**Appendix for**
**Why Did Japan Stop Growing?**

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January 21, 2011

This appendix contains brief case studies of the Koizumi reforms in six key areas.

## Contents



### 1. Financial System Reform

1.1. Target and plan

The nonperforming loans problem in the Japanese banking sector were triggered by the collapse of asset prices in the early 1990s, but continued to exist into the 2000s. As of the end of March 2002, the nonperforming loans (NPLs) held by the major banks in Japan amounted to 8.4% of their total loans. The turning point came in the fall of 2002 when Heizo Takenaka took over from Hakuo Yanagisawa as the new Minister of Financial Affairs. With the strong backing of the Prime Minister Junichiro Koizumi, Takenaka ordered the major banks to reduce NPLs by half. The “Takenaka plan” to reduce NPLs consisted of the six pillars: (1) to have banks make more rigorous assessment of their assets using the discounted cash flow method of determining the profitability of a loan; (2) to check cross-bank consistency in the classification of loan quality for large debtors; (3) to announce the discrepancy between the banks’ self-evaluation and the evaluation by the Financial Services Agency (FSA); (4) to be prepared to inject public funds to under-capitalized banks if necessary; (5) to impose business improvement orders on banks that substantially underachieved their revitalization plans; and (6) to prohibit banks from boosting profitability (and capital) by declaring unrealistically large deferred tax assets. Let us look at each pillar more closely.

### 1.1.1. More rigorous assessment of bank asset quality

To accelerate disposal of nonperforming loans, Takenaka asked banks to more rigorously evaluate their assets. Many banks tried hard to minimize the stated amount of NPLs claiming that the loans would become collectible once the economy turned around. In fact, these loans typically did not prove collectible and instead would eventually be deemed nonperforming, thus adding to the stock of NPLs. Takenaka tried to stop this cycle by forcing banks to assess realistically the quality of their loans.. A critical step was to move away from the existing practice of judging the viability of a loan based on whether the current payments were being made. In the ultra low interest rate environment that prevailed in 2002, many companies could make their loan payments and if they could not, the loans could be extended with hardly any change in the required payments. Takenaka stopped this cover-up by having the examiners use the Discounted Cash Flow method to estimate the value of loans to the largest debtors, so that the whole future stream of payments had to be considered in assessing loans. This change forced the banks to recognize losses much sooner.

1.1.2. Cross-bank consistency of classification of large debtors

The FSA examined how major banks classified large debtors, and tried to require consistent evaluations across banks. To do this, the FSA took the most appropriate classification for each large borrower and forced that on all the major banks. This emphasis on horizontal consistency of credit risks across banks was adopted by Federal Reserve in its Supplementary Capital Assessment Program (the so-called stress tests), and is now viewed as a critical element of best practice in systemic bank supervision.

1.1.3. Publishing discrepancies between the bank self evaluation and the official examination of FSA

Starting from March 2003, the FSA began publishing the discrepancies between the banks' self evaluation of their loan quality and the official FSA estimates. The banks were ordered to reduce the discrepancy by adjusting their evaluation process. If a bank failed to correct the difference in a timely manner, the FSA issued a business improvement order. The business improvement orders had the force of law and removed the misreporting that had been present.

1.1.4. Injection of public funds

The prevailing government policy had been to consistently understate the capital needs of the banking system and to give weak banks satisfactory evaluations. Mr. Takenaka declared he would inject public funds to under-capitalized banks if necessary, and he did so. Resona Bank's capital ratio for March 2003 fell below the regulatory minimum of 4 % after it was not allowed to count five year worth of deferred tax assets as a part of its capital. The FSA used the Section 102-1 of the Deposit Insurance Act to inject ¥1.96 trillion into Resona Bank.

Ashikaga Bank also saw its capital ratio for March 2003 fall below 4%, when the FSA refused to allow the bank to count five year worth of deferred tax assets toward its capital. Ashikaga was actually declared insolvent with negative net worth of ¥1.023 trillion. Ashikaga Bank was outright nationalized under the Section 102-3 of the Deposit Insurance Act.

The stock market responded favorably to these injections. After falling to the post-bubble lows below ¥8,000 in March and April of 2003, the Nikkei 225 started to recover right after the capital injection to Resona and broke ¥10,000 by the summer. Many contemporaneous accounts of this period credit the commitment of public funds and the determination to force banks to find capital on their own or to get it from the public as the catalyst for turning around the banking problems (Patrick 2004).

The initial government funds put into Resona proved to be inadequate. Indeed, a subsequent audit showed that loan losses in the next few months wiped out all of the capital that had been put in. But once Mr. Takenaka's process was in place and it was clear that Resona could not simply continue to disguise its problems, the stock market began to rally. As of the end of August 2010, ¥1.53 trillion of the capital injection of ¥1.96 still remains, and Resona continues to file biannual progress reports to the FSA.[1]

1.1.5. Penalty for not reaching the targets in the reconstruction plans

Banks that received public capital in 1999 thereafter were required to file reconstruction plans with the FSA and to update the status of progress on the plan twice a year. Given the widespread assistance to banks in 1999, this meant many large banks were already filing these plans when Mr. Takenaka took over. In the plans, the banks were required to state the targets on their profitability, the size of reduction of branches and employees, and so on. Prior to Mr. Takenaka's appointment banks routinely failed to achieve the stated targets, but the FSA did very little if anything about the misses. Mr. Takenaka introduced the so-called "30% rules." If a bank missed the reconstruction targets by more than 30%, the FSA imposed the penalties through the use of business improvement orders. These sanctions sometimes forced the resignation of

[1] Progress on the repayment can be found at (http://www.dic.go.jp/english/e_katsudou/e_katsudou3-3.html).

senior management and/or reduced salaries and bonuses for management.

### 1.1.6. Deferred tax assets

At the end of March 2002, Japanese banks collectively had ¥30.2 trillion of core capital, but ¥10.6 trillion of core capital was made up of deferred tax assets. Deferred tax assets were controversial because of their peculiar nature. They are tax deductions coming from past losses that the banks would only be able to claim in the future if they became profitable. If the banks failed to regain their profitability within five years, these credits disappear.

Mr. Takenaka wanted to prevent banks from overstating future profits and thereby claiming unrealistically large amount of deferred tax assets. Initially this part of his plan met extremely strong resistance from the banking sector. The FSA examiners and auditors, however, eventually became more conservative and forced the bank to reduce their reliance on the use of deferred tax assets to satisfy their capital requirements. In particular, following the Resona case, the use of deferred tax assets was substantially curtailed (Skinner 2008).

## 1.2. Assessment of the reform

The Takenaka plan worked. One noteworthy feature was the precision of his instructions which reduced the ability of the banks to cover-up non-compliance. He created a transparent system for monitoring progress by putting numerical targets in place for the reduction in NPLs, and insisting that progress reports come within 30 percent of the actual results. In addition, the threat (and use) of business improvement orders was essential in forcing banks to accede to the wishes of the regulators.

Figure A1-1 shows how the major banks reduced the NPLs following the Takenaka plan. In March 2002, the amount of NPLs at major banks peaked at ¥ 27.626 trillion. After the Takanaka plan started later in that year, the NPLs steadily declined. The major banks disposed of about ¥7 trillion of NPLs each year from 2002 to 2005. The goal of the plan to reduce NPLs of the major banks in half by the end of March 2005 was successfully achieved: NPLs at the major banks were ¥ 13.567 trillion by March 2005.

Finally, we can speculate what would have happened if Mr. Takenaka had not implemented the financial revitalization program. Banks probably would have continued to evaluate their assets leniently. As Omura et al. (2002) argue, the non-performing loans would have stayed on the banks' balance sheets. The continued lack of harmonization in classifying loans to largest debtors would have made it easy for banks to carry on without recognizing troubled loans. Hence, it is not clear when prevailing cycle that was in place before Mr. Takenaka offered his plan would have ended.

## 2. Postal Privatization

### 2.1. Targets and Plans

Japanese postal service was operated by the government and provided three types of services: mail, postal savings, and postal life insurance. Combining the postal savings and the postal life insurance, the total financial assets of Japan Post was approximately ¥350 trillion, which accounted for 25% of banking and life insurance financial asset in Japan. The postal savings and postal life insurance assets constituted the most important source of funds for the Fiscal Investment and Loan Program.

During the 1990s, the government started to recognize some problems with the existing model of postal services. The transaction volume and profits of mail services declined significantly due to the innovation and rapid expansion of the internet and email. For the postal savings and life insurance, the private sector began criticizing them for using their government guarantee to compete unfairly with private businesses.

The idea of privatizing postal services goes back at least to 1992, when Junichiro Koizumi (then Minister of Posts) advocated the privatization. Mr. Koizumi continued to push for postal privatization and finally implemented it when he was the Prime Minister. The postal privatization was the cornerstone of Koizumi's policy to "leave the private sector what it can do."

The outline of postal privatization was first drafted in October 2003 by Heizo Takenaka, who later became the Minister of Postal Privatization. In the draft, he specified five core principles of postal service privatization. The first is revitalization. Postal privatization must revitalize the Japanese economy by integrating the functions of the national postal services into the market economy. The second is consistency. Postal privatization must be consistent with other structural reforms, such as the financial system reform and fiscal consolidation. Postal privatization should not harm the financial system. It should not impose a fiscal burden, either. The third is convenience. Postal privatization should maintain and improve the convenience currently offered to the users. The fourth is full utilization of the existing resources. Postal privatization should fully use the human capital, physical capital, know-how and network that had been accumulated over more than 100 years. Finally, the fifth is job protection. In postal privatization, the current jobs should be protected as much as possible.

Mr. Takenaka's principles eventually developed into the Basic Principles of Postal Privatization that was approved by the Cabinet on September 10, 2004. The Basic Principles specified that the postal services would be privatized in 2007 by creating a holding company to control four joint stock companies which represent four function areas of the postal services: mail, postal savings, postal life insurance, and post offices (network). The new companies would compete with private companies on equal footing. To achieve this, the government guarantees on postal savings and life insurance contracts would be abolished. To protect the jobs, all the current workers will be employed by one of the new companies.

The Postal Privatization and five related bills based on the Basic Principles were submitted to the 162nd ordinary diet session in April 2005. The postal privatization bill faced stiff resistance by many diet members from the Liberal Democratic Party (LDP). The bill managed to pass the House of Representatives by five votes on July 5, 2005, but failed to pass the House of Councilors by seventeen votes on August 8, 2005. Prime Minister Koizumi dissolved the House of Representatives and asked the public to vote for the postal privatization. He also purged the LDP members who opposed to the bill. In the general election of the House of Representatives, the LDP won a sweeping victory by adding 47 new seats. The postal privatization bill passed the House of Representatives on October 11, 2005 and the House of Councilors on October 14 during the 163rd special Diet session.

The privatization started in October 2007 with the creation of four new joint stock companies that would inherit the assets and business from the old postal service: Japan Post Service Co., Ltd (JP Service), Japan Post Network Co., Ltd (JP Network), Japan Post Bank Co., Ltd (JP Bank), and Japan Post Insurance Co., Ltd (JP Insurance). By clearly separating business segments, the privatization aimed at stopping the practice of subsidizing losses in mail services using profits from postal savings and postal insurances. The management of JP Bank, JP Insurance, and JP Network was given an option to separate each company by regions in the future if deemed appropriate. The Japan Post Holdings Co., Ltd (JP Holdings) was established as a pure holding company that initially would own 100% of the four operating companies. The privatization was supposed to complete by the end of September 2017. By this date, the government is supposed to divest more than two thirds of the JP Holdings. The JP Holdings is supposed to fully divest its shares of JP Bank and the JP Insurance. Soon after the privatization of 2007, a divesture plan was submitted by the JP Holdings and approved by the Prime Minister. Under the plan, JP Holdings was supposed to list the JP Bank and the JP Insurance on a stock exchange in 2010 and fully divest in five years from the date of listing. The JP Holdings' own stock was supposed to be listed on an exchange by 2017.

One of the important businesses of the JP Holdings is a management of the Social and Regional Service Fund (SRS Fund). The purpose of this fund is to support and maintain the JP Group's universal service. Under the law, JP Service and JP Network must provide universal service. JP Holdings use the SRS fund to sustain unprofitable post office operations in remote areas. JP Holdings has to maintain a minimum ¥1 trillion of the SRS fund by accumulating dividends from JP Bank and JP Insurances shares. When the stocks of the financial companies are sold to the public in the future, a part of the capital gain on the sale must be contributed to the SRS fund.

JP Network is responsible for the post office operations all over Japan. The other three companies (JP Service, JP Bank, JP Insurance) entrust their service window operations to JP

Network. JP Network was also allowed to enter new businesses such as ticket distribution and renting space for local public service using their post office network.

JP Service provides mail, package, and cargo delivery services. JP Service established a couple of alliances with the private sector companies to improve its profitability. JP Service's package service division merged with Nippon Express's package delivery business in October 2009. JP Service also established an alliance with All Nippon Airways and launched a new international cargo company ANA & JP Express Co., Ltd.

The business of JP Bank and JP Insurance are less restricted than the other JP Group companies. For example, they are not obligated to provide universal service, although they were still required to sign long-term contracts (of multiple years) with JP Network to indirectly support the non-profitable part of the JP group.

2.2. Impact of the Reform

By the phased in nature of the plan, much of the impact would not be felt until the privatization was further along. But after the Democratic Party of Japan, which originally opposed the postal privatization bill, took the office in 2009, they have started to roll back postal privatization. In September 2009, the government intervened in the management of the JP Insurance and ordered it to cancel of plans to sell inns they own and manage (even though many of generate losses). In December 2009, the Diet passed a bill to freeze the divestiture in postal companies. In May 2010, the Postal Reform Bill was submitted to the Diet. The bill seeks to merge the JP Holdings with the JP Service and the JP Network, to make the JP Bank and the JP Insurance the subsidiaries of the new merged company, to relax the FSA supervision of JP Bank and JP Insurance, to raise ceilings on insured limits for postal savings and life insurance, to make the JP Bank and the JP Insurance exempt from consumption tax, and to convert up to 100,000 non-regular employees in the JP group to regular employees. Thus the bill would roll back essentially all of the Koizumi reforms, restore the cross-subsidization across business lines, and allow parts of the postal system to exploit their government backing for competitive advantage. The Diet ended before it started to deliberate on the bill, but the current government is still trying to submit a revised version of the bill to a future Diet.

## 3. Labor Market Reform

### 3.1. Target and plan

The rigidity of Japanese labor markets has been the source of large scholarly literature.[2] While the Koizumi government implemented several reforms to increase the labor market flexibility, we focus on the 2003 amendment of the Dispatched Workers Law (Haken Rōdōsha

[2] See Rebick (2005, Chapter 2) for a survey. Ono (2010) finds that continued rigidity introduced by lifetime employment reduced opportunities for new entrants to the labor market during stagnation.

Hō). This amendment was the major labor reform undertaken by the Koizumi administration and it has become a symbol of the Koizumi's reforms. Especially when many dispatched workers lost their jobs during the global recession of 2008-2009, the public pointed to this change as having created a large class of workers with insecure employment and low wages.

This amendment was a response to requests by both employers and employees. Employers wanted to be able to change the labor force quickly to adjust to ever shortening product cycles. For example, the 1995 report titled "Japanese-style management for new era" by the Japan Economic Federation argued that "Workers will be stratified in three groups, long-term skilled workers, advanced experts, and temporary workers." Many workers also favored more flexible labor contracts so that it was possible to find work at firms that were not prepared to take on workers with an implicit long-term commitment.

The use of employment agencies to send temporary workers to other companies was prohibited by law before 1985. To respond to increased demand for more variety of employment arrangements favored by both management and workers, the Dispatched Workers Act was promulgated in 1985. This law permitted the use of dispatched workers on a limited basis, and subsequently was revised to expand its scope.

The first major amendment came in 1999. Prior to that change, temporary workers could only be employed for specific jobs (11 originally, 26 later) that were explicitly allowed by the government (a “positive list” system). The 1999 amendment reversed this policy so that dispatching was now permitted for any type of jobs except for those explicitly prohibited by law (a “negative list” system). Given that the new types of jobs constantly appear with technological development, this switch represented a major relaxation of the rules.

The 2003 revision under the Koizumi administration sought to both increase the flexibility of the labor market and increase the overall employment. There were four major changes: (1) relaxation of the term limits on certain dispatched jobs, (2) removal of the manufacturing jobs from the negative list, (3) requirement to offer direct employment at the end of the contracted term, and (4) legalization of “temp to perm” arrangement. Before the revision, temporary workers in the 26 jobs on the original positive list were allowed to have contracts of no more than three years. The Koizumi revision eliminated the term limits for those jobs. For other jobs, the length of contracts had been limited to be no more than one year, and the revision extended the limit to three years.

Even after the 1999 revision, dispatching of workers to manufacturing jobs had been prohibited. The 2003 reform removed manufacturing jobs from the negative list. The length of contracts, however, was limited to be no more than one year until February 2007, when the limit was extended to three years.

The revised law introduced a new requirement that aims to prevent firms from using temporary employment just to avoid providing benefits to otherwise regular workers. A company is required to offer permanent employment to a dispatched worker if they want to hire him/her beyond the contract term. For those temporary workers who had no term limits the firm is required to offer permanent employment if they have hired him/her for more than three years. Moreover, when a company hires new regular workers into the same job, the dispatched worker must be given priority.

Finally, the revised law allowed employers to offer "term to perm" contracts. Under these contracts, a dispatched worker begins to work with a presumption of becoming directly employed. If the company and worker agree at the end of contract the worker is then employed directly. The revised law also allowed a potential dispatched worker who wishes to be on a "term to perm" contract to send in a resume and to have an interview with a company.

3.2. Assessment of the Reform

Figure A3-1 shows data on the number of dispatched workers over time. The trend increased modestly in 1999 and much more in 2003. So quantitatively the 2003 amendment appears important.

Figure A3-2 shows that much of the post 2003 surge was due to an increase in the use of dispatched workers in manufacturing. But the raw data in the figure overstates the increase. Even before dispatching to manufacturing jobs were officially allowed in 2003, many manufacturing firms had subcontracting arrangements with some other firms whose sole function is to hire the workers to work at factories of the manufacturing firms. This was *de facto* temporary dispatching, but it took a form of subcontracting to get around the regulation that prohibited worker dispatching for manufacturing jobs.

After the 2003 revision of the Dispatched Workers Act, the manufacturing firms did not have to pretend to have the subcontracting arrangements. They started to use dispatched workers and the number of contract-based workers declined. Table A3-1, which shows the changes in the numbers of dispatched workers and contract-based workers in manufacturing after 2003. The substitution of contract-based workers with dispatched workers was substantial. From 2005 to 2008, the number of dispatched workers in manufacturing increased by about 488,000. During the comparable period, the number of workers from subcontractors declined by about 327,000. Thus, around two thirds of the increase of dispatched workers seems to have been just the replacement for *de facto* dispatched workers from subcontractors.

Several problems had been identified for the use of subcontracting to hire low skilled workers in the manufacturing. The most important one was the lack of responsibility for the manufacturing firms in maintaining appropriate working conditions for these workers. Technically, that was the job of the subcontracting firms, but they did not have any control over the conditions for what were (supposedly) their own workers. With the revised law, the manufacturing firms had to follow all the rules concerning employment of temporary dispatched workers. Thus, the revised law was actually tightened safety standards for these people.

Legalization of “temp to perm” arrangement achieved some positive results. Table A3-2 shows the number of dispatched workers who were hired as regular worker at the end of the contracts. The number increased steadily over time, and the proportion of these types of arrangements relative to the total number of total dispatched workers also increased.

Employers argued the flexibility afforded by the dispatched workers helped them manage negative demand shocks. Table A3-3 shows that during the global recession of 2008-2009 employment fell by about 610,000, with more than half (320,000) coming from a reduction in the number of dispatched workers.

The misery of the dispatched workers who lost the jobs was soon highlighted by media as the dark side of the structural reform and this triggered a political backlash. The media and some politicians criticized the corporations that fired dispatched workers and the Koizumi government for having expanded this unstable form of employment in the first place.

### 3.3. Unintended consequences

The changes in use of dispatched workers had different effects in different industries. Prior to 2003, surveys suggest that most dispatched workers were dependent family members.

Afterwards, many household heads became dispatched workers, especially in manufacturing.[3] As a result, the average wage of dispatched worker increased and the size of lower middle income class (¥3,000,000-¥4,000,000) grew. (Figure A3-3). Outside of manufacturing, the impact on wages was mixed. Earnings for many dispatched workers in Wholesale and Retail and Information and Communications dropped, while a large percentage of low wage dispatched jobs in Finance and Insurance disappeared.

There have been many complaints that the increase in the use of dispatched workers has been an important factor in expanding income inequality and employment instability. Given that only 8% of the non-standard jobs are held by dispatched workers, it is doubtful that the increased inequality and instability are direct consequences of the expansion of dispatched workers. But, as the share of non-standard workers rises, this shift has been associated with a less stable employment market. A full assessment of how much of the increase in non-standard employment is causal as opposed to a reflection of other underlying forces is beyond the scope of this study.

### 3.4. Backlash after Koizumi

In 2010, a new bill to revise the Dispatched Workers Law was submitted to the Diet and as of this writing remains under consideration. The bill proposes four major changes. First,

[3] "Survey of dispatched workers' lifestyle and job-seeking behavior" (Haken Roudousya No Seikatu To Kyusyoku Koudou Ni Kansuru Koudou Tyousa), The Research Institute of Economy, Trade and Industry (Keizai Sangyou Kenkyuzyo) http://www.rieti.go.jp/jp/projects/research_activity/temporary-worker/01.html

temp agencies are required to have employment contracts with their workers even when they are not dispatched. This would eliminate the arrangement where a worker "registers" at a particular temp agency and sign employment contracts only when (s)he is dispatched to a particular site. The employment contract is effective only for the duration of the dispatched work. For the 26 jobs that were originally designated to worker dispatching, such "registration" dispatch would continue to be allowed as an exception. Second, dispatching of production workers would be prohibited. This would roll back a 2003 revision of the law. Third, dispatching contracts for less than 2 months would be considered day labor dispatch and be prohibited. Finally, to prevent a company to set up a temp agency just to reduce cost by replacing the regular employees with dispatched workers, the proposal makes it illegal for a temp agency to dispatch more than 80% of their workers to its related companies (parent and other group companies).

Prohibition of using dispatched workers in manufacturing looks unlikely to increase the number of regular workers. For instance, according to the survey of the Japan Production Skill Labor Association[4], if the prohibition is enacted, only 10% of manufacturing companies using dispatched workers plan to hire dispatch workers as regular employees and only another 10%

[4] "Questionnaire about Tightening of Regulation of Worker Dispatched Law" in 2009 (Roudousya Hakenhou Kiseikyouka Ni Kansuru Kinkyu Anke-to), Japan Production Skill Labor Association (Nihon Seisan Ginou Roumu Kyoukai) http://www.js-gino.org/jouho/JSLA_enquete2.pdf

plan to hire new regular employees. Instead, most of companies plan to hire contracted employees, part-time workers or use outside contractors. Some firms indicated that they might also move their factories overseas.

## 4. Agricultural Reform and FTA Policy

### 4.1. Target and plan

The Liberal Democratic Party (LDP) traditionally relied on the support of industries such as construction, agriculture, and postal services. These industries were also among the most heavily regulated and protected in the economy. Prime Minister Koizumi as outsider owed no debts to these industries. Thus, by pursuing reforms that opened these industries to competition to advance his economic goal of "reform without sanctuary", Mr. Koizumi also weakened the base of rival politicians in the traditional wing of the LDP.

The agricultural reform was tied to another important initiative of the Koizumi government: promotion of Free Trade Agreements (FTAs) with various trading partners. The most serious hurdle for negotiating FTAs was domestic opposition from the agricultural sector that believed (correctly) that their high production costs would make domestic products uncompetitive against the cheap foreign products. To prepare the Japanese agriculture for global competition, Koizumi tried to promote large-scale farming.

4.2. Promotion of large scale farming

Table A4-1 summarizes the major agricultural policies of the Japanese government from 2001 to 2010, including both the Koizumi government reforms discussed in this section and those of the subsequent governments that are described later.

Historically, Japan's average farm size was remarkably low (Table A5-2). For instance, the average Japanese farm is roughly the size of farms found in India, and is 10 times smaller than those in Israel, and 150 times smaller than U.S. farms. The LDP protected the small farmers' interests in exchange for their political support. While convenient for the farmers and the LDP, the result was an inefficient production system that led to higher food prices, especially for rice, which was the most common crop.

The Koizumi government implemented several measures to promote large scale farming. The government hoped that by removing the historical bias against large scale farming, productivity could increase and food prices could be reduced. In some cases, such as high quality rice and luxury fruits, there was hope that Japanese agriculture could become internationally competitive.

Mr. Koizumi push to improve the productivity of Japanese farms was not unprecedented. In 1992, in what is known as the New Policy ("New Policy Direction on Food, Agriculture, and Farm Villages"), the government had announced a goal of creating the agricultural sector where the "efficient and stable" production entities are the majority. Based on this idea, the Designated Farmers System was introduced in 1993. Under the system, a farmer can get certified as a designated farmer if (s)he submits a five year farm management improvement plan to the local government and has the plan approved. Designated farmers gain access to various subsidies and low interest rate credits. Although there was not an explicit size condition to be a designated farmer, the policy's intention was to encourage large scale and efficient farming.

The Koizumi government seemed to have stepped up its interest in agricultural reform only in the last half of the administration. In 2004, the Act on Stabilization of Supply, Demand and Prices of Staple Foods was revised to liberalize the rice distribution. Before 1995, the distribution of rice was strictly controlled by the government under the Food Control Act. This gave government a monopoly regarding rice distribution. It set the purchase price and the consumer price of rice every year. Since the prices were typically set much higher than the market clearing price (even in the absence of international competition), the rice production had to be rationed. The government did this through *gentan* (acreage reduction policy) that forced each farmer to take monetary compensation to reduce the area for rice production. The policy was implemented through the Agricultural Coop (*nōkyō*). In 1995, the Food Control Act was repealed and replaced by the Act on the Stabilization of Supply, Demand and Prices of Staple Food, which allowed the private sector to enter the rice distribution business to a limited degree. The 2004 reform of the act completely liberalized the rice distribution. Anyone who buys and sells more than 20 tons of rice could now get a license to do that. The acreage reduction policy was also decentralized so that not only the implementation, but also the planning of acreage reduction was delegated to local offices of the Agricultural Coop.

The government publishes a Basic Plan for Food, Agriculture, and Farm Village every five years. The plan published in 2005 reflected some of the reforms that Mr. Koizumi intended. For example, the plan list five principles for agricultural reform: (1) effective and efficient policy framework, (2) policy catered to consumers, (3) promotion of innovations by individual farmers and regions, (4) emphasis on environmental protection, and (5) forward looking agricultural policy that responds to changes in the environment. Although a large portion of the plan is devoted to the discussion of raising Japan's self-support rate in food, the plan also mentions the importance of increasing the sizes of farms to improve international competitiveness.

At the center of Mr. Koizumi's policy to encourage large scale farming was the Trans-Products Management Stabilization Policy. The policy subsidizes designated farmers with farms larger than 4 hectares (ha) (10 ha for Hokkaido) and qualified agricultural corporations with farms larger than 20 ha. The policy provides two types of subsidies to the farmers. First, when the cost of production exceeds the sales revenues for a specified set of products that are considered to be disadvantaged with respect to foreign products, the farmer receives compensation for the full difference. Second, when the farm income falls below the past average temporarily, the farmer can receive 90% of the shortfall.

The main idea was to encourage large scale farming by limiting these subsidies only to large scale farmers. The policy, however, included several exceptions. For example, farms in mountainous areas did not have to have the minimum scale to be qualified. If a farm contributes to the local production adjustment (including acreage reduction policy) disproportionately, the size criterion was relaxed.[5]

The Trans-Product Management Stabilization Policy also moved away from the traditional subsidies based on the production of specific crops. Rather than subsidizing production of particular products, the government tried to move to an income policy decoupled from production.

### 4.3. Promotion of FTA

Traditionally Japan has opposed bi-lateral trade agreements, including FTAs, arguing that such deals undermine the multilateral efforts for trade liberalization through the WTO. Observing the success of the FTAs elsewhere (such as NAFTA and EU), the Japanese government changed its stance.

5 Ministry of Agriculture, Forestry and Fishery, “Hinmoku Oudan-teki Keiei Antei Taisaku toha? (What is the Trans-Product Management Stabilization Policy?)”, December 2006. (http://www.tendo-nogyo.jp/keieianteitaisaku/kamakura-leaf.pdf)

The Koizumi government became the first Japanese government to sign an FTA agreement, entering the Japan-Singapore Economic Partnership in January, 2002. During his term, Mr. Koizumi successfully concluded FTA negotiations with four additional countries: Mexico, Malaysia, Philippines, and Thailand. He also started the negotiations with Indonesia, Brunei, ASEAN as a whole, Chile, Korea, and the Gulf Cooperation Council. In those negotiations, the trade barriers on agricultural products have always been a serious obstacle. Article 24 of the GATT specifies that a free trade agreement must eliminate tariffs and other restrictive regulations on "substantially all the trade." The Japanese government used to interpret this to mean more than 90% of the items. The agricultural lobby asked and often succeeded to make many agricultural products exempt from tariff reduction. For this reason, the government initially focused on the countries such as Singapore whose agricultural exports to Japan were tiny. In the FTA with Mexico, Japan even failed to reduce or eliminate tariffs for more than 90% of items, because many agricultural products were deemed exempt.

4.4. Impact of the reform

Figure A4-1 shows how the proportion of large scale farms (defined as those greater than 4 ha for all prefectures other than Hokkaido and greater than 10 ha for Hokkaido) changed from 1994 to 2009. The proportion increased in both Hokkaido and elsewhere, but the change under the Koizumi government or (after the 2006 introduction of the Trans-Product Management

Stabilization Policy) shows no difference from the trend from the mid-1990s. Thus, we do not see any impact of the large scale farming promotion. More disturbing is the fact that the increased proportion of large scale farms come mainly from the exit of small farms. The number of large scale farms actually declined during the 2000s. For the prefectures other than Hokkaido, the number of farms that are greater than 2 ha decreased from 324,000 in 2000 to 289,000 in 2009. The number of farms that are greater than 10 ha in Hokkaido fell from 30,000 in 2000 to 26,000 in 2009. Exits of inefficient entities would increase the average productivity of the sector, but the Koizumi policy explicitly aimed at increasing the number of efficient and stable farms, and here the result so far suggests that the policy was not effective.

Table A4-3 shows the recent changes in the average size of a farm in Japan. The average size has been increasing but changes are quantitatively unimportant, merely reflecting the slow growth in the proportion of large scale farmers documented above. Overall, the impact of the Koizumi's agricultural reform is not obvious.

On the political side, the reforms unambiguously weakened the LDP members with the strongest ties to agriculture. This group is known as the "Agricultural Tribe." Matsuda (2005) compares the number of votes each LDP politician received in the 2005 House of Representatives Election (which LDP won in a landslide) to the votes the same politician received in the previous election in 2003 for both the Agricultural Tribe and others. She finds that the Agricultural Tribe increased their votes only by 17.8% on average while the non-agricultural tribe increased their votes by 27.9%. In the House of Representatives election of 2005, all three of the top politicians in the Agricultural Tribe lost their seats. While this might have pleased Mr. Koizumi, it weakened the support for LDP in the rural areas, and the DPJ led by Ichiro Ozawa subsequently took advantage of that.

During the campaign for the House of Councilors election of July, 2007, the DPJ's manifesto proposed the Individual Income Compensation Policy for Farmers, claiming to provide ¥1 trillion subsidies to all farmers. This was essentially the expansion of the Trans-Product Management Stabilization Policy to all the farmers including the ones with tiny scale. The policy naturally attracted many rural votes, and the DPJ was successful in taking most of the rural seats that initially belonged to the LDP candidates.

### 4.5. Backlash after Koizumi

After the loss at the 2007 House of Councilors election, the LDP government also reversed course on its agricultural policy. In the fall of 2007, the Fukuda government announced that they would earmark ¥85 billion for the protection of farmers. The government fund was used to (1) purchase 3.4 million tons of rice to prop up rice prices, (2) subsidize production of rice for flour and animal feeding, and (3) expand the acreage reduction program.

In the priority for agricultural policy, promotion of large scale farming to increase productivity now clearly has taken a back seat to improvement of Japanese self sufficiency. Instead of focusing government support on large scale farmers, the governments after the Koizumi administration spread the subsidies to all the farmers. It did not matter if the government was led by the LDP or the DPJ.

The FTA policy also changed after Mr. Koizumi's departure. Some new FTAs were signed during the LDP governments, but negotiations of FTAs with large trading partners (such as Korea and Australia) stalled. Talks with larger trading partners, such as China, the U.S., and the EU, have not even started. Recently the government has decided to postpone until 2011 the decision to join the negotiation for Trans Pacific Partnership that would include the U.S.

## 5. Special Zones

### 5.1 Target and Plan

The Special Zones for Structural Reform Act of 2003 was aimed at two problems. First is the lack of local autonomy. Under Japan's unitary system in public finance, local governments are often subject to identical sets of regulations laid down by the central government. This creates inconvenience and inefficiency. For example, local governments are unable to respond quickly to economic downturns because they have little authority in making independent decisions. Local governments also rely heavily on the tax funds allocated from the national government, as we discussed below in the discussion on local public finance reform. Special zones reform allows some local governments to deviate from the uniform regulations to pursue unique projects.

The second problem is Japan's overly regulated service sector. As Yashiro (2005) points out, the Japanese government imposes heavy regulation on various segments of service industries, such as healthcare, education, and nursing. Relaxing the regulations often requires extensive political negotiations. The special zones provide a way for gradual experimentation. The special zones allow regulations to be relaxed or abolished in some local areas. In principle the success of a local reform could be used to build a consensus about the wisdom of the change and line up political supporters to implement the change nationally. We start by describing the key characteristics of special zones implemented under the Koizumi government. Then, we classify the special zones into five categories and discuss each category. We select a few cases from each category and study those carefully. Finally, we evaluate the impact of the special zones policy and address some critical drawbacks.

### 5.2. Major Characteristics of the Special Zones

The special zones have three major characteristics. First is the decentralized decision-making process. Unlike the central government's top-down approach in its regional policy, the basic framework of the special zones is a bottom-up process. The program places great emphasis on local government autonomy and private sector initiatives.

Second is the absence of fiscal support from the central government. Unlike free trade zones in many other countries, Japan's special zones are characterized only by their special regulatory status, and receive no financial support from the central government. As Yashiro (2005) noted, the Japanese special zones are not intended to be national projects providing economic stimulus to underdeveloped areas.

The third characteristic is the potential for the extension to other areas. If a special zone turns out to be successful, a similar measure can be expanded nationwide. The evaluation process then becomes critical in determining whether the program is extended. Under the current framework, each special zone is to be assessed for the quantitative effects of its deregulation within a year of being established (Cabinet Secretariat 2002).

5.3. Taxonomy of the Special Zones

From its inception in 2003 to the latest application period in July 2010, the special zones program has gone through 23 application cycles, with a total of 1,114 special zones having been approved (Cabinet Secretariat 2010). The special zones can be classified into five groups: 1) welfare/medical care and community life; 2) education; 3) agriculture' 4) new industry creation; and 5) international exchange and logistics.  The distribution of the different types of special zones is shown in Table A5-1.

### 5.3.1 Welfare/Medical Care and Community Life

Welfare/medical care and community life is the largest category of the special zones, accounting for nearly 35% of the total (Cabinet Secretariat 2010). These special zones allow private management of nursing homes, private finance initiative projects in social welfare, and doctors from abroad. Moreover, they promote paid transportation services for the elderly by non-profit organizations (NPOs) and joint use of kindergarten and nursery schools, which are regulated by different ministries (Suzuki 2005).

### 5.3.2 Education

The educational zones represent roughly 26% of all special zones. The educational zones introduce more diverse and flexible curricula – such as more emphasis on English education – than is allowed by the central government. These zones also permit school management by entities other than existing school corporations (Suzuki 2005).

### 5.3.3 Agriculture

Agricultural zones are the third most frequent category with 25% share. Agricultural zones facilitate farming by for-profit corporations, offer preferential measures for agricultural start-ups, and allow deregulation on minimum farming areas (Suzuki 2005).

### 5.3.4 New Industries

The new industry promotion area accounts for 11% of the special zones. They promote more flexible utilization of national research institutes and extensive academic-industrial partnerships (Suzuki 2005). Some special zones waived the prohibition of participating in subsidiary businesses for faculty of national university (Suzuki 2005).

### 5.3.5 International Exchanges and Logistics

The international exchange and logistics area occupies 3% of the total number of special zones. Special zones in this area provide 24-hours customs clearance, leasing of publicly owned harbor facilities to private entities, and deregulation of visa-application procedures (Suzuki 2005).

There are two major trends regarding special zones. First, the number of approved special zones varies substantially across prefectures (Iwaki 2006). With 133 cases, Hokkaido leads the nation in the number of special zones, followed by Nagano, Tokyo and Ibaraki (Cabinet Secretariat 2010). At the bottom of the list are Saga, Shiga, and Tokushima, where each has only five special zones. The conventional explanation for these differences is that the prefectures with higher dependence on central government funding tend to have fewer special zones (Yashiro 2005).

Second, the timing of the approval is unevenly distributed across the categories (Figure A5-2). For instance, the inaugural approval committee in 2003 allowed a significant number of special zones in the areas of international exchange and new-industry promotion (Cabinet Secretariat 2003). The preference of the committee subsequently shifted to favor agriculture and welfare zones in numbers.

## 5.4. Case Studies

In *Regional Vitality is Japan's Vitality: Special Zones' Progress Report*, the Cabinet Office compiled a list of case studies on the special zones. The nine special zones we examine here are pioneers that provided the framework for the latecomers in the recent cycles.

Basic facts about these cases are given in Table A5-2. Besides summarizing the goals of each zone, the changes that were enacted to achieve those goals and the progress that was made towards the goal, the table also shows the decision about whether the program was extended nationwide. Keeping in mind that these were relatively well publicized cases, we caution against interpreting the relatively high success rate of these zones in being extended.

We draw three conclusions from the table. First, the range of deregulation experiments varies greatly. Some of the changes involve marginal adjustments to existing regulations (e.g. cutting the number of emergency medical technicians working with an ambulance from three to two), while other involved fundamental reform (allowing corporations to enter the agricultural business through leasing land). Second, as discussed below, the link between the objectives of the zones and economic growth also varies. Third, the time between when a zone is approved and when it is applied nationally also varies greatly, ranging from roughly one year to more than five years. The heterogeneity in all three dimensions makes it challenging to summarize the effects of the special zones, and also explains why selective reviews that focus on only some cases might lead to different conclusions.

5.5. Evaluation

The Cabinet Office (2008) compiled a report on the economic effect of the special zones up to that point. The report summarizes the special zones' key achievements as: 1) ¥590 billion increase in business investment; 2) 18,000 jobs created; and 3) 500,000 more tourists. While the report briefly summarizes the special zones' aggregate economic effect, it did not provide much detail on individual special zones.

As shown in Table A5-2, a proper economic evaluation of special zones is difficult because the goals and evaluation standard differ greatly from one zone to another. Some types of special zones, such as those in new-industry promotion, emphasize the number of corporations solicited or the number of jobs created. On the other hand, agricultural-tourism zones focus on figures such as the growth of agricultural production or the number of visitors.

Yugami (2007) reports a survey of sponsoring municipalities on their subjective assessments of special zones for new industry promotion or agriculture. Figure A5-2 shows how the sponsoring municipalities view the effectiveness of their special zones in six areas: entry of firms, start-ups/venture capitals, job creation, increase in the number of visitors, increased media attention, and the overall effects on the local economy. About a quarter of the respondents answered that their special zones are effective in attracting the start-ups, creating jobs and stimulating the local economy overall. But even more found the zones to be ineffective or barely effective on these dimensions. Importantly, a high proportion of respondents answered "don't know" for many questions. This may reflect the problem of different objectives and evaluation standards across special zones. Some types of special zones may have a different set of criteria for the effectiveness.

We read Yugami (2007)'s survey results as delivering an ambiguous judgment on the success of the special zones. Assuming that the respondents were trying to do a cost benefit analysis in answering the questions, it seems like the only clear success was with respect to increasing media attention. Moreover, the questions in the survey do not account for the fact that much of these effects could be zero-sum in that they move activity from one location to another. So an important factor in judging the overall impact will depend on how much value one places on the information that is generated by the various experiments and the direct gains to the regions.

5.6. Do special zones contribute to the economic growth?

As the forgoing discussion suggests the link between special zones and national economic growth is tenuous. At this point, there seem to be three main factors that determine their impact. First, when local governments attempt to facilitate regional growth by diverting the demand from the other special zones, such efforts do not lead to nationwide economic growth. An example is proliferation of "doburoku" zones. The special zone in Iide, Yamagata, is one of many that were inspired by Iwate Prefecture's original doburoku zone. Despite the town's harsh winter, the number of tourists visiting Iide has increased by 30%. However, deregulation on the brewing of doburoku led many villages across the country to follow suit. This led to the proliferation of doburoku zones – ninety-one by 2009 – with limited aggregate gains.

A second issue is the rise of tourism-oriented zones. One of the special zones' original goals is to serve as the stepping stone for national deregulatory reform. However, many municipalities have exploited the policy and turned it into a means to promote local tourism. By definition these kinds of zones will not contribute to sustained growth.

The third problem is the inherent tension between the goals of nationwide deregulation and regional specialization. As Homma (2005) noted, the content of the special zones have become increasingly repetitive. This has undermined the policy's objective of regional specialization. Furthermore, the policy of nationwide application is reducing the incentive for the local authorities and private sectors to make original proposals. Once a special zone becomes successful, other municipalities can copy the model and follow suit. This dynamics discourages innovation. Hence, for the policy to raise growth on a continued basis would require the creation of zones that facilitate growth without diverting demand and are not susceptible to imitation. It is unclear how many regional reforms of this sort are possible.

## 6. Local Public Finance Reform

### 6.1. Target and Plan

The primary goal of the local public finance reform was to reduce the budget deficit of the central government by cutting the massive transfers and subsidies to local governments. Local governments traditionally relied heavily on the central government to finance their expenditures.

The central government supports local governments primarily through two types of transfers. The first, the so-called local allocation tax grants, distributes a pre-specified proportion of major national taxes (such as the income tax, consumption tax, and corporate tax) to local governments. The allocation is determined through formulas to “adjust imbalances” in tax revenue among different local governments, which means poor governments receive more transfers. Some local governments with ample tax revenues, such as Tokyo, do not get to receive any local allocation tax grants. The use of funds is not specified by the central government and hence the local governments have total discretion over how to use the transfers.

The other type of transfers is state subsidies, also called "national treasury disbursements." Central government provides subsidies to the local governments for specific projects. For example, many public works that were included in the fiscal stimulus plan in the 1990s were carried out by local governments supported by the state subsidies. The restriction on the use of funds separates state subsidies from the local allocation tax transfers.

Since the total amount of local allocation tax distribution is determined by the "needs" of local governments while the sources of grants are fixed proportions of national taxes, there is no guarantee that the central government has enough funds to satisfy all the needs of local governments every year. Indeed, the amount of distribution often exceeded the national tax revenues earmarked for the grants. The central government financed this shortfall by issuing bonds, but starting in 2001, worrying about increasing debt, local governments were allowed to issue Emergency Fiscal Measure Bonds to cover the deficits. The Emergency Fiscal Measure Bonds are expected to be paid off using local allocation tax grants in the future. Thus, local governments viewed the proceeds from the issuance of Emergency Fiscal Measure Bonds as good as local allocation tax grants. Similar to local allocation tax grants, the use of funds is not specified by the central government.

Table A6-1 shows the composition of revenues for local governments (both prefectures and city/town/village municipalities) for each fiscal year from 1970 to 2010.[6] The table shows that the local taxes (local governments' own revenues) have risen as share of total funds. In the 1970s the funds coming from the central government were larger than the take from local taxes. By the mid 1980s the two shares were about equal, and by the early 1990s the local taxes were larger than the contributions from the central government. But, we should also note that the aggregate numbers mask serious heterogeneity among different local governments. Some governments such as Tokyo and Aichi (where headquarter of Toyota is located) enjoy a large amount of corporate tax revenues and do not need much help from the central government. Many other local governments, however, have more limited sources of revenues and have to rely on the central government.

By the time Prime Minister Koizumi took office in 2001, the mounting central government debt was already a central issue for the Japanese economy. Figure A6-1 shows the gross debt to GDP ratios for G7 countries and Greece, which recently experienced a debt crisis. Japan's gross government debt stood over 140% of its GDP already in 2001, much higher than the peak ratio for Greece. The net debt to GDP ratio, shown in Figure A6-2, looks better and was below Italy and Greece in 2001, although it continued to increase during the 2000s and now exceeds the level of Italy.

[6] For the fiscal years 2009 and 2010, the initial budget numbers are shown.

By the late 1990s the rating agencies started to downgrade their estimates of the credit quality of the JGB (Japanese Government Bond). Figure A6-3 shows how S&P (Standard and Poor's) and Moody's changed their ratings of the JGB. Moody's downgraded JGB from Aaa to Aa1 in November 1998 and to Aa2 by September 2000. The rating was cut eventually to A2 in May 2002 and stayed there until it started being upgraded finally in late 2007. S&P maintained AAA rating for JGB till February of 2002, when it was downgraded to AA+. The Moody's rating dropped all the way to AA- by April 2002, where it stayed for five years until it started to recover finally in 2007.

The accumulation of government debt resulted primarily from the decline of tax revenues (that was due to the growth slowdown) and the increase of expenditures at the national level. A series of fiscal stimulus packages and bank rescues contributed to the increasing expenditures. The transfers and subsidies to the local governments, however, were also important contributors to the fiscal deficits. The public works in the stimulus packages often included subsidies to the local governments. Moreover, the central government issued bonds to cover the shortfall of revenues that are used for local allocation tax grants (before 2001).

### 6.2. Trinity Reform

One approach that the Koizumi government took to reduce the budget deficit was to reform the system of local public finance. The government hoped to increase financial autonomy of the local governments so that they would not have to rely on the central government very much. The policy package to achieve this was called the "Trinity reform" because it consisted of three parts.

First, the state subsidies were to be reduced over time. The central government would also stop specifying the use of some subsidies to give more discretion to the local governments. Second, local allocation tax transfers were also to be reduced over time. Third, the central government was to transfer the tax bases over time so that the local governments can achieve more financial independence.

The reform targeted reduction of state subsidies and local allocation tax transfers by ¥4 trillion between FY2003 and FY2006. The government aimed at achieving a primary balance surplus of the central and local governments by FY2011.

## 6.3. Consequences of the reform

The reform succeeded in reducing the local allocation tax grants and state subsidies. The last row in Table A6-1 shows how the amount of the transfers and subsidies changed by the reform. From fiscal 2003 to fiscal 2006, the state subsidies were reduced by ¥2.6 trillion and the local allocation tax grants by ¥2.0 trillion, exceeding the target for the total of ¥4.0 trillion.

The table shows the local tax revenues increased by ¥4.1 trillion from fiscal 2003 to fiscal 2006, nearly offsetting the reduction of the local allocation tax grants and the state subsidies.

The revenue from local bonds, however, fell by ¥4.2 trillion, of which ¥2.7 trillion was the reduction in Emergency Fiscal Measure Bonds.[7]

Thus, from the local governments' point of view, the trinity reform led to revenue reduction of ¥7.3 trillion (including the reduction of Emergency Fiscal Measure Bonds which are as good as local allocation tax grants), which is much more than the increase in the local tax revenues. We should also note that the increase in local tax revenues was geographically concentrated, with most of the gains accruing to the relatively well off governments such as Tokyo and Aichi. It is understandable many local governments felt that the trinity reform hurt them financially.

How about the impact for the central government financing? About ¥3 trillion of tax revenues has been shifted from the central government to local governments by reducing the national income tax and increasing the local income tax. Thus, in net, the trinity reform reduced the central government budget deficit by around ¥1.6 trillion, which is non-trivial but not very impressive. Although the trinity reform cut the future liability of the central government by ¥2.7 trillion by reducing the issuance of Emergency Fiscal Measure Bonds, it did not help the budget very much on a flow basis.

After the Koizumi government, the reform seems to have stalled. As Table A6-1 shows,

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7 Ministry of Finance, "Chihō Zaisei Kankei Shiryo (Documents on Local Public Finance)," May 2009. (http://www.mof.go.jp/singikai/zaiseseido/siryou/zaiseib210511/06.pdf)

the local subsidy and local tax allocation started to increase again at the end of the 2000s.

## 6.4. Conclusion

The Trinity reform successfully reduced the transfers and subsidies from the central government to local governments by ¥4.6 trillion from FY2003 to FY2006. At the same time, however, about ¥3 trillion of income tax revenue was transferred from the central government to local governments. Thus, the reform did not help very much in reducing the budget deficit of the central government. From the viewpoint of many local governments, however, the reduction of Emergency Fiscal Measure Bonds added to the reduction of subsidies and grants. With exception of a few relatively well off governments such as Tokyo and Aichi, the trinity reform left many local governments poorer and financially squeezed.

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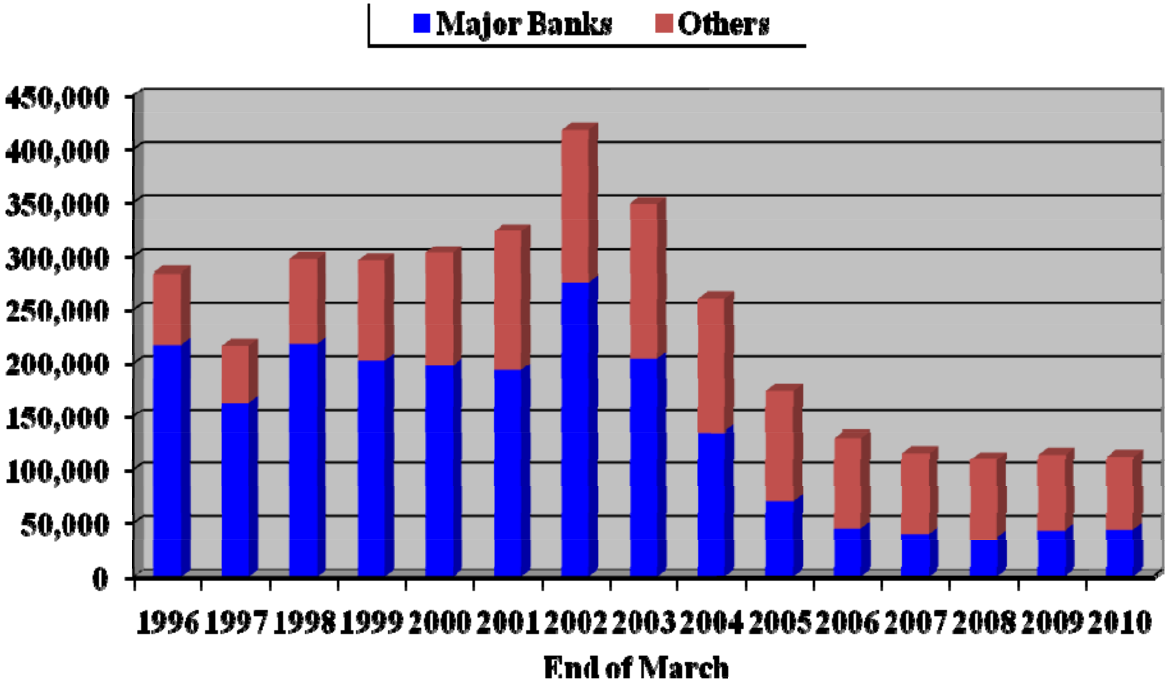
**Figures for the Appendix**

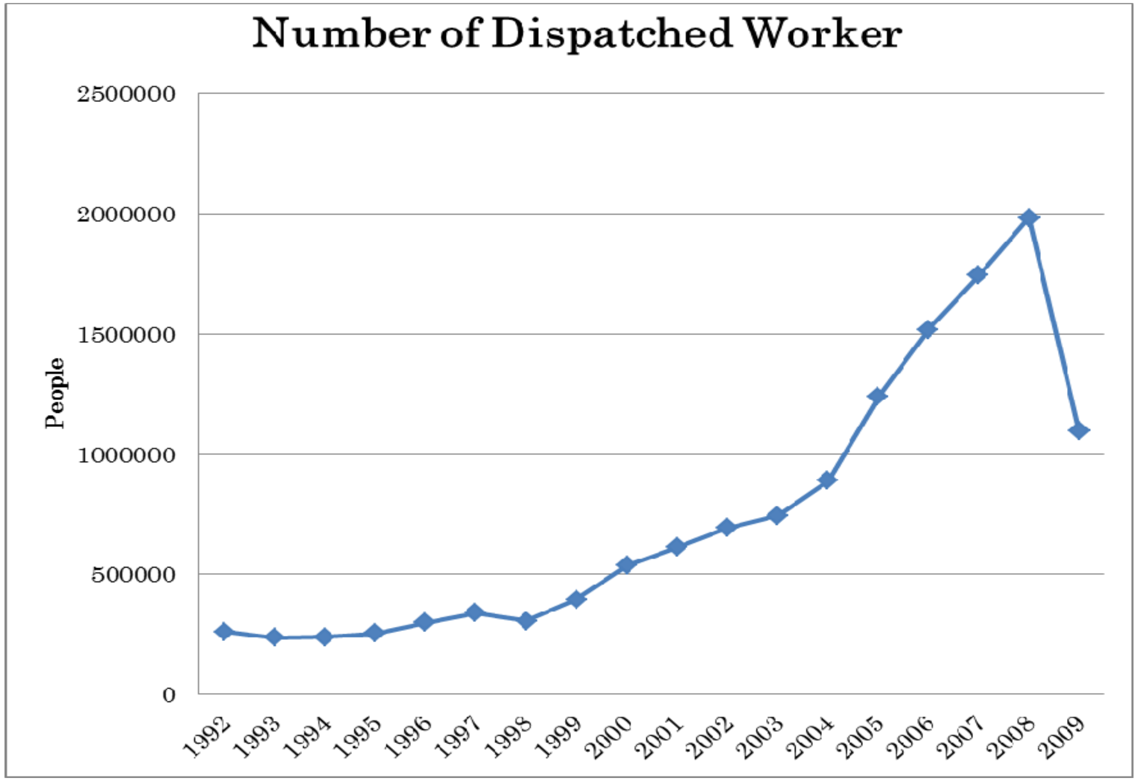
**Figure A1-1. Non-Performing Loans of Japanese banks: 1996-2010 (100 million**




**yen)**

Source: Japanese Financial Services Agency (http://www.fsa.go.jp)

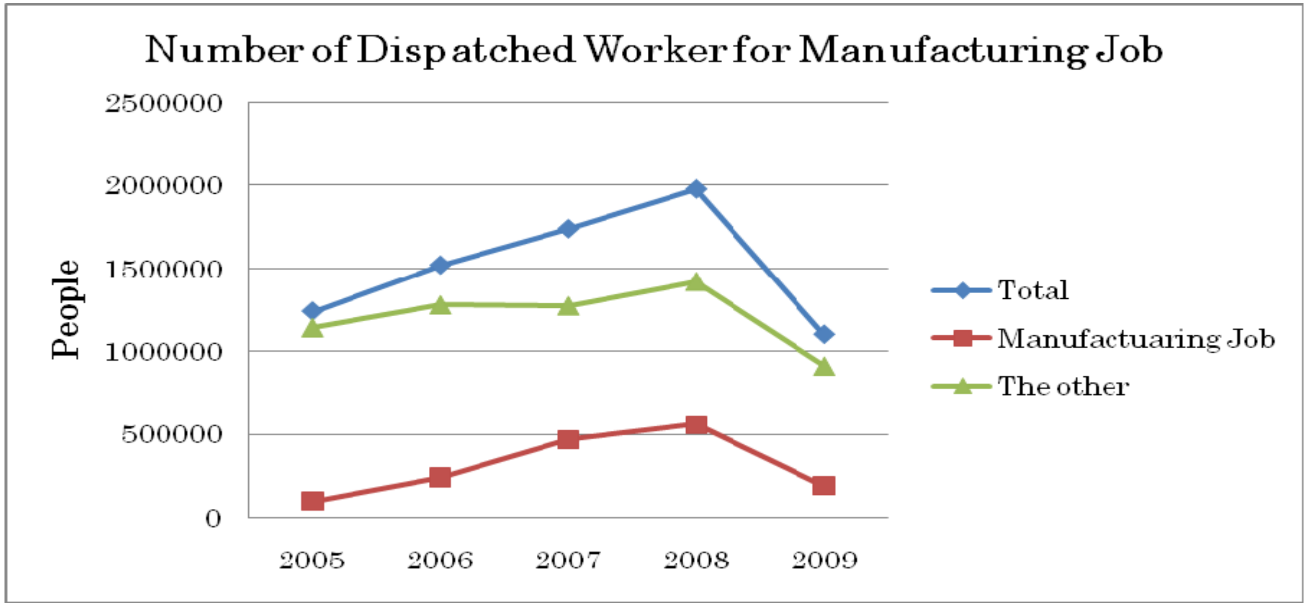
**Figure A3-1. Number of Dispatched Workers (1992-2009)**




Note: The number of dispatched worker is calculated by adding the number of regular dispatched workers and the number of the other dispatched worker as stated in the number of regular workers.

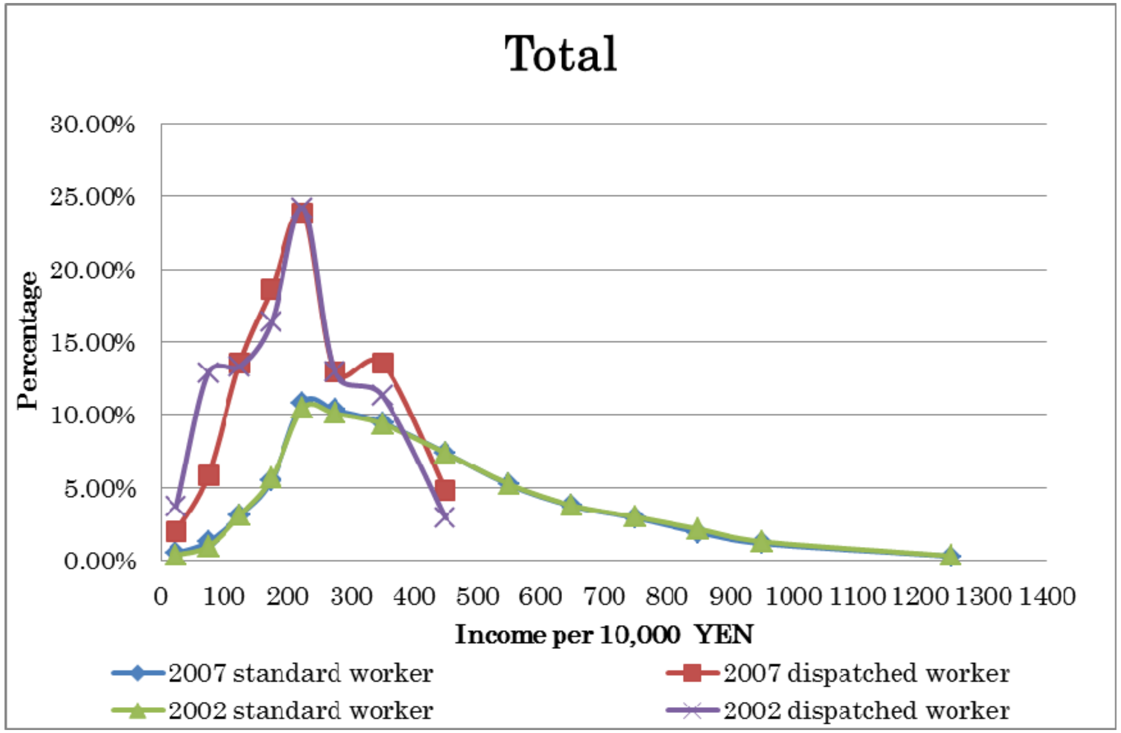
Source: Report of Worker Dispatching Undertakings (Roudousya Haken Jigyou Houkokusyo) 1992-2009, Ministry of Health, Labour and Welfare. http://www.mhlw.go.jp/stf/houdou/index.html

**Figure A3-2. Number of Dispatched Workers for Manufacturing Job**




Source: Report of Worker Dispatching Undertakings (Roudousya Haken Jigyou Houkokusyo) 1992-2009, Ministry of Health, Labour and Welfare. http://www.mhlw.go.jp/stf/houdou/index.html

**Figure A3-3. Income Distribution by Industry, Worker Type for 2002 and 2007**




Source: Basic Survey of Employment Structure (Syugyou Kouzou Kihon Tyousa) in 2002 and 2007, Bureau of Statistics, Ministry of Internal Affairs and Communications. http://www.stat.go.jp/data/shugyou/2007/index.htm
http://www.stat.go.jp/data/shugyou/2002/index.htm

**Figure A3-3. Income Distribution by Industry, Worker Type for 2002 and 2007, continued**

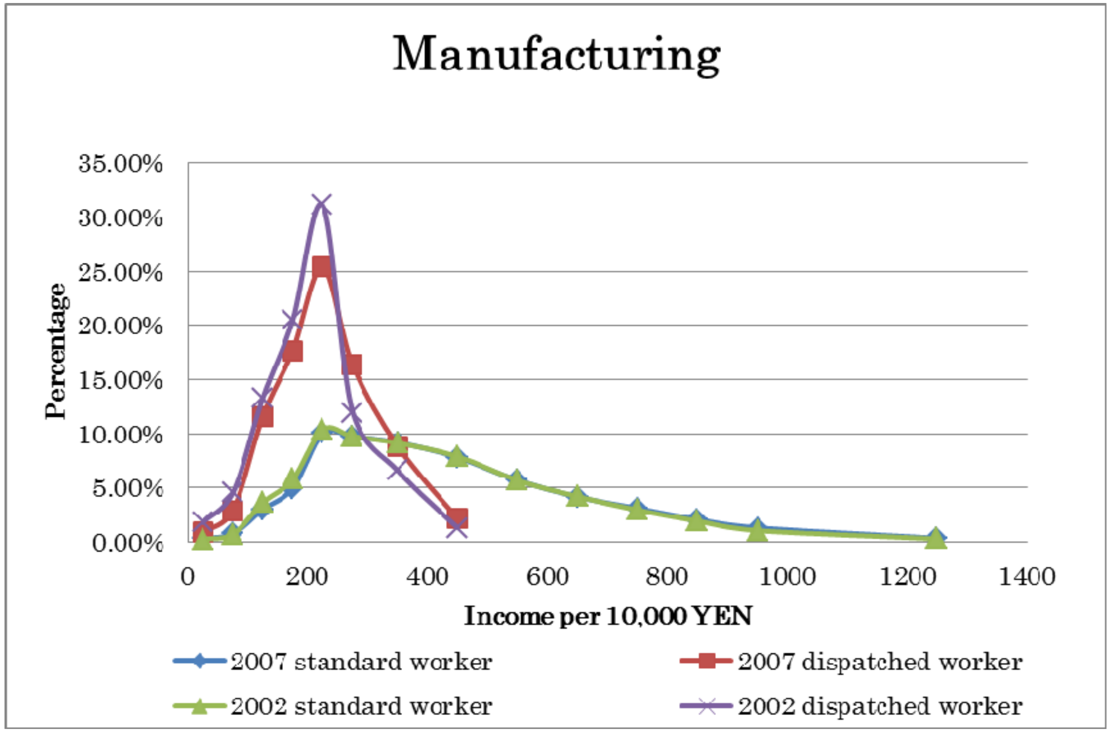


**Figure A3-3. Income Distribution by Industry, Worker Type for 2002 and 2007, continued**

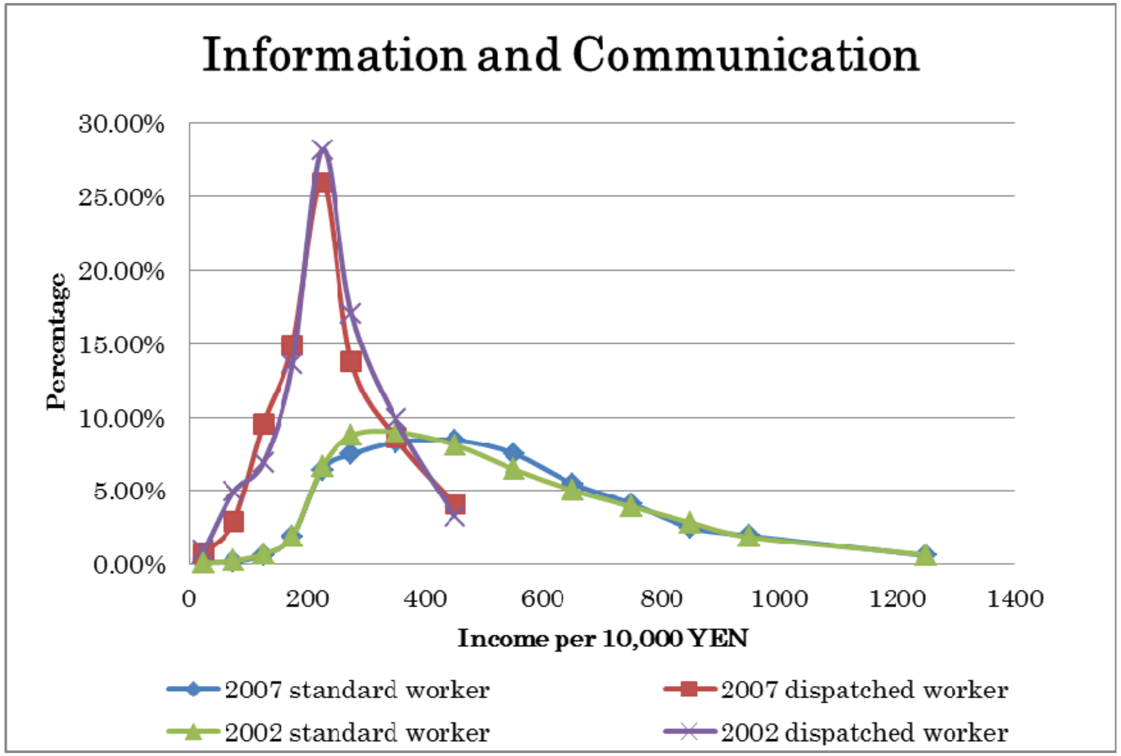


**Figure A3-3. Income Distribution by Industry, Worker Type for 2002 and 2007, continued**

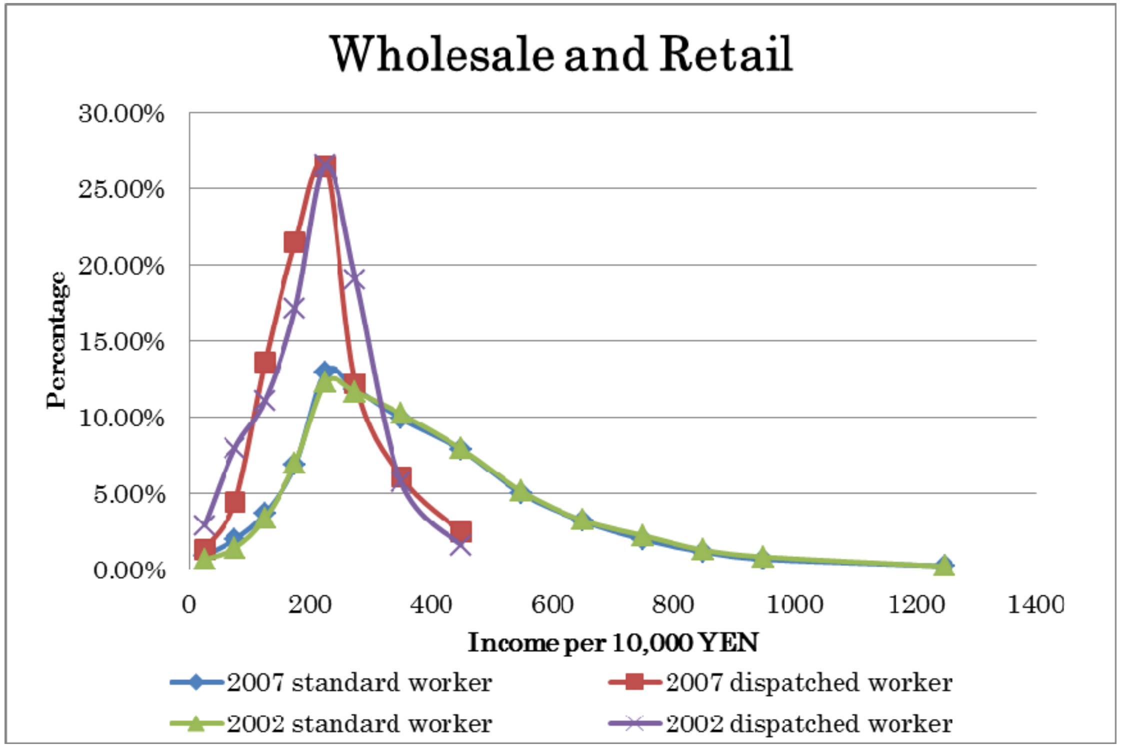


**Figure A3-3. Income Distribution by Industry, Worker Type for 2002 and 2007, continued**

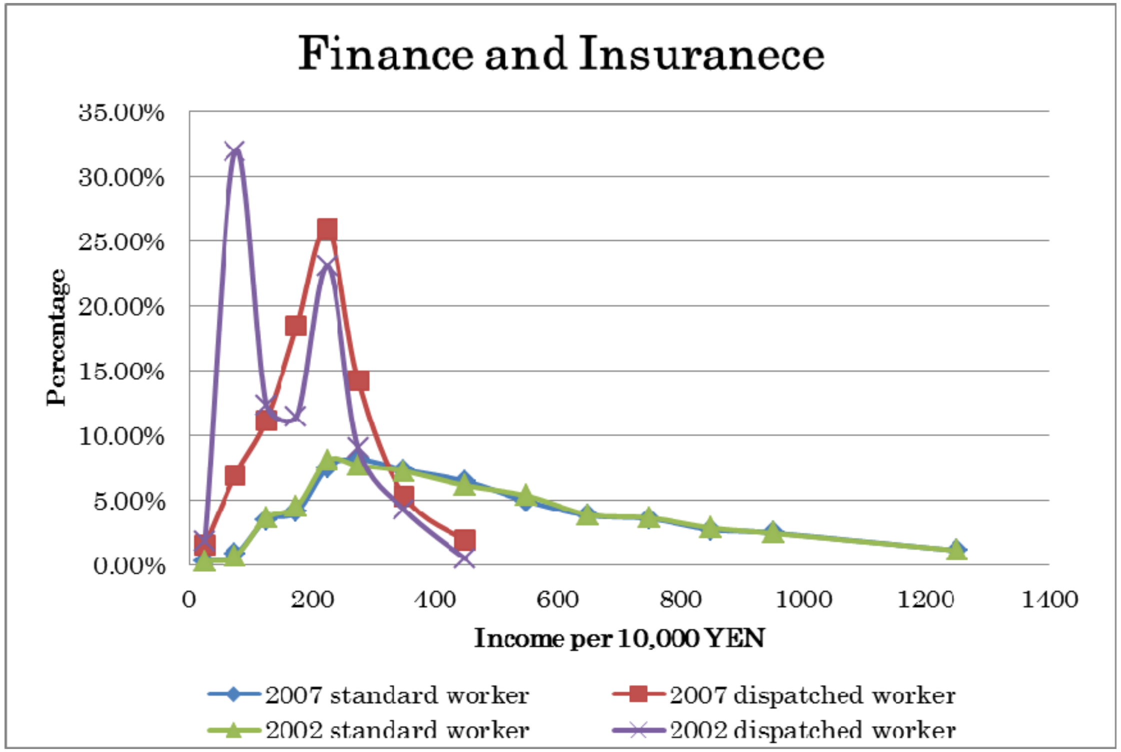
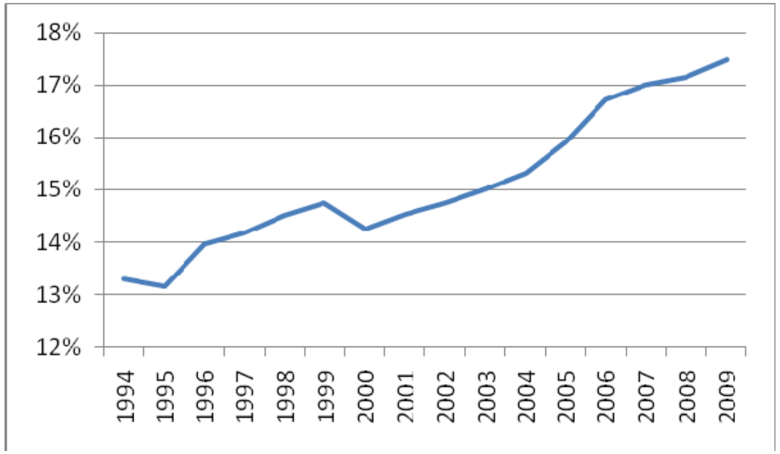
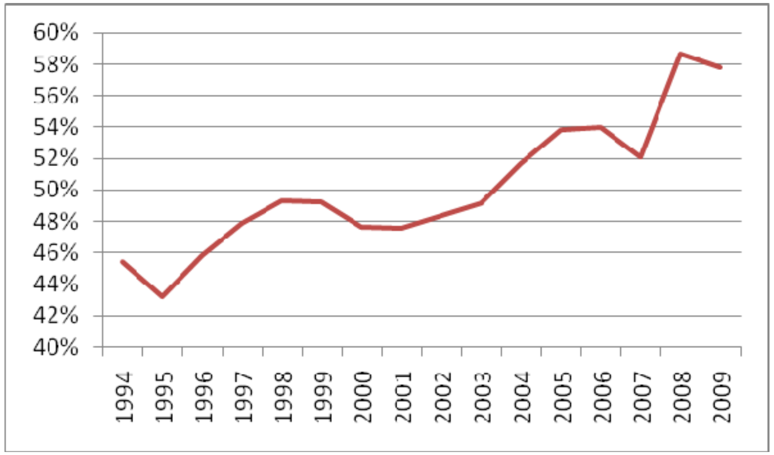


**Figure A4-1. Proportion of Large Scale Farms**

**a. All prefectures excluding Hokkaido (farms greater than 2 ha)**




**b. Hokkaido (farms greater than 10 ha)**




Source: Japan Statistical Yearbook 2010, Table 7-1.

**Figure A5-1: Number of Types of Special Zones in Each Cycle 2003-2010 (%)**

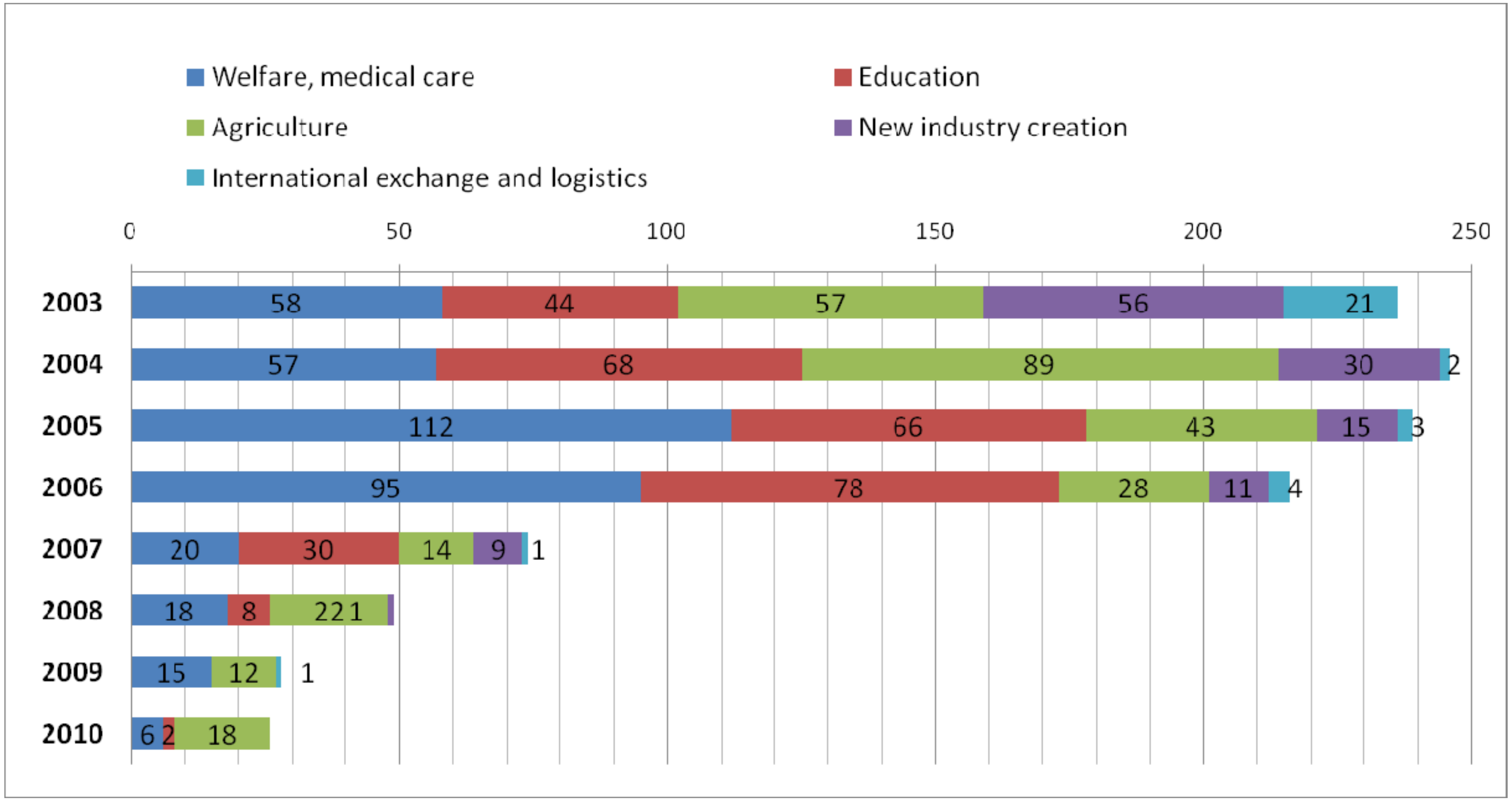
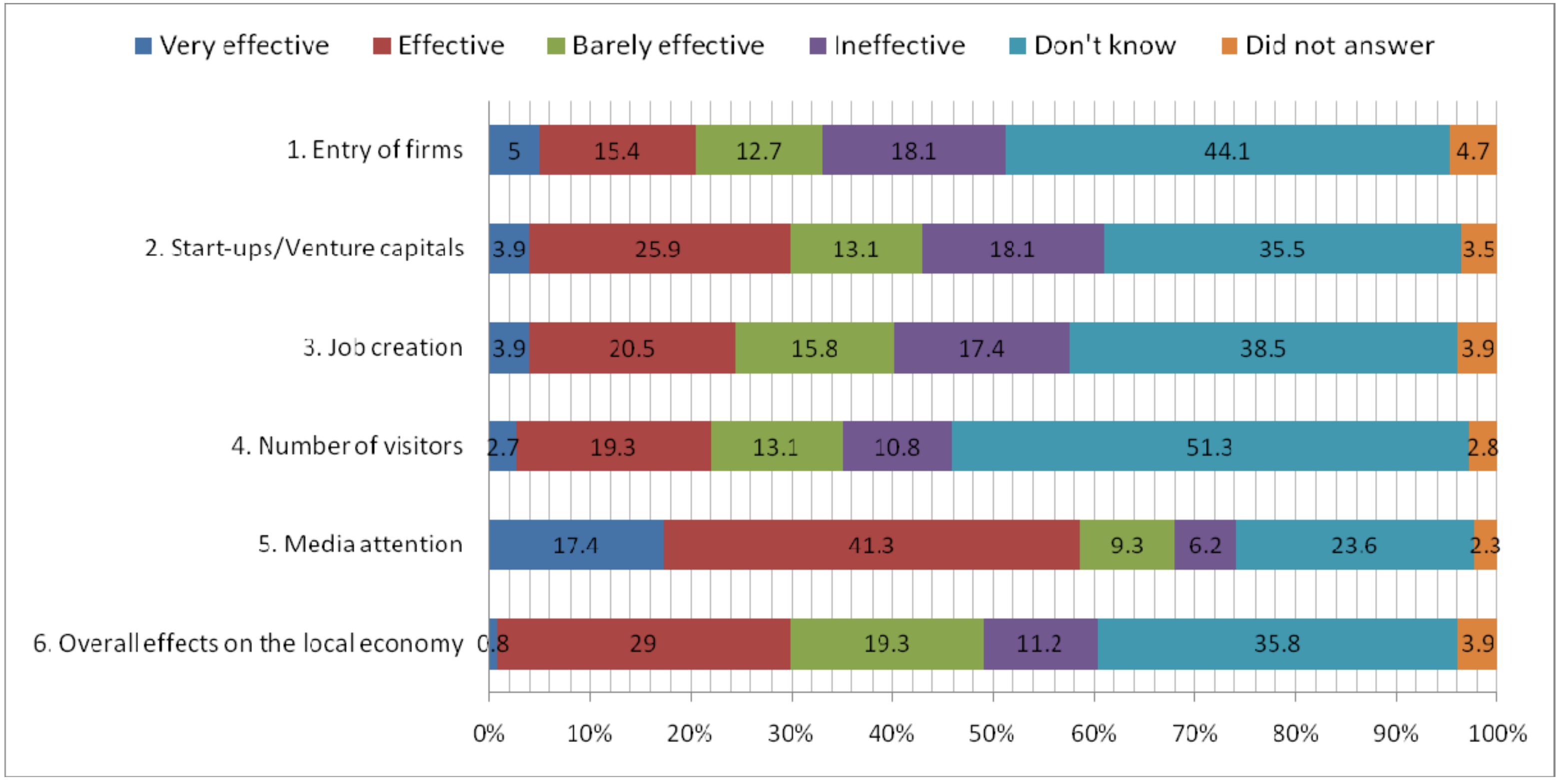


**Figure A5-2. Reported Effectiveness of the Special Zones**




Note: The number of responces is 259.

**Figure A6-1. Gross Government Debt of selected OECD Countries (% of GDP)**

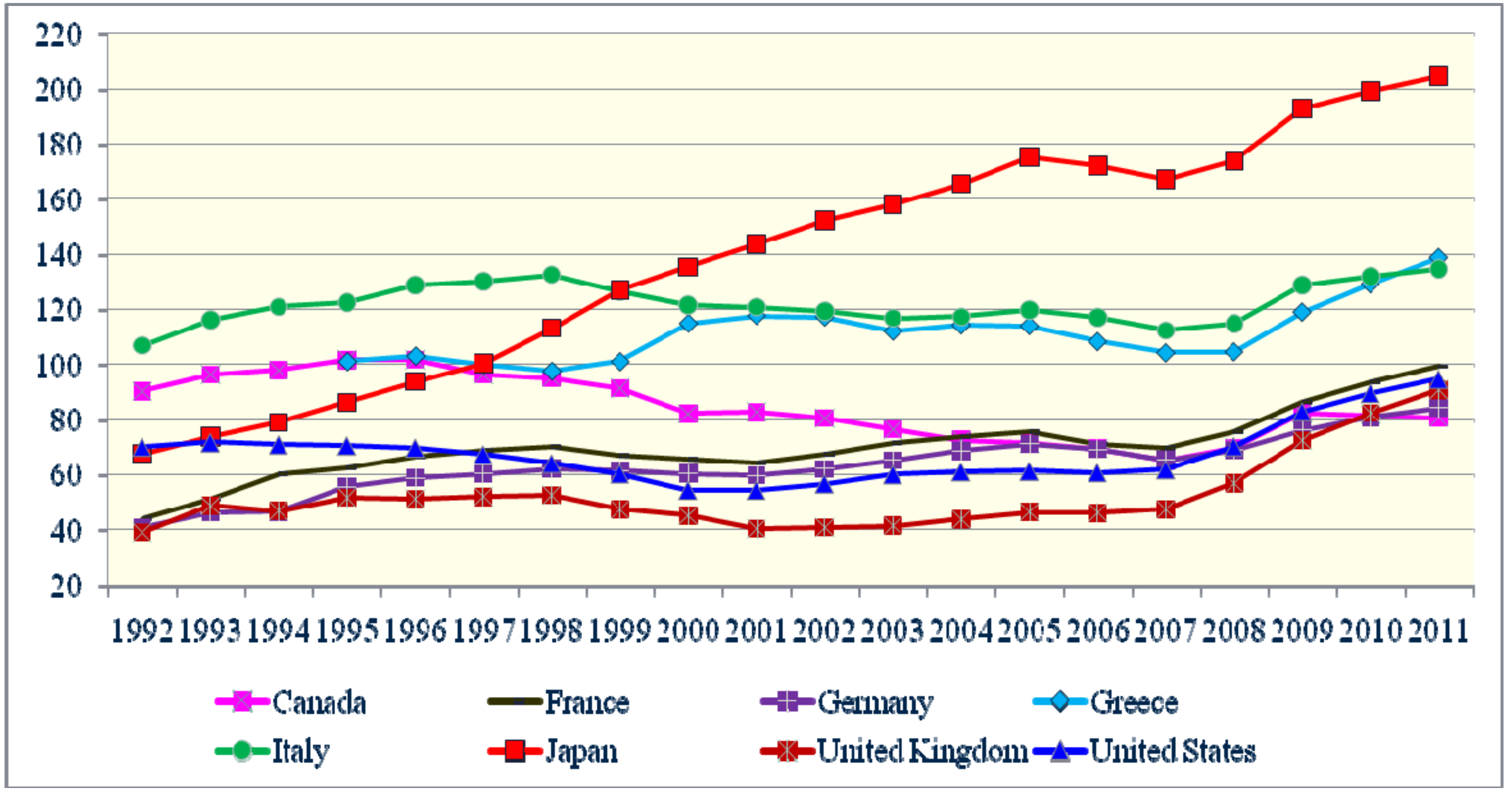


**Figure A6-2. Net Government Debt of selected OECD Countries (% of GDP)**

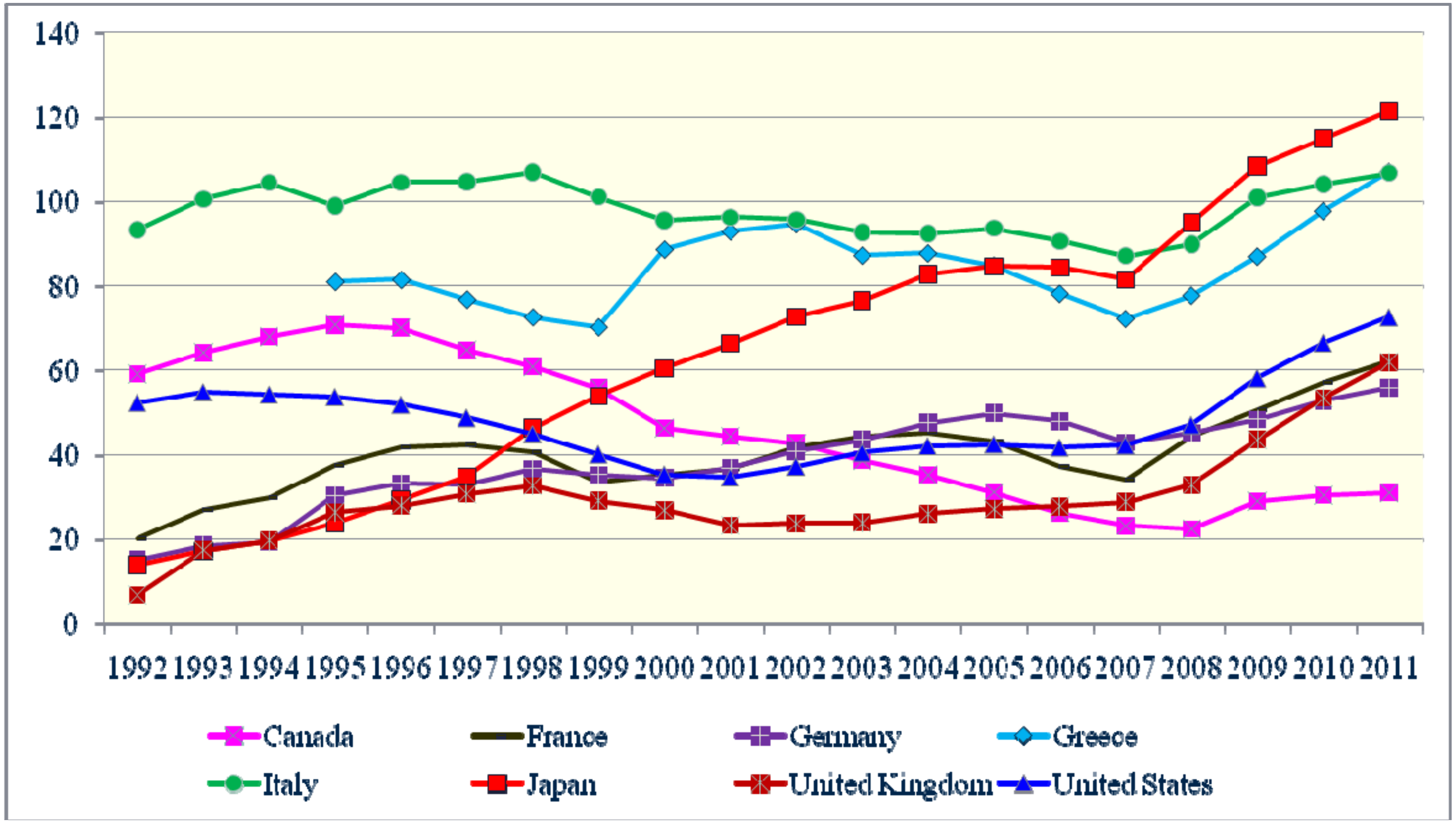
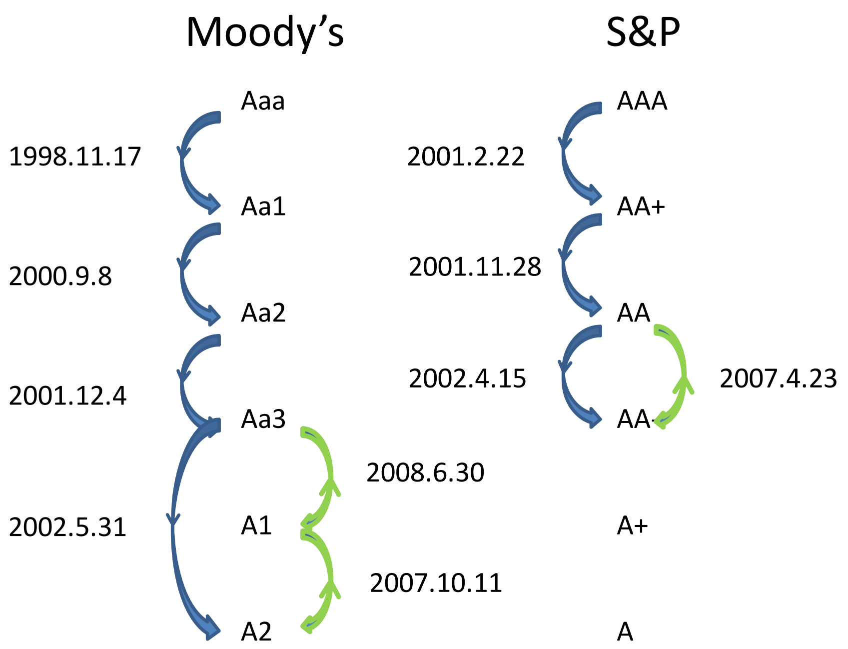


**Figure A6-3. Downgrading of JGB**



**Tables for the Appendix**

**Table A3-1. Dispatched Workers and Contract-Based Workers**

| | Number of Dispatched Workers | Number of Contract-Based Workers (manufacturing industry only) |
|---|---|---|
| 2004 | | 865600 |
| 2005 | 69647 | |
| 2008 | 558089 | 538128 |

Note: The survey of contract-based worker is not designed to survey the number of contract-based worker precisely and it would contain a large error.

Source: Number of dispatched worker: Report of Worker Dispatching Undertakings (Roudousya Haken Jigyou Houkokusyo) 1992-2009, Ministry of Health, Labour and Welfare. http://www.mhlw.go.jp/stf/houdou/index.html

Number of Contract-Based Workers: Field Survey of Dispatched Worker (Haken Roudousya Jitutai Tyousa), Ministry of Health, Labour and Welfare.

http://www.mhlw.go.jp/toukei/itiran/roudou/koyou/haken/04/index.html

http://www.e-stat.go.jp/SG1/estat/GL08020101.do?_toGL08020101_&tstatCode=000001021306

**Table A3-2. Hiring Dispatched Workers at the End of Contract Terms**

| | Number of hired workers at the end of contracted term | The percentage of it to total dispatched workers |
|---|---|---|
| 2004 | 10655 | 1.20% |
| 2005 | 19780 | 1.60% |
| 2006 | 27362 | 1.80% |
| 2007 | 32497 | 1.87% |
| 2008 | 37901 | 1.91% |

Source: Report of Worker Dispatching Undertakings (Roudousya Haken Jigyou Houkokusyo) 1992-2009, Ministry of Health, Labour and Welfare. http://www.mhlw.go.jp/stf/houdou/index.html

**Table A3-3. Dispatched Workers after the Global Financial Crisis**

| | 2008 | 2009 |
|---|---|---|
| Employee (exclude executive) | 5539 | 5478 |
| Standard Worker | 3399 | 3380 |
| Part-time Worker | 821 | 814 |
| Arbeit | 331 | 339 |
| Contract Employee | 320 | 321 |
| Dispatched Worker | 140 | 108 |
| Other | 148 | 139 |

Note: units are 10,000 people

Source: Labor Force Survey (Roudouryoku Tyousa), Bureau of Statistics, Ministry of Internal Affairs and Communications. http://www.mhlw.go.jp/stf/houdou/index.html

**Table A4-1. Japanese Agricultural Policies: 2001-2010**

| Government | Prime Minister | Primary goal | Target of support | Date | Policy (Political event) |
|---|---|---|---|---|---|
| LDP | Koizumi (Apr.2001-Sep.2006) | Respond to globalization | Large scale farmers | Apr. 2004 | Major reform of rice production adjustment system |
| | | | | Mar. 2005 | Basic Plan for food, agriculture, and farm village |
| | | | | Apr. 2005 | Basic Strategy of agriculture and forestry marine products export promotion |
| | | | | Jun. 2006 | New subsidies to large scale farmers announced |
| | | | | Apr. 2007 | New subsidies to large scale farmers introduced |
| | Abe (Sep.2006-Sep2007) | | | Jul. 2007 | (DPJ wins big in the House of Councilors Election) |
| | Fukuda (Sep.2007-Sep.2008) | Increase the food self sufficiency ratio | All farmers | Fall 2007 | Purchase of rice to support rice price<br>Expanded subsidies for furlough |
| | Aso (Sep.2008-Sep.2009) | | | Apr. 2009 | Subsidies to production of rice for rice flour or feeding |
| DPJ | Hatoyama (Sep.2009-Jun.2010) | | | Apr. 2010 | Direct payment income support system |

Note: LDP stands for the Liberal Democratic Party of Japan. DPJ stands for the Democratic Party of Japan.

Source: Authors' compilation based on the information from Godo (2010).

**Table A4-2. Farm Sizes in Various Countries**

| Survey Year | Country | Farm Size (ha) |
|---|---|---|
| 1997 | China | 0.67 |
| 1995 | Japan | 1.2 |
| 1995-97 | India | 1.41 |
| 1990 | Switzerland | 11.65 |
| 1995 | Israel | 12.35 |
| 1999-2000 | Belgium | 23.12 |
| 1999-2000 | Germany | 40.47 |
| 1999-2000 | France | 45.04 |
| 1999-2000 | U.K. | 70.86 |
| 2002 | U.S. | 178.35 |
| 2002 | New Zealand | 222.64 |
| 2001 | Canada | 273.4 |

Source: Eastwood, Lipton and Newell (2010)

**Table A4-3. Average Farm Size for Japan: 2006-2009**

| Year | Average size (ha) |
|---|---|
| 2006 | 1.79 |
| 2007 | 1.83 |
| 2008 | 1.87 |
| 2009 | 1.91 |

Source: *84th Statistical Yearbook of the Ministry of Agriculture, Forestry, and Fisheries Japan Statistics Department.* Table II-1-(6).

**Table A5-1. Numbers of Special Zones established by types**

| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|
| Welfare, medical care | 58 | 57 | 112 | 95 | 20 | 18 | 15 | 6 |
| Education | 44 | 68 | 66 | 78 | 30 | 8 | 0 | 2 |
| Agriculture | 57 | 89 | 43 | 28 | 14 | 22 | 12 | 18 |
| New industry creation | 56 | 30 | 15 | 11 | 9 | 1 | 0 | 0 |
| International exchange and logistics | 21 | 2 | 3 | 4 | 1 | 0 | 1 | 0 |
| Total | 236 | 246 | 239 | 216 | 74 | 49 | 28 | 26 |

**Table A5-2 Examples of Special Zones**

| | **Yokohama Emergency Medical Service Reform Zone** | **Kamikatsu Paid NPOs Transportation Service Zone** |
|---|---|---|
| **Sponsor** | Yokohama City | Kamikatsu-Cho, Katsuura-Gun, Tokushima Prefecture |
| **Date of Approval** | March 31, 2008 (16th cycle) | May 23, 2003 (2nd admission) |
| **Date of Nationwide Application (Duration)** | | June 14, 2004<br>(13 months) |
| **Goals** | To increase the number of medical rescue teams to keep up with the increased demand | Provide transportation to the residents, especially the old, in a rural town of Kamikatsu, where they lacked the service from private-run bus and taxi companies |
| **Deregulatory Measures Applied** | Legally, an emergency medical service team is required to have at least 1 ambulance and 3 emergency medical technicians (EMTs). The zone allowed an emergency medical service to be formed with 1 ambulance and 2 EMTs for some lower priority emergency conditions (based on the call-triage assessment) | The special measures allowed the NPOs in the zone to operate transportation service without drivers with commercial licenses |
| **Progress** | Introduction of call-triage system and deregulation on EMTs allowed the city to use more resources for high priority cases | The service improved the means of transportation for visiting relatives. The number of NPO drivers registered increased from 14 to 20. By 2008, the transportation served a total of 6,096 people |
| **Nationwide Application** | | NPO is not required to have drivers with commercial licenses to run transportation services. NPO is allowed to provide transportation services with private vehicles |

| | Gunma Foreign-Language Education Zone | Joint-Operation of Elementary and Middle School Zone |
|---|---|---|
| **Sponsor** | Ota City, Gunma Prefecture | Shinagawa Ward, Tokyo |
| **Date of Approval** | April 21, 2003 ($1^{st}$ admission) | August 29, 2003 ($2^{nd}$ admission) |
| **Date of Nationwide Application (Duration)** | July 9, 2008<br>(63 months) | July 9, 2008<br>(59 months) |
| **Goals** | To accommodate children of foreign workers better in public education. Ota City is a manufacturing powerhouse. It is home to the car manufacturer Subaru, a subsidiary of Fuji Heavy Industries. Foreign workers for manufacturing factories have significant presence in the city | To better integrate public education in elementary and middle schools |
| **Deregulatory Measures Applied** | More flexible school curriculum. The special measures enabled English immersion program in every subject except Japanese and Social Science. Joint operation of elementary, middle, and high school provided a more coherent English learning environment to the students | Divided 9-year compulsory education into three phases – 4 years of fundamental class, 3 years of intermediate class, and 2 years of advanced class. Introduction of new subjects: 1) "Citizenship" for $1^{st}$ ~ $9^{th}$ grades; 2) English for $1^{st}$ ~ $6^{th}$ grades; and 3) "Step-Up Learning" for $5^{th}$ ~ $9^{th}$ grades. Step-Up Learning is an honor course in which each student can pursue more rigorous curriculum for his or her subjects of interests. To enroll in Step-Up Learning, the student needs to demonstrate superior academic performance in the introductory courses |

| | | |
|---|---|---|
| | | (Shinagawa City 2008) |
| **Progress** | The English immersion program has demonstrated some success; 12 third-graders passed intermediate level of high school English exam (the number was zero when they were first-grade). Likewise, 30 sixth graders who transferred from other schools have passed higher level of high school English exams (the number was zero when they transferred in their fourth-grade) (Gunma Kokusai Academy 2007) | Increased applicants to the school. The percentage of parents in this school district who wish to enroll their children to the school increased from 17.0% to 29.8% |
| **Nationwide Application** | Greater flexibility on the school curriculum. The school installed foreign language immersion program and pioneered English instruction for math and science classes | Greater flexibility on the school curriculum. The school does not need to adhere to the standard curriculum requirement laid down by the Ministry of Education; the school created two new subjects (Citizenship and Step-Up Learning) and allocated more time on English |

| | Iwate Homeland Revitalization Zone | Ozu-Uchinomi Olive Production Zone |
|---|---|---|
| **Sponsor** | Tono City, Iwate Prefecture | Uchinomi-Cho (Ozu Island), Kagawa Prefecture |
| **Date of Approval** | November 28, 2003 (3rd admission) | April 21, 2003 (1st admission) |
| **Date of Nationwide Application (Duration)** | July 9, 2008<br>(63 months) | November 22, 2005<br>(17 months) |
| **Goals** | To attract tourists from the urban area to experience the lifestyle of the Japanese countryside. To promote local economy through tourism | To vitalize the town by utilizing olives, a local specialty product of Ozu |
| **Deregulatory Measures Applied** | Allowed brewing of *doburoku* (Unrefined Sake); solicitation of corporate firms to the agricultural business through land-leasing; deregulation on the minimum farming area required, which was 1.25 acres | Allow corporate firms to enter agricultural-business through land-leasing |
| **Progress** | The *doburoku* brewing business increased the number of tourists, from 1.50 million in 2002 to 1.53 million in 2008. For those who stayed overnight, the number increased from 57,000 in 2002 to 61,000 in 2008. Deregulation on the floor of required farming areas attracted more business to pursue agriculture in the region – 4 new *doburoku* brewery and 5 new agricultural firms | 6 firms have entered the agricultural business and utilized 28.4 acres of previously unused farmland. In 2008, the town earned ¥250 million from agricultural output, a 25% growth from 2003, and ¥100 million from tourism |
| **Nationwide Application** | Brewing of *doburoku*, entry of for-profit corporations in agricultural business through land-leasing, and | Allow for-profit firms to enter agricultural-business through land-leasing |

| | | |
|---|---|---|
| | deregulation on the minimum farming area required | |

| | Kobe Biomedical Innovation Cluster | Mie High-Tech Industry Revitalization Cluster | Kitakyushu International Exchange Zone |
|---|---|---|---|
| **Sponsor** | Kobe City, Hyogo Prefecture | Yokkaichi City, Mie Prefecutre and Yokkaichi City Port Authority | Kitakyushu City, Fukuoka Prefecture |
| **Date of Approval** | April 21, 2003 (1st admission) | April 21, 2003 (1st admission) | April 21, 2003 (1st admission) |
| **Date of Nationwide Application (Duration)** | | | |
| **Goals** | To form an international cluster of medical-related industries | To rejuvenate the town through structural reform | Located midway between Tokyo and Shanghai, Kitakyushu aims to become an international hub for traffic and trade through deregulation |
| **Deregulatory Measures Applied** | Foreigners who work in this special zone are prioritized in the visa-acquiring process. The special zone also waived the prohibition on national university faculties to participate in additional jobs | Relaxed layout requirement on petroleum refineries. 24-hour customs clearance | Solicitation of foreign researchers; deregulation of visa-related procedures; 24-hour custom clearance; subsidized rate for overnight services; easier application for the change of landfill usage |
| **Progress** | 177 companies have entered the Kobe special zone to pursue innovations in biomedical fields via partnerships among industry and | The special zone increased the demand for overnight services. It also facilitated the research and development for fuel cell batteries. | 24 hour clearance and reduced overnight rate facilitated a 50% growth (from 2004 to 2009) in demand for harbor access. 27 firms |

| | | | |
|---|---|---|---|
| | academia. By 2013, the special zone expects to create 5,400 jobs and produce ¥99 billion in output | By 2014, the special zone expects to attract ¥75 billion in investment, create 1,800 jobs, and generate ¥40 billion additional output | have entered the special zones. The gross investment as a result of the new firm entry is projected to reach ¥190 billion and create 4,800 jobs |
| **Nationwide Application** | | | |

**Table A6-1. Local Government Revenues: 1970-2010 (¥ trillion)**

| Fiscal Year | **1970** | **1971** | **1972** | **1973** | **1974** | **1975** | **1976** | **1977** | **1978** | **1979** |
|---|---|---|---|---|---|---|---|---|---|---|
| Total | 10.10 | 12.18 | 15.09 | 18.22 | 23.49 | 26.04 | 29.50 | 34.01 | 39.13 | 43.13 |
| Local Allocation Tax Grants | 1.80 | 2.10 | 2.55 | 3.13 | 4.20 | 4.47 | 5.19 | 5.71 | 7.04 | 7.71 |
| State Subsidies | 2.08 | 2.55 | 3.35 | 3.76 | 4.98 | 5.82 | 6.61 | 7.78 | 8.93 | 9.72 |
| Local Bonds | 0.64 | 1.12 | 1.64 | 1.64 | 1.93 | 3.18 | 3.68 | 4.29 | 4.98 | 5.10 |
| Local Taxes | 3.75 | 4.24 | 5.00 | 6.49 | 8.24 | 8.15 | 9.56 | 11.01 | 12.24 | 14.03 |

| Fiscal Year | **1980** | **1981** | **1982** | **1983** | **1984** | **1985** | **1986** | **1987** | **1988** | **1989** |
|---|---|---|---|---|---|---|---|---|---|---|
| Total | 46.80 | 50.10 | 52.17 | 53.46 | 54.97 | 57.47 | 60.08 | 64.66 | 68.01 | 74.57 |
| Local Allocation Tax Grants | 8.11 | 8.72 | 9.18 | 8.87 | 8.55 | 9.45 | 9.83 | 10.56 | 11.21 | 13.46 |
| State Subsidies | 10.51 | 10.94 | 11.04 | 10.75 | 10.60 | 10.42 | 10.28 | 10.36 | 9.91 | 10.28 |
| Local Bonds | 4.73 | 4.91 | 4.92 | 5.23 | 5.01 | 4.50 | 5.26 | 5.97 | 5.63 | 5.62 |
| Local Taxes | 15.89 | 17.33 | 18.63 | 19.84 | 21.49 | 23.32 | 24.63 | 27.20 | 30.12 | 31.80 |

| Fiscal Year | **1990** | **1991** | **1992** | **1993** | **1994** | **1995** | **1996** | **1997** | **1998** | **1999** |
|---|---|---|---|---|---|---|---|---|---|---|
| Total | 80.41 | 85.71 | 91.42 | 95.31 | 95.99 | 101.32 | 101.35 | 99.89 | 102.87 | 104.01 |
| Local Allocation Tax Grants | 14.33 | 14.89 | 15.68 | 15.44 | 15.53 | 16.15 | 16.89 | 17.13 | 18.05 | 20.86 |
| State Subsidies | 10.63 | 11.17 | 12.86 | 13.61 | 13.71 | 14.96 | 14.67 | 14.26 | 15.63 | 16.48 |
| Local Bonds | 6.26 | 7.26 | 10.20 | 13.37 | 14.30 | 16.98 | 15.62 | 14.08 | 15.14 | 13.07 |
| Local Taxes | 33.45 | 35.07 | 34.57 | 33.59 | 32.54 | 33.68 | 35.09 | 36.16 | 35.92 | 35.03 |

**Table A6-1. Local Government Revenues: 1970-2010 (¥ trillion), continued**

| Fiscal Year | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009*** | **2010*** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 100.28 | 100.00 | 97.17 | 95.00 | 93.40 | 92.90 | 91.50 | 91.10 | 92.20 | 82.56 | 82.13 |
| Local Allocation Tax Grants | 21.78 | 20.35 | 19.55 | 18.06 | 17.00 | 17.00 | 16.00 | 15.20 | 15.40 | 15.82 | 16.89 |
| State Subsidies | 14.45 | 14.55 | 13.17 | 13.14 | 12.50 | 11.89 | 10.53 | 10.34 | 11.69 | 10.30 | 11.57 |
| Local Bonds | 11.11 | 11.82 | 13.32 | 13.79 | 12.37 | 10.37 | 9.62 | 9.58 | 9.92 | 11.83 | 13.49 |
| Local Taxes | 35.55 | 35.55 | 33.38 | 32.67 | 33.54 | 34.80 | 36.80 | 40.27 | 39.56 | 36.19 | 32.51 |

* The initial budget numbers are shown for fiscal years 2009 and 2010.