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Japan: How Should Funds Be Raised for Rebuilding After the Disaster?

Author

Megumi KASHIWAGI
Senior Research Fellow
Canon Institute for Global Studies

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1. Raising funds for recovery

Six months have passed since the earthquake struck, but an overall framework for funding the reconstruction has yet to be determined. Together, the first and second supplementary budgets provided for 6 trillion JPY (77.6 billion USD), but those funds were raised by canceling or downsizing other projects, as well as by charges on the national treasury such as surplus funds from the previous year and the national pension reserve fund.[1] However, these funds represent a stopgap measure that cannot be expected to last for long. Eventually it will be necessary to develop a fully fleshed-out plan.

In this light, it is useful to consider the possible sources of funding. The recovery period, which will include periods of reconstruction, revitalization, and development, is projected to last roughly ten years. From the time the earthquake struck, it was said that the recovery effort would cost about 20 trillion JPY (258.7 billion USD), but it was announced at the government's Reconstruction Headquarters on July 21, 2011, that recovery would cost 23 trillion JPY (297.5 billion USD) over ten years, with an outlay of 19 trillion JPY (245.7 billion USD) in the first five years.[2] The first supplementary budget allocated 4 trillion JPY in May (51.7 billion USD) and the secondary budget allocated 2 trillion JPY (25.9 billion USD) in July for a combined total of 6 trillion JPY (77.6 billion USD), which means that the government must now indicate how it intends to provide the remaining 17 trillion JPY (220 billion USD).[3] The government calculates that it will be able to raise 7 trillion JPY (90.5 billion USD) in ten years through spending cuts and non-tax revenues. Assuming that estimate is correct, that leaves 10 trillion JPY (129.3 billion USD) that must be raised by other means.

Looking at conditions in the disaster zone and the recovery plan, the greatest costs will be incurred in the early stages of the recovery. Supplementary

budgets in the disaster zone have doubled because of the cost of rebuilding,[4] but considering that prefectural and municipal tax revenues are expected to decline, public debt expenditures (the cost of redeeming and paying interest on prefectural and municipal bonds) and government grants (treasury expenditures, local allocation taxes) have significantly increased.[5] Before the disaster struck, only about half of local government funds in the Tohoku region came from sources such as taxes and service fees – a low proportion of self-generated funding that led to a difficult situation of high dependency on grants and public bonds, which has only grown worse as a result of the earthquake.6 Reductions in tax revenue and the need to redeem public debt, in addition to the cost of rebuilding, will surely require prefectures in the disaster zone to receive grants from the national government for over a decade (in the case of municipalities, this will include prefectural expenditures as well). The national government will also have to keep those costs in mind when it considers its own finances.

Let us consider the nation's finances in light of these circumstances. Looking at the government's most recent financial statement (FY 2009), Japan is running a deficit, but even in terms of cash flow there are not many available funds. From FY 2008 to FY 2009 there was a decrease in government reserve fund of 4.9 trillion JPY (63.2 billion USD) and in the short-term future it will be necessary to keep a certain amount of cash in reserve. Thus it is unlikely that the government will be able to use surplus funds in the future as it did in the second supplementary budget. It is an ironclad principle that expenditures must be reduced if there is no budget or income to support them, but even if annual expenditures are cut even more and allocated to the cost of recovery, those funds will not be sufficient.

A realistic method of procuring the necessary funds is by issuing deficit-financing bonds (special recovery bonds). However, the Japanese economy has been sluggish ever since the bubble collapsed, and the government has been issuing more and more bonds to finance its operations. As of the end of March 2011, Japan's long-term debt obligations had reached 892 trillion JPY (138 percent of Japanese GDP; 11.5 trillion USD), and there have been concerns about the sustainability of the government's finances. In its annual report on Japan, the International Monetary Fund (IMF) expressed the view that Japan should secure sources of funding through tax measures designed to curb the issuance of treasury bonds. Under those circumstances, any deficit-financing bonds will have to be temporary, and they will have to come with guarantees that they can be redeemed in the short term. Temporary tax hikes will provide those guarantees.

Income tax will provide a suitable source of temporary tax increases for several reasons: 1) income tax is one of core taxes; 2) income tax can be collected from both national and local (residence) taxes; and 3) income tax functions as a redistribution of income.

Since it is a core tax, the amount of tax revenue that can be generated is the greatest. The following is not based on precise calculations, but let us briefly consider the amount of tax revenue. Assuming a uniform 10-percent increase in the income tax rate, the national government's portion of the income tax under the FY 2011 budget would come to 13.5 trillion JPY (174.2 billion USD); according to the "FY 2011 Plan for Local Government Finances," prefectural residence taxes and municipal taxes on individuals will provide 4.7 trillion JPY (60.7 billion USD) and 6.8 trillion JPY (87.8 billion USD) respectively. A simple calculation suggests an increase of 2.5 trillion JPY (10 percent of 25 trillion JPY; 32.3 billion USD). A five-year tax hike would raise 12.5 trillion JPY (161.3 billion USD) in revenue, which the government would be able to use to make up the remaining 10 trillion JPY (129 billion USD) it will need for the recovery effort. However, it is assumed that tax exemptions,[7] reductions in tax revenues for the disaster zone, tax refunds,[8] and delinquencies will all arise; the decrease in revenue for the disaster area may amount to 642.3 billion JPY (8.3 billion USD; appendix 1), and the expected figure for delinquent payments of the temporary tax hikes is 46.7 billion JPY (600.7 million USD; appendix 2). Taking tax refunds into consideration, as well as the overall decrease in nationwide tax revenue resulting from the disaster, there is a possibility that revenues will be offset by half or more immediately after the tax increases are introduced, and it is necessary to keep those reductions in mind while studying this proposal.

Creating a reconstruction fund is an additional means of procuring funding that might be considered. At the time of the Great Hanshin-Awaji Earthquake in 1995, the Hyôgo Prefecture and Kobe City, learning from the eruption of Mt. Unzen (1991-1995), immediately established such a fund. They raised funds from financial institutions that contributed to the Reconstruction Fund in the form of interest-free loans. The Fund then issued recovery bonds. Hyôgo and Kobe's interest payments were supplemented with money from local government block grants. The recovery fund consisted of 350 billion JPY (4.5 billion USD), and while that figure is low, representing just 2 percent of the total cost of recovery, it was used in areas such as providing housing assistance, promoting industry, and supporting residents in their livelihoods. According to Hayashi (2005), "The fund played the role of supplementing official funds in both quantitative and qualitative ways." Compared to official funds, recovery funds have more flexibility, and as we face the current recovery effort, we should consider establishing such a fund in addition to using governmental and non-governmental funding.

2. How should recovery funds be allocated?

Recovery funding can be divided into three categories: 1) the national government operates the project and distributes money directly; 2) disaster-stricken municipalities receive payments of national treasury subsidies, local block grants, and special allocations from the Ministry of Internal

Affairs and Communications (cities, towns, and villages also receive money from their prefectural governments); and 3) disaster-stricken municipalities meet their costs by issuing public bonds (prefectural and municipal bonds). National treasury subsidies can be used to rebuild roads and harbors, but there are clear stipulations about how such funds are to be used. For disaster areas, the sources of funding that can be used most flexibly are local grants and public bonds. Public bonds may be flexible, but considering that the cost of redeeming bonds in the future can lead to rigidity of finances, issuing too much public debt is not advised.[9] Thus it seems that the disaster area would benefit from having local grants assigned as the source of recovery funding.

Hayashi (2005) and the Japan Research Institute (2005) observe that, after the Great Hanshin-Awaji Earthquake, residents relocated because of unemployment, and that it took a long time to achieve economic recovery. Hayashi (2005) used Hyôgo Prefecture's residential economic data to draw inferences about the period between 1998 and 2002, when most of the recovery effort took place, and he found that out of the 7.7 trillion JPY (99.4 billion USD) increase in demand within the prefecture, the majority of the increase was concentrated in the private sector, with the private sector and the public sector increases amounting to 5.3 trillion JPY (68.4 billion USD) and 2.4 trillion JPY (31 billion USD), respectively. According to the analysis of the Kobe branch of the Bank of Japan (2000), out of the 10 trillion JPY (129.1 billion USD) set aside for the 5-year reconstruction project after the earthquake, private citizens bore 4 trillion JPY (51.6 billion USD) of the burden (firms and households both shouldered 2 trillion JPY, or 25.8 billion USD, of the burden). Out of the corporate sector's 2 trillion JPY contribution, 1 trillion JPY (12.9 billion USD) came from breaking into reserve funds and selling securities and land, while 780 billion JPY (10.1 billion USD) came from loans from financial institutions. These data testify to the significance of the role that private firms and households played in the recovery after the Great Hanshin-Awaji Earthquake. That fact, in turn, reminds us of the importance of rebuilding the economy in order for the disaster area to regain its independence as soon as possible.

However, no matter how much work goes into budgeting and raising funds, recovery efforts do not progress if there are not enough people involved in the project. The home pages of municipalities in the disaster area vividly illustrate the difficulties people are facing in that area; some home pages carry recruitment ads, while others have not been updated at all. There is also concern about the decline in disaster-stricken municipalities' ability to fulfill their administrative functions. There has been a sudden increase in their administrative duties, such as the need to issue disaster victim certificates and process applications for subsidies, and while the national government and other municipalities are lending their support, it is still not enough. Personnel support and providing equipment for the recovery are also high priorities.

3. Toward sustainability in Japan's finances

Long-term subsidies from the national government are going to be necessary in order to help the disaster zone regain its independence. That is another reason why the government needs to take a look at its finances. Japan's tax revenue is only half of its expenditures, and since its national debt is higher than that of other countries, Japan should increase its tax yield. Rather than simply increase tax revenues, of course, we should also consider spending cuts, but when we do, we must keep firmly in mind the fact that we are a society with a declining birthrate and an aging population. We must take into account the sustainability of our finances and our future population, and moreover, when we look at the situation in terms of equity both within and among the different generations, it becomes clear that gaps in standard of living within the elderly generation must be rectified.[10] Furthermore, in order to secure tax revenue, we should quickly introduce the use of national taxpayer identification numbers. Japan is currently grappling with reforms of the taxation and social security system, the funding source for which is the consumption tax. When we debate the consumption tax, in addition to discussing regressive taxes, tax profits, and invoices, we should also talk about ways of dealing with delinquency and the reduction of tax avoidance. One hopes that we will create an efficient consumption tax system.

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[1] Reconstruction funds in the first supplementary budget are provided by cutting childcare assistance, freezing funding for experimental toll-free highway programs, reducing reserve funds for responding to economic emergencies and revitalizing regional economies, and by drawing on the national pension reserve fund. Surplus funds were allocated for reconstruction in the second supplementary budget.

[2] *Nihon keizai shimbun*, July 22, 2011 morning edition. Other tentative calculations have been published as well. According to BNP Paribas (2011), members of the Reconstruction Design Council, the Cabinet estimates the cost of the damage at between 12.1 and 15.6 trillion JPY (156.5 to 201.7 billion USD), which leaves a total of 6.1 to 9.6 trillion JPY (78.9 to 124.2 billion USD) in required funding after deducting the 6 trillion JPY (77.6 billion USD) provided in the supplementary budget.

[3] *Mainichi shimbun*, July 22, 2011 morning edition.

[4] Taking the supplementary budget of Ishinomaki, Miyagi Prefecture as an example, the initial budget called for a total of 120.6 billion JPY (1.6 billion USD). After the addition of 91.3 billion JPY (1.2 billion USD) in the supplementary budget, the total came to 211.9 billion JPY (2.8 billion USD)—almost twice as much as the initial budget. The increases contributing to the budget adjustment included 78.7 billion JPY (1 billion USD) in government funds, 18.7 billion JPY (243.4 million USD) in municipal bonds, and 4.9 billion JPY (62.5 million USD) in prefectural funds, but the adjustment also included the following decreases: 10 billion JPY (130.2 million USD) in municipal taxes, 979 million JPY (12.8 million USD) in money transfers, 147 billion JPY (1.9 billion USD) in contributions and liabilities, and 8.9 million JPY (115,900 USD) in usage and service fees. Prior to the supplementary budget, the projected municipal tax revenues were 17.3 billion JPY (223.5 million USD), but that figure was reduced by roughly 60 percent. The largest reductions were in municipal taxes on real estate, followed by residence taxes, but tax revenues for urban planning were virtually wiped out.

[5] In March 2011, the Ministry of Internal Affairs and Communications issued 500 million JPY (6.5 million USD) in special tax revenues to each of the prefectures of Iwate, Miyagi, Fukushima, and Ibaraki (including prefectural municipalities). Similar grants of 1.5 trillion JPY (19.4 billion USD) and 778.1 billion JPY (10 billion USD) were distributed in April and June, respectively.

[6] The percentage of self-generated sources of funding for the four prefectures is as follows: Iwate, 37.6 percent (43rd in the nation); Miyagi, 53.3 percent (15th); Fukushima, 47 percent (38th); and Ibaraki, 59.6 percent (11th).

[7] In order to support individuals and corporations that suffered from the disaster, reductions and exemptions have been put in place for national and local taxes, usage fees, and service charges. The National Tax Agency announced on March 15, 2011 that it would extend the filing and payment deadlines, and on April 27 it announced its policies for inheritance taxes, gift taxes, capital gains taxes, and registration and license taxes. On March 28, 2011 the Ministry of Internal Affairs and Communications gave notice that it would extend the deadline and declare a grace period for payments of local taxes in order to provide reductions and exemptions for disaster victims. The amount of revenue lost as a result of these reductions and exemptions can be made up for by issuing municipal bonds.

[8] Tax refunds are increasing every year; in FY 2009, the total reached 8.5 trillion JPY (110 billion USD; including interest on refunds).

[9] Hayashi (2005) and the Japan Research Institute (2005) write that when prefectures and cities issue bonds, the subsequent cost of servicing their debt puts pressure on their finances.

[10] According to "Heisei 20-nendo shotoku saibunpai chôsa hôkokusho" (2008 report on the income redistribution survey), the Gini coefficient for households was 0.5318 for initial income and 0.3758 for redistributed income, an improvement of 29.3 percent. Looking at the Gini coefficient for elderly households, the figure was 0.8073 for initial income and 0.4038 for redistributed income, an improvement of 50 percent. This indicates a high degree of income disparity among the elderly. There are many disadvantaged people among the elderly, while on the other hand, as the JAL problem clearly demonstrated, there are also those receiving generous annuity and corporate pensions, as well as those who possess great wealth or continue working, resulting in great disparities within the generation. The redistribution coefficient for ordinary households is 0.7 percent, compared to 316.3 percent for elderly households. These data show that social security is a common means of redistribution in Japan, and that much of the redistribution shifts from the working generations to retirees.

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Appendix One: Method for estimating the decrease in tax revenue (national, prefectural, and municipal taxes) for the disaster area

In order to estimate the decrease in tax revenue for the disaster area, I based my calculations for national and prefectural taxes on actual revenues for FY 2009 (for Fukushima, I used settled accounts for FY 2008), and combining those data with the supplementary budget of Ishinomaki City in Miyagi Prefecture. I estimated a decrease of 60 percent. I also used actual revenues for FY 2009 when estimating the decrease in municipal taxes, and after listing the main disaster areas and positing that residents of those areas would apply for reductions and exemptions (payment extensions, grace periods), I concluded that there will be a 100-percent decrease.

The decrease in national taxes amounts to 192.1 billion JPY (2.5 billion USD), and the figure for prefectural taxes is 97.9 billion JPY (1.3 billion USD; Table 1). The total for municipal taxes in the disaster area is 352.3 billion JPY (4.5 billion USD), and assuming that the full amount will be reduced or exempted, I concluded that the total amount of tax revenue will be lost (Table 2). Thus, the combined total for the decrease in tax revenue came to 642.3 billion JPY (8.3 billion USD).

Table 1: Decreases in revenue for national and municipal taxes (unit: billion JPY)

	Iwate Prefecture	Miyagi Prefecture	Fukushima Prefecture	Total	Decrease in tax revenue
Withholding tax	46.7	124.1	82.2	253.0	
Self-assessed income tax	13.8	32.6	20.7	67.1	
National tax total	60.5	156.7	102.9	320.1	192.1
Municipal taxes	35.9	71.3	56.0	163.2	97.9

SOURCE: National Tax Agency (2011), each prefecture's settled accounts data

Table 2: Tax revenue (FY 2009) for the main disaster-stricken areas (unit: billion JPY)

Iwate Prefecture		Miyagi Prefecture		Fukushima Prefecture		Total
Miyako	5.9	Sendai	181	Iwaki	49.7	
Ôfunato	4.1	Ishinomaki	18.1	Sôma	4.8	

Kuji	4.2	Shiogama	6.3	Minami Sôma	10	
Rikuzentakata	1.8	Kesennuma	7	Namie	2.1	
Kamaishi	5.1	Natori	10.5	Shinchi	2.3	
Ôtsuchi	1.2	Tagajô	8.8			
Yamada	1.3	Iwanuma	6.9			
		Higashi Matsushima	3.6			
		Watari	3.6			
		Matsushima	2			
		Shichigahama	2.6			
		Onagawa	4.5			
		Minami Sanriku	1.3			
		Ôsato	1.1			
		Misato	2.5			
total	23.6		259.8		68.9	352.3

SOURCE: Ministry of Internal Affairs and Communications (2011)

Appendix 2: Method for estimating projected amount of delinquencies on temporary tax hike

The new figure for delinquencies on the income tax (FY 2009) is 123.6 billion JPY (1.6 billion USD), with a delinquency rate of 0.82 percent (0.44 percent for withholding tax, 2.6 percent for self-assessed income tax). Thus, assuming a 10-percent increase in taxes, the amount of delinquencies would increase by 12.4 billion JPY (161.5 million USD).

On the other hand, the latest figure for delinquencies on municipal taxes is 3 percent for prefectures, cities, and towns alike, so if we take 3 percent of a 10-percent hike on individual prefectural taxes (4.7 trillion JPY, or 61.2 billion USD) and individual municipal taxes (6.8 trillion JPY, or 88.6 billion USD), the totals would come to 14 billion JPY (182.3 million USD) and 20.3 billion JPY (264.4 million USD) respectively, for a total of 34.3 billion JPY (446.7 million USD). The combined total comes to 46.7 billion JPY (608.2 million USD).