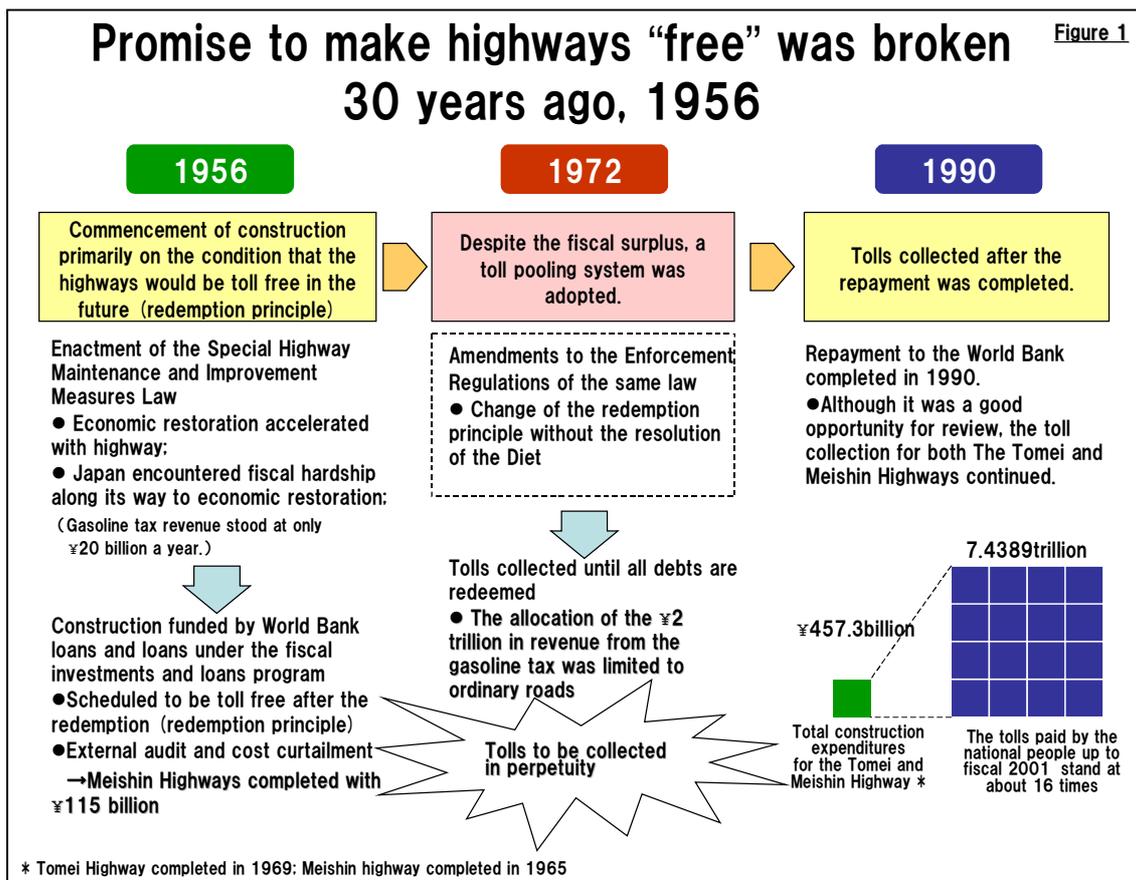
Approach to toll-free highways

There are three major reasons for expensive highway tolls in Japan.

- 1) More than half of the tolls collected are appropriated to pay off the staggering interest payments due.
- 2) The proceeds from one of the world largest revenue sources for roads are almost entirely limited to the expenditures for ordinary roads.
- (3) There are no incentives to curtail the exorbitant construction costs or shorten the construction terms.

Although the Japanese government levies one of the world largest road- and automobile-related taxes on the national people, it rarely appropriates the revenue to the construction of highways. Up to now, highways construction has been financed by borrowings. And the borrowings must be repaid. Moreover, the loan terms are over 50 years, incurring interest payments far greater than the principals. The construction is executed based on the public work system established by political and bureaucratic circles. Since many works have been contracted to subsidiaries and associates of the four highway-related public corporations, there are no incentives to curtail the expenses or shorten the work terms, which results in the soaring construction costs now paid. And as these swollen costs are passed onto the highway tolls, the tolls have become the most expensive in the world. The higher the toll, the fewer the users; and interest grows as the debt repayment falls short.

Although I reiterate, these irrational redundancies originated in the toll pooling system adopted 31 years ago (in 1972). The original law prescribed a redemption principle whereby respective highways will become toll free when the expenditures for the highway route are redeemed. This provision was contravened, and as a result a de facto toll collection for highways has been imposed into perpetuity without deliberation at the Diet (see Figure 1).



When the four highway-related public corporations fail, the national people will eventually shoulder the debts.

Interest payments are huge. The debts of the four highway-related public corporations now amount to ¥40 trillion. They are mainly borrowings from the Ministry of Finance through the Fiscal Investments and Loans Program, funded mainly by savings of the national people in the form of postal savings, postal life insurance, and pension funds. The servicing period will be at least 50 years from now, and in the case of the Honshu-Shikoku Bridge Authority, the servicing period will be 70 years at the shortest. Most of the borrowings are subject to a floating rate and refinanced from time to time. Even taking into account the rather optimistic assumption that funds can be borrowed at 4.0%, the expected rate of return on the pension premium invested for the coming 50 years, the total of principal and interest payments will be ¥120 trillion, of which ¥80 trillion will comprise only interest.

Yet, there is no guarantee that the current interest level will remain over time. The interest rate for the past forty years in Japan is on average 4% higher than the current interest rate. Even worse, it is probable that amidst further deteriorating fiscal conditions, production bases will be transferred to China, narrowing the trade surplus.

When this is combined with the effects of the further aging of Japanese society, eventually the trade balance will fall into a deficit after fiscal 2010. If that takes place, the interest rate is likely to rise. If the interest rate hikes to 7%, the total of principal and interest payment will jump to ¥180 trillion.

Moreover, even if the four highway-related public corporations fail, the Ministry of Finance is obliged to recoup the losses arising out of such failure and repay the full amount of principals and interests to persons with postal savings, savings in industrial insurance, and pension funds. The four highway-related public corporations are not unlike consolidated subsidiaries of the government that the government must bail out when they fail. Eventually, the treasury accounts, that is, the national people, will shoulder the losses. Unable to survive by their own efforts, these consolidated subsidiaries continue borrowing. If the four highway-related public corporations are privatized, the toll-collection system would be maintained for the repayment of debts. As long as the borrowing to repay the debt continues, the national people will be exposed to the huge risk of shouldering them.

Immediate toll-free highways through the refinance of debts by the governments and liquidation of four highway-related public corporations

The Special Highway Maintenance and Improvement Measures Law, the legal basis for highway system, prescribes that when the debts of the four highway-related public corporations necessary for the construction of the highways are redeemed, the highways shall become toll free.

The four highway-related public corporations continue to require a ¥760 billion subsidy each year, yet continue inefficient construction. If they try to repay the debts with the subsidy and tolls collected, the debts will swell with interest payments and essentially remain unredeemable forever. If this is allowed to occur, the initial promise of toll-free highways to the national people will never be kept. Instead, if the government takes advantage of the currently low interest level and raises the long-term funds at fixed interest rate with the issuance of the government bonds to repay the debts of the four highway-related public corporations in subrogation and liquidate the businesses of the four highway-related public corporations, the toll-free highways pursuant to the law will be attained at a lower burden of the national people.

In the case of private corporations, if their non-performing subsidiaries with fragile financial conditions continue to carry out their businesses with the risk of higher costs and liabilities, the parent companies had better borrow at low interest, subrogate their

debts, and liquidate the subsidiaries. This principle undoubtedly applies to the four highway-related public corporations. The government enjoys the highest creditworthiness and may issue the Japanese government bonds (JGBs) with a low coupon rate. With today's super-low interest rate, now is an ideal time for the government to issue the long-term JGBs and repay all the debts of the four highway-related public corporations.

Currently, the JGBs with the highest coupon rate is 30-year JGB, with a rate between 1.0% and 2.0%. We suppose that the government can issue the 30-year JGB with a coupon rate of 2% and repay ¥4 trillion debts of the four highway-related public corporations (in fact, the national debt issuance cost will be reduced as the government may issue JGBs with lower rates such as the 10-year and 20-year JGBs, and it will be practical to establish a special account for adjustments of cash flow between repayment of the JGBs and proceeds from revenue sources). Interest payments on the JGBs for 30 years will stand at approximately ¥24 trillion. If the current repayment of the four highway-related public corporations continues, the interest payments will amount to ¥80 trillion even on an optimistic basis, resulting in a reduction of ¥56 trillion interest payments, namely, reduction in the burden of the national people. This reduction is as much 1.9 times the tax revenue (¥47.2 trillion in 1999).

Fixed income markets will deem these arrangements as an improvement of the fundamentals of Japanese fiscal conditions. The four highway-related public corporations are consolidated subsidiaries of the Japanese government in this scheme, and the debts incurred by them can be reduced by the amount of the national debt launch. Also, the aggregate burden of the national people including the interest payment will be reduced by ¥56 trillion. These arrangements are likely to have only small impacts on the supply and demand balance on the fixed income markets. The national debt (total of the JGB issuance and borrowing) has increased by ¥276 trillion over the past five years, and the interest rate over the same time horizon has declined by 1.5% (JGB prices rose). The amount of ¥40 trillion is close to the amount raised by the issuance of refinancing bonds, and this is unlikely to have a large impact. The largest advantage over the present conditions is that the toll-free highways will generate great economic activation, entailing little fiscal expenditure, and eventually contribute to the long-term economic growth and increase in tax revenue (see Figure 2).

Figure 2

Q: Can JGBs be Issued ?

A1: The amount of ¥40 trillion is not so large relative to the total amounts of JGBs issued.

- The extra issuance of JGBs in the amount of ¥274 trillion has been underwritten for the past five year, and the interest rate has not risen.

	At the end of March 1998	At the end of March 2000	At the end of March 2003	Change (from 1998 to 2003)
Outstanding amount of JGBs and national debt	¥395 trillion	¥493 trillion	¥669 trillion	+ ¥274 trillion
Yield on interest-bearing JGBs	2.6% (20 years)	2.3% (30 years)	1.1% (30 years)	- 1.5%

A2: While the consolidated debts of the government remain unchanged, the fiscal burden will be mitigated. For this reason, the market will probably respond favorably.

- These JGBs differ from the conventional bonds used to cover deficit, as the latter only contribute to the net increase of debt.

A3: The mechanism is that the annual revenue sources will be secured on a flat installment basis. It seems to be practical to establish a Special Account for adjusting the principal and interest payment of the JGBs.

- Establishment of the Special Account for Social Reform Bonds

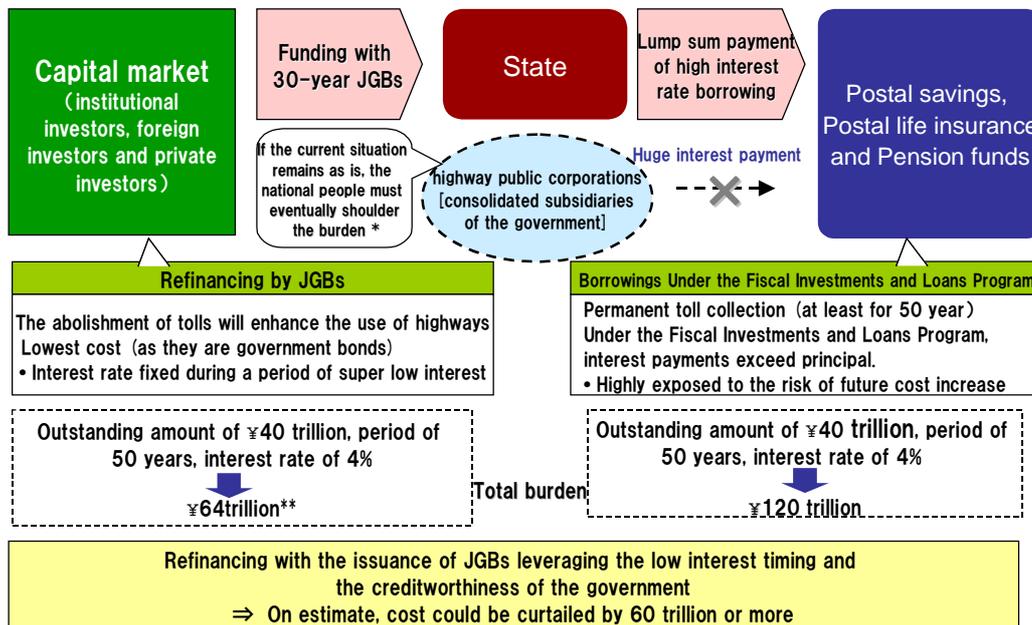
Note: The numbers are rounded off. The yields on the JGBs were the numbers around April to May every year.
Source: Ministry of Finance, Analyzed by the Office of Yasuyo Yamazaki

The issuance of so-called the “Social Reform Bonds” would bring about the toll-free highways. This is a very simple theory. We only return to the principle prevailing in the US and the advanced countries of Europe and adopted before World War II in Japan, i.e., that since roads are infrastructure and the whole nation can benefit from them, the government should construct them with the treasury accounts (see Figure 3-1).

Figure 3

How Can We Make Highway Toll Free ?

① Disposal of high interest rate borrowings of the highway public corporations

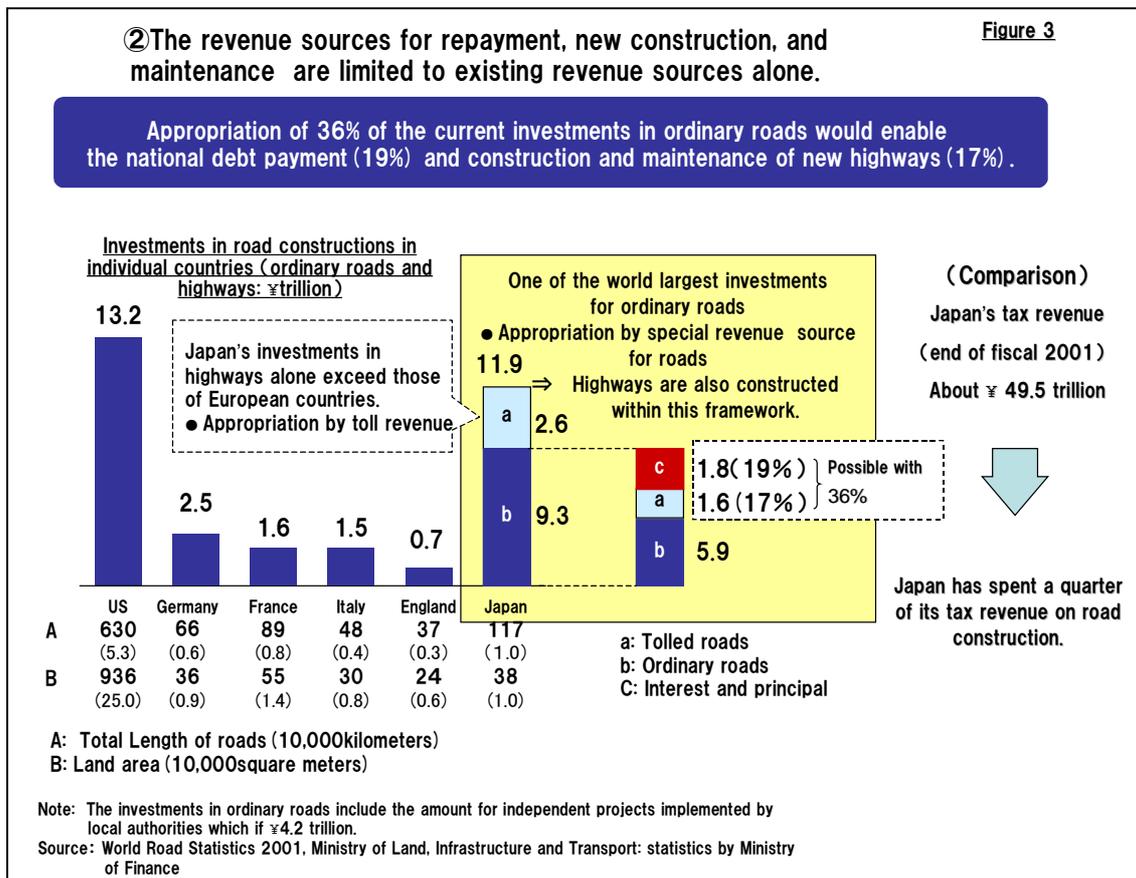


* Likelihood that the privatization will trigger a chain of events similar to that following the privatization of the Japan National Railway
 ** JGBs are mostly interest-bearing bullet maturities. To make the calculation simple, the estimate here is calculated based on the flat payment of principal and interest. Under this mechanism, the annual revenue sources will be secured on a flat installment basis. It will be practical here to establish a Special Account for adjusting the principal and interest payments of the JGBs. This estimate does not include the compensation for early repayment.
 note: The actual issuance amount should be determined including the construction expenditures for highway entrances and exits in addition to the debt payment.

Large reductions in national burden with Social Reform Bonds issued

The total amount of principal and interest payments on the Social Reform Bonds is ¥64 trillion, conditioned on the scheme mentioned above. If the government secures revenue sources to generate ¥2 trillion annually, the Social Reform Bonds can be redeemed in approximately 30 years. The underlying principle of repayment is to appropriate the existing revenue sources for the attainment of toll-free highways. Currently, most of the revenue sources have been appropriated to the expenditures for ordinary roads. A part of the revenue sources must be applied to the redemption of the Social Reform Bonds. The total of the expenditures for ordinary roads annually amounts to ¥9.3 trillion, while that for highways amounts to ¥2.6 trillion. The two combined amounts to about ¥12 trillion, one of the largest in the world, nearly equal to that in the US, a country with 25 times more land than Japan. The expenditures for the total of expressways and ordinary roads in Europe are far less than this amount. Moreover, the total length of highways and ordinary roads in Japan has far exceeded the total length of expressways and ordinary roads in Europe. Does the Japanese government have to make further investments in highways amidst the worst fiscal conditions? Furthermore, if highways become toll free and the number of entrances and exits increases, the overall transportation capacity will grow, reducing the necessity to construct new roads.

Therefore, it is quite reasonable to curtail the expenditures for ordinary roads and appropriate the curtailed portion to the revenue sources for the attainment of toll-free highways (Figure 3-2)



Another probable revenue source will be road pricing set forth for aversion of traffic congestion and restraints on exhaust gas emission. Toll collection for the Metropolitan Expressways and Hanshin Expressway will be maintained as exceptions, and a higher tariff will be imposed on vehicles that drive during rush hour or emit higher levels of exhaust gas emissions. If the current toll level (¥700 for Metropolitan Expressways and ¥1,400 for Hanshin Highway) is charged annually on average, an income of about ¥50 billion will be generated.

If sufficient revenue sources are not secured, new sources in addition to revenue sources for ordinary roads may have to be secured on a temporary basis. As seen in Switzerland or the Czech Republic, an annual tax in an amount ranging from several thousand yen to several tens thousand yen could be levied on automobile holders as the tax for the maintenance of toll free highways. If taxes of ¥10,000 and ¥30,000 were levied on saloon cars and commercial cars, respectively, the tax collected would stand at more than ¥1 trillion annually. A round trip on the current highways between Tokushima and Kobe cost drivers ¥12,100, while a truck with a large loading capacity driving between

Aomori and Tokyo has to pay ¥44,300. If these highways were free and the drivers could use them frequently, the cost would be very low for most people. However, this tax scheme is an emergency measure to attain toll-free highways immediately, and can be viewed as a short-term revenue source. Currently, the government has appropriated its subsidy to the four highway-related public corporations in the annual amount of ¥760 billion. (No such subsidy would be required if they were privatized, but would that enable the listing of the privatized company?). Of course, the subsidy can be a source of revenue.

New routes constructed with one of the world largest revenue sources for the existing roads

We clearly remember that members of the Promotion Committee could not reach a consensus when the Committee tried to propose an abolishment of construction of new highway routes. When the nationwide network of highways is complete, they will function effectively as great arteries. When highways become toll-free and life-oriented roads, the network power will then be effected. Necessary highways will be constructed with the application of the huge revenue source for ordinary roads in the amount of nearly ¥10 trillion, one of the largest in the world. As the Japanese government levies gasoline tax and automobile tonnage tax, it generates one of the world largest revenue sources for ordinary roads, matching that in the US, a country with 25 times the land area of Japan. Yet most of the revenue has been applied to ordinary roads, and little has been used for highways. As an attestation to the waste, we often see superb national roads constructed just next to the highways.

The road expenditure in Japan runs 4 times that in Germany, 7 times to France and Italy, and 16 times that in England. Moreover, the European major countries have attained a budget for expressways in such expenditures. The total length of highways exceeds that in the major countries of Europe, and nobody can say that the length in Japan is insufficient. As Germany and Italy have land areas similar to Japan and France has a land area only 1.4 times greater, we cannot argue that the total length of highways relates to the land area. Japan should switch the current system to that adopted in Europe. Appropriation of the revenue sources for ordinary roads, except that truly used for necessary portions, will sufficiently enable the construction of new highway routes. If highways become toll free and entrances and exits are constructed at 3 kilometer intervals, the overall road transportation capacity will be enhanced, the need to construct new roads will be reduced, and less money will be required.

Rapid construction of cheaper highways with decentralization and stiff competition

among local governments

The final issue focuses on how to reduce the construction costs of roads. The unit price for constructing one kilometer of highway in Japan stands at ¥6.7 billion. That in the US is ¥160 million, one fortieth of that in Japan. Even taking into account the differences in construction timing, land configuration and land prices, this difference is too large. This is not a simple comparison of the absolute amount. In the US, the inflation-adjusted cost increment (excluding the expenditure for additional works) has stayed within 10% of the budget initially projected in 1950's. On the contrary, Japan has exceeded the budget largely in spite of the large amounts of budget initially appropriated, and completion times are far behind the original schedules. The construction of highways in Japan is a public work spraying as much budget as possible for as long as possible. In particular, the problem relates to the distribution of the revenue sources for ordinary roads to local government. The revenue sources are distributed to local governments in proportion to the length of roads constructed in competent areas of local governments. This means that if a local government constructs as many roads as possible, it will receive a larger distribution. In this scheme, no incentives exist to reduce fiscal expenditures centering on the construction of necessary roads.

To improve the road construction mechanism, the following approaches are essential. While the central government will be responsible for the revenue source and specification, local governments will be responsible for the construction. This approach is similar to that adopted in the US.

Substituting highways with toll-free life-oriented roads will likely lead to the prosperity of local areas, as more people use the roads. It has been strange that roads, the closest infrastructure to the national people, have been determined by the government and bureaucracy. If the responsibility and right are transferred to local governments with the requirements of enhanced information disclosure and transparency, superior approaches can be adopted. The information disclosure and participation by the people in local politics create stiff competition and cooperation among local authorities, bringing about the cheaper and faster construction of roads. And the maintenance and improvement of roads will be implemented on the same basis. After the toll collection is abolished, the management and operation of service areas and parking areas will be delegated to local authorities. As such, the organization and personnel of the four highway-related public corporations must be readapted to a new mechanism that may even entail the dissolution of some organizations.

If road construction is successfully decentralized, people-oriented town making where economy and fiscal conditions improve will be achieved. It is certain that service areas and parking areas can best be utilized for various life and businesses, and there are also many local areas around entrances and exits suitable for the development of new towns. Local areas can leverage such new developments to attain their revitalization. Special areas specified for deregulation can be utilized to the maximum extent. In addition, priority can be placed on local institutions and organizations in terms of medical care, nursing and education. These developments of new towns will largely contribute to the enhancement of fiscal conditions of local authorities. They can expect to bring in revenues such as rent for properties, fixed asset tax, property transaction tax, consumption tax and corporate income tax. And if further prosperity is achieved and populations grow, in addition to the transfer of revenue sources for ordinary roads to local governments, the fiscal budget for local authorities will be considerably improved.

Suppose that roads are constructed more cheaply and quickly with the management efforts of the local authorities under the new mechanism. By removing the restrictions on the application of automobile-related revenue sources, the surplus could be used for other purposes as an incentive to local authorities to attain fiscal control with enhanced efficiency. European countries have already appropriated large shares of revenue from automobile-related taxes for purposes other than road construction. Fiscal expenditures are certain to increment for various undertakings such as environmental preservation and nursing care and health-related services in an aging society. The lack of fiscal budget to cope with these issues has been a great distress to local authorities. If local authorities that complete road construction are allowed to freely use the automobile-related revenue, both self-reliance of local areas and enhanced efficiency of road construction can be more easily attained. The problems entailed in the decentralized fiscal reform (so-called "Sanmi-ittai reform," or changes of the three major components of the fiscal system), i.e., fiscal reform of local governments with the reduced national subsidies to local governments, the reduced distribution of national tax revenue to local governments, and the reduced local tax grants.

At the election of governors for local authorities, an increasing number of candidates present their manifestos with commitment to actual policies and time frames for the realization. The manifestos differ from campaign pledges, in that they are conditioned on the verification of fulfillment of their promised policies after they are elected. The local-authority-oriented road construction and town making proposed herein may be very suitable an issue to slate in their manifestos. As the governors of local governments are equipped with revenue resources not subject to control by the central government, their own control of expenditure and the policies that they hammer out will closely

relate to regional lives, economies, and environment. Candidates make actual proposals in the form of manifestos, and after they are elected, post evaluations will be made with thorough information disclosure and mainly by independent third parties so that the electoral may understand the validity and the degree of the realization of their manifestos. As actual proposed policies directly related to inhabitants' life are contested in elections, grassroots democracy with the participation of electoral people will be facilitated.

If highways become toll-free and life-oriented roads, the car society in Japan will considerably enhance convenience. At the same time, we will have to build up the world's most advanced car society by solving inherent problems. Such a society would be a society that benefits the mobility-handicapped, that reduces exhaust gas emissions and traffic accidents, that protects the environment, and that consumes drastically reduced fossil energy such as gasoline.

The first infrastructure to develop will be a bus network for commuting to and from workplaces and schools, and for mobility in daily life. Buses can be further utilized with the development and improvement of parking lots for cars and bicycles. As seen in Switzerland or Italy, it will also be important to bar the entry of cars into old town streets or rich nature areas by enforcing park-and-ride schemes or similar measures. This will be the responsibility of the car society. Driving rescue systems and driving control systems such as the ITS to reduce traffic accidents must be greatly improved.

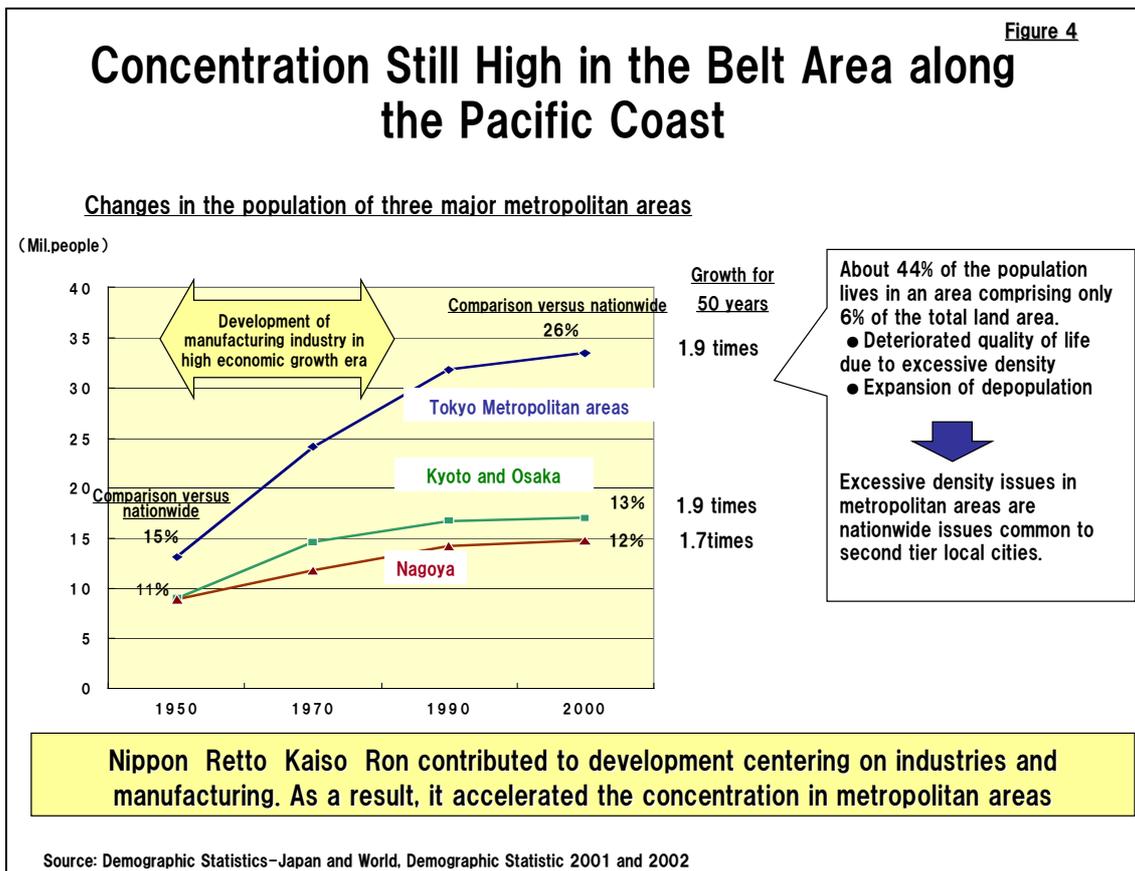
It will be most important for Japan, a country with few natural resources, to suppress the consumption of gasoline and develop and disseminate new gasoline-free technologies. In addition to energy conservation technologies such as the hybrid cars now in use, Japan should be a leader in developing and disseminating fuel cells with hydrogen generated with renewable resources. The materialization of the world's No. 1 car society is one of the most important national strategies.

Nippon Retto Kaiso Ron joys first and joys later
Laying the groundwork before it's too late

Although all the economic policies have been mobilized, no signal for economic recovery has been seen. This is because none of the policies have had the effect of creating a large demand. Why cannot they create demand? There are two major reasons.

One is that none of the policies have the power or effect to causes tens of millions of people to willingly change their lifestyles. Individual decisions to change jobs, establish

new companies, or relocate brought about the economic prosperity after World War II. Unless people are given courage to change their lives, the economy will not recover. For the fifty years from 1950 to 2000, 30 million people left rural areas for urban areas. Those people changed their lifestyles, changed jobs in agriculture to those in manufacturing and service industries. The accumulation of these changes has realized great economic growth. However, entering into the era of fewer children and aging society, excessive density in urban areas and depopulation in rural areas are likely to trigger further serious problems. No policy has the power to induce people to flow back from urban areas to rural ones. Most of the economic policies have been conditioned on the economic system focusing on the Tokyo metropolitan area. Further, the current policies are only combinations of such policies. Thus, these policies have no power to generate a new growth capable of filling people with the hopefulness required to draw them out to rural areas. (See Figure 4).



The second reason is that the reforms up to now have always accompanied pains and hardships. The national people who have suffered large pains and hardships naturally want no more of them. If further reforms are enforced amidst these conditions, people will become more conservative. Reforms that begin with pains and hardships with no promise of prosperity will not encourage people. On the other hand, joys first will encourage people and lead to eventual solutions. Without joys first, the current pains

and hardships will not be solved. This is the very story of the “North Wind and Sun.”

Nippon Retto Kaiso Ron is a policy that will bring joys first and joys later. No new large investments are required for making the existing highways toll free or increasing the number of entrances and exits. This can be achieved with simple a theory like “Columbus’s Egg.” Moreover, the policy is expected to immediately bring about a huge and everlasting effect on a nationwide basis. The national people can considerably benefit from these.

For example, if you commute from Tokushima to Kobe by car for a period of thirty years, you could save about ¥87 million on toll-free highways. As seen from this example, the economic effect generated from commuting, shopping, and marketing activities with toll-free highways nationwide would be huge. Almost all the industries ranging from agriculture, forestry and fishery, manufacturing and services would be affected. Various economic demands will occur including relocation to rural areas, new demand for relocation, housing construction, foundation of new ventures, research and development, and tourism. Why not make special economic zones around highway entrances and exits or around parking areas or service areas? A town making process suitable for the 21st century, in other words, which considers the environment and barrier free design principles would certainly be feasible. Local autonomy and participation by residents would be considerably enhanced. In addition, if the government subrogates the debts of the four highway-related public corporations with funds raised with low interest rates and the highways become toll free, the heavy interest payment would be largely reduced and the fiscal burden related to highways would eventually be considerably curtailed. But that is not all. The economy would grow, tax revenue would increase, and fiscal conditions for the central government and local governments would be largely enhanced. The “joys later” would be attained.

There is no more opportune time to implement Nippon Retto Kaiso Ron than now.

The stock prices in Japan fell to a quarter of their 1990 value due to the bad debt problems and the nation’s largest economic recession since World War II. On the contrary, the stock prices in the US has tripled in value since 1990, and those in England and Germany have risen 1.7 times. The interest rate in Japan has been hovering around zero for the past 7 years. Pension funds and insurance companies have fallen under a quasi-failure. Now is the best opportunity for the government to issue long-term Social Reform Bonds with low cost and suppress the interest payments, while making the highways toll free. The toll-free highways will bring about an economic recovery and strongly back up the solution to the bad debt issue.

How has Japan, a country with a fiscal deficit larger than that of any other advanced countries, been able to maintain its low interest rates for so many years? Many will explain that Japan is still the largest creditor country, and still the country with the world's No.1 or 2 trade surplus. But the gigantic flow of corporations leaving Japan for China is continuing. It is quite likely that Japan will be a net importing country with goods and products manufactured in China and other overseas countries by around 2010. At that time, Japan will suffer from twin deficits, a fiscal deficit and trade deficit. When the past events triggered twin deficits in both the US and Europe, the interest rates jumped to 20%, surpassing the two digit level. If this situation takes place in Japan, it would be impossible to issue Social Reform Bonds and introduce a toll-free highway system at that time.

Thus, Japan's last chance for economic recovery may very well hinge on the implementation of Nippon Retto Kaiso Ron within three to five years.

Nippon Retto Kaiso Ron

1) The attainment of toll-free highways would lead to diversification into local areas, town making for the people living in local areas, and economic revitalization.

- The mobility cost for the national people would be reduced with the attainment of toll-free highways;
- Accesses to ordinary roads would be enhanced with additional construction of highway entrances and exits;
- New town making would be promoted with the delegation of the operations of parking areas and service areas to private companies. (Toll collection would be continued in Metropolitan areas based on the principle of road-pricing in order to mitigate excessive density.)

2) New highway route construction and maintenance should be implemented with the attainment of toll-free highways by refinancing at low interest rates and reviewing revenue sources for roads.

- The government would subrogate and repay the debts incurred by the four highway-related public corporations and attain toll-free highways;
- As the government raises necessary funds at low interest rates, the national burden from the current debts of the four highway-related public corporations would be largely reduced;
- The businesses of the four highway-related public corporations would be discontinued or drastically scaled down;
- In addition to the construction and maintenance of new ordinary roads, new highway routes would be constructed and maintained with the current revenue sources for ordinary roads.

3) Largely delegating the authority to construct roads and the revenue sources to local governments, a true local autonomy should be attained.

- Distribution of the budget should be made not in proportion to the length of roads but in proportion to the area and population of the local area where the roads are constructed;
- Local governments would place priority in terms of new highway routes, entrances and exits, and ordinary roads, and implement the construction in the prioritized order;
- A newly established mechanism would promote information disclosure,

incentive-based cost reduction, and the participation of local people in town making.

4) The realization of the world's No. 1 car society should be targeted.

- Bus operations for commuting, going to school, and living should be improved;
- A park-and-ride policy should be implemented for the protection of nature;
- Technological developments should be promoted to reduce traffic accidents (including ITS) and improve first aid and emergency rescue systems;
- Technologies to curtail the consumption of gasoline and exhaust gas emission should be developed and disseminated.

Mechanism for Cost Reduction

1) Incentives to construct roads inexpensively and quickly are given to local governments with the distribution of the road budget thereto.

- Distribution of the budget should be made not in proportion to the length of roads but in proportion to the area, population, the number of cars held of the local area where the roads are constructed;
(With the emphasis placed on the area, distribution to local authorities will increase while in the case of population-based distribution, metropolitan governments will receive more.)
- Local governments that complete the road constructions ahead of schedule and below budget may use the remainder of the budget as a general revenue source.

2) Large delegation of the authority to construct roads to local governments

- Local governments are equipped with the final rights to determine the construction of highways and ordinary roads;
- Fundamental routes and specifications of highways and national roads will be determined by the central government;

3) Incentives to curtail cost for the projects and safety inspection system will be developed and improved.

- Contractors that complete projects at a lower cost and faster than planned will be awarded incentives such as bonuses;
- At the same time, enhanced information disclosure, a transparent bidding process, and an inspection system to prevent defective works will be adopted.

4) Businesses in relation to highways will be opened to private companies.

- The authority concerning parking areas and service areas will be delegated to local governments, and then the local governments will enable private companies to access the businesses related thereto;
- The local governments will develop areas around highway entrances and exits as new towns.

5) Mechanisms will be established to enhance competition and cooperation among local governments and encourage local people to participate.

- The track records of road maintenances and improvements by local governments, cost, bidding process, and economic effects will be thoroughly disclosed;
- A system will be established whereby inhabitants in one prefecture can compare

their results and processes with those in with other prefectures;

- In a bid to prevent abusive developments, local governments will mandate inhabitant participation in urban development plans, land use plans, and environment plans.