

Summaries

Optimal Contracts with Cost Padding and Auditing

Shinji Kobayashi

This paper examines optimal contracts in a principal and agent model in which a government (the principal) delegates a firm (the agent) to construct facilities and the firm can engage in cost padding. We assume that the firm's reported cost is comprised of an efficiency parameter, cost reduction efforts and cost padding. We also assume that the government can choose one among three sets of the following monitoring instruments: (1) monitoring cost reduction efforts and cost padding, (2) monitoring cost padding and total cost, and (3) monitoring cost reduction efforts and total cost. The contracting game we consider proceeds as follows. Nature chooses the value of an efficiency parameter. Only the firm knows it. The residual claimancy for profits is determined exogenously or by the government, which chooses one among the sets of monitoring instruments and offers a contract to the firm. The firm accepts or rejects the contract. The firm makes cost reduction efforts and pads its reported costs. Finally, the contract is executed. We show that when the government is the residual claimant, then monitoring cost reduction efforts and auditing for evidence of cost padding provide the highest payoff to the government, whereas monitoring cost reduction efforts and auditing total cost provide the lowest payoff for the government. In contrast, when the firm is the residual claimant, then monitoring cost reduction efforts and auditing total cost provide the highest payoff to the government.

Procurement Contracts and Optimal Industry Structures

Shigemi Oba

This paper considers the question of what contract design and industry structure would best serve the government's interests as it procures two different products from firms and then provides them as public goods. For the two products, two cases - the perfect complements and the substitutes - are considered. For each firm's production costs, we consider two cases: one in which they consist of variable costs and the other in which they consist of both variable and fixed costs. The government cannot observe the firms' productivity types and must design the optimal contract under asymmetric information. In considering what would be the optimal industry structure, this paper examines two options - one in which the two goods are produced by separate firms in a decentralized industry structure, and a second in which the two goods are produced by a single firm in an integrated industry structure. From our analysis, we derived the following propositions. First, when production costs consist of only variable costs, it is advantageous for the government to select an integrated industry structure, rather than a decentralized one, and to procure both products from a single firm. This is because incentive compatibility constraints for firms are interim in the former case and ex post in the latter. Second, when production costs consist of both variable and fixed costs, and the difference in fixed costs, due to different productivity types, is larger in the case of an integrated industry structure than in the case of a decentralized one, it is advantageous for the government to select a decentralized industry structure, rather than an integrated one, and to procure the two products from separate firms. This results from the effect of fixed cost differences, due to different productivity types, on the government's expected payoff under asymmetric information. Therefore, when considering the optimal industry structure for the procurement of multiple products, governments must also take into account the impact of industry structure differences on fixed costs.

**Does the Competitiveness in Automobile Market Change
through 1990's in Japan? :**
A New Approach to Estimating Conjectural Variations

Kouji Takenaka

Conjectural variation is very useful tool indicating the type of competition, for example, Cournot competition, perfect competition or collusion. This article estimates the conjectural variations of automobile manufacturing firms from 1980's through to 2000's while industrial organizations seem to have changed in Japan. Automobile industry is one of the biggest industries in Japan, so examining the movement of the conjectural variations could be a index indirectly suggesting whether Japanese firms other than the industry generally had changed the behaviors. We show the conjectural variations had changed since the middle of 1990's, other firms than the leading firm, Toyota, became more aggressive, though Toyota had remained the same as before.

Besides the above stated issue, we develop a new method to estimate conjectural variations in this article. So far two ways have been used to estimate them; as first way, demand functions and cost functions are separately estimated, then the estimates of the parameters are substituted into the the optimal conditions to measure conjectures. Or secondly, demand functions and optimal conditions are simultaneously estimated as the system of equations by using the estimates of cost functions' parameters.

Our method is different from those in way that we do not directly, statistically estimate the parameters including conjectural variations, but solve algebraically equations obtained by time series analysis to know all parameters. The most remarkable merit of our way is that we can estimate the relevant parameters in differentiated markets where prices data are unavailable.

Globalization and Regional Employment Growth in the Japanese Manufacturing Sector

Tomohiko Inui

During the 1980s and 1990s, Japanese manufacturers began to relocate production from sites in Japan to low-wage East Asian countries such as China, Malaysia and Thailand. Imports of manufacturing goods increased substantially over the same period. This rapid rise in imports, and the quickening spread of globalization, has led to concerns among policymakers that employment growth may suffer, with some regions more affected than others. This is the first paper which attempts to examine empirically the regional response in employment growth to increased import penetration from low-wage countries. A rich, plant-level dataset on Japanese manufacturing sectors is used to examine this effect.

We find that that exposure to low-wage country imports has a negative effect on plant employment growth rates and its survival. However, where plants have high productivity, the effect of low-wage imports is ameliorated. We also find evidence that the advance of globalization has led Japanese firms to consider inter-industry and inner-industry agglomeration to be less important. However, regions with more customers and inter-industry agglomeration remain the firms' preferred location for plants when exposure to low-wage countries is high.

Finance and Productivity Growth in Japan: An Empirical Analysis Based on Firm Level Data

Kwon, Hyeog Ug

This paper empirically investigates the TFP growth –finance linkage in Japan before and after a financial system reform from the main bank system to market based system, using DBJ Databank on Japanese listed firms for the period 1981 - 2005.

We find that, first, internal finance has been the primary driver of TFP growth, regardless of industry. Second, external finance as short- and long-term bank borrowings has contributed to TFP growth for manufacturing firms. In contrast, we find that there was no statistically significant evidence of a positive relationship between external finance and TFP growth for non-manufacturing firms.

Theoretical Structures for Creditor Coordination Failure and a Credit Run

Kenta Toyofuku

This paper reviews and analyzes prior research on theoretical structures for creditor coordination failure and credit runs. Creditor coordination failure has been a significant problem for resolving debt in Japanese company restructurings since the 1990s. In looking at this problem, this paper begins by sorting out and summarizing the characteristics of Japanese company restructurings since the 1990s. A significant difference when comparing restructurings in the 1990s and later with the period before was the absence of main bank leadership. Main-bank-led restructurings were the norm prior to the 1990s, but, with the macro shock of the asset price collapse that accompanied the bursting of Japan's economic bubble, main banks no longer took the lead in restructurings. Creditors' conflicting interests then became the dominant force, delaying debt resolution. It is also possible, in this context, that capital supply problems gave rise to distorted capital distribution throughout the economy. Prior research indicates that the implementation of the Civil Rehabilitation Act, revision of the Corporate Reorganization Act, and other regulatory developments, and the design of a new system, including the establishment of the Industrial Revitalization Corporation of Japan, played important roles in the process of resolving creditors' conflicting interests.

Based on the results of prior research, this paper focuses on three theoretical structures that give rise to conflicting interests among creditors - debt forgiveness coordination failure, interest conflict based on differences in the priority of claims, and the credit run. Through an interpretation of the model put forth by Hubert and Schafer (2002), this paper shows that the credit run mechanism can be explained through the use of a new game theory framework, the global game. Lastly, it slightly expands the Hubert and Schafer (2002) model to show that growth in the number of creditors leads to changes in benefits when debts are settled, and that as switching costs increase, credit runs become more likely. It also suggests, as a result, that avoiding a credit run requires adjustments that increase capital market liquidity after the fact.

National and Local Governments in Forest Policy

Ryoko Ishizaki

The relationship between the national and local governments is extremely important in forest policy. Forests tend to be located in areas with small populations, and local governments overseeing large forested areas are often fiscally weak. On the other hand, forests perform various functions, each of which can have different impacts depending on geographic scope. Forest-related policy issues, therefore, arise at various levels, including national and watershed, and for areas adjacent to given forests.

As the distribution of governmental authority to local areas has progressed in recent years, the relationship between the national and local governments as regards forest policy has undergone various changes. This paper analyzes the state of administrative and budgetary systems related to forest policy and changes in local governmental authority by summarizing key aspects of the legal system, analyzing fiscal conditions, and looking at actual circumstances. It then examines the state of relations between the national and local governments in the area of forest policy.

Three points regarding forest policy came to light. First, the national and prefectural governments have been the key actors. Second, though there have been efforts to strengthen the statutory roles of municipalities, no steps have been taken to ensure there are personnel resources capable of performing these roles and only limited efforts have been made to bolster fiscal resources. Local governments, therefore, have been largely incapable of performing the roles envisioned for them and have relied on forest owners' cooperatives and prefectural governments to do what they cannot. Third, policy formation and the development of new measures have been pursued mainly with citizen involvement. This has been the case even though prefectural governments, which have held the statutory position of implementing measures determined by the national government, have a strong relationship with the national government. That the majority of forest projects enjoy financial support from the national government is only one indication of the strength of this relationship. It appears, therefore, that a strong foundation in personnel resources and awareness and motivation on the part of local governments are critical, and that statutory ties to the national government and the presence of national government funding have not directly kept local governments from playing leading roles. This leads to the conclusion that making local government authority a significant factor in forest policy requires the building of relationships between local governments, on one side, and a national government that is cognizant of the importance of building a workable relationship framework with the requisite personnel and other

resources, on the other.

Local Government Procurement of Forest Conservation Fiscal Resources via Local Taxes, and Related Issues: The Case of Kanagawa Prefecture

Namiko Numao

Local governments are now securing fiscal resources for forest conservation by introducing the increased tax rates on the inhabitant tax originally, and advancing various measures. This study looks at the management of these financial sources for the forest and environmental policies by examining issues that have come to light and initiatives that have been taken in Kochi Prefecture and Kanagawa Prefecture.

In 2003, Kochi Prefecture became the first prefecture to introduce the increasing tax rate for forest conservation. In 2008, it introduced tax revisions. These revisions permit the prefecture to use tax revenues from the higher rate not only for designated purposes but also for any expenditures of forest conservation for which general account funds are used. Behind this revision was the national government's call for more aggressive implementation of forest conservation measures and its advancement of related assistance projects. That national government initiative forced local governments to secure funding for forest conservation assistance projects when they were already facing dire fiscal conditions.

In a separate case, Kanagawa Prefecture is annually raising around 3.8 billion yen in tax revenue for conservation and restoration of water source environment. With the introduction of this tax, a 20-year outline of conservation and restoration of water source environment measures was created, the necessity of individual projects was considered, and clear decisions were made on whether to fund projects from existing fiscal resources or from new resources. At the same time, it was decided that the new system of public participation and reflection of their will should be established. This system is expected to check the progress and results of individual projects and to make reports on project results widely available to the prefecture's citizens. What Kanagawa Prefecture has done in this regard is a significant example of the possibility of creating a system for funding forest and water resource conservation measures, which require long-term management, with fiscal resources that are stable, and unaffected by occasional changes in fiscal policy.

Nevertheless, in local jurisdictions, such special-purpose taxation might not only rigidify expenditures for individual fiscal years but also put a straitjacket on medium-to-long term fiscal management. To overcome those issues, the increased tax rate is reviewed every five years, and projects are

checked through the system of public participation , as well as legislative bodies, in schemes requiring the submission of inspection reports. Such systems are used to ensure the effective use of funding. The tax rate increase approach, therefore, has something to offer in terms of securing long-term fiscal resources for, and maintaining fiscal discipline in, individual fiscal years.

Forest Policy and Development of Forest Owner's Association

Nobuyuki Tsuzuki

Japan's forests are now being asked to absorb sulfur dioxide as an anti-global-warming measure and fulfill a wide variety of other functions in addition to serving soil and water conservation functions. Amid increasing unemployment due to ongoing poor economic conditions, they are also being viewed as a place for executing "green new deal" policies for developing public enterprises for a variety of purposes and forest-related industries, and thereby creating employment in rural areas.

Forest owners' cooperatives have been asked to play a key role as the implementing organizations for forest and forest industry policies. Of late, however, they have become the target of criticism for their reliance on subsidies and for inadequate attention to costs. On the other hand, however, there are also strong expectations for them as organizations capable of managing local forests based on long-term visions reflecting community needs.

This paper examines three points regarding forest owners' cooperatives: (1) Legal status in comparison to agricultural cooperatives; (2) Projects undertaken to date; and (3) Issues concerning the securing and training of workers for implementing "green new deal" policies. It concludes, in part, that: (1) Forest owners' cooperatives are expected to have the legal characteristics of both a public-benefit orientation and a cooperative; (2) There is an ongoing shift from national and public forests and forest expansion projects managed by public corporations, to usage of privately held forests, and increasing emphasis on efficiency and transparency; and (3) There has been some success in securing workers through "green employment" projects.

Forest Income Tax Reform in Finland

Nobuyuki Yamamoto

After a 13-year transition period beginning in 1993, Finland's forest income taxation switched to a new system in 2006. This was the first major change in that country's tax system since independence was achieved in 1922. Under the former system, taxes were assessed based on an annual increment. Value added through increased stumpage was viewed as income, regardless of the number of trees felled, in a system referred to as "area-based forest taxation". The new system, in contrast, assesses taxes based on income earned from the sale of timber and falls under the category of capital income taxation.

As rising Japanese imports of Finnish lumber have resulted in a deeper relationship between Finland's forest industry and Japan, Japanese interest in Finland's clever and systematic approaches for supporting its forest industry structure has likewise grown. This paper focuses on Finland's forest taxation, examines the details of that country's forest income tax reforms, and considers the significance of the reforms. Beyond explaining conditions in Finland, it also tries to provide perspective for considering the future of Japan's forestry sector, forestry planning systems, and fiscal system.

After a detailed consideration of Finland's forest income tax reforms, this paper raises four questions the consideration of which will contribute to discussions in Japan. These are:

- 1) What should be viewed as the source of income in the forestry industry, which requires an extremely long period to reach production?
- 2) Is policy-driven taxation an effective tool for managing forests?
- 3) What is the best way to distribute forest income tax revenue between the national and local governments from the forestry sector's perspective?
- 4) Where should the forestry sector be positioned within Japan's overall tax system?

Based on the above, this paper not only looks at issues specific to Finland but also provides numerous suggestions that would contribute to considerations of the future with regard to the structure of Japan's forest economy, its forestry planning system, and fiscal system.