

Regulatory Reform in Japan

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Introduction

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Introduction

The Koizumi Government is now promoting a series of policies concerning the 'Structure Reform'. The most heated debates have been argued over 'corporatisation' of Post department (after that, privatization will be scheduled) and 'privatization' of the special public corporations such as four road-related corporations and three international airports. Both reforms relate each other via postal savings and life insurance (fund for public investment special public corporation public works).

In addition, the government is planning to set up the special deregulation zones in response to the requirements of local authorities. About 430 ideas or plans are submitted to the Regulatory Reform Council. They include the special agriculture zones where Joint Stock Company operates the farms and the special medical care zones where medical care services are provided freely. Furthermore, the government recommends that the local authorities should open up about 90 public services or activities including water supply, gas supply, hospital services etc.) through contracting out, franchise auction, or privatization. Its aim is to have the public sector compete with the private sector.

However, as for the major public utilities, regulatory reform has not been advanced so rapidly. Influenced by the OECD's 1999 recommendations, the government has implemented some measures in a mild way. But, their effects do not appear to be so large as to be satisfactory.

Japan has to accelerate regulatory reform to overcome long-term economic stagnation. Now, a few ministries of government begin to consider so called 'structure separation' as a new option of competition policy. The OECD's report on structure separation suggests various types of separation and requires member countries to promote restructuring public utilities by adopting the appropriate measures, based on the cost-benefit analysis.

Here, firstly I introduce the major privatization problems of public corporations, secondly refer to recent movements of regulatory reforms in the representative public utilities and lastly indicate the movements of government around structure separation .

1. Privatization of the special public corporations

Japanese economy has faced a long-run economic depression since the bubble economy collapsed. Macro-economic policies (fiscal policy, financial policy) have not worked well. Japanese economy is likely to fall into the deflation economy. Public investment based on Keynesian policy neither raised the effective demand, nor cut the unemployment rate. Why has Japan faced such long stagnation as the called "lost 10 years". One of causes lies in the mechanism of Japanese capitalism itself, which is not suitable for the new wave of world economy such as globalization and the IT related post-industrialized society. The government has noticed recently the limits of Japanese economic system and initiated so called 'Structural Reform'.

There are big three political projects, which the government has promoted since 2001. Firstly, the government has considered the privatization of three post services (concerning postal saving and postal life insurance the government has not decided whether to abolish or survive). This year the government decided to 'corporatise' the department of postal services as a first step toward privatization. We can't expect to obtain much welfare as for the mail or parcel services, but can benefit from reforming the mechanism of financing public investment. It is expected that reform of postal finance activities could make its mechanism more efficient (as of 2001, it supplies 156 trillion deposits of special account of treasury and 90 trillion government bonds) could delete waste public investments the special public corporations which is under control of the concerned ministries. Even more, reform of postal financing would alleviate its oppression upon private financial sector.

Secondly, related this postal reform, the government launches total review of 93 special public corporations, which have acted for government services in the field. Half of them are being to be privatized and a few of them are likely to be abolished (ex. oil-related corporation). The most excited reforms, where the government and the political parties have a tug-of-war intensely, are those of road (highway)-related public corporations and airport-related public corporations. The arguments are continued to focus on the methods and forms of these privatizations.

As for the former, it is decided that four corporations (JH and three highway corporations) would be privatized through the upper-base separation. That is to say, the operators would be privatized and responsible for construction and management of highway, while the holder (highway-owner) would be remained in the public sector and responsible for maintenance and redeeming accumulated debts. The debates are concentrated on the two points. Firstly whether should the pool system, which has functioned to finance new highways' construction by levying the users in spite of expiring redemption periods, be authorized to survive or abolished? This relates to review the highway charges that have been levied on the basis of a national uniform criterion. Secondly whether should the holder be authorized to invest the redeemed money used to make satisfaction for debts, which the operator would pay the holder for usage charges, in the highway construction or not? This is why one aim of privatization is to control supply of unnecessary or unprofitable highways due to the facile demand prospect with keeping off easy injecting the tax or subsidy into these public corporations.

As for the latter, the upper-base separation has been examined in the airport's privatization scheme. According to the initial scheme, three international airports will be privatized in a lump. However, it is decided in the event that Narita airport should be privatized separately preceding the other two international airports (Kansai, Chubu). The reason is that if privatized in a lump, Narita will have to cross-subsidy the others and lose the 'Hub's position in East Asia, because Narita could not reduce its high level charges or fees compared with those of the rival Asian international airports.

Thirdly the government is preparing for a new law, which incorporates 88 deregulation items, to promote deregulation at the local level. This law aims at setting up the model zones so called "the Special Regulatory Reform Zones". The government would nominate the zones where local governments express interests on deregulation and would enlarge them to the nation-wide if such experiments could revitalize regional economies. This scheme was derived from previous experience of deregulation schemes, where the ministries and bureaucrats resisted or delayed the progress during about 10 years. The local communities submit about 430 schemes with a wide range of education, medical services, agriculture, transports, local money etc. to the government. Since the ministries take these schemes negative, however, it is unclear how many schemes would be realized.

Recently the government also recommends that the local governments should open up their 64 services or activities for the private sector by using various forms (privatization, commercialization or franchise bidding). This recommendation is related to the decentralization of government, at the same time is thought to address inefficiency of public sector, and deterioration of local finance. And it also overlaps with the scheme of creating the above special zones. The aim of this project is to introduce techniques or skills of private sector so as to attain the same level of efficiency as private sector. In parallel of cutting subsidy and delivery to the local communities, the central government urges local governments to improve their fiscal conditions. The activities of roadway, water and sewage supply, school, prison, hospital, wholesale market, harbor, park, housing, etc. are included in this program.

Among them, the most interested fields that would be expected to achieve high performance are those of water and sewage supply and job creation. Some local communities have already succeeded to enhance cost performance of water and sewage supply by contracting out their management and control to private firms. It is expected that many authorities would follow such experiments through various methods including franchise bidding and the Private Financial Initiative. Concerning job creation, deregulating monopolistic service of employment bureau and developing private employment agencies would give local communities opportunities to address unemployment problem in their regions.

II. Regulatory Reforms in the representative public utilities

Japan has promoted deregulation continuously in response to the changes of circumstances surrounding public utilities. As for the regulatory policies, regulation of entry and exit has been deregulated substantially in almost utilities. Price regulation has been also remedied by adopting incentive regulations gradually. Note that the demand and supply balancing standards specified by the concerned utility-Business Acts have been abolished in almost utilities. Firstly we

indicate the main items of deregulation in the representative public utilities and their effects on prices and so on. Secondly we refer to reviews of regulatory regime and their influences, and lastly observe competition policies which complement regulatory reform.

The major measures practiced by the government are as follows;

- (1) Electricity : (a) Partial liberalization of power generation sector (· introduction of auction in the wholesale market at peak-load), (b) Partial liberalization of retail or supply of electricity (· to industrial and commercial customers who take power at 20KV or above), (c) Introduction of yardstick competition, (d) Creation of automatic coordination mechanism to meet the change of fuel prices, (d) Acceleration of entry (ex. Approval of special electricity firms which supply area services or special size electricity firms which take power at high voltage and reselling demand through transmission grid), (e) Introduction of notification system in the case of reducing the price.
- (2) Aviation (domestic): (a) Abolition of the demand-supply balancing standard, (b) A shift of entry regulation from license system (related to the route) to permission system (related to the business), (c) Introduction of the zone tariff system (· Here passage is determined within a range between ceiling and minimum).
- (3) Water : (a) Reform of designated water constructor system, (b) Revision of pricing rule in calculating the cost of capital-asset maintenance (capital-asset multiplied by the rate of capital-asset maintenance, the latter is derived from average rate of equity Capital multiplied by the rate of debenture for waterworks). (c) Approval for comprehensive contracting out.
- (4) Railway : (a) Horizontal separation in privatizing the JR, (b) Abolition of the demand-supply balancing standard, (c) Adoption of a unique price cap regulation under which the ceiling price is determined by the tariff based on the rate of return regulation, (d) Introduction of yardstick assessment, (e) Introduction of notification system in the case of reducing the price.
- (5) Telecommunications : (a) Horizontal and vertical separation of NTT under the holding company controls the group companies, (b) Abolition of the provision of demand-supply balancing, (c) Abolition of the constraints of foreigners' investment except for NTT. (d) Appliance of price-cap regulation for the retail market of NTT regional companies, and the long run incremental cost (LRIC) principle for the interconnection charges, (e) Opening up of the operation support system of NTT east and west. (f) Introduction of "My Line or My Line plus competition (priority registration system when users choose to subscribe their networks), (f) A shift to notification system to the mobile charges, (g) Abolition of the distinction of business type I . II in regulating the firms.

What are the effects or influences of these regulatory reforms? We can recognize in general that these regulatory reforms contribute to social welfare. However, their effects are so small that they are disguised with deflation economy.

The major results summarized as of now (2001) are as follows;

- (1) Electricity : (a) Entry regulation: the entrants of resale market are only nine and their share is limited 0.5%. Competitive circumstance is not established. (b) Price regulation: 0.18% price reduction for the industrial customers comparing that of the previous year, but 9.22% price reduction for the commercial customers. As to the resident customers, 5.42% price reduction in 2000 on average of ten utilities. 7.02% price reduction was announced by Tokyo Electricity Company this year. (c) Investment and so on: 0.2% reduction of ten utilities' equipment investment comparing with that of the previous year,

especially in the sector of transmission. (d) Yardstick assessment: 0.65 % price reduction in 1998, 0.61% price reduction in 2000. Its function does not work well since the utilities reduce their prices through notification system. But it contributes to reduce price gap among ten utilities.

- (2) Aviation (domestic): (a) Entry regulation: Although two new airlines entered into the profitable routes, one carrier went bankrupt this year due to predatory pricing strategies of big three carriers (JAL, ANA, JAS). After the merger of JAL and JAS was approved (=duopoly), new carriers are permitted to enter and operate new routes. Competitive circumstance, however, is not arranged enough. (b) Price regulation: 20.6% price reduction during ten years. Discounted fares and mileage services become very popular. (c) Total factor productivity: 3.6% growth rate per year on average during ten years. One third of this effect is estimated to be due to accelerate competition and regulatory reform.
- (3) Water : (a)Entry regulation: Local authorities begin to contract out their works to the private sector (in the fields of water purification plant and control of water quality). (b) Price regulation: The savings of capital cost due to a shift of accounting method suppress a rise of water fares to some extent. However, the average fare remains at high level and gap of fares among local communities is not improved (about 10 times).
- (4) Railway : (a) Entry regulation: Only one company enters in this industry in 2001. The reason is that profitable routes are decreasing and many companies face the difficulties to secure the break-even points. (b) Price regulation: Tariffs stick to the ceiling of price-cap in almost routes except the competitive areas where JRs and the other private companies compete each other.
- (5) Telecommunications : (a) Entry regulation: entry regulations are abolished in every field. The number of entrants are 383 firms (type I with network) and 10,1037 firms (type II with no network). As a result of My Line competition, the market shares of NTT group decreased to 80% in the local market and to 74% in the long-distance market. Electricity utilities enter into the broadband market through installing fiber optics (FTTH). Now many firms enter into the IP telephone market. As for the mobile market, four groups compete fiercely. (b) Price regulation: The price level is decreasing steadily in 2001(local rate; about 15% long-distance rate; about 11%). Competition and regulatory reform have contributed to these results. A menu of prices is diversified to be massive. Flat rate becomes popular as the Internet spreads.

These results show that the performance of industries depends on the speed of deregulation and degree of competition.

The institutional reform is also important as well as policies. (1) Transparency and accountability are enhanced, but not enough. (2) The Regulatory Reform Council's power has been strengthened, but not enough to take a strong position over the ministries. (3) Notorious administrations of guidance are replaced by clear rules gradually.

Unfortunately, re-organization of government in 2000 did not enhance government capacity so as to secure high quality regulation, especially in a sense of adaptability, transparency, and accountability. However, the framework toward an effective regulatory system is taking shape piece by piece. We can indicate the following points: (a) A set of administrative reforms related to the amendments of Administrative Procedure Act (1993, 1999). Particularly, public consultation (“notes and comment process”) is important since it has the possibility to check administrative discretions. Now, officials are required to provide a written copy of guidance. (b) A set of regulatory reform related to the Regulatory Reform Council. Council is shifting its policy from “step-by-step” or “item-by-item” approach to comprehensive or cross-sectoral approach.

However, these measures do not promote regulatory reform so smoothly. The government has still neglected some essential aspects of regulatory reform. They are as follows; (a) Lack of independence of regulatory authority: Establishing independent sectoral regulators is needed to complete transparency and accountability of regulation. This is also a first step for separating the regulatory functions from policy-making and industry promotion functions. (b) Lack of central regulatory registry system: Although information on regulation can be found on the ministry’s web site, any information system which the public can access easily does not exist in Japan. This system would assist in improving certainty of regulation. (c) Lack of appeals actions including private actions: The roll of judicial review of administrative regulations is limited in Japan because of inconvenience, lengthy delays, and high cost of court action. The government recognizes the roll of private actions in relation to ‘surveillance of compliance with the rules’.

Japan’s Fair Trade Commission wields a wide array of substantive and procedural tools, but it does not always use those tools aggressively enough. Since 1990, the FTC’s resources have increased and competition enforcement has intensified. However, the FTC has not overcome the following weaknesses. (a) Lack of capability to address self-regulation of the trade association: Although the FTC needs to rely on guidelines and education as well as enforcement, such measures have not been prepared enough. (b) Low level of enforcement: Little action has been taken to enforce the AMA and related laws. The provision of “monopolistic situations” has not been applied really and enforcement about merger control has been very weak (ex. the JAL v.s. JAS merger case). (c) Lack of linkage with consumer policies or consumer groups: Competition policy is not tied well enough to consumer policies. The lack of mutual support has missed opportunities to promote an effective reform agenda.

The FTC, however, is improving its enforcement through public consultation and criminal enforcement (an increase of referrals for prosecution, criminal sanctions). In addition, the FTC is intervening in the sectors where exemptions from the AMA have been abolished in order to monitor whether other industry-specific laws do not provide protection against competition law liability for firms. The eventual goal of regulatory reform is to ease or abolish such regulations that are inconsistent with the AMA. In this respect, the FTC is becoming an advocate in embedding competition principles into administrative actions. Fortunately, the institutional position of FTC is to be shifted to the center of government (Naikaku-fu) next year. The FTC’s enforcement is promised to be strong.

But, there is pervasive skepticism in the public about the benefits from competition. Even those who accept the need to move toward more competitive markets require government's interventions to facilitate the flow of capital and talent into new industries, or to secure various safety nets for the losers. Note that calls for antitrust enforcement have traditionally come from labor and consumer groups. The government should endeavor to secure the public trust in competition policy. The problem also depends on the breadth of support for reliance on market.

III. Structure separation vs Access regulation

The OECD recommended in 2001 that member countries should carefully balance the benefits and costs of structural measures against the benefits and costs of behavioral measures. The benefits and costs to be balanced include the effects on competition, effects on the quality and cost of regulation, the transition costs of structural modification and the economic and public benefits of vertical integration, based on the economic characteristics of industry in the country under review. The OECD presented five types of structure separations—①Ownership Separation,②Club Ownership,③Operational Separation,④Separation into Reciprocal Parts,⑤Accounting, Functional and Corporate Separation—. Among them, attractive measures to Japan are the former three.

Structural separation, however, include some troublesome problems at the level of economics. This is why theory of firm (=applied microeconomics) advocates the benefits of vertical integration. That is to say, ①Saving of transaction costs,②Scope of economies,③economies of information,④Aversion of investment risk,⑤market power or barrier to entry. Learning from standard texts, we summarize the benefits and costs of vertical separation at the economic level as follows.

Benefits;

- No waste production system suitable for the minimum scale of efficiency,
- Enhancement of firm's efficiency influenced by competitive market,
- Improvement of X-inefficiency (conflict over different firms' cultures),
- Restraint on the monopoly power (acceleration of effective competition) and elimination of entry barrier,

Costs;

- Recurrence of transaction cost,
- Loss of economies of scale and scope
- Loss of economies of information,
- Increase of investment risk and occurrence of hold-up problem

But we have to argue this problem along the network industries characterized with natural monopoly in many cases. Then, as for the costs of structural separation, it is important to estimate the amounts of loss of economies of scale and scope, loss of economies of information, and recurrence of transaction cost when the public utility is separated. However, we have a series of econometrical methods to estimate their sizes (scale elasticity⇒scale, cost complementarily⇒scope) in money terms. In conclusion, many empirical literatures shows that the cost structure of natural monopoly (=subadditive) can be found in the only limited activities of network industries. In addition, the other costs are also supposed not to be so high because the Internet economy develops rapidly (⇒decreasing transaction costs) and disclosure increases so called spilt over effects(⇒reducing loss of economies of information).

These costs must be compared with the benefits of vertical separation. We have to estimate the benefits from acceleration of competition (expected improvement value of welfare loss (=deadweight loss), industrial performance gradient index), The gains derived from improving X inefficiency, and the savings through improving cross subsidies.

At the second stage, we have to compare the benefits and costs in the fields of policy-making and regulatory administration. While relationship between structural measure and behavioral measure is complementary each other in a sense, it has also a relationship of inverse proportion. That is to say, further the government promotes structural separation, less it needs access regulation. Thus, structural separation brings substantial reduction or saving of regulatory costs. Then, the benefits of structural separation consist of the savings about administrative cost or compliance cost of the concerned industry.

These benefits must be compared with the costs at this level. As a direct cost, it requires both side of government and industry a transitory cost in planning, designing, and implementing. Especially on the side of industry, it requires huge cost for changing its organization or strategy, and cost for negotiating with government. Also, it may incur a costly problem in the process of implementation. The firms may be tossed into the confusion of regulatory changes. Structure measure is superior to behavioral measure as far as the costs accompanied by access regulation (intercession, legal action) exceeds the costs of separation.

Lastly total costs and benefits of structural separation should be balanced deliberately. But these calculation is time spending and costly. If we can confirm a diminishing benefits of natural monopoly and an increasing of interconnection charges, we should estimate them more easily, for example, based on the local compensation principle (=so called Allais's surplus) or the growth accounting model. The applied general equilibrium analysis (AGEA) is unsuitable for this analysis in that it needs ex post information.

The benefits and costs should be calculated on the basis of the discounted present value since the concerned project would be ranged over several years. AS for this problem, we have some calculation techniques such as ①Net Present Value, ②Cost-Benefit Rate ③Internal Rate of Return. It is said that If $NPV \geq 0$, $CBR \geq 0$, $CBR \geq 0$, the project should be implemented. In this case, we can get a criterion of implementation by calculating ① or ②, since structural separation is not a physical project.

Structure separation seems to be effective in privatizing the postal services and special public corporations and making franchise bidding of public services. Japan, however, has already implemented some types of structure separation in privatizing the JR (horizontal separation) and restructuring the NTT (vertical and horizontal separation). So, the problem is whether the government feels that further separation measures are needed.

A. Electricity

In Japan, ten investor-owned vertically integrated utilities are responsible for generation, transmission, distribution, and retail supply. The sector characterized as a typical regional monopoly structure is regulated by the Ministry of Economy and Industry under the Electric Utilities Industry Law. The MEI has a central role in developing the structure of this industry.

Reform started in the middle of the 1990s. The government set a target to reduce price to the western countries' level. Amendments of the law in 1995 liberalized entry of the independent power producers (IPPs). Auction system has influenced the generation costs, and made a first step toward competition. Prices of successful bidders were almost 30% lower than those of the incumbents. But, the IPP bids accounts for only 3% of total installed capacity of public utilities. The MEI plans to further auction system up to 25% (50GW) of total capacity.

The Committee on Basic Policy of Electric Utility Industry Council recommended partial liberalization of retail supply in 1998. This measure has allowed a part of customers ("extra high-voltage" industrial and commercial customers) to choose suppliers and to save their energy costs. But, the majority of customers remain as captive customers who cannot choose their supplier. The key issue is to enlarge the range of customers by alleviating eligibility defined by the annual consumption level or allowing jointly purchases of electricity by groups, aiming at full liberalization.

Vertical separation may be required in order to complete retail liberalization, because it is difficult for regulator to find an appropriate access rule concerning the transmission charge or ancillary charge. The transmission charge should be cost-reflective, efficient, and non-discriminatory in terms of connection. Another reason is that it is doubtful whether the regulator can interrupt cross subsidy and check anti-competitive behavior of incumbents.

Thus, vertical separation, exactly speaking, operational separation that is suited for Japanese conditions should be searched since ten utilities are investor owned companies. Accounting separation is not enough to promote competition. In order to accomplish operational separation, the Independent System Operator (ISO) should be set up to manage and control the transmission grids. Such a reform would be inevitable as far as the government decides to enlarge the number of eligible customers in retail market. This is why regulator has to prevent the integrated utilities from manipulating in favor of them. It is reported that the MEI is now considering the possibility of operational separation as well as creation of non-compulsive pool market.

B. Telecommunication

Japan was one of few countries to introduce competition in the 1980s. In 1996, the MPT announced "the second reform of info-telecommunications system in Japan", which included the Divestment of NTT. The MPT revised the Telecommunication Business Act in 2001 and introduced a new concept of 'dominant' firm and established a universal service fund. In process of 'My Line' s competition NTT has reduced the local price (10 yen·8.5 yen per three minutes) through competition with NCCs and new type entrants with IP network. Technological innovations are involved in the broadband investment (ADSL and IP telephone). The number of subscribers of ADSL has increased rapidly in a year (·3.7 million). The number of entrants of IP telephone has increased, too. For example, 'Fusion' has constructed a private, unique IP network, and connected customer' s call directly to NTT' s local network at the nearest terminal switchboard by a uniform price only 25 yen.

However, Competition in telecommunications has not increase consumer surplus so much since the mobile prices have been remained at relatively high level. The majority of customers require the mobile carriers to reduce the prices of cellular phone. Although the government has designated the NTT Docomo as a dominant firm (52% market share), it has not taken any measure until today, because a new business should be exempted from regulation in principle. But, if needed (ex.collusion), the interconnection charge (termination charge) of cellular phone should be regulated.

The Telecommunication Business Act does not provide a new vision toward broadband stage. We face two big problems. One is related to price control, the other is related to competition policy. As for the former, so-called flat rate may undermine the current pricing which is set on the basis of distance and time, and make the current market definition (by segment) meaningless. How should the regulator address this problem?

As for the latter, competition within the NTT group has not been reinforced enough under the holding company system. The regulator takes two-stage approach. That is to say, if competition is not reinforced further within two years (=supposing the status quo), then re-divestment of the NTT group should be considered in the form of capital or structural separation. Another competition problem is related to the relationship between general competition policy and specific competition policy. The conflict between the FTC and the telecommunication agency (the former MPT) has emerged in the ADSL problem. Such conflicts might cause a barrier for regulatory reform if the government does not coordinate their roles in implementing the dominant regulation.

The Council of Info-Telecommunications has decided to add structural separation scheme into the two-stage approach. We have to wait for the final decision for a while. This decision is reasonable, because technologies and market circumstances are changing rapidly in the broadband fields, and access regulation still works well.

Conclusion

Regulatory reform is expected to remedy the high-cost structure and increase consumer benefit. To secure the benefits from regulatory reform, the government has to take the following measures;

(1) economic regulation: to deregulate entry-exit control thoroughly, to apply price-cap regulation into every public utility, to develop an innovative rule of the interconnection charge (ex. nodal pricing), and to examine an alternative pricing rule in post-regulation stage (ex. franchise auction).

(2) regulatory regime: to set up an independent regulatory agency to clarify the regulator's accountability.

(3) Competition policy: to strengthen competition policy enforcement in the sector of natural monopoly.

In Japan regulatory reform necessarily confronts with so-called iron-triangle relationship among politician, bureaucrat, and industrialist, which has melted down the core spirit of reform. Experience of regulatory reform in Japan has showed that the political leadership and the speed of reform would become more important to achieve the goal. Although it is unclear whether reform of public utilities is pushed to the front, we should watch the movements of the Koizumi reform for a while.

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