Self-Serving Mayors and Local Government Consolidations in Japan

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Abstract

This paper investigates local government consolidations with a focus on public choice aspects in the decision-making. Politicians could lose future payoffs if their locality merges with a larger counterpart, and they may sabotage the merger process. The analysis with data from 3,212 Japanese municipalities reveals that a long-serving mayor would present an obstacle to consolidation.

JEL codes: D72; H70

Keywords: local government; mayor; incentives; merger; public choice

I. Introduction

Merger and break-up of political units takes place at two levels. One is undertaken by the sovereign nations and the other is assumed by the local governments within individual nations. Although the former has drawn substantial interests among researchers,[1] the latter is no less significant since it directly affects the welfare of local residents. Reorganization of local jurisdictions also represents an event of considerable importance for politicians. When municipality boundaries are re-drawn, the local political landscape cannot remain intact. If a small village is absorbed by a large neighboring city with dominant presence in the region, for instance, it is unlikely that the village mayor can successfully contest in the post-merger city mayoral election.

There is a growing body of literature that tests public choice hypotheses with data from local governments. Coelho, Veiga and Veiga (2006) and Veiga and Veiga (2007a), for example, identify the political business cycle through information from Portuguese municipalities. Foucault, Madies and Paty (2008) find the pre-election opportunistic behavior of the French local governments. Veiga and Veiga (2007b) observe that the Portuguese mayors are rewarded for their fiscal opportunism in their reelection campaign. Sakurai and Menezes-Filho (2008) reached a similar conclusion for reelection of Brazilian mayors.

Past inquiry into the municipality reorganization has, however, mainly focused on the efficiency of public goods provision under alternative jurisdictions (Deller and Edward, 1992; and Vojnovic, 2000).[2] This paper attempts to fill the gap and takes an explicit account of politicians' incentives in the decision of localities to engage in merger.

The rest of the paper is organized as follows. The next section presents the hypothesis to be tested in this paper. The third section gives a brief background of the local government consolidation in Japan as a case study. The fourth section describes the data and empirical analyses and reports regression estimates. The concluding section provides suggested areas for further investigation.

[1] Studies into secession, for example, include Wittman (1991) and Bolton and Roland (1997).
[2] An exception is Sørensen (2006), in which political factors are examined as part of determinants of consolidation decision of Norwegian municipalities.

II. Mayor Incentives

The hypothesis to be tested in this research is that a long-serving mayor would be reluctant to merge his locality with larger counterparts. There are cases in which consolidation partners can be classified into "dominant" and "subordinate" members, where dominant localities are likely to be large and fiscally more stable, while the subordinate partners could be smaller and in difficult economic situations. Reflecting their differences, they may not share the same determinants for their respective consolidation choice. Small municipalities facing financial constraints may find it a viable option for their survival to seek merger with larger counterparts. It may not, however, constitute an attractive option for elected officials in those localities since uncertainty arises as to their post-merger positions.

The incentives to preserve the municipality, hence its incumbent position, grow with the length of time the mayor has occupied the post for two reasons. First, the longer he serves in the mayor's capacity, the more effective he becomes to translate his priorities into the municipality policy.[3] A multiple of terms not only makes the mayor familiar with executive and legislative mechanisms for policy implementation, but also provides him with opportunities to promote the municipal government personnel that understand and assist his priorities. The power the mayor enjoys as an experienced executive also makes it easier to sabotage the merger when he finds it necessary. Second, vested interests for mayors themselves as well as for their associates could be generated as mayors are repeatedly re-elected. Thus, benefits forgone could become substantial if a long-serving mayor allows his municipality to engage in merger in which the locality becomes a minor part of a larger authority.

III. Local Government Consolidations in Japan

There were two waves of municipal mergers in the post-war Japan. The first took place in the mid-1950s, when the central government enacted the Law to Promote Town and Villages Mergers in 1953. This law was an attempt to reorganize local governments, mainly through mergers, so that they could assume greater responsibilities for public

[3] Miquel and Snyder (2006) is an inquiry into the relationship between politicians' legislative effectiveness and accumulated tenure. Using data from North Carolina State House of Representatives, they find that legislators become more effective as they gain more experience, and attribute the source to learning-by-doing.

service provisions in the area of compulsory education, firefighting, and law enforcement. The number of local authorities decreased from 9,868 in 1953 to 3,975 by the time the law expired in 1956, which amounts to the reduction of 59.7%.

Four decades later, the central government launched another round of municipal mergers in order to strengthen their capacities for autonomous operation. This is in anticipation of the greater demand for local welfare services in the face of aging population. The central government provided fiscal incentives for voluntary consolidation in the form of the Law to Promote Municipal Mergers in 1999, and specified that local authorities should engage in merger by March 31, 2006 to qualify for the incentives. For example, the central government guaranteed that the amount of the transfer to municipalities (Local Allocation Tax) would be maintained at the pre-merger level even if a consolidation results in improvement of fiscal conditions (Article 17). This constituted a substantial incentive for the local authorities, as the central government forecasted that the total fund of the Local Allocation Tax would decline, while the tax base in many local economies was shrinking. The government also gave merging localities an option to issue special municipal bonds on the condition that it would bear 70 % of the principal repayments. As is demonstrated in Table 1, the municipalities that stood at 3,232 on March 31, 1999 and 3,212 at the end of March 2003 were reduced to 1,821 by the deadline.

IV. Empirical Analysis

Of the 3,212 localities of March 2003, 1,940 (290 cities and 1,650 towns/villages) engaged in 549 sets of consolidations, to reduce their number by 1,391. In order to identify those that chose to be a subordinate merger partner, this research uses a population criterion. If one of the merging localities dominates the post-consolidation municipality with more than half the total population, it is designated as the dominant partner. Its presence in turn renders the other partners subordinate. Among 549 consolidations, 418 had a dominant member (255 cities and 163 towns/villages), which made 925 municipalities (17 cities and 908 towns/villages) as a subordinate merger member.[4] The towns/villages tend to be less populous and are more likely to be subordinate merger partners.

[4] It is possible for a consolidation to take place without a dominant entity. This happens, for example, when three municipalities with similar population size merge. In our sample, 131 cases fall in this “no dominant” category, which makes 597 municipalities engaged in merger neither dominant nor subordinate.

The following analysis uses all the municipalities that existed as of March 31, 2003 as the sample and investigates the determinants of their decision whether to be a subordinate merger partner. The dependent variable is one for localities that entered merger as a subordinate and zero otherwise. As the dependent variable is a discrete variable, the analysis employs the probit and logistic specifications. Among the explanatory variables are: MAYOR, POP, AREA, and CURRENT. The variable, MAYOR, represents mayor's term in terms of the number of months between installation of the incumbent and July 2002. If our hypothesis holds, this variable has a negative coefficient. Size variables for the municipality population and acreage in 2002, POP and AREA, enter the regression because expanding the size of local authorities was one of the principal objectives of the central government's consolidation initiative. The public finance variable, CURRENT, represents the percentage share of municipality's expenditure disbursed for the current operation (such as wages) out of its total current revenue for the fiscal year 2002. This variable depicts the effect of financial situations on merger decisions: As this share increases, the local government loses flexibility in its fiscal management. Summary statistics of the explanatory variables are presented in Table 2.

Coefficient estimates are shown in Table 3 for the probit specifications and Table 4 for the logistic. The first two columns, I and II, are based on the sub-sample of towns and villages. Columns III and IV are derived from the full sample including cities. The dummy variable for cities (CITY) is in the regressions III and IV. Squared terms of MAYOR, POP and CURRENT are also in the regression, as it is of interest to examine if quadratic relationship is observed between these variables and the dependent variable. The primary finding is that the squared mayor term (MAYOR-SQ) has coefficients that are negative and statistically significant in specifications I - III. In the sub-sample analysis with towns and villages, exclusion of the linear MAYOR variable (whose coefficient is consistently insignificant) does not affect the significance of its quadratic variable. As is predicted by the hypothesis, long-serving mayors have lower probabilities of becoming subordinate merger members: The probability falls with the length of term. The probit coefficients in specification II implies that the likelihood that a municipality with average population, land area, and current fiscal balance becomes a subordinate is 34.98% when its mayor has completed the first 4-year term (MAYOR; 48). The probability decreases to 34.43% at the end of the second term, to 33.53% at the third, and

to 32.29% at the end of the fourth term.[5]

Coefficient estimates for the two size variables implies that a smaller municipality is more likely to become a subordinate partner. Coefficients of POP and POP-SQ imply that the likelihood to become a subordinate partner decreases as population increases for most of the towns/villages samples. The CURRENT variable has statistically significant coefficients for both itself and its squared form. Their combination indicates that the propensity for a town/village to be a subordinate merger partner increases until its CURRENT value reaches about 91-92 and that it decreases thereafter. In view of the variable's average value of 85.76 (and standard deviations of 7.0) for these samples, this shows that, across the financial condition spectrum, the localities that are more (by one standard deviation) constrained than the average are more likely to engage in merger as a subordinate than others. As they move to both ends of the spectrum, it becomes less likely that they become a subordinate merger partner. Financially sound authorities do not need consolidation: Municipalities facing severe financial constraints cannot find a willing merger partner that agrees to absorb them.

V. Concluding Remarks

This paper has investigated the determinants of a local government's consolidation decision. One of the findings is that a long-serving mayor could become an obstacle when the combination of potential merging localities requires that its municipality be a subordinate member. To the extent that mayors can influence the local public decision, their self-serving motives may stand in the way of mergers if they judge that their own political survival is at stake.[6] This observation constitutes an important policy implication: It may be desirable to install a procedure, in the case of mayoral veto in the consolidation negotiations, for the referendum among municipality residents to reach the final decision on the issue.

One potential extension of this analysis would involve incorporating the source of differences among prefectures, if any, regarding the degree of opportunistic behavior

[5] These probabilities are derived from the probit scores calculated by multiplying the coefficients by mean values of POP, AREA, CURRENT, while changing MAYOR values from 48, 96, 144, to 192.

[6] The mayor term is not a factor for a merger decision as a dominant partner. The null hypothesis that the coefficient of the mayor term variable is zero cannot be rejected for the choice to be a dominant consolidation member.

of mayors. Residents' political participation could be one factor that checks the self-serving behavior of politicians, for example as motivated by adverse economic situations that may render municipal consolidation an urgent agenda in the region.

In this context, it is interesting to make an inquiry into the governors' behavior. The Law to Promote Municipal Mergers requested that prefecture governments would take a leading role in promotion of the merger (Articles 59-64). In spite of this clause, governors were not uniformly motivated to meet the requirements. Some governors even publicly argued against the central government's merger policy. Incorporating governor variables could lead to a greater understanding of the political economy of the municipality mergers in Japan.

Appendix: Data Source

MAYOR;
Shichoson Jichi Kenkyukai (Municipal Autonomy Research Group), *Zenkoku Shichoson Yoran: Heisei 14 (National Municipality Databook: Fiscal Year 2002)*, Tokyo, 2002
POP, AREA, CURRENT;
Chiho Zaimu Kyokai (Association of Local Finance), *Shichoson-Betsu Kessan Joukyo Shirabe (Annual Public Finance Report of Individual Municipalities)*, Tokyo, 2003.

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Table 1. Number of Municipalities in Japan

(as of end)	March, 1999	March, 2003	March, 2006
Total	3,232	3,212	1,821
City	670	675	777
Town	1,994	1,976	846
Village	568	561	198

Table 2. Summary Statistics (Total 3212: Town/Village 2537 and City 675)

	Mean	Std. Dev.	Min	Max
MAYOR (month)	87.42	67.35	0	561
Town/Village	88.61	68.35	0	561
City	82.96	63.32	2	389
POP (thousand)	36.93	125.65	0.20	3466.88
Town/Village	10.56	8.64	0.20	51.98
City	136.01	249.97	5.80	3466.88
AREA (km^2)	115.60	136.34	1.34	1408.20
Town/Village	104.42	127.63	1.34	1408.20
City	157.62	158.18	5.10	1231.13
CURRENT (%)	86.21	7.02	45.50	136.50
Town/Village	85.76	7.00	45.50	136.50
City	87.89	6.82	55.20	109.40

Table 3. Probit Estimates: Determinants to be a Subordinate Merger Partner

	Town/Village (908 Subordinate)		Town/Village/City (925 Subordinate)	
	I	II	III	IV
MAYOR	0.001		0.001	
	(1.18)		(1.23)	
MAYOR-SQ	$-0.005/10^3$ *	$-0.002/10^3$ *	$-0.005/10^3$ *	$-0.002/10^3$
	(1.77)	(1.70)	(1.69)	(1.38)
POP	-0.061***	-0.061***	-0.021***	-0.021***
	(6.58)	(6.60)	(8.16)	(8.15)
POP-SQ	0.001***	0.001***	$0.006/10^3$ ***	$0.006/10^3$ ***
	(2.92)	(2.95)	(7.41)	(7.40)
AREA	-0.001***	-0.001***	-0.001***	-0.001***
	(5.79)	(5.81)	(5.44)	(5.45)
CURRENT	0.162***	0.161***	0.146***	0.145***
	(3.43)	(3.43)	(3.19)	(3.17)
CURRENT-SQ	-0.001***	-0.001***	-0.001***	-0.001***
	(3.23)	(3.23)	(2.94)	(2.93)
CITY			-0.607***	-0.609***
			(4.11)	(4.12)
Pseudo R^2	0.055	0.055	0.137	0.136
Log Likelihood Ratio	183.15	181.77	527.51	526.00
(p-value	0.00	0.00	0.00	0.00)
observations	2537	2537	3212	3212

Note: Absolute values of z-statistics are in parentheses.

***Statistically significant at the 1% level and * 10% level.

Table 4. Logistic Estimates: Determinants to be a Subordinate Merger Partner

	Town/Village (908 Subordinate)		Town/Village/City (925 Subordinate)	
	I	II	III	IV
MAYOR	0.002		0.002	
	(1.26)		(1.22)	
MAYOR-SQ	$-0.010/10^3$ *	$-0.004/10^3$ *	$-0.010/10^3$ *	$-0.003/10^3$
	(1.79)	(1.74)	(1.71)	(1.61)
POP	-0.100***	-0.101***	-0.053***	-0.053***
	(6.39)	(6.39)	(9.23)	(9.24)
POP-SQ	0.001***	0.001***	$0.015/10^3$ ***	$0.015/10^3$ ***
	(2.69)	(2.69)	(7.69)	(7.69)
AREA	-0.002***	0.002***	-0.002***	-0.002***
	(5.58)	(5.60)	(5.58)	(5.60)
CURRENT	0.298***	0.295***	0.278***	0.275***
	(3.09)	(3.07)	(2.98)	(2.97)
CURRENT-SQ	-0.002***	-0.002***	-0.002***	-0.001***
	(2.92)	(2.91)	(2.80)	(2.79)
CITY			-0.871***	-0.870***
			(2.85)	(2.85)
Pseudo R^2	0.055	0.055	0.145	0.144
LR chi2	182.71	181.07	558.56	557.01
(p-value	0.00	0.00	0.00	0.00)
observations	2537	2537	3212	3212

Note: Absolute values of z-statistics are in parentheses.

***Statistically significant at the 1% level and * 10% level.