

The economy of pawning: Institutionalism revisited

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Abstract

The importance of protecting individual property rights has been widely accepted. By contrast, the unequivocalness of individual land property rights, especially its role as collateral, has been widely debated. This study discusses an alternative system, land pawning, which enables people to borrow without land property rights. Based on studies on Japanese early modern period, this study argues that land pawning and credit transactions were active even without a land property system. Japanese early modern history suggests that establishing a land property right is not a prerequisite for the development of financial activities. The Japanese early modern land and taxation system also suggests a close link between land-based taxation and a land-based credit system. Institutional studies ignore the role of taxation in the land system and collateral-backed finance. There is a theoretical discrepancy between the availability of land for use as collateral and inducing industrial investment. This gap within the various institutionalist arguments needs to be closed.

Keywords: pawning, finance, property rights, institutionalism, usufruct collateral



1. Introduction

The widely accepted discussion of the ‘tragedy of commons’ represented by Hardin (1968) implanted in our minds the idea that the absence of land property ownership leads to degradation and loss of property values. It also shattered our utopian image of communal land. Associated with this view, the so-called institutionalists, represented by North and Thomas (1973) and North (1990) established the belief that institutions, especially central governments and judicial authorities that protect private property rights, are critical to enforcing the ‘rules of the game’ in the market economy. To date, their views have had a strong influence on economic analyses, international development policies, agrarian reforms and land registration programs in many countries, and even on the statistical indicators published by international organizations.

The importance of land property rights is especially significant in the development of the credit market. Given information asymmetry and incomplete contracts, lenders often demand collateral or a mortgage to secure their lending. Various studies in economics, such as De Soto (2000), highlight the necessity of establishing private property rights or land ownership to ensure the availability of collateral and enable people to lend, borrow, insure, and invest.

Still, the long history of human debt suggests that even before establishing religious systems human societies had innovated various systems to enable people to borrow money, despite the lack of well institutionalized individual property rights and the rule of law that protect them (Graeber 2011). Land registration and titling are such a complicated project that private property rights are neither a universally consolidated idea nor an ancient institution. If demand for credit is universal and permanent in human economic activities, then conversely, there must be other conventional and alternative systems that enable people to borrow money.

This paper aims to re-examine the widely believed unequivocalness of individual land property rights by reviewing some examples of alternative systems, such as land pawning and usufruct collateral, especially in the case of early modern Japan. Japan is often recognized as being equipped with institutions based on individual land property rights and the rule of law. It is also the first country in Asia to have completed agrarian reform after World War II. However, this understanding masks the fact that private land property rights in Japan are relatively new when compared with Western countries. The notion of ‘private land ownership’ first came into being after the provision of title deeds and land tax reform in the Meiji era (1873-1881), followed by the introduction of Meiji Civil Law in 1896

(Matsuo 2018). By contrast, the economy was already thriving in the Edo period, even by world standards, without the institutional system of legal individual land property rights (Okazaki 1999). How was this possible? What are the limitations of these alternative systems? Furthermore, what can we learn from these examples?

The remainder of this paper is organized as follows. Section 2 reviews the conflicting views over the role of institutions, especially individual land property rights. Section 3 introduces historical examples of alternative financial intermediation without individual property rights. Based on this understanding, section 4 revisits and discusses the recent institutionalist views. The final section concludes with a tentative reassessment of the views on land property rights.

2. The conflicting views on the role of land property rights

The institutional economists (or new institutional economics) regard effective institutions such as the rule of law, governance, or informal norms, as ‘the rules of the game’ and thus indispensable for economic growth (Rutherford 2001). North and Thomas (1973) and North (1990) are representative of such views. Whereas these studies are based on neoclassical economic understandings, De Soto (1989, 2000), by contrast, argues that the weakness of these institutions and the absence of private property rights explain the stagnation in the economic growth of countries that are abundant with resources such as land but without sound functioning institutions. According to De Soto, abundant land and forest become assets once they are registered and protected by the legal system, which can be used as collateral for mortgages to facilitate investment (De Soto 2000).

These (though mixed) institutionalist views have become the implicit assumption of a wide range of economics studies. Agricultural economists have supported similar arguments to De Soto. One of the main reasons for promoting agrarian reforms and fostering the land market in developing countries is the belief that land titling consolidation will accelerate land transactions. Those with greater ability and productivity will gain the land to maximize land productivity, which leads to enhanced agricultural productivity on the whole. It is also suggested that the availability of land for use as collateral will promote investment in land through access to credit for agricultural input and techniques, which leads to higher land productivity (Feder *et al.* 1988, Feder and Feeny 1991, Feder and Nishio 1999).

Conversely, it is widely accepted that institutional quality matters to the functioning of the financial system, which affects economic growth or industrialization (Teranishi 1991,

King and Levine 1993, Levine 1997). In their closely related study, La Porta *et al.* (1997, 1998) argue that legal institutions, especially the differences in the origins of the legal system between Common Law and Roman Law, matter for the development of the financial market. Such views have strongly influenced the formation of the understanding that institutional quality, especially the rule of law, affects financial deepening, in turn affecting the speed of economic growth.

The introduction of *Doing Business*, a set of popular indices about the business environment first published by the World Bank in 2003, has further bolstered this view. Djankov (2016) explains that this indicator was strongly influenced by Levine's, La Porta's, and De Soto's studies. He reveals that out of five indicators in *Doing Business*, the indicator for access to credit, the strength of legal rights which encompasses the protection of borrowers and lenders by collateral and bankruptcy law, was based on an empirical study by Djankov *et al.* (2007) about the availability of private credit. Whereas the studies on financial deepening and business mainly discuss the legal functioning and quality of financial institutions, they are implicitly based on private asset security guaranteed by the rule of law.

Related to this point, Demachi (2019) discusses how the financial boom in Africa, especially in Ghana after 2011, did not lead to investment in the real economic sector, because ambiguous land property rights in African countries inevitably hampered the supply of long term credit by financial institutions. Thus there is a 'missing link' between financial market development and real economic sector growth. This argument was also based on the assumption that the availability of land or buildings as collateral is indispensable for financial intermediation by financial institutions.

Closely related to these views, a number of agrarian reforms and land registration programs have been implemented in developing countries. Binswanger and Rosenzweig (1986), for example, discuss the characteristics of various collateral types and describe land as the ideal collateral once title registration is accomplished and enforcement of the contract is guaranteed. Deininger (2003) is a comprehensive overview of land titling, representative of the World Bank's view. This study's main message is that establishment of land property rights will promote investment, poverty reduction, and better governance.

The importance of individual land property rights or enforcement of the law to protect private property seems rational, and its necessity seems obvious to economics students. However, land titling and property registration projects implemented in developing countries are often criticized. In contrast to the proponents of land titling, Boserup (1965)

mentions the possibility that land titling may lead to tenure being less secure. She also discusses litigation problems regarding land titling between the illiterate and the advantaged in former colonial countries, and points to the increase in conflicts between farmers as the population grows and fallow land becomes scarce.

Van den Brink *et al.* (2006) point out that land titling and provision of land deeds do not necessarily lead to collateral-backed lending. They suggest that title deeds will not have the supposed effect unless the institutions, such as government authorities, have the trusted capacity to guarantee the validity of deeds. It is worth noting that Fleisig *et al.* (2006) do not directly support the mere introduction of land titling. Given that in most developing countries financial institutions only take immovable property such as land and buildings as collateral, they suggest the necessity for legal reform that allows various alternative assets including movables to serve as collateral to bolster people's access to financial services.

Closely related to this point, there is also a view that access to financial services or financial inclusion is essential in terms of supporting entrepreneurship, or more generally, small and medium-sized enterprises. However, Domeher and Abdulai (2012) argue that land titling will not necessarily enhance credit access in developing countries. Lenders may put more weight on other factors such as cash flow and creditworthiness in stead of land-based collateral. By contrast, borrowers refrain from using the land title as collateral for fear of losing the land, which is the foundation of their living.

While many studies question the efficacy of land registration and the establishment of individual land property rights, it is hard to dismiss society's need for credit, given the economic success of industrialized countries. Therefore, we need to ask what the alternatives to finance backed by land as collateral are.

3. Alternative systems

3.1. Pawning

Once we look past the perceived notion of the formalized legal system we are accustomed to in developed economies today, several alternative and conventional systems emerge. People finance and smooth out their consumption and expenditure, sometimes without individual legal property registration.

One such system is pawning. Pawning is still practiced today, but it functions without the formal, legal systems. Pawning, or more precisely, *pawnbroking* is distinguished from other lending schemes in that pawnbrokers take physical possession of the pledge. Thus

the pledged asset does not remain with the borrower (Skully 1994: 358). This is a clear difference from other lending based on collateral. Collateral is not physically possessed by the lender until the borrower defaults, and thus it requires legal procedures such as registration to take out a mortgage on an asset. Given this distinction, pawning usually takes movables as the pledge. Conversely, today's secured finance often takes immovable property such as lands and buildings or registered movables such as cars and airplanes as collateral.¹

In many countries, land has historically been used as a pledge for loans and in some places this practice continues today. However, in societies without a land property rights system, it is not strictly the land itself that is pawned, but rather the usufruct. In most places and times, borrowers do not 'own' the land, and the pledged land cannot be officially foreclosed.

Despite this ostensibly flawed and conflicting functioning, land or usufruct pawning was and is still practiced in a number of regions and countries, such as the Philippines (*sangla*) (Nagarajan *et al.* 1991a, Nagarajan *et al.* 1991b, Fukui 1995), India (Swaminathan 1991, Shibli 1993, Bell and Hatlebakk 2017), Bangladesh (Jabbar *et al.* 1980), Indonesia (Nurdin and Tegnan 2019), Senegal (Galvan 1997), and early modern Japan.

Most of these studies focus on agricultural land, and the analyses are closely related to the agricultural investment, productivity, and livings of rural households. At the same time, demand for credit is not an exclusive nature of farmers and rural areas but also of urban residents. One reason for the scarcity of studies about urban areas is that most people tend not to occupy land plots but only a small piece of land that is more often recognized as a part of a building.

Nakata's (1984) interesting study describes urban financing activities without individual property rights and introduces various types of conventional pawning and collateral practiced by urban residents in early modern Japan by using descriptions that appeared in the famous old literature published in the Edo period (1603-1868). In the cities, people used various things as the pawn pledge, such as clothing, family members, houses, letting and rented rooms, residential rights, land, usufruct, shares (stocks), and bills of payment. However, the following subsection's focus is restricted to pawning in village areas.

¹A notable exception is human pawning, observed, not only, but especially, in West Africa under the colonial era (Law 1994).

3.2. Land pawning in Japan

An extensive description of the Japanese land system is beyond this study's scope. However, it is widely recognized that the foundation of the modern land system was started by the nation-wide land survey by Hideyoshi Toyotomi in 1582 (*taikoh-kenchi*) (Ishii 1982). It is worth noting that even before this land survey, land transactions, including land pawning, were already practiced in medieval Japan (Takeuchi 1973).

In the following Edo period, the feudal system was consolidated, and the land was allocated by the central Tokugawa government to the feudal lords (*daimyo*). The land was associated with tax obligations measured by its agricultural productivity and fulfilled not only but mainly by rice (Yamauchi 2008). Takatsuki *et al.* (2017) mention that the tax ratio and the burden were relatively high, especially compared with those in medieval times. The feudal lords were managers rather than owners of the land, as land sales were prohibited. Within each feudal area, agricultural villages were allotted farmland with its tax obligation. From this perspective, land usage and tax obligation were communal but not individual nor household, at least at the beginning of the Edo period.

The abundant studies on the land system of the Edo period (almost exclusively in Japanese with a few exceptions such as Smith (1959)) refer to land being transacted and pawned even under the official prohibition of land sales. For example, Ishii (1982) refers to the second half of the Edo period when land pawning was active among the farmers. According to Kitajima (1975), agricultural land was leased, sold with repurchase contracts, or pawned. Under Tokugawa's rule, the first order of prohibition of permanent land sales was announced in 1642 (*denpata eitai baibai kinshirei*), and in 1722 the government also announced the prohibition of foreclosure on pawned land (*ryuchi kinshirei*). However, the latter was soon repealed (Kitajima 1975). The government prohibition of land sales and foreclosure can be seen as evidence of active land-based credit transactions. Okazaki (1999) further suggests that there were multiple announcements by the government, almost once in every twenty years in the Edo period, that the legal authority would not sit in judgment over the finance-related disputes among commoners (*aitai sumashi rei*).² This can also be understood as evidence of the increase in financial activities causing the demand for official intervention to surpass the government's administrative capacity.

There were occasional government orders for private debt relief (Okazaki 1999, Mandai *et al.* 2017). This also supports the view that financial activities in this period were profuse to the extent that they exacerbated the incidence of poverty on one hand and the accumula-

²Kitajima (1975) suggests that this order set several exceptions, including disputes of land-backed financial contracts.

tion of wealth in the hands of a small number of people, on the other, resulting in economic inequality. The economic system required periodic resetting.

Whereas land pawning was common in this period, the alienation of land usufruct to other villages was avoided in most cases. Based on the materials left by Kyugu Tanaka (1662-1739), Takatsuki *et al.* (2017) mention cases in which village land was pawned to a group within the same villages that organized ROSCAs (rotating saving and credit associations, *mujin, kou*) to avoid selling land.

Among the numerous studies on the land system in early modern Japan, Yamauchi (2008) is noteworthy in revealing the relationship between land pawning and the tax obligation. Yamauchi's study is a paleographic study based on the land and tax record of a village in Shinshu (today Nagano prefecture) from 1756 to the end of the Edo period. He introduces several cases in which villagers absconded from the village for some reason. The abandoned land (paddy field) was pawned to other villagers, sometimes even to people outside of the village. Because the abandoned land plots were associated with the tax obligation (rice production) allocated among the villagers, the obligation was not exempted even in the case of the disappearance or demise of farmers who worked on the plots. In that sense, pawning of land or usufruct was inevitable to supplement the loss of agricultural production with borrowed cash. This case reveals the possibility that land-based tax obligations accelerated the demand for credit by using land and usufruct as the pledge.

This point is compelling given that in most of human history, the top reason for debt has been taxation (Graeber 2011). If taxation is closely linked with debt, it also means that there is a close relationship between taxation and development of the credit system.

It is widely understood that, in the Edo period, the cadastre was kept and managed by the village, not the central authority (Yamauchi 2008, Takatsuki *et al.* 2017, Mandai *et al.* 2017). While Yamauchi argues that village characteristics gradually transformed from commons to administrative units through the Edo period, this also suggests that land and tax management was decentralized in early modern Japan. The resource management, both land and labor, was left in the hands of people living and working on the land.

3.3. Taxation and credit system

The examples of land pawning in rural villages in the Japanese Edo period suggest the possibility that there was a close correlation between the land-based tax system and the development of land-based credit. In the Japanese case, the rule and influence of the central authority (Edo *bakufu*) was indeed strong. However, land property rights and titling were

not based on individuals or families but rather on the regional community and villages. Tax obligations were levied on villages according to the land size and productivity, but the land and tax contribution quota was allocated within each village. The tradition of *wari-chi*, a system that rotated land allocation among the villagers to pool the risk of natural disasters and differences in productivity characterizes this point (Okuda 2004, Sato 2010). These communal village characteristics transformed gradually as the market economy developed in early modern Japan. As agricultural techniques developed and investment in each land plot increased, land transactions accelerated, and the sense of individualism and private land ownership strengthened (Miyazaki 1977).

Imposing land-based tax is equivalent to setting standard or minimum criteria for the productivity of the land. In the sense of capitalism and the market economy, land transactions promote land productivity. Those who cannot exploit the most from the land for any reason, such as a shortage in the household labor force, will sell the plot to those who will manage and use it better and meet the production criteria, or even exceed it. Under land-based tax obligations, especially in rural areas in early modern Japan, households that could not meet the tax obligation would have sold or pawned the land to a household rich in family members or other resources.

Binswanger suggests that land needs to be scarce to be valued as collateral (Binswanger and Rosenzweig 1986, Binswanger and Van den Brink 2011). Similarly, Joireman (2008) points out that in places where land value is not high, the cost of land registration is too high, which inhibits the development of the system. In terms of scarcity of resources, rural villages' situation in the Edo period can be seen as an artificially built mixed condition. Land, mostly irrigated paddy field, was scarce, but human resources were sometimes also too scarce to meet the productivity criteria because of the tax obligation. This dual scarcity promoted land transactions and the development of a land-based credit system. Importantly, based on Niwa (1962), Tanaka (1997) argues that through the Edo period the Japanese land system gradually transformed so that within the same official institutional frame, land transactions between villagers and relatively wealthy farmers increased and new landowner (*jinushi*) class emerged. This new landowner class triggered and enabled relatively smooth (despite being associated with civil wars) land-tax reform in the Meiji era after the Tokugawa rule (Keene 2002).

Japanese history clearly shows that it is not the land reform and consolidation of private land ownership, that enhanced land transactions and increased land value. The causal path was the other way around; informal land transactions within and between the

communities led to land reform. Others also share this finding. Van den Brink and others suggest that the security of land property rights is strengthened because of intensified individual investment in the land, not the other way around (Van den Brink *et al.* 2006: 9). Bardhan and Udry (1999) also mention that in rural areas in developing countries communal land use is traditionally restricted. As the population pressure increases, and as inequality in labor power and productive assets increase, the communal band and traditional restrictions loosen. This change is often associated with more active immigration and emigration from the community and increases in non-agricultural economic activities.

3.4. Taxation and institution

While taxation and credit systems seem to have a strong correlation, tax obligations evokes uprisings against the ruling authorities, especially when the tax burden is too heavy relative to the agricultural production. Fujino (2020), for example, studies the history of people's violence in the early modern Japanese villages and suggests that there were many violent revolts by villagers recorded through the Edo period to demand tax reduction and other means of poverty alleviation. The farmers' revolts were one method of appealing to the public, as there was a certain 'manner of revolt' shared by peasants in the Edo period. Fujino points out that the violence intensified in the later Edo period because of the development of the market economy and increased economic inequality and poverty in the villages. This is not to suggest that taxation and credit system development are inevitably associated with revolt and violence, but a necessity of institutional development that bolsters both the placement of obligation by the authority and people's rights to appeal through a formal process.

The influence of taxation on land productivity and its value seems to be quite large, but most of the studies that focus on institutions and land systems lack this point. The discussion by North and Thomas (1973) only briefly touch on taxation, relating to the debt of monarchs or the government, or on taxation policy influencing the distribution of landholdings in France. This topic was not a favorite of the institutionalists that followed. Kalkuhl *et al.* (2018) is one of the few studies on land taxation in developing countries. They support the introduction of land rent tax as a government revenue source and suggest that there are also positive side effects such as consolidation of land property rights, sustainable growth, increase in investment, and poverty reduction. They see land registration as a prerequisite of land taxation, based on the understanding that the cost of establishing the basic cadastral requirement is 'not prohibitive'.

A discussion of the feasibility of imposing a land-based tax system is beyond the scope of this study. Still, it is curious that most studies on land tenure systems and titling discuss only the rights but not the obligations, which should be coupled in the modern nation-state framework. It also needs to be questioned why the institution is often discussed in economics; whereas, in most cases, it includes the legal system. Faundez (2016) is a rare example that discusses law and development in terms of institutions based on North's argument. He criticizes North's regarding law and the legal system as a 'black box' and that he does not consider their importance in the formation of institutions.

This point requires further study. Whether it be urban or rural, the mere imposition of land or property tax without considering the possibility of property transactions or a property-based credit system seems to be seriously flawed. A system that enables people to hedge the risk of meeting the tax obligation is indispensable.

3.5. Limitations of the alternative systems

Whereas the early modern Japanese example suggests that one of the purposes of land-based credit was the fulfillment of tax obligations, many other studies suggest that credit was used for agricultural input and daily consumption smoothing, especially in illness, marriage, or the death of family members. This implies that such conventional credit systems only functioned to provide relatively small and short term credit, but not for large scale investment. If so, we need to ask when and how consumer credit transforms into commercial credit.

This point reflects the discrepancy among the arguments of institutionalists in that one side infers the availability of collateral backed credit for investment whereas the other deals mainly with credit as a social safety net. For example, the institutionalists' argument suggests implicitly and explicitly that unregistered assets in developing countries can become collateral in finance which can promote relatively large and long-term investment. This idea was the driving power behind the land titling projects implemented in several countries. However, we need to recognize the theoretical jump between the studies about productivity enhancement, poverty reduction in rural areas, and fostering financial activities and investment.

Studies on Japanese modern economic history suggest the possibility that the new landowner class, which gradually emerged through the Edo period, played a role in the formation of the capitalist class and became the financial supporters of industries. For example, Teranishi (2009) suggests that in the transition from the Edo to Meiji periods,

the growth rate of agricultural production declined, which encouraged the landowners to invest in stocks and other securities. However, Teranishi also suggests that the share of investment by the landowners in the capital market was relatively small, and the majority of the capital came from the former warrior class (*shizoku*), aristocrats (*kazoku*), and strong merchants. This implies that it was not financial intermediation that fostered investment in industry, but capitalists who accumulated wealth at the price of increasing economic inequality and poverty at the bottom of the society.

4. Tentative remarks

This brief review of the institutions and systems that are alternatives to individual property rights alludes to our belief in the indispensability and robustness of individual property rights, especially in terms of economic growth, being built on a naive mosaic of economic ideas.

The early modern Japanese experience confirms that the increase in productivity did not begin with the consolidation of individual land property rights, but the causality is the other way around. An economy can thrive without individual land property systems and land titling. Japanese history also suggests that the credit system using land as a pledge for pawning was closely correlated with the tax obligation. The necessity to meet the communal tax obligation and production criteria gave rural people the incentive to transact or pawn their piece of the communal land plots even though land sales were officially prohibited. It also reveals that land transactions led to the gradual accumulation of land in the hand of a small number of people, forming the landowner class and the emergence of the landless poor. This implies that establishing individual land property rights systems can never be a perfect or ideal solution to achieve inclusive growth or poverty reduction. The necessity for resetting the system may be an intrinsic characteristic of the market economy, given the fact that since the French revolution and introduction of proprietary ideology in western countries, inequality in wealth has continued to widen until today, with only the exception of a few decades after the economic and physical destruction due to the World Wars (Piketty 2014; 2020).

While this study has offered a tentative discussion of the widely accepted belief in the unequivocalness of land property rights, the following points require further investigation. First, the early modern Japanese case reviewed in this study was the practice in rural areas, but the distinction between agricultural land and urban land is necessary, and further study on the asset-based credit systems in urban areas is required. This is even more

important, because in urban areas, elements such as tax rates, changes in the land price, and interest rates need to be included in discussing the value of immovable assets. Second, even though the conventional land-based credit system can function without individual land property rights, the primary purpose of this system was consumption smoothing or supplementing tax payments. The theoretical gap between the availability of collateral and the increase in industrial investment based on the institutional view needs to be closed.

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References

- Bardhan, P. and C. Udry 1999. *Development Microeconomics*. Oxford: Oxford University Press.
- Bell, C. and M. Hatlebakk 2017. 'Usufructuary mortgages as a source of funds in need: Some theory and an empirical investigation'. *Discussion Paper Series, University of Heidelberg, Department of Economics* 631.
- Binswanger, H. P. and M. R. Rosenzweig 1986. 'Behavioural and material determinants of production relations in agriculture'. *Journal of Development Studies* 22(3): 503–539.
- Binswanger, H. P. and R. Van den Brink 2011. 'Credit for small farmers in Africa revisited: Pathologies and remedies'. In *Towards Priority Actions for Market Development for African Farmers, Proceedings of an International Conference 13-15 May 2009, Nairobi, Kenya*. Nairobi: International Livestock Research Institute, pp. 148–156.
- Boserup, E. 1965. *The Conditions of Agricultural Growth*. London: George Allen & Unwin Ltd.
- De Soto, H. 1989. *The Other Path*. London: I. B. Tauris & Co. Ltd. Publishers.
- De Soto, H. 2000. *The Mystery of Capital*. New York: Basic Books.
- Deininger, K. 2003. *Land Policies for Growth and Poverty Reduction*. Washington D.C.: The World Bank.
- Demachi, K. 2019. 'Finance-led growth in Africa: Booms and missing links'. In *ASC-TUFS Working Paper 2019: Challenges of Development and Natural Resource Governance in Africa*. Eds. Y. Matsunami and S. Takeuchi, Tokyo: African Studies Center-Tokyo University of Foreign Studies, pp.5–22.
- Djankov, S. 2016. 'Correspondence: The doing business project: How it started'. *The*

- Journal of Economic Perspectives* 30(1): 247–248.
- Djankov, S., C. McLiesh, and A. Shleifer 2007. ‘Private credit in 129 countries’. *Journal of Financial Economics* 84: 299–329.
- Domeher, D. and R. Abdulai 2012. ‘Access to credit in the developing world: Does land registration matter?’ *Third World Quarterly* 33(1): 161–175.
- Faundez, J. 2016. ‘Douglass North’s theory of institutions: Lessons for law and development’. *Hague Journal on the Rule of Law* 8: 373–419.
- Feder, G. and D. Feeny 1991. ‘Land tenure and property rights: Theory and implications for development policy’. *The World Bank Economic Review* 5(1): 135–153.
- Feder, G. and A. Nishio 1999. ‘The benefits of land registration and titling: Economic and social perspectives’. *Land Use Policy* 15(1): 25–43.
- Feder, G., T. Onchan, and T. Raparla 1988. ‘Collateral, guaranties and rural credit in developing countries: Evidence from Asia’. *Agricultural Economics* 2: 231–245.
- Fleisig, H., M. Safavian, and N. d. Peña 2006. *Reforming Collateral Laws to Expand Access to Finance*. Washington D.C.: The World Bank.
- Fujino, Y. 2020. *People’s violence [Minshuh bouryoku]*. Tokyo: Chuko Shinsho.
- Fukui, S. 1995. ‘The role of land pawning in securing loans: The case of Sangla in the Philippones’. *The Developing Economies* 33(4): 397–409.
- Galvan, D. 1997. ‘The market meets sacred fire: Land pawning as institutional syncretism in inter-war Senegal’. *African Economic History* 25: 9–41.
- Graeber, D. 2011. *Debt: The first 5,000 years*. New York: Melville House Publishing.
- Hardin, G. 1968. ‘The tragedy of the commons’. *Science* 162: 1243–1248.
- Ishii, R. 1982. ‘The system of land law in the Edo period’. *Transactions of the Japan Academy* 38(3): 137–159.
- Jabbar, M., M. A. S. Mandal, and K. K. Elahi 1980. ‘Usufructuary land mortgage: A process contributing to growing landlessness in Bangladesh’. *The Bangladesh Journal of Agricultural Economics* 111(2): 1–20.
- Joireman, S. F. 2008. ‘The mystery of capital formation in Sub-Saharan Africa: Women, property rights and customary law’. *World Development* 36(7): 1233–1246.
- Kalkuhl, M., B. F. Milan, G. Schwerhoff, M. Jakob, M. Hahnen, and F. Creutzig 2018. ‘Can land taxes foster sustainable development? An assessment of fiscal, distributional and implementation issues’. *Land Use Policy* 78: 338–352.
- Keene, D. 2002. *Emperor of Japan : Meiji and His World, 1852-1912*. New York: Columbia University Press.

- King, R. G. and R. Levine 1993. 'Finance, entrepreneurship, and growth'. *Journal of Monetary Economics* 32: 513–542.
- Kitajima, M. 1975. *History of Land System 2 [Tochi seidoshi 2]*. Tokyo: Yamakawa Shupansha.
- La Porta, R., F. Lopez-de Silanes, A. Shleifer, and R. W. Vishny 1997. 'Legal determinants of external finance'. *The Journal of Finance* 52(3): 1131–1150.
- La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. W. Vishny 1998. 'Law and finance'. *Journal of Political Economy* 106(6): 1113–1155.
- Law, R. 1994. 'On pawning and enslavement for debt in the pre-colonial Slave Coast'. In *Pawnship in Africa*. Eds. T. Falola and P. E. Lovejoy. Bouldin, San Francisco, and Oxford: Westview Press, pp. 55–69.
- Levine, R. 1997. 'Financial development and economic growth: Views and agenda'. *Journal of Economic Literature* 35(2): 688–726.
- Mandai, Y., M. Nakabayashi, and S. Washizaki 2017. 'Conflict between economic growth and social stability [Keizai seichou to shakiteki antei no soukoku]'. In *The History of Japanese Economy: Early Modern Time, Volume 2 [Nihon keizai no rekishi 2]*. Eds. K. Fukao, N. Nakamura, and M. Nakabayashi. Tokyo: Iwanami Shoten, pp. 149–192.
- Matsuo, H. 2018. 'The formation of land ownership in Japan: From the law and development perspective on the institutional change'. *Keio Law Journal* 41: 93–145.
- Miyazaki, T. 1977. 'A view on the individual and common holdings of land in Japan'. *Journal of Law, Politics and Sociology, Keio University* 50(1): 109–128.
- Nagarajan, G., C. C. David, and R. L. Meyer 1991. 'Informal Finance Through Land Pawning Contracts: Evidence from the Philippines'. *Economics and Sociology Occasional Paper* 1775. Ohio: Agricultural Finance Program Department of Agricultural Economics and Rural Sociology, The Ohio State University.
- Nagarajan, G., M. Quisumbing, and K. Otsuka 1991. 'Land pawning in the Philipines: An exploration into the consequences of land reform regulations'. *The Developing Economies* 29(2): 125–144.
- Nakata, K. 1984. *Private Law Observed in the Literature in Tokugawa Era [Tokugawa jidai no bungaku ni mietaru shihou]*. Tokyo: Iwanami shoten.
- Niwa, K. 1962. *Land Transformation in Meiji Reformation [Meiji ishin no tochi henkaku]*. Tokyo: Ochanomizu Shobo.
- North, D. C. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.

- North, D. C. and R. P. Thomas 1973. *The Rise of the Western World*. New York: Cambridge University Press.
- Nurdin, Z. and H. Tegnan 2019. ‘Legal certainty in the management of agricultural land pawning in the matrilineal Minangkabau society, West Sumatra’. *Land* 8(117): 1–11.
- Okazaki, T. 1999. *The Market Economy of Edo [Edo no sijou keizai]*. Tokyo: Kohdansha.
- Okuda, H. 2004. *Analysis of Land Resolution Process of Japanese Modern Land System [Nihon kinsei tochiseido kaitaikatei no kenkyu]*. Tokyo: Koubundo.
- Piketty, T. 2014. *Capital in the Twenty-first Century*. Cambridge and London: The Belknap Press of Harvard University Press.
- Piketty, T. 2020. *Capital and Ideology*. Cambridge and London: The Belknap Press of Harvard University Press.
- Rutherford, M. 2001. ‘Institutional economics: Then and now’. *Journal of Economic Perspectives* 15(3): 173–194.
- Sato, Y. 2010. ‘Warichi and commons: Case studies in Nishikanbara-gun, Niigata prefecture’. *Journal of Rural Studies [Sonraku Shakai Kenkyu]* 17(1): 23–35.
- Shibli, M. A. 1993. ‘Usufructuary mortgages in rural South Asian economies: Collateral valuation and internal rates’. *The American Journal of Economics and Sociology* 52(2): 167–181.
- Skully, M. T. 1994. ‘The development of the pawnshop industry in East Asia’. In *Financial Landscapes Reconstructed*. Eds. F. J. A. Bouman and O. Hospes. Boulder, San Francisco, and Oxford: Westview Press, pp. 357–374.
- Smith, T. S. 1959. *The Agrarian Origins of Modern Japan*. Stanford, California: Stanford University Press.
- Swaminathan, M. 1991. ‘Segmentation, collateral undervaluation, and the rate of interest in agrarian credit markets: Some evidence from two villages in South India’. *Cambridge Journal of Economics* 15(2): 161–178.
- Takatsuki, Y., S. Makihara, and M. Shibamoto 2017. ‘Contradiction of agricultural finance and the stability of government security market [Nougyou kinyu no mujun to kousai sijou no antei]’. In *The History of Japanese Economy: Early Modern Time, Volume 2 [Nihon keizai no rekishi 2]*. Eds. K. Fukao, N. Nakamura, and M. Nakabayashi. Tokyo: Iwanami Shoten, pp. 105–147.
- Takeuchi, R. 1973. *History of Land System 1 [Tochi seidoshi 1]*. Tokyo: Yamakawa Shuppansha.
- Tanaka, M. 1997. ‘Land-tax reform and consolidation of land property right in Japan [Ni-

- hon no chiso kaisei to tochishoyuken no kakutei']. In *Economic Development and Land System in South-East Asia [Tounan asia no keizaikaihatsu to tochiseido]*, Kenkyu-sousho. Eds. K. Mizuno and S. Shigetomi. Tokyo: Institute of Developing Economies, pp. 15–43.
- Teranishi, J. 1991. *Industrialization and Financial System [Kougyouka to kinyu shistem]*. Tokyo: Toyo Keizai Shinposha.
- Teranishi, J. 2009. 'The structure of investor circle in Meiji-Taisho Japan'. *The Annual Bulletin of the Institute for Economic Studies*, Seijo University 22: 5–22.
- Van den Brink, R., G. Thomas, H. Binswanger, J. Bruce, and F. Byamugisha 2006. *Consensus, Confusion, and Controversy*. Washington D.C.: The World Bank.
- Yamauchi, F. 2008. 'Individual land ownership and rural society at the early modern age'. *Journal of Rural Studies [Sonraku shakai kenkyu]* 14(2): 13–27.