Why do institutions change? - Case Studies of Changes in the Local Government Finance System in Japan

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Abstract: This paper discussed why and how institutional change occurs, incorporating power and resources into the analysis, using the example of the relationship between the central government and local governments in Japan before and after World War II. Institutional change is not the result of "rational" choices made by the institutional designers, but the "unintended consequences" of deviant behavior of the agents under their control that deviates from the guidance of the institutional designers.

Keywords: power, resource, conflicts, institutional change, unintended consequences

JEI Classification Codes: B52, H72, H77

Introduction

The question "Why and how do institutions change?" remains a question of strong interest among researchers interested in institutions. This paper discusses why and how endogenous institutional change occurs, incorporating power and resources into the analysis, using the cases of local fiscal distress in Japan in the 1930s and the establishment of the fiscal equalization system in 1940, and the stimulus measures and responses after the collapse of the bubble economy in the 1990s. I show that "unintended consequences" cause institutional change when the central government, the officially "powerful" institutional designer in a centralized state, becomes unable to carry out its policy intentions.

Previous Literature

There are two main approaches to the discussion of institutional change: the harmony approach and the conflict approach (Tang 2011). The former sees institutions as the result of cooperation and coordination by actors to resolve conflicts of interest and promote private wellbeing. Hence, it implicitly denies the role of power and conflict in

institutional change. In economics, this is the neoclassical and new institutional economics (e.g., North 1981) and the Austrian school (e.g., Hayek 1967), and in sociology and international politics, functionalism (e.g., Hall and Taylor 1996). The latter holds that actual conflicts between agents in institutional change generally prevail and that institutions are the result of agents' actual conflicts to resolve their differences. Marxism, old institutionalist economics (e.g., Veblen 1926), and realism in international politics (e.g., Carr 1939) are positioned in the conflict approach.

Tang (2011) argued that neither approach alone nor an inorganic synthesis of the two approaches can adequately explain institutional change, and only a social evolutionary synthesis of the two approaches is up to the task. In this social evolutionary paradigm, there are two central theses. First, because institutional change is essentially a process of selecting a few ideas out of many and solidifying them into institutions, competition of ideas and struggle for power to make rules are often at the heart of institutional change. Second, the process of selecting a few ideas out of many and solidifying them into institutions can be understood with the central mechanism of social evolution, artificial variation–selection–inheritance.

Tang (2011) also emphasizes the role of power in institutional change. Existing institutions limit the entry of agents in institutional change. Because institutional

arrangements have a distributional effect (Knight 1992), existing institutional arrangements bestow some agents (i.e. those in privileged positions) with more initial power and other agents (i.e. those in disadvantaged positions) with less initial power. As a result, privileged agents have a higher probability of playing a part in subsequent institutional changes, whereas disadvantaged agents have fewer chances of entering the process even if they desire to do so and have good ideas for possible institutional arrangements.

Although he made important points about the relationship between such power and institutional change, Tang (2011) does not empirically test the "general theory" with data, as he states himself. In addition, the asymmetry between "privileged and disadvantaged agents" here seems to be fixed. It may be that the seemingly "disadvantaged agents" sometimes gain power and change the institutions. The author believes that the key to considering such changes in power relations is the view of "institutions as resources." Giddens, who is positioned within the conflict approach, regards structures as "rules and resources" and argues that they "constrain and enable" agents in their choice of actions.[1] In the theory of comparative capitalism, a shift from the view of "institutions as equilibrium" to that of "institutions as resources" can be seen (Deeg and Jackson 2007, Hall and Thelen 2009), and such a view of institutions

suggests that apparently "disadvantaged agents" sometimes have power and have the potential to change institutions.

This paper uses the example of the relationship between the central government and local governments in Japan before and after World War II to show that the central government, which is supposed to be a "privileged agent," is forced to change the institutions by the actions of local governments, which are supposed to be "disadvantaged agents. " Specifically, the institutional changes discussed in this paper are based on the cases of local fiscal distress caused by elementary school operating expenditures in the 1930s and the creation of the fiscal equalization system in 1940, and capital expenditures for economic stimulus after the burst of the bubble economy in the 1990s.

Japan has been a centralized country both before and after World War II. Especially before World War II, the central government had strong authority and "local autonomy" was not sufficient. However, the central government (the institutional designer) relies on local governments to implement projects (e.g., education and infrastructure development) to achieve its policy goals. Therefore, the central government is forced to change the institutions when the local governments cannot achieve the central government's policy goals due to increased constraints on their

actions (i.e., reduced resources). In other words, for the institutional designer, the institutions have to be changed not as a result of "rational" choices, but due to the "unintended consequences" of deviant behavior of "disadvantaged agents" that deviates from the guidance of the institutional designer. Moreover, the central government in a centralized state, the institutional designer with institutional power, is unable to carry out its policy intentions. Endogenous institutional change results from outcomes that differ from the intentions of the institutional designers. By incorporating power and resources into the analysis, institutional change can be explained.

Prewar - Expenditures for elementary school operations

Institutional Background

In 1868, the new government of the modern nation was established, and in 1872, the "school system" was issued and the nation's first education system was put into effect. After several institutional changes, elementary schools were established in 1886. Each local government was responsible for covering the costs of elementary schools. In the beginning, elementary schools were operated by local residents who contributed to

the school district collections, donations, and tuition fees. 1900 saw the abolition of tuition fees and the introduction of free compulsory education, and the burden of operating elementary schools, mainly in terms of personnel costs for teachers, became a financial drain on the local governments.

These financial problems led to the enactment of the "Municipal Compulsory Education National Treasury Contribution Law" in 1918, which required the central government to pay a portion of the personnel costs for elementary school teachers. Although grants from the central government had existed prior to this, this was the first time that the law provided for a "burden" rather than a "subsidy" from the state. Under this system, the central government was to pay a portion of the salaries of compulsory education school teachers, and half of the total grant was to be granted to the municipalities in proportion to the number of teachers and half to the number of students. In addition, it was decided that special grants would be made to municipalities with weak finances.

Municipal Financial Deterioration and Institutional Change

In considering the subsequent institutional changes brought about by the financial

distress caused by spending on elementary school operations, it would be necessary to look at actual local government spending. Figure 1 shows the share of government grants in the expenditures for elementary school operations in urban areas from FY1992 to FY1939.[2] As can be seen from this figure, the ratio of grants from the government to expenses was on the rise in the 1920s, albeit with some fluctuations, from 5.5% in FY1922 to the 10% level in FY1923 due to the increase in grants from the government, and reached the 20% level in FY1926. In 1926, it reached the 20% level. In the mid-1930s, however, the ratio began to decline and was lower than in 1926. In other words, the national treasury system, which was established against a backdrop of financial problems, was becoming less effective in the 1930s, even in cities that were more financially prosperous than towns and villages.

In addition, Figure 2 shows the ratio of expenditures for elementary school operations to city taxes. As can be seen from this figure, the ratio to city taxes rose throughout the 1920s, reaching over 40% in the late 1920s. The ratio did not decline thereafter, indicating that about 40% of the tax revenue was allocated to expenditures for operating elementary schools. However, as shown in Figure 3, expenditures for elementary school operations have basically been on an increasing trend, especially in the 1930s, when they increased significantly due in part to rising prices. Especially after

1937, the "wartime-controlled economy" was characterized by high growth and high inflation.[3] This increase in expenditures for elementary school operations put pressure on local governments.

Furthermore, in towns and villages in the rural area with weak financial strength, there were delays and nonpayment of teachers' salaries, despite the fact that the central government required local governments to pay teachers' salaries according to the national unified standard and issued "administrative guidance" prohibiting nonpayment of salaries. It can be said that the central government had lost control over local governments. In response to this situation, local governments and prefectural education associations in the rural areas began to openly criticize the central government's education administration.[4]

As a result of the financial distress of local governments and the loss of control by the central government, Japan's first full-scale fiscal equalization system, the local sharing tax, was established in 1940, and teacher salaries, which had previously been the responsibility of the municipalities, became the responsibility of the prefectures one level higher. The reduction in local government resources made it impossible for the central government to achieve its policy goals and forced it to change the institution.

Postwar - Expenditures for infrastructure development

Institutional Background

In postwar Japan, a new constitution guaranteed "local autonomy," prefectures ceased to be agencies of the central government, and governors were democratically elected. The fiscal equalization system introduced in 1940 was superseded by a system "imported" from the U.S., which was further modified to become the local allocation tax grant system. In addition, municipalities were given priority in the allocation of administrative tasks, and many administrative tasks were performed by the municipalities. These institutional changes were based on the recommendations of Dr. Schaub of the U.S.

The World Bank's Watkins survey team also pointed out the poor road infrastructure in Japan. Since road construction was not fully implemented in prewar Japan, after the war not only the central government but also prefectures and local governments spent for road construction projects. The basic financial framework for road construction by prefectures and local governments is as follows. The central government provided a specific grant to prefectures and local governments, and since

the specific grant did not subsidize the entire road construction cost, local governments were allowed to issue local bonds for the remaining amount. However, since local bonds could not be used to cover the entire remaining amount, local taxes, local allocation tax grants, or local transfer taxes for road projects were used as a source of funds. Thus, sufficient financial resources were allocated for road infrastructure construction.

Prefectural Financial Deterioration and Institutional Change

Although the oil shocks of the 1970s ended Japan's rapid economic growth, road infrastructure development in Japan has progressed steadily. However, the decline in the rate of economic growth and the failure of the central government to raise taxes necessitated a fiscal restructuring of the central government from the 1980s onward. As a result, there was a change in the financial framework for road maintenance by prefectural and local governments. In order to reduce the central government's fiscal expenditure, instead of using specific grants for subsidized projects, special local bonds were issued and a portion of the principal and interest payments on these bonds was taken into account in the calculation of local allocation tax grants, an approach using non-subsidized projects. From the local government's point of view, it appeared that part of the repayment of

municipal bonds would be compensated by the local allocation tax grant. This system came into full use only after the collapse of the bubble economy in the early 1990s, when public works projects were undertaken to stimulate the economy.

In order to identify the factors behind the issuance of road bonds issued for this non-subsidized project, Miyazaki (2018) conducted a panel data analysis using prefectural data in the following model.

$$y_{it} = \beta_0 + \beta_1 l_{it-1} + \beta_2 g_{it} + \beta_3 i_{it} + \beta_4 d_{it-1} + \beta_5 d_{it-1}^2 + \phi_t + \rho_i + \varepsilon_{it}$$

y is the authorized amount of road bonds,[5] l is the ratio of principal and interest repayments included in the calculation of the local allocation tax grant,[6] g is the government grants for road projects, i is the investment capacity (= 100 - current account balance ratio[7]), d is the debt limit ratio, ϕ_t is time-specific effects, ρ_i is unobservable individual-specific effects, and ε_{it} is an error term. The amount of road bond authorization and government expenditures are divided by "local taxes + local allocation tax grant" to standardize the estimation. In the estimation, the instrumental variables are used to take into account the endogeneity of l and g. The estimated period is FY1993-2007.

The estimation results are shown in Table 1. The coefficient of g is significantly positive. In other words, we can say that the more the government grants for roads increases, the

more the road bonds increases. Non-subsidized projects also moved in tandem with subsidized projects, indicating that the central government was in control. On the other hand, the coefficient of *i* is significantly positive.

As already mentioned, road bonds cannot cover the entire project cost, so a financial resource is needed to cover the remaining amount. The more this financial resource (the investment capacity) increases, the more road bonds increase. In other words, if the prefectures do not have the resources, they cannot issue road bonds to finance economic stimulus projects initiated by the central government.

In fact, not only prefectures but also municipalities ran out of resources, and it became difficult in the late 1990s to have them issue road bonds in conjunction with national grants and cooperate with economic stimulus measures initiated by the central government, resulting in "unintended consequences" different from the central government's policy intentions. The road bonds were abolished in FY 2010. Prior to that, the central government lowered the priority of economic stimulus measures centering on public works projects after FY2002. The deviant behavior of prefectures and municipalities is thought to have been one of the factors that changed both the central government's policies and institutions.

Conclusions

This paper has discussed why and how endogenous institutional change occurs, incorporating power and resources into the analysis, using the cases of local fiscal distress in Japan in the 1930s and the creation of the fiscal adjustment system in 1940, and the post-bubble economic stimulus and responses in the 1990s. The central government, which is supposed to be the "privileged agent" in a centralized state, was forced to change the institution by the behaviors of local governments, which are supposed to be the "disadvantaged agents." This was due to the decrease of resources of local governments. Institutional change is not the result of "rational" choices made by the institutional designers, but the "unintended consequences" of deviant behavior of the agents under their control that deviates from the guidance of the institutional designers.

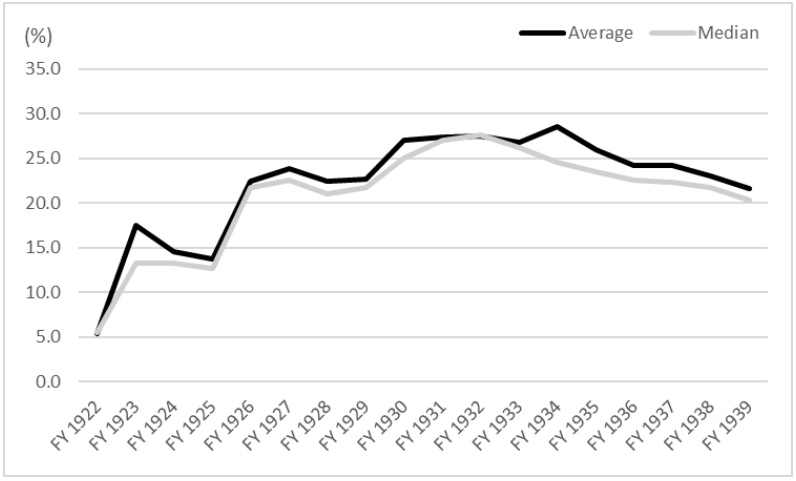

Figure 1. The share of government grants in the expenditures for elementary school operations

Source: General account statements for each city

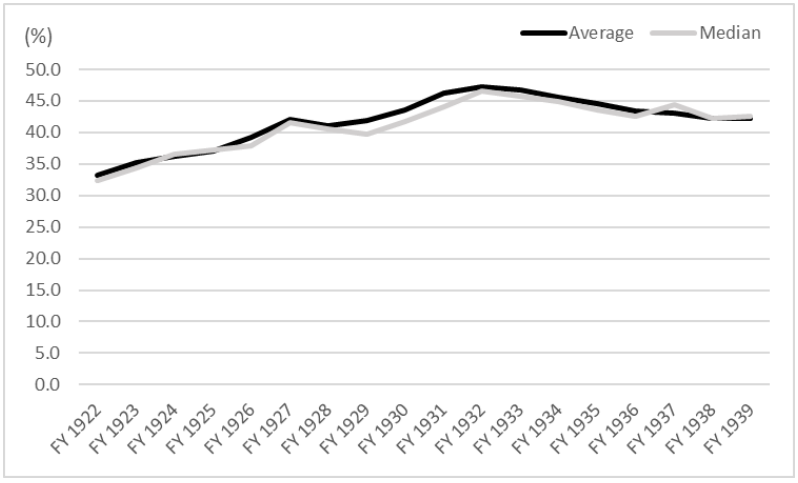

Figure 2. The ratio of expenditures for elementary school operations to city taxes

Source: General account statements for each city

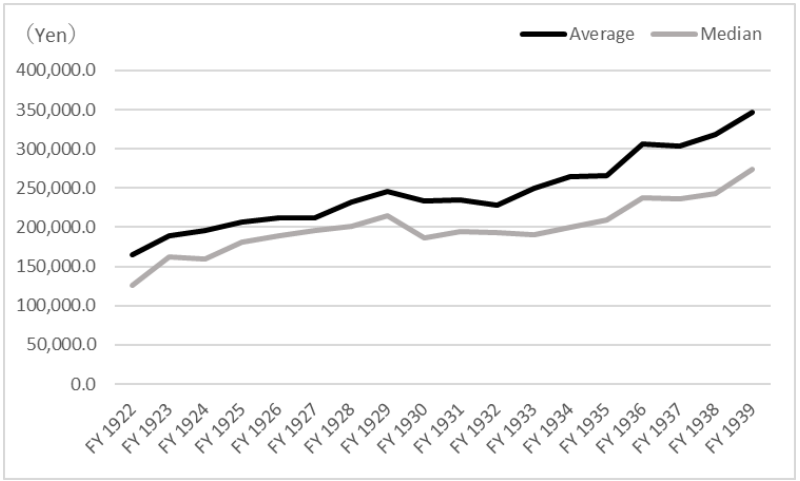

Figure 3. expenditures for elementary school operations

Source: General account statements for each city

Table 1. Estimation results

Repayments included in LAT	-0.011	(0.012)	
Central government grants	0.165	(0.094)	*
Investment capacity	0.057	(0.014)	***
Ratio of bond expenditures	0.644	(0.113)	***
Ratio of bond expenditures ^2	-0.027	(0.005)	***
Number of obs	450		
Overall	0.617		
Hansen J test	4.103		

Note: Robust standard errors within parentheses. ***, ** and * denotes significance at the 1, 5 and 10% level.
Source: Miyazaki (2018)

References

Carr, E. H. (1939). *The twenty years' crisis, 1919-1939: an introduction to the study of international relations*. Macmillan.

Commons, J. R. (1934). *Institutional economics; its place in political economy*. The Macmillan.

Deeg, R., & Jackson, G. (2007). Towards a more dynamic theory of capitalist variety. *Socio-Economic Review*, 5(1), 149–179. https://doi.org/10.1093/ser/mwl021

Hall, P. A., & Taylor, R. C. R. (1996). Political science and the three new Institutionalisms. *Political Studies*, 44(5), 936–957. https://doi.org/10.1111/j.1467-9248.1996.tb00343.x

Hall, P. A., & Thelen, K. (2009). Institutional change in varieties of capitalism. *Socio-*

Economic Review, 7(1), 7–34. https://doi.org/10.1093/ser/mwn020

Hayek, F. A. von (Friedrich A. (1967). *Studies in philosophy, politics and economics*. Routledge & Kegan Paul.

Itsumi, K. (1973). Local fiscal "distress" and the development of education spending policy: trends in the 1930s. *Bulletin of the Faculty of Education, Hokkaido University*, 22, 111-122. (in Japanese)

Knight, J. (1992). *Institutions and social conflict*. Cambridge University Press.

Miyazaki, M. (2018). *The political economy of prefectural and municipal behavior*. Keio University Press. (in Japanese)

North, D. Cecil. (1981). *Structure and change in economic history (1st ed.)*. Norton.

Shizume, M. (2009). The great depression and economic policy: Japan's experience as an "open small country" and today. Nihon Keizai Shimbun Publications, Inc. (in Japanese)

Tang, Shiping. (2011). *A general theory of institutional change*. Routledge. https://doi.org/10.4324/9780203834725

Veblen, T. (1926). *The theory of the leisure class: an economic study of institutions*. Vanguard Press.

[1] Commons (1934) also argues that institutions are collective actions that restrain, liberate, and extend individual behavior.

[2] The city data used in this paper are digitized prewar city data that had been forgotten and stored in the "Municipal Specialized Library." The data on local government fiscal accounts since 1936 do not exist in official government statistics (budget data are used), and are therefore very valuable.

[3] Although Japan was also affected by the Great Depression, Korekiyo Takahashi, known as "Japan's Keynesian," assumed the post of Minister of Finance in December 1931 and adopted bold economic policies until his assassination in the "2.26 Incident" in February 1936, achieving good economic performance with high growth and low inflation. After Takahashi's assassination, however, the country entered an era of "wartime-controlled economy" (Shizume 2009).

[4] Itsumi (1973) discusses in detail the failure of education administration by the central government and the response of local governments.

[5] In Japan, prefectures needed permission from the central government to issue municipal bonds until FY2005. The amount of bonds authorized is used as the explained variable.

[6] The ratio varies depending on the financial strength of the prefectures.

[7] Current account balance ratio = general funds allocated to current expenses / current general funds. In other words, it is an indicator of how much of the general funds allocated to expenses that must be paid, such as personnel expenses, aid expenses, and bond expenses, account for the current general funds. The higher this ratio is, the worse the financial condition is, which means that there is no room for investment in infrastructure that can be spent discretionarily.