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**Economic and Political Transitions  
from Premodern to Modern States  
in the Meiji Restoration and Xinhai  
Revolution:  
A Strategic Approach**

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**Abstract**

Economists often identify a reduction in the share of agricultural employment as a quantitative indication of the economic growth of nations. But this process did not occur in earnest in the People's Republic of China until the 1980s and to some extent in Japan until well into the mid-20th century. Were extractive political regimes, commonly regarded as the primary drivers of economic performance, solely responsible for the lateness of these developments? This paper deals with this question from a strategic perspective by examining the interactions between the polity and the economy in both countries. It begins by characterizing the complementary nature of the peasant-based economy and the agrarian-tax state in premodern China and Japan. It then describes how endogenous strategic forces evolved from among the intermediate organizations in each country to challenge the incumbent dynastic ruler in response to the commercialization of the peasant-based economy on one hand and the fiscal and military weakening of the agrarian-tax state on the other. The paper then introduces a three-person game model between a ruler and two challenging organizations, and derives conditions for multiple equilibria and their comparative static. The analytical results help to identify the endogenous strategic forces that led the Meiji Restoration and the Xinhai Revolution to move from a premodern state of play to nation-state building and modern economic regimes in each country.

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## 1. INTRODUCTION

In their impressively broad account of economic history, *Why Nations Fail*, Acemoglu and Robinson (2012) attempt to substantiate the proposition that the quality of the polity matters for economic performance. They argue that an “inclusive” political regime, as opposed to an “extractive” one, is a prerequisite for sustainable economic growth and use the example of the Republic of Korea and the Democratic People’s Republic of Korea. The contrast between the economic performance of these two countries is obvious. However, in this case the origin of the divide in their polities was due to the arbitrary drawing of the border between them in international power politics after World War II. Further, it was after the Republic of Korea had already achieved a middle income status that it transitioned to the inclusive political regime. In a broader and longer-run perspective, does their proposition generally hold? If so, what determines the quality of the polity? How can an inclusive polity be created? A reading of *Why Nations Fail* does not provide a clear answer to these questions.<sup>1</sup> More generally, we need to ask: *Does the polity necessarily precede the economy?*

The present article proposes an alternative view to that proposed by Acemoglu and Robinson. A country’s polity and economic organizations (and thus its economic performance) co-evolve through a long historical process rather than by the polity preceding economic organizations, as might be suggested by short-term observations. Theoretically, this view is derived from a game perspective in which institutions in both the polity and the economy are emerging, sustaining, and changing interactively through the strategic behavior of agents. Specifically, the *political state* is identified by a deep *stable state* of the political game. Political institutions and economic institutions are then linked together through strategic complementary, substitutable, or rivalry relations across the individual agents and across the political and economic domains. Thus, while it may appear that changes in the polity sometimes come prior to changes in other institutions, in fact at a deeper level they co-evolve. If this were not the case, they would not be stable or sustainable.

The exploration of an endogenous view of a polity in this article is illustrated by the histories of China and Japan. It is well-accepted in economics that the path to a modern economic growth stage from a premodern (Malthusian) stage can be quantifiably characterized by a reduction in the agricultural share in GDP and employment (e.g., Lewis 1954; Kuznets 1957; Hansen and Prescott 2002; Galor 2011). However, although there were variations among the East Asian economies as compared to the West, in Japan and China, and for that matter in Korea as well, this process began later and initially proceeded slowly before accelerating in much more compressed periods of time. What accounts for this East Asian pattern of development as well as for the variations within it? Is it only the polity that matters? Do we need a logic that is specific to East Asia?

In an excellent quantitative study of the unified approach to growth, Ngai (2004) shows that Japan’s earlier catching-up can be accounted for by “policy changes” during the Meiji Restoration. In contrast, Hayashi and Prescott (2008) blame the authoritarian civic

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<sup>1</sup> For a similar assessment, see the critical review of the book by McLeod (2013). To be fair, it should be noted that Acemoglu and Robinson discuss “virtuous cycles” and “vicious cycles” between political institutions and economic institutions. In addition, in a recent article they state that “the extant political equilibrium may not be independent of the market failure: indeed it may critically rest upon it” (Acemoglu and Robinson 2013: 174). However, their argument still rests on the position that to avoid the pitfalls of rent-seeking behavior, economic *policy* needs to be carefully designed by taking into account the future political equilibrium. In the following discussion, a distinction is drawn between the polity as an institution and the polity as emanating from the institution.

law, as stipulated by the Meiji government, for preventing a reduction in agricultural employment during the prewar period. The Xinhai Revolution in China (1911) marked an obvious watershed for the polity in China. But why did it not immediately lead to a breakthrough in terms of economic development? Were conflicts among warlords and imperial aggression solely responsible for this failure, as might be assumed by conventional explanations? By looking back to the periods before the Meiji Restoration and the Xinhai Revolution and then tracing the political-economy processes leading to these political events, as well as those that followed, this article attempts to seek and illustrate a logic by which the polity and the economy are mutually constrained and co-evolve through strategic interactions by both political and economic agents.

The most advanced regions in the Chinese and Japanese economies during the 18th century had similar characteristics. The basic units managing productive activities were conjugal peasant families engaged in (wet) farming on owned or leased small plots, with part of their working time allocated to textile handicrafts and other goods for domestic uses and markets (e.g., for China, see Perkins 1969; Zelin 1991; Li 1998; and for Japan, see Smith 1959, 1988; Hayami, Saito, and Toby 2004). Unlike in the West, manufacturing did not develop in the cities (Rosenthal and Wong 2011) and wealth accumulated by merchants was largely invested in landholding and was taxed as such (this was less so in Japan). Taxes on farmland were the major source of the rulers' fiscal revenues. Thus, for the sake of convenience, these economies may be referred to as *peasant-based economies* (Aoki 2012, 2013).<sup>2</sup> From this somewhat similar economic basis, China and Japan developed different "formal" rules of political governance. In order to understand the institutional nature of their polities, however, we need to examine how these rules were applied, substantiated, and modified in practice to sustain equilibria, and how they were finally abandoned through strategic interactions among the rulers and other agents, while exogenous shocks and elements of serendipity may have triggered inflections in the process at particular points in time.

The article is organized as follows. After this introductory section, Section 2 sets forth a framework for a strategic approach to institutions (Aoki 2001, 2011, 2013b). It identifies institutions with recursive states of strategic play in societal games, associated with their linguistic/symbolic representations. Based on this idea, it briefly explains why and how institutional resilience and changes in the polity and the economy need to be jointly understood. Section 3 turns to a comparative narrative of the institutional processes in Qing China and Tokugawa Japan. It first looks at political governance in the peasant-based economy through a focus on farmland property rights and the land tax. In describing and interpreting the mutual fits and tensions between the polity and the economy, there were strategic interactions among three types of agents: the rulers (the Manchu imperial court and the Tokugawa Shogunate), the peasants, and the various intermediate organizations between the two. In this way, the canonical forms of the institutional arrangements in each country are abstracted from their stylized practices during their height (i.e., during the 18th century). The forms suggest that the nature of the polity in each country was somewhat different from prevailing or conventional models and views, such as the model of repressive despotism, the model of an elite-led public sphere in Qing China,<sup>3</sup> or the feudalistic-domain state view in Tokugawa Japan. Section 4 then identifies the crucial strategic forces and critical events that emerged in response to the 19th century crises in each country and

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<sup>2</sup> Of course, this characterization is based on a highly stylized abstraction. See Zelin (1991) for a more nuanced survey of the "family-firm"-based economy in Qing China.

<sup>3</sup> Wakeman (1991) discusses four models of historical change in the Chinese state and society. In addition to the two mentioned in this text, he also discusses the Confucian restoration and the growing state intrusion into society. These will be dealt with below.

discusses how their relations shaped the paths toward the demise of dynastic rule during the Xinhai Revolution and the Meiji Restoration. Section 5 presents a three-person game played by the incumbent ruler and two challenging players. This helps to draw out the crucial factors conditioning the nature and consequences of the two political events. In the light of these analytical results, Section 6 then highlights some subtle aspects of the Xinhai Revolution and the Meiji Restoration that were crucial in mediating institutional legacies on the subsequent institutional paths in each country. Section 7 concludes by pointing out how the canonical institutional arrangements during the dynastic periods were, or were not, transformed by the two respective political events. Readers who are familiar with game theory framework for institutional analysis (e.g., Aoki 2001, 2013b) may wish to skip Section 2, while those who are not keen on the pure analytical results of the game model may wish to skip Section 5.

## 2. A STRATEGIC FRAMEWORK FOR UNDERSTANDING INSTITUTIONS AND INSTITUTIONAL CHANGE

In an excellent survey of the Chinese economy, Brandt, Ma, and Rawski (forthcoming) apply the term “equilibrium” to institutional features that are “historically stable, mutually reinforcing and extremely difficult to alter, *short of major shocks imposed from outside*” (emphasis added). What is meant by “equilibrium”? Strategic interpretations are implicit in the above argument, but making them more explicit may provide further insights into institutional resilience and institutional coherence, as well as into the nature of institutional change that may be partially triggered by exogenous shocks but is more fundamentally generated by endogenous strategic forces.

Instead of viewing institutions as “rules of the game” that can be set and changed by political decree (e.g., North 1990), this article proposes that institutions be identified by the salient ways in which societal games are recursively played, and expected to be played, by agents.<sup>4</sup> The peasant-based economies in the relatively advanced regions of Qing China and Tokugawa Japan are quintessential examples of such institutions. Typical peasant families divided the working time of family members between farming and handicrafts in a partially routine and a partially calculating manner; inheriting, leasing, or selling and buying farmland according to prevailing practices and traditions even without relevant formal laws; keeping promises or acting collectively to sustain local common goods (such as self-defense forces or irrigation systems); helping one another within a certain specific group (as in China) or within the village as a whole (as in Japan); paying taxes if payment of taxes is enforced or trying to evade taxes if evasion is not detected; engaging in market transactions with local merchants; and so forth.

In viewing these features as recursive outcomes of societal games, it is not necessary to posit that these households had complete knowledge of the structure of the game or exercised fully rational calculations over the choice of actions. Yet their behavior was still strategic and constituted a game in which their choices of action were based on certain beliefs about others’ possible actions and reactions. Even in cases of merely following routines, practices, mutual obligations, market conventions, and the like, the agents must have had a sense, either consciously or unconsciously, that the others

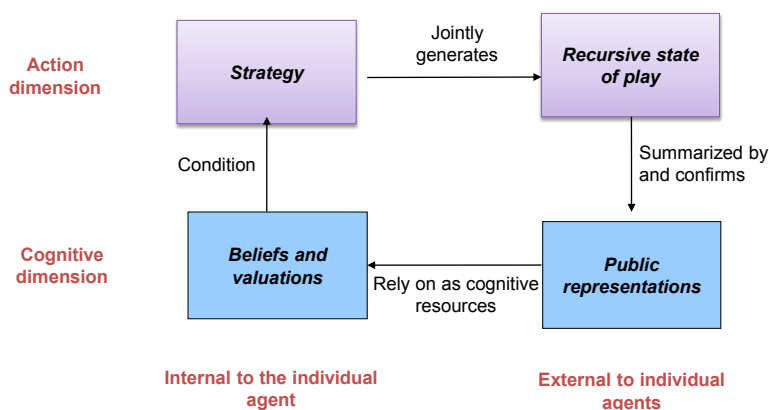
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<sup>4</sup> My conceptualization of an institution is derived from a game theory perspective, but it is similar to Berman’s jurisprudential approach to law as “an institution in the sense of an integral pattern or process of social behavior and ideas.” Berman argues that it is “foolish to approach law through the body of rules which is nothing but one of the devices that law employs” (Berman and Saliba 2009: 4–5).

were doing the same and would react in one way or another if they did not follow such guidelines.

But how do agents form beliefs about how the game is being played recursively by others? This is precisely the role of external artifacts, such as routines, norms, contracts, organizations, laws, decrees, constitutions, and even mythology and folklore. However, they should not be understood as purely exogenous guides. In order for them to be regarded by the agents as credible, enforceable, legitimate, informative, or reasonable such that they can serve as the agents' collective, external cognitive resources for understanding the world, they must be continually endorsed, supported, and verified by the actual plays in the societal game. That is, they act as linguistic representations of the institutions if and only if they mediate between the recursive states of play in the societal game and the individual cognitive processes of belief formation (Aoki 2011). As shown in Figure 1, spanning the action-cognition dimension and the collective-individual dimension, this institutional perspective is process-oriented. Institutions are not *merely* representations of a fixed cultural preference (as Confucian filial piety is so interpreted), biological traits (e.g., collectivism as interpreted in Gorodnichenko and Roland [2012]), kinship (as in Greif and Tabellini [2012]), or geographical features, as in Wittfogel's ([1957] 1976) now discredited view of Oriental Despotism.

**Figure 1: Viewing Institutions as Mediating the Process of Strategic Interactions**



There can be various types of domains in a societal game depending on how strategic interactions are mediated. Analogous to the contractual exchange of goods and money in the economic domain, emotion-inducing, action-eliciting linguistic utterances, symbolic behavior, gifts, and so forth may be exchanged in the social-exchange domain to generate and sustain social norms, customs, stigmas, and herd behavior in others. In the political-exchange domain, upon which we focus below, the government provides public goods, such as national and local security and protection of vested property rights, in exchange for tax payments so as to maximize its own payoffs, for instance prestige, sustained dominance, wealth-building, or monument-building. In contrast, in response to government actions, individuals and organizations select actions from among yielding, colluding, approving, rejecting, revolting, and so on. A



“stable equilibrium state” in this game will generate a “political state,” which below is referred to as the polity.<sup>5</sup>

How do individual agents deal with the games in these various economic, social and political domains? Individual agents, whoever they may be, are likely to coordinate their own strategic choices across these domains, striking a balance between materialistic, emotional, and political payoffs in terms of Edgeworthian complementarity and substitute relations.<sup>6</sup> Further, agents in game situations take into strategic consideration the complementary and substitutable properties of their own actions vis-à-vis the prevailing patterns of others’ actions in each domain. If the salient features of these strategic relations across individuals generate recursive states of play, they will create overall institutional arrangements that entail characteristics of institutional complementarities, linking the various domains of societal exchanges.

Thus institutions are resilient. However, they are not robust forever. The cumulative consequences of past plays in these domains and exogenous shocks may induce agents to adjust and adapt their strategic choices in the hope of improving their overall payoffs. Together, these three factors, historical, exogenous, and experimental, may change the complementary or substitutable relations among individual agents’ choices of alternatives. In this process, strategic relations among some agents may change from complementary to rival, or vice versa, thus triggering the possibility of institutional change. However, let us recall that institutional stability needs to be mediated and sustained through public representations of the salient features of the recursive states of play that serve as the collective cognitive resources of the individual agents. Thus, while the agents are in search of strategic adjustments in response to endogenous and exogenous changes in the economic, social, and political domains, various *public propositions* may compete for saliency in the public-discourse domain by suggesting, persuading, advocating, or summarizing possible desirable directions for strategic adjustments. This may be why a policy often appears as if it came prior to an institutional change. However, in order for a proposition to attain a position of saliency, it has to be proved in practice to be consistent with an emergent state of play in the economic, political, and social domains. Thus, economic organizations, the polity, and social norms are bound to co-evolve even if there are variations in their timing.<sup>7</sup>

Let us now move on to look at how this strategic perspective is helpful to understanding the comparative nature of the institutional processes out of the premodern stage in China and Japan.

### 3. THE NATURE OF THE CANONICAL STATES OF PLAY IN QING CHINA AND TOKUGAWA JAPAN

This section describes, compares, and interprets some stylized institutional features of the political economies in Qing China and Tokugawa Japan, while leaving discussion of the processes leading to their demise to the next section. First, it describes the formal governing rules of the polity in each country and interprets them in terms of the

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<sup>5</sup> The English word “state” is derived from the Latin word “status.” Status, as well as the English derivatives “static” and “stable,” applies to something that is established and recognized as fixed or permanent in a particular position. As such, the political “state” may be thought of as being appropriate for an “equilibrium” analysis, possibly yielding many varieties.

<sup>6</sup> Social brain scientists Montague and Berns use the metaphor of “neuro-currency” to describe such cognitive processes (2002).

<sup>7</sup> The various propositions presented in this section are analytically derived and substantiated in articles collected in Aoki (2013b).

complementarities between an agrarian-tax state and a peasant-based economy. It then examines how the apparently centralized rules in each polity were actually modified in practice by interactions among the various agents, including among the dynastic rulers and the peasants. For the sake of subsequent reference, the stable state of play thus observed in each country is conceptualized as the *canonical state* of play. Specifically, intermediate organizations of local elites in China are observed to be playing roles that are complementary to the dynastic ruler on the one hand and to the peasantry on the other. The nature of Japan's polity is shown to be a quasi-fiscal-federalist state as a variant of the agrarian-tax state. The observed features in each country may appear to be different. But if they are viewed from a strategic perspective, there seems to be an essential parallel, which may be helpful to developing a generic understanding of the nature of institutions and the institutional processes.

### 3.1 Strategic Complementarities between the Quasi-Tax State and the Peasant-Based Economy

The polities in Qing China (1644–1912) and in Tokugawa Japan (1603–1868) are often contrasted by historians as a centralized local administration (the so-called *junxianzhi*) in the former versus a feudal domain state in the latter. In this section, we point to one fundamental similarity between them in terms of their stylized forms of an agrarian-tax state. Here, an *agrarian-tax state* is conceptualized as a form of polity comprising public financing of collective goods provisions, including legitimate political violence, a universal taxation on “privately-owned land,” and a permanent bureaucracy. The concept of a “tax state” was originally advanced by Schumpeter (1918/91), but we refer to this set of three elements as an “agrarian-tax state” in that the universality of taxation is limited to taxes on landholding, whereas in Schumpeter's formulation a tax state refers to a public finance structure in a market economy.

As is well known, the conquering Manchu court that established the Qing dynasty ran an administrative structure in which the magistrate at the county level reported to the governor at the provincial level who in turn reported to the imperial court. All bureaucrats in this structure were recruited from among those who passed one of the four levels of the imperial examinations—county, province, metropolitan, or palace—according to their literary achievements. According to the so-called rule of avoidance, the bureaucrats were not assigned to official positions in their native regions. In addition, their positions were not formally inheritable, but they did carry legal immunity.

In the heyday of Qing China, about three-quarters of recorded public revenue was from land taxes (the remainder was mainly from the salt taxes that were derived from the licensing of production, transportation, and sale of salt). Theoretically, individual land ownership was registered on a “fish-scale register” held in the magistrate's office (a so-called “fish-scale” because the figurative record of the individual holdings in the village looked like fish scales). This register originated during the preceding Ming period and was revised only in unsystematic ways under the Qing. Conventionally, ownership of farmland was inherited equally among sons, which led to frequent sales of ownership due to the fragmentation of wealth holdings. Wealthy buyers—for instance, the gentry (lower-ranked degree holders without official appointments or retired degree holders) and merchants—permitted impoverished sellers to continue to cultivate the transacted plots, whereas the sellers could sell a portion of the leasing rights to others or were entitled to redeem ownership. Ownership and lease holdings were thus bought and sold like stocks without the intervention of government as a major means of wealth

transfer and accumulation. These practices obviously resulted in very complex property rights arrangements.<sup>8</sup>

Nevertheless, the formal bureaucratic structure of the Qing government was small. It is estimated that there was only one magistrate per 200,000–300,000 peasants and their families. As a result, there were various moral hazard problems at the level of the magistrate and their clerks and runners in terms of keeping the land register up-to-date and imposing taxes according to the officially-set rates. The next subsection discusses ways in which these problems were dealt with by the strategic moves of the various agents, generating a specific institutional pattern to create a strategic equilibrium. For now, let us accept for the basis of this discussion that the major source of public finance was the land tax that was universally imposed on landowners, while land ownership and lease holdings were largely dispersed among the peasantry. Taxes were spent on consumption by the court, compensation for scholar-officials (mandarins), maintenance of monopoly military forces,<sup>9</sup> public works such as large-scale irrigation projects, provision of social security in the form of grain reserves for periods of famine and natural disaster, and fiscal reserves in the coffers. The Qing dynasty never borrowed from private sources until the end of the 19th century when the Board of Revenue started to take out loans from foreigners.

Thus, at the height of the Qing dynasty, public finance, universal taxation and bureaucratic administration constituted the basic features of governance. Government capacity to sustain itself was supported fiscally by universal taxation on landlords and land-holding peasants. The system of scholarly-based selection of officials and the centralized monopoly of legitimate political violence helped the dynastic ruler constrain the emergence of land-based, violence-backed political powers that could threaten their weak governing capacity at the grassroots. The nurturing of self-reliant economic incentives for independent peasant families stabilized the fiscal revenues of the dynastic court, while disputes between lease-holding peasants and landowners brought before magistrates were often judged in a way designed to set a standard of “fairness” that would contribute to sustaining the rural order of the peasant-based economy (Hung 2011; Zelin, Ocko, and Gardella 2004). Abuses of power by magistrates and their clerks and runners, such as extracting excessive surcharges on the land tax, often incited peasant protests. The Qing court maintained an elaborate intelligence system and selectively intervened and punished wrongdoings by lower-ranked officials.<sup>10</sup> Thus, to some extent, peasants’ property rights and contractual rights in lease holdings were secure under the Qing government, although it acted for its own benefit, not as a neutral third party. At the basic level, the Qing agrarian-tax state and the peasant-based rural economy thus mutually complemented each other. The principles of filial piety from below and paternalistic benevolence from above may be considered a

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<sup>8</sup> Because of the great cross-regional variations of ownership and the lack of reliable data, a precise understanding of the distribution of land ownership during the Qing era is unavailable. However, surveys conducted in the 20th century indicate that landlords, comprising 3–4% of the population, owned about 40% of all cultivated land (Esherick 1981). But there was a vast number of petty landlords. So Esherick and Rankin (1990: 307) note that local elite families may have owned less than one-quarter of all cultivated land within the Great Wall: much less than that owned by British gentry families during the late 19th century.

<sup>9</sup> Military power was vested in the regular Eight Banners army of quasi-nomad Manchu origin and the provincial Green Standard armies of Chinese mercenaries directed by military mandarins who were inferior in status to the scholarly mandarins.

<sup>10</sup> The imperial court dispatched secret members of the Censorate nationwide and used a “secret memorial system” in which selected officials at the provincial level monitored their peers and reported any malfeasance directly to the emperor (Hung 2011).

salient public representation of this complementary order. It was not the case that Confucian principles produced this order.

As noted above, the Japanese polity during the Tokugawa era (Edo period) appears to be different from that of the Qing. Many historians, in Japan and the West alike, have tended to characterize the Japanese polity in this period as a feudal state somewhat akin to the premodern rural economy in medieval Western Europe. I will attempt to refute this view shortly. In spite of formal differences between China and Japan, there was one essential similarity in terms of relations between the polity as an agrarian-tax state and the peasant-based economy. Tokugawa Japan was divided into some 300 hundred *Han*, each served by the corporate body of samurai holding exclusive rights to legitimate political violence as well as to land taxation and legal enforcement within its geographic territory. “Han (藩)” is usually translated as “domain” in English, but as shown below, this is conceptually misleading and the term is not used in this way in this article. The Tokugawa *Bakufu* (Shogunate’s government) was similar to the Han, although its territory was much larger. National defense and the provision of other cross-Han public goods and projects were the collective responsibilities of all Han (or they were shared among some selected Han) based on assignments of their respective shares by the Bakufu. An important distinction between the Bakufu and the Han in this regime was the power of the Bakufu to abolish a Han or to transfer a lord and its samurai body to a territory with fewer resources, somewhat reminiscent of the power of the feudal lord in the West. However, such an action was not supposed to be carried out arbitrarily, for example because of the personal disloyalty of a lord to the Shogunate. Action by the Bakufu was legitimate only when a Han was negligent in carrying out an assigned responsibility to sustain overall order, as discussed in more detail below.

The land ownership register in Tokugawa Japan originated from the Land Survey conducted by Toyotomi Hideyoshi on the eve of national unification under the Baku–Han regime. As in the Chinese dynasties, the intention was to remove any challenges to his national unification by the local landownership-based political and military powers. This survey examined in detail the size and productivity of all farming plots and attributed the property rights and tax obligations to the actual cultivator of each small plot. The survey was enforced against the resistance of the large patriarchal families, such as the *myoshu* (literally, the “name holders”), who managed relatively large farming units with quasi-domestic subordinate laborers (*nago*, literally, a “name-holder’s child”). Their family heads were forced to reside in castle towns as members of the Han’s samurai corporate body. The landownership register was kept in the village office and managed by the officials who were themselves cultivators. The register was revised as cultivating practices changed through inheritance, intra-village transactions, and so on. Potential ownership disputes were resolved within the village by arbitration by the village official. When property rights disputes crossing village boundaries were brought before the magistrate’s court, judgments were made, if possible, based on evidence from Toyotomi’s original registry (Ishii 1966).

The collection of the land tax was contracted out to the village office by the Han government. The Han government did not intervene in village affairs as long as the village contract was observed. This increasing village self-governance was the basis of the Baku–Han regime. Even though there was no clear separation of contract law from civil law, peasants thus became the *de facto* and *de jure* owners of their cultivated lands and they engaged in land transactions within the village, and gradually via outside merchants, despite the Bakufu’s original prohibition of farmland leasing and sales by independent landholding peasants. The Han government became a bureaucratic corporate body of samurai who derived their income according to their

rank from the land-tax revenue (like the Chinese scholar-officials), even though they were armed by themselves (unlike the Chinese scholar-officials). It was not rare for incompetent or dissolute lords to be confined to retirement by an agreement among major retainers or after fierce factional fighting (Kasaya 1988). The sustainability of the Han as a corporate body thus took priority over the personal honor of the lords.

As a whole, the Baku–Han regime also may be considered as an agrarian-tax state, mutually complementary to the peasant-based economy by the same logic as applied to Qing China. The property rights of the peasantry were protected on the condition that they fulfilled their obligations under the village contract, while the bureaucratic bodies of the Bakufu and the Han were fiscally supported by universal taxation on all household members of the village in their respective territories. Although the decentralized nature of the agrarian-tax state in Japan differed in terms of its formal structure from the centralized agrarian-tax state in China, as we will see later, this difference tended to become blurred in practice toward the end of the respective eras.

Complementarities between the agrarian-tax state and the peasant-based economy need to be qualified in two respects. First, these complementarities do not imply that the peasant-based economy was an efficient economic arrangement, even given the technological possibilities of the time. Some economists argue that small-scale peasant farming was an efficient response to the technological imperatives of wet farming in monsoon regions, where attentive, continual human care for the plants was necessary. Deep plowing by manual labor was helpful to make the soil more fertile (e.g., Oshima 1987; Hayami and Otsuka 1993). However, there is evidence that plowing by husbandry could have been more productive, but this form of farming largely disappeared during the transitions from the Ming to the Qing in China (Li Bozhong 1998) and from the Warrior period to the Edo period in Japan (Hayami 2009). Perhaps the small-scale management unit of the conjugal peasant family could not make use of the scale economies offered by technology that required costly investments. This appears to indicate an instance where strategic complementarities may make an inefficient state as an equilibrium state and thus institutionalized. Second, complementarities between the agrarian-tax state and the peasant-based economy never implied static harmony. A stable equilibrium state existed only at a high level of abstraction. It embraced potential tensions that could be revealed openly during occasional disturbances, such as the sporadic peasant revolts. Even worse, the economic development of the peasant-based economy could sow seeds for a destabilization of complementary relations. In order to see how this could also apply to the polity, we must go beyond a macroscopic view of relations between the agrarian-tax state and the peasant-based economy. We do this in the next subsection by focusing on the roles of intermediate organizations between the agrarian-tax state and the peasant-based economy in China and those of Bakufu–Han relations in Japan.

## **3.2 Comparison of the Overall Institutional Arrangements in Qing China and Tokugawa Japan**

### **3.2.1 Dual Complementarities Involving Gentry Organizations in China**

The previous subsection alluded to the possibility that magistrates and their staff in Qing China could become negligent about keeping the land ownership register up to date and precise, or could even revise it arbitrarily for ease of recording, tax collection, and malfeasance, often in collusion with large landholders.<sup>11</sup> Further, because of the

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<sup>11</sup> For comprehensive treatment of the moral hazard behavior of the magistrates and their clerks as well as Emperor Yongzheng's reform attempts to control the problems and their eventual failure, see Zelin

relatively weak organizational and fiscal basis of the centralized local administration, the magistrates farmed out tax collection to the local gentry: this collusive practice was known as *baolan*. Through this informal practice the gentry gained relative autonomy from the lower level administration for its own benefit, while the small, weak peasant households sought protection from the gentry against the arbitrary surcharges by the magistrates. In southeast China, where agricultural development arrived relatively late, tax collection was farmed out to village-based clan organizations (Baker 1979). In the Yangtze delta where commerce and agriculture were most advanced, wealthier gentry formed formal organizations, known as landlord bursaries (*zuzhan*). They collected rents from tens of hundreds of leaseholders, paid taxes out of revenues, charged fees, and distributed the remainder to member landowners. These were often disguised as clan organizations for political correctness, but in fact they assumed corporate characteristics such as voluntary participation, perpetual life, and specialized administrative organizations possessing coercive force (Muramatsu 1966, 1970).<sup>12</sup> Further, in the early 19th century and thereafter when the security of property rights was increasingly threatened by bandits, secret societies, rebellious religious groups, and so on, the powerful gentry became active in organizing village-level militia training groups called *tuan*, leading to tensions with the official local security forces. These local, private groups were then mutually interconnected to wider associations through their personal relations with the leading gentry (Kuhn 1970).

Thus, the formally centralized polity in Qing China actually entailed increasing assertions of the gentry's property-rights interests, backed up by quasi-official armed force. However, during the height of Qing rule, informal and formal tax farming by the elite gentry helped the magistrates who had only weak fiscal, social, and personnel resources. The gentry's ability to punish the peasants' rent arrears was aided by local police under the control of the magistrate. Thus governments at lower levels and the local gentry strategically complemented one another, interpenetrating one another's domain.<sup>13</sup> But it should also be noted that there was an element of strategic complementarity between the gentry and the peasants as well. The latter's property rights were protected from external threats by participation in the *tuan*, led by the gentry as well as from the magistrates' abusive use of power by entering into (disguised) leasing contracts. Such dual complementary relations of the gentry vis-à-vis the dynastic government above and the peasantry below were an essential element of the canonical state in Qing China.

This somewhat latent order became increasingly overt during the 19th century. The dramatic upheaval of the Taiping Rebellion (1850–1864), led by a self-proclaimed “brother of Christ”, Hong Xiuquan, began in Guangxi, one of the poorest rural provinces, and at one point occupied the most productive agricultural region in China, the lower Yangtze delta, and established an elaborate dynastic palace in Nanjing. By then, the military strength of the official army of the Qing court had weakened to such an extent that it took 10 years of battles fought by the regional Xiang, Wai, and other armies for the Taiping Heavenly Kingdom to be finally defeated. These armies were organized by elite scholar-officials like Zeng Guofan who took leave from his official duties. They evolved from the nested associations of the village-based, self-defense training groups.

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(1984). For a recent analysis of the moral hazard problem from an agency-theory perspective, see Sng (forthcoming), and for a survey, see Brandt, Ma, and Rawski (2014).

<sup>12</sup> For the corporate characteristics of organizations disguised as clan organizations, lineage trusts, *hui*, and so on, see Sangren (1984) and Ruskola (2000).

<sup>13</sup> A similar historical view, although not explicitly in game theory terms, is advanced in a brilliant China-Europe historical comparison by Wong (1997: 108–113).

The emergence of quasi-official organizations of political violence distinct from the official military troops was very significant and raised the interesting issue of whether they should remain as a strategic complement to the court's political governance or whether they should become a substitute for the court's governance. During the Taiping Rebellion the gentry-led regional military powers were certainly helpful in supporting the court's goal of preventing its weakened centralized control from further declining, while the extraordinary self-reliant efforts by the local gentry and peasants, who were recruited as soldiers to protect their own property rights, were aided by the semi-official networks of gentry leaders. In this respect, the gentry's autonomous organizations of armed peasants and the court's political governance remained mutually complementary. However, at the same time, gentry leaders financed the heavy costs of supporting their armies through regional control over not only the traditional salt and land taxes but also the newly created local commercial taxes (*lijin*). This was a major departure from the principle of avoidance under dynastic rule to safeguard against the emergence of land-based regional powers. Once a major revolt was quelled, independent assertions of elite-gentry power could become potential threats to dynastic rule. Indeed, some factions in the Xiang Army later staged revolts. However, Zeng Guofan, Li Hongzhang, and other major leaders chose to return as officials in the dynastic administration and attempted to restabilize the unstable canonical state through the Self-Strengthening Movement in areas such as diplomacy, arsenals, "bureaucracy-supervised, merchant-managed" enterprises, and education. Some of these reforms took place before or parallel with the industrial policy of the Meiji government in Japan.<sup>14</sup>

### 3.2.2 The Nested Structure of All-inclusive Coalitions in Japan

In order to compare the agrarian-tax state under the Baku–Han regime with that in Qing China, it is important to first re-examine the nature of relations between the Bakufu and the Han. It has already been noted that the Bakufu was entitled to punish the Han for negligence in the sharing of collective responsibilities. In one case, the lord of the Matsumae Han in Hokkaido was temporarily transferred because of his alleged failure to make defense preparations for a possible Russian intrusion into the northern island. When severe political repression and heavy taxation by the Shimabara Han incited a bloody peasant rebellion led by Catholic militants that was crushed only after military intervention by the Bakufu and the neighboring Han, the Shimabara Han was abolished and its lord was executed (this is the only case where the "honorable" ritual of *hara-kiri* was not applied to samurai). This particular Bakufu power was generally understood to be exercised if it was legitimized by common interests with the Han and used to punish a deviant who threatened the order of the Baku–Han regime. Conversely, as the subsequent unfolding of events discussed in the next section will reveal, the hegemony of the Bakufu was not taken for granted and could become problematic when its policy orientation was questioned by the Han. All these characteristics indicate that the institutional nature of the Baku–Han regime was actually that of an all-inclusive coalition of the Han, with the Bakufu acting as the leading player formulating the focal points for sustenance of the order (this characterization is supported by game theory analysis in Aoki [forthcoming]). The coalition nature of the Baku–Han regime attached an aspect of quasi-fiscal federalism to its agrarian-tax state, whereby each Han enjoyed complete autonomy in taxation and

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<sup>14</sup> There were 15 officers in the Xian and Wai armies who later became viceroys of provincial governments. A recent work on Empress Dowager Cixi by Jung Chang (2013), based on heretofore unused court documents, reveals some interesting aspects of the relations between the dynastic court and the elite gentry.

public expenditures, except for the sharing of certain collective responsibilities, such as national defense.

It should be noted that there was also an increasing trend toward village autonomy from the Han government under the village contract system. Initially, there were variations in the tax-rate determination across the Han and over time. In some places, from the early 18th to the mid-19th centuries the tax rates tended to be fixed (Smith 1988). In others, the magistrate's office examined the potential crops in a village each year and adjusted the tax rates accordingly, but this determination was vulnerable to bribery of officials as well as bureaucratic intervention in terms of the timing of the harvest. In 1722, the Bakufu converted to a fixed-rate tax method, subject to periodic revisions and with an exception clause in the case of extraordinarily poor harvests (Oishi 1961). Under the fixed-rate scheme, the village peasants as a collective became the residual claimants. The member households of the village therefore were collectively interested in controlling free-riding on local public goods projects, such as construction and maintenance of irrigation systems that were essential for wet farming. Thus the norm of mutual compliance and cooperation among member households in the village evolved, with deviant households threatened with ostracism, known as *mura hachibu*, except in instances of fire or death that could jeopardize the security and health of the village community. This norm can be referred to as a membership-based norm in that it was only binding on all members of the village.<sup>15</sup>

Thus the complementarities between the agrarian-tax state and the peasant-based economy were institutionalized in Tokugawa Japan as an all-inclusive coalition structure, with the quasi-fiscal-federalist Baku–Han regime on top.

The next section will discuss how the nature of the agrarian-tax states in China and Japan generated endogenous strategic forces that would eventually bring about their own demise by destabilizing the canonical states of play under dynastic rule in both countries.

#### 4. TRANSITION FROM DYNASTIC RULE

In the first half of the 19th century, the dynastic rulers in China and Japan faced major challenges to their legitimacy and capacity to govern. The fiscal capacities of both Qing China and the Tokugawa Bakufu declined as their power to extract due taxes from the expanding peasant-based economy declined. Famines became more frequent (especially in China) as a consequence of the population explosion in the previous century, combined with diminishing returns from land reclamation. Austerity policies in response to these fiscal crises failed to exploit opportunities from market development, thus creating a vicious cycle. Furthermore, the arrival of Western powers recently emerged from their military and industrial revolutions placed both dynastic regimes' capacity to govern under scrutiny. The destabilization of the canonical states also gave rise to powerful new strategic forces in non-central spheres. Market development, partially stimulated by the opening of international trade, increased the resources

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<sup>15</sup> It is interesting to note in this regard that in 1712 the Kangxi Emperor in China also attempted to freeze nominal taxes in perpetuity (Ma 2011). However, this attempt was in effect nullified at the county level because of the various surcharges imposed by the magistrate. Further, in places where farmland transactions across villages were frequent, it was more difficult for cooperative norms, such as those binding on all members of the village, to evolve unless the security of both private property rights and lives were threatened by external aggression. In China, the formation, observance, and sustenance of cooperative norms appear to have been limited to a network of selected members who mutually invested in their own reputational capital, that is, social practices known as *guanxi*. See Aoki (2012, 2013) and Herrmann-Pillath (2009).



available to some provincial powers who then became politically more assertive. Foreign military threats stimulated concerns about military technology and general industrial development. The following subsections focus on how these developments led to the demise of both the Baku–Han regime and the Qing dynasty. In this process of moving away from dynastic rule, changes from strategic complementarities to strategic rivalries among some agents played important roles.

#### 4.1 Toward the Meiji Restoration

In the face of threats from foreign powers, although these were later and milder than those in China, the Bakufu ordered all the Han facing the sea to build up their defenses, while also negotiating with the foreign powers over the opening of ports for trade in order to circumscribe their open hostility. After observing the unfortunate experience of China during the Opium Wars, the Bakufu regarded such an opening as inevitable. However, the signing of opening treaties with the Western powers by the Bakufu without an official sanction by the emperor led to the questioning of the legitimacy of the Bakufu's leadership as the Shogunate (Generassimomo) was formally endowed by the emperor. This allowed some powerful Han to openly challenge the weakened leadership role of the Bakufu in the coalitional Bakuha regime. The political developments that eventually led to the Meiji Restoration were initiated by strategic moves by some Han to challenge the authority of the Bakufu within the Baku–Han coalition structure. These included Satsuma, Chōshū, Tosa, and Hizen, each of which was unique in terms of the resources that they could command, both human and material, as well as their policy orientations.

The Satsuma Han, one of the largest Han but lacking in quality farmland, had been taking advantage of its geographic location at the southern tip of the Japan archipelago to engage in trade with China via the Ryukyu Kingdom throughout the Tokugawa era, in spite of the Bakufu's official monopoly over foreign trade. In 1862, samurai troops of the Satsuma Han killed an Englishman who was riding his horse near Edo and who allegedly behaved in a disorderly way during a procession of their lord. The Satsuma refused British demands to provide indemnities for the damage, leading to the bombing of Satsuma castle by British navy battleships. This retaliation convinced the lord of Satsuma and his samurai staff of the need to build a strong military force and to avoid futile open conflict with the Western powers. They began by making deals with a British trading company to import weapons.

Chōshū was one of the most advanced Han in terms of the market development of its peasant-based economy.<sup>16</sup> Hizen near Nagasaki port promoted exports of indigenous rural products through its own trading house, while allocating 20% of its agricultural tax revenue to imports of military equipment and other industrial products. In this way, it quickly mastered how to produce weaponry and other manufactured goods. Tosa on Shikoku Island was not particularly distinct in terms of economic performance, but its rather unstable internal politics produced political and economic entrepreneurs from among the lower-ranked samurai with rural roots, including the later founder of the Mitsubishi zaibatsu, Iwasaki Yataro. Thus the ability of all four of these Han to become active in the reform movement was based on the development, in one way or the other, of the peasant-based rural economy in their respective territories.

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<sup>16</sup> The development of rural domestic industry in Chōshū has been well studied by authors such as Smith (1988) and Nishikawa (1987). Saito estimates that if nonagricultural earnings are properly taken into account, the average income of its lease-holding peasant households might have exceeded the wage income of laborers in England in the late 18th century by 10% (Saito 2005).

Initially, there was no consensus among these Han regarding their foreign and reform policy orientations vis-à-vis the weakened leadership of the Bakufu. Lower-ranked samurai in Chōshū, who had been taught by a charismatic nationalistic ideologue, Yoshida Shōin, took control of governance of the Han by a de facto coup d'état and openly opposed the "soft" diplomatic policy of the Bakufu. They bombed European ships passing through a strait facing their territory but ultimately had to pay large indemnities. They then modified their policy stance by focusing on the restoration of imperial rule as means to end Tokugawa hegemony. The more moderate Tosa Han proposed the establishment of a two-tiered parliamentary system so that the decision-making process in the coalition structure would be more open and participatory: the system was to be made up of an upper house whose members were the lords of all the Han and a lower house with selected samurai bureaucrats as members. Hizen remained rather aloof from the political scene, focusing on its own economic development. Although a variety of public propositions still continued to compete for saliency, Chōshū mobilized its military power in Kyoto where the emperor resided. This premature uprising, known as the Forbidden Gate Incident (1864), was crushed by the united forces of the Satsuma, the Bakufu, and their allies. Chōshū was officially declared to be an enemy of the royal court and some powerful Han openly supported the Bakufu. But this did not restore order to the coalition structure under the hegemony of the Bakufu.

As the polity continued to be unstable, the pace of open discourse as well as covert meetings among samurai bureaucrats across the powerful Han accelerated, sometimes including activist court nobles and reformist Bakufu staff. In spite of the four Hans' different initial political agendas, the enormously popular Saigo Takamori from the Satsuma Han succeeded in forging a formidable alliance to include all four. They agreed on a common goal, the symbolic return of supreme power to the emperor, while virtually shelving their other policy differences. They were able to force the Bakufu to "voluntarily" surrender its entitlement to govern to the imperial court in 1867. They took over the governing position and in 1871 the Baku–Han regime was formally abolished.

## 4.2 Toward the Xinhai Revolution

The process leading to the Meiji Restoration was initiated by the more powerful Han with their own armies and autonomous fiscal resources. These unique features of the Baku–Han regime originally did not exist in the canonical state in Qing China. But decentralized military power and fiscal autonomy at the provincial level gradually took shape toward the end of the 19th century, opening up a path to the Xinhai Revolution.

After the defeat of the Taiping Rebellion, the Wai Army led by Li Hongzhang became the quasi-official army of the Qing dynasty. However, the relative peace sustained by the strategic coalition between the imperial court and the elite scholar-officials was shaken by the defeat of the army and the navy during the Sino-Japanese War (1894–1895), which primarily took place on the Korean peninsula and in the Yellow Sea. Even the conservative imperial court was then forced to become aware of the need to strengthen its military capability through modern training and improved weaponry. After 1900 the imperial court created New Armies for each province, relegating the traditional Green Standard Army to the local security forces. Taking advantage of this move, Li's disciple, Yuan Shikai, maneuvered to build the formidable Newly Created Army as a quasi-private force in Zhili (the capital district ruled directly by the court). After abolition of the centuries-long tradition of imperial examinations in 1905, many hundreds of aspirant youths entered the newly created military academies or were sent by the government to Japan where they were exposed to the anti-Manchu movement

led by Sun Yatsen. They were eventually appointed commanders, councilors, or officers in the provincial new armies. Members of indigenous peasant families with records of three generations residing in a village and with no history of crime or opium consumption were recruited as soldiers in the new army troops (Hatano 1973).

Each province was to bear the costs of supporting their New Army troops, in addition to sharing the rising obligations for foreign loans and various indemnities.<sup>17</sup> Some provinces, such as Hubei, which was governed by a former officer in the Xiang Army, Zhang Zhidong, also became active in developing arsenals, steel mills, railroads, educational institutions, and port facilities, as well as in promoting commerce. In order to manage these and other public obligations and projects, the provincial governments needed new sources of fiscal revenue other than their traditional shares of the land tax. After hard bargaining with the Board of Revenue of the imperial court, the provincial governments were allowed to mint copper coins in high yuan denominations and to issue bills backed up by them. In Qing China, there had traditionally been two kinds of money: (i) silver (including ingots or coins minted abroad), used as means of settlement for long-distance trade as well as for tax payments; and (ii) various copper coins, used as a means of local exchange and the peasants' store of assets. Exchange rates were negotiated to meet public finance needs at the various administrative levels. However, there was a chronic shortage of copper coins because of the fragmentation of the peasant-based rural economy, which led to an appreciation of about 25% in the value of copper currency against silver between the end of the Taiping Rebellion and the turn of the century. A substantial amount of seigniorage was thus made possible for provincial governments to exploit the difference between the purchasing costs of raw materials from Yunnan province and Japan on the one hand, and the high exchange values of copper coins against silver on the other (Kuroda 1994). The Qing Court and its Board of Revenue continued to exercise central control over the kinds and rates of taxes that provincial governments could impose. But now there was a trend toward a modicum of fiscal federalism, although it was limited only to provinces open to cross-regional and international trade. The imperial Board of Revenue imposed increasing pressure on poorer provinces to reduce the embezzlement of tax revenue by local bureaucrats, who in turn then placed increasing pressures on both large and small tax-paying landlords, thereby making them resentful of dynastic rule

As the provincial and local governments faced increasing fiscal burdens, the costs for the provision of local public goods, such as education, local security, poverty relief, and maintenance of dikes and irrigations, were relegated to the local gentry and wealthy merchants who had obtained scholar-official status by purchase.<sup>18</sup> They were made to bear these costs in the form of arbitrary tax assignments and "voluntary" contributions through their occupational associations, chambers of commerce (*shehui*), traditional charity organizations, and so forth. There have been debates among social historians about the nature of this development. Some have seen this as an emerging civil society or a public domain in the sense that Jürgen Habermas used these terms, whereas others regard this merely as penetration of government control over private interests,

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<sup>17</sup> At the conclusion of negotiations with the foreign powers over payment of indemnities for the Boxer Rebellion, the total obligations of Qing China, including the indemnities for the Sino-Japanese War as well as various loans and other liabilities, amounted to 4,200 tael per annum up to the year 1940. The expected receipts of custom duties in the amount of some 2,000 tael, administered by British consular official Sir Robert Hart who served as inspector-general of China's Imperial Maritime Customs Service, were thus insufficient. In order to arrange for payment of the remainder, payment of some 1,800 tael was assigned to the 18 provinces.

<sup>18</sup> Toward the end of the Qing dynasty, the fiscally-weakened dynastic court's practice of selling scholar-official status to wealthy merchants became widespread. According to an estimate by Chang (1967), the number of such purchases reached 310,000, comprising more than one-third of the gentry class.

and still others propose a new China-specific category of a “third sphere between state and society.”<sup>19</sup> However, the development of an economic and social infrastructure that would facilitate the expansion of trade, as well as secure commercial and private property rights and the monopoly position of the gentry and merchants, was not entirely against the interests of the gentry and the wealthy merchants. In return for bearing the rising costs, they demanded that their voices be heard through the provincial consultative assemblies that were created in 1909 by the central government as a means of relating directly to the local elites in preparation for the promised introduction of some type of constitutional governance system in 1916. In this way, the local elites subtly shifted their strategic position from complementing dynastic rule to substituting for its absence in terms of the provision of public goods. From this perspective, the first two of the above views capture only one aspect of the evolving situation at the neglect of the other, whereas the third view appears to introduce a redundant category.

It is important to note that trading centers such as Hankou, Guangdong, and Shanghai thrived by playing a role in intermediating trade in cash crops and handicraft products by “family firms” (Zelin 1984) in their rural hinterlands and in the increasing importation of rice. As revealed in quantitative studies by Brandt (1989) and Keller, Li, and Shiue (2013), only a small percentage of agricultural output was exported, most marketed goods being destined for domestic consumption. Peasant households changed their allocation of resources in response to changes in the price relations of raw cotton, yarn, and cloth. Thus, Brandt (1989: 97) observes that “the greatest influence the international economy had may well have been exerted through its effect on domestic prices.” Furthermore, one of the important consequences of the expansion of international trade at the treaty ports was the undermining of the coherence of the traditional commercial order by “English-speaking” Chinese trading agents who made use of the tax advantages of tradable goods for domestic marketing (Motonu 2004).

Thus in the first decade of the 20th century, the organizational landscape of Qing China was substantially modified by the emerging decentralization of the military and increasing pressures in the direction of fiscal federalism. While failing to make substantive progress in the transition to a constitutional system, the central government attempted to nationalize the province-financed railroad company in Sichuan in 1911 and to make them available as collateral for foreign loans. This prompted the New Army and activists in Hunan province to stage a revolt and declare independence from Manchu rule. This was immediately followed by action by New Armies and consultative gentry councils in 14 other provinces, thus opening the way for the Xinhai Revolution. These intra- and inter-provincial alliances were formed spontaneously and surprised Sun Yatsen, who was then living abroad. The removal of the Manchu court from the ruling position was their only common goal. This was finally accomplished in 1912 when Sun yielded the Provisionary Republican presidency to Yuan Shikai, if Yuan would coax the imperial court into “voluntary” abdication.

In contrast to the Meiji Restoration, which was promoted by the autonomous fiscal capacity and military force of the more powerful Han, the transition from Qing rule in China was the result of a spontaneous ad hoc alliance among the various actors, ranging from the (revolutionary) republicans following Sun Yatsen, to the reform-oriented local gentry, to the centrists embracing political violence, such as Yuan Shikai who later aspired to become emperor. This difference in the two transition processes was destined to condition their respective post-revolution institutional paths. To identify

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<sup>19</sup> See Rowe (1984, 1989), Rankin (1986), and Esherick and Rankin (1990) for the first view, Wakeman (1991) for the second view, and Huang (1993) for the third. See also Kishimoto (2012) for an excellent survey of the contributions by Japanese scholars on this subject.

some crucial factors in this and related matters, let us next introduce a simple game-theory parable in the next section. (Those readers who are not keen on analytical arguments may skip it.)

## 5. CONDITIONS FOR AN INSTITUTIONAL TRANSITION IN A MODEL OF A THREE-PARTY GAME

One of the most active themes in recent economic thought has been the competing impacts of fiscal capacity and levels of military technology on political equilibrium in the premodern state. For example, Gennaoli and Voth (2013) examined the emergence of capable nation states in Western Europe from military competition among a number of statelets. In this model, there are essentially two types of actors, one with stronger fiscal capabilities and one with weaker. Besley and Persson (2011) describe the contest against an incumbent ruler by a challenger, its outcome being either the defeat or the sustenance of incumbent rule, which may be relevant to an understanding of the impact of political violence, as observed in some developing economies. Although these models are interesting in their own right and relevant to some important institutional phenomena, as noted above, they may not be relevant for an understanding of the political economic phases in East Asia. At the end of the Baku–Han regime in Japan, the incumbent ruler met challenges from multiple actors, the Han, who from the beginning were not necessarily in agreement on the overall political agenda. As noted, the Xinhai Revolution was carried out by an unexpected alliance among a variety of agents. In spite of the differences in their political agendas, the political actors who presented a challenge in both Japan and China were somehow able to align their actions to remove the incumbents. Although their political power was backed up by the potential of the military technology that they could command, the transitions from incumbent rule were relatively bloodless. In both transitions, unlike in the French, American, and Russian revolutions, the effective political proposition that was relatively easy for the various challengers to come to agreement upon was a “restoration”—restoration of imperial rule and removal of the Manchu rule—rather than a clear revolutionary agenda

To capture the common unique elements in the institutional processes in China and Japan, as well as to examine the impacts of the subtle differences between them, I will introduce below a model of a three-person political-economic game that is played by the ruler, a possible challenger, and an opportunist who chooses a strategic position between the two depending on the situation and depending on game situation. They are denoted by R, C, and O, respectively. From the discussion in the previous section, it may be inferred that these agents could capture some of the essential characteristics of a rebel peasant organization (e.g., the Taiping Heavenly Army), formal or informal organizations of the gentry (e.g., the Xian Army), the Han, the New Armies (whether conservative or progressive), or provincial governments, depending on the context of the possible application. However, the analysis in this section proceeds in a rather abstract fashion, in order to derive conditions for the existence of stable equilibria of agents’ strategic interactions and their comparative static properties.

Imagine the political economy has sustained a stable state of play up to the present, denoted by  $\langle u^R, u^O, u^C \rangle$  in terms of the players’ payoffs, which is referred to as the canonical state. In the present time, referred to as the first period, C decides whether or not to deviate from the canonical state. In case C deviates, the payoff profiles will be:  $\langle u^R - \Delta\gamma, u^O - \Delta\gamma, u^C - \Delta\gamma + \tau_C \rangle$ , where  $\Delta\gamma$  = the external cost imposed on public goods

provision by C and  $\tau_C$  = the private benefit to C from shirking if positive and the cost of revolting to C if negative.

In period 2, R and O react to C's action, to which C counter-reacts. The outcome of their interactions determines the nature of future states from then on. If C revolts in period 1, R tries to punish or yield to C in period 2, depending on the magnitude of the latter's revolt, and a conflict arises. O decides with whom to align its strategy. Let  $\langle \kappa_R, \kappa_O, \kappa_C \rangle$  represent the strategy profile in this situation, where  $0 \leq \kappa_R \leq K^R$  and  $0 \leq \kappa_C \leq K^C$  represent the level of conflict-management action by R and C respectively, involving respective cost  $\eta\kappa_R$  and  $\mu_C\kappa_C$ ; and  $0 \leq |\kappa_O| \leq K^O$  represents the level of C's strategic action involving cost  $\mu_O|\kappa_O|$ , with  $\kappa_O < 0$  (alternatively,  $\kappa_O > 0$ ) implying O's action against C (respectively, O's action against R).

Strategic profile  $\langle \kappa_R, \kappa_O, \kappa_C \rangle$  yields either of two future states: transition to a new state—denoted by N—putting an end to the R's rule, or the punishment of C—denoted by P—with the failure of C's (and possibly O's) revolt, with the respective probability of  $P^N(\kappa_R, \kappa_O, \kappa_C)$  and  $P^P(\kappa_R, \kappa_O, \kappa_C) = 1 - P^N(\kappa_R, \kappa_O, \kappa_C)$ . For  $\kappa_O > 0$  the payoff profile of each state is given by

$$\begin{aligned} \text{(N)} & \langle u^{R*} - C^R - \eta\kappa_R, u^{O*} + \pi^O(\kappa_O, \kappa_C) - \mu_O|\kappa_O|, u^{C*} + \pi^C(\kappa_O, \kappa_C) - \mu_C\kappa_C \rangle \\ \text{(P)} & \langle u^{R*} + C^B + C^C(\Delta\gamma) - \eta\kappa_R, u^{O*} - C^O - \mu_O\kappa_O, u^{C*} - C^C(\Delta\gamma) - \mu_C\kappa_C \rangle, \end{aligned}$$

For  $\kappa_O \leq 0$

$$\begin{aligned} \text{(N)} & \langle u^{R*} - C^R - \eta\kappa_R, u^{O*} - C^B - \mu_O|\kappa_O|, u^{C*} + \pi^C(\kappa_O, \kappa_C) - \mu_C\kappa_C \rangle; \\ \text{(P)} & \langle u^{R*} + \sigma C^C(\Delta\gamma) - \eta\kappa_R, u^{O*} + (1-\sigma)C^C(\Delta\gamma) - \mu_O|\kappa_O|, u^{C*} - C^C(\Delta\gamma) - \mu_C\kappa_C \rangle, \end{aligned}$$

where  $C^R$  represents the loss R suffers when it loses the governing position;  $C^O$  represents the loss O suffers when it fails to cooperate with C; and  $C^C(\Delta\gamma)$  is the penalty imposed on C when its revolt fails, which depends on the magnitude of damage done on public goods by the revolt in period 1, and  $\sigma$  is a parameter representing R's share in the gains from the punishment of C, with  $1 > \sigma > 0$ .  $\pi^O$  and  $\pi^C$  represent the political economic gains expected from the transition to the new state N—simply referred to as the expected post-transition gains—accruing to O and C. Denoting partial derivatives of functions by subscripts of relevant variables, we assume that  $\pi^O_{OO} \geq 0$  and  $\pi^C_{CC} \geq 0$ . If  $\pi^O_{OC}, \pi^C_{CO} > 0$  (alt.  $< 0$ ), they represent externalities in gaining expected post-transition gains (respective negative externalities). If  $\pi^O_{OC}, \pi^C_{CO} > 0$  (alt.  $< 0$ ), we say O's and C's strategies are complements (respectively rivalries) in expected post-transition gains. Even if there are negative externalities, the strengthening of own strategy by each player could mitigate the effect. So we always assume that  $\pi^O_{OC}, \pi^C_{CO} > 0$ . We do not need to assume the concavity of  $\pi^O$  and  $\pi^C$ .

$P^N$  and  $P^S$  summarize possible state-outcomes of players' strategic interactions in terms of their conflict-managing technologies. This function may be regarded as analogous to what Besely and Persson (2011) call the conflict technology in their two person game of political violence. However, in our three-person game context, the outcome of the game may also depend on ways a coalition may be formed among players. Therefore, in its interpretations, it need not be regarded as referring only to hard technology involving physical violence but also to soft technology, involving deals, information exchange, diplomacy, persuasion and other means. We assume  $P^N_{OO}, P^N_{CC} \geq 0$  and thus  $P^N_{RR} \leq 0$ . We refer to the case of  $P^N_{OC} > 0$  as strategic complements of conflict-managing technologies in transiting to a new state (or simply a technological complement) between O and C. As shown later, even if  $P^N_{OO}, P^N_{CC} > 0$ , it could happen that  $P^N_{OC} < 0$ . This case is referred to as strategic rivalry in conflict-management technology, distinct from the rivalry in the expected post-transition gains. As we will see

below, this distinction is important for assessing the existence and implications of multiple equilibria. By the sign convention of  $\kappa_O$ , we say O's strategy is the technological complement (alternatively, rivalry) to R's in reducing (alternatively, promoting) transition to a new state, if  $P_{RO}^N < 0$  (resp.  $P_{RO}^N > 0$ ). We always assume  $P_{RC}^N < 0$ .

We solve the model backward, beginning in the second period. Denoting equilibrium values with an asterisk, the second period Nash equilibrium requires the Kuhn Tucker condition that  $Eu_R^R \leq 0$ ,  $\kappa_R^* Eu_R^R = 0$ ;  $Eu_O^O \leq 0$ ,  $(\kappa_O^* - K^O) Eu_O^O = 0$ ; and  $Eu_C^C \leq 0$ ,  $\kappa_C^* Eu_C^C = 0$ .

First, in order to check the possibility of multiple equilibria, let us examine whether an equilibrium is possible for both, or either of,  $\kappa_O \leq 0$  and  $\kappa_O > 0$  and if so under what conditions. First let us consider the case  $\kappa_O \leq 0$ . Straightforward calculations of cross derivatives of  $Eu^R$ ,  $Eu^O$  and  $Eu^C$  provide the following inequalities.

$$\begin{aligned} Eu_{RO}^R &= P_{R|O}^P (C^R + \sigma C^C(\Delta\gamma)) > 0 \\ Eu_{RC}^R &= P_{RC}^P (C^R + \sigma C^C(\Delta\gamma)) < 0 \\ Eu_{OR}^O &= P_{OR}^P (C^O + (1-\sigma)C^C(\Delta\gamma)) > 0 \\ Eu_{OC}^O &= P_{O|C}^P (C^O + (1-\sigma)C^C(\Delta\gamma)) < 0 \\ Eu_{CR}^C &= P_{CR}^N [\pi^C(\kappa_C) + C^C(\Delta\gamma)] + P_{RC}^N \pi^C(\kappa_C) < 0 \\ Eu_{CO}^C &= -P_{C|O}^P [\pi^C(\kappa_C) + C^C(\Delta\gamma)] - P_{O|C}^P \pi^C(\kappa_C) < 0. \end{aligned}$$

These equalities altogether imply that  $\langle Eu^R, Eu^O, Eu^C \rangle$  are super-modular in  $\langle \kappa_R, \kappa_O, \kappa_C \rangle$  (Topkis 1979; Milgrom and Roberts 1990). Thus we have:

**Proposition 1:** *There always exists at least one equilibrium with  $\kappa_O \leq 0$ .*

This case does not necessarily imply that C's revolt is doomed to fail. However, the conditions of increasing differences of  $Eu^R$ ,  $Eu^O$ , and  $-Eu^C$  with respect to parameters  $C^R$  and  $C^{OC}$  show that equilibrium values of  $\kappa_R^*$  and  $\kappa_O^*$  are increasing and  $\kappa_C^*$  is non-increasing with respect to increases in  $C^R$  and  $C^{OC}$ . Likewise, equilibrium values of  $\kappa_R^*$  and  $\kappa_O^*$  are increasing and  $\kappa_C^*$  is non-increasing with respect to decreases in  $\eta$ ,  $\mu^O$ ,  $-\mu^C$ . That is, the greater the deadweight losses of R and O in the case of defeat against the challenge of C and/or the more efficient their conflict technology relative to that of C, the greater the joint mobilization of conflict technology by them so that the probability of transition would be reduced.

In comparison to this simple case, the possibility of an equilibrium with  $\kappa_O$  appears to require some conditions. First, the straightforward calculation of the cross derivatives provides:

$$\begin{aligned} Eu_{RO}^R &= P_{RO}^P [C^R + C^O + C^C(\Delta\gamma)] < 0 \\ Eu_{RC}^R &= P_{RC}^P [C^R + C^O + C^C(\Delta\gamma)] < 0 \\ Eu_{OR}^O &= P_{OR}^N [\pi^O(\kappa_O, \kappa_C) + C^O] + P_{RO}^N \pi^O(\kappa_O, \kappa_C) < 0 \\ Eu_{OC}^O &= P_{OC}^N [\pi^O(\kappa_O, \kappa_C) + C^O] + P_{RO}^N \pi^O(\kappa_O, \kappa_C) + P_{RC}^N \pi^O(\kappa_O, \kappa_C) + P_{OC}^N \pi^O(\kappa_O, \kappa_C) \\ Eu_{CR}^C &= P_{CR}^N [\pi^C(\kappa_O, \kappa_C) + C^C(\Delta\gamma)] + P_{RC}^N \pi^C(\kappa_O, \kappa_C) < 0 \\ Eu_{CO}^C &= P_{CO}^N [\pi^C(\kappa_O, \kappa_C) + C^C(\Delta\gamma)] + P_{RC}^N \pi^C(\kappa_O, \kappa_C) + P_{OC}^N \pi^C(\kappa_O, \kappa_C) + P_{CO}^N \pi^C(\kappa_O, \kappa_C) \end{aligned}$$

So, the conditions for  $\langle Eu^R, Eu^O, Eu^C \rangle$  to be super-modular in  $\langle K^R - \kappa_R, \kappa_O, \kappa_C \rangle$  as an equilibrium condition hinge on whether  $Eu_{OC}^O$  and  $Eu_{CO}^C$  can be positive. Then either of the following two propositions hold.

**Proposition 2:** *O and C are strategic complements in their conflict-management technologies and there are no negative externalities and no rivalries in the expected post-transition gains.* That is,  $P_{OC}^N > 0 > -\pi_{OC}^O$ ,  $P_{CO}^N > 0 > -\pi_{CO}^C$ ,  $\pi_{OC}^O > 0$ ,  $\pi_{CO}^C > 0$ .

This case may be considered as essentially reducible to the two-person game of Besley-Persson type mentioned above. For our concern, the following proposition is much more relevant and interesting.

**Proposition 3:** *Even if O and C mutually exercise external diseconomies on each other's expected post-transition gains, these can be overcome by strong complementarities in their conflict-management technologies in percentage terms.*

That is,  $P_{OC}^N/P_{CO}^N > -\pi_{OC}^O/[\pi^O + C^O] > 0$ ;  $P_{CO}^N/P_{OC}^N > -\pi_{CO}^C/[\pi^C(\kappa_O, \kappa_C) + C^C(\Delta\gamma)] > 0$ . (In this case  $\pi_{OC}^O$  and  $\pi_{CO}^C$  are assumed to be positive, as their own strategies can mitigate the other party's external diseconomies.)

For these two cases, the conditions of increasing differences of  $-Eu^R$ ,  $Eu^O$ , and  $Eu^C$  with respect to the parameters show that the equilibrium values of  $\kappa_O$  and  $\kappa_C$  are non-decreasing (alternatively, that of  $\kappa_R$  is non-increasing) with respect to increases in  $-C^R$ ,  $\eta$ ,  $-\mu_O$ ,  $-\mu_C$ . As is intuitively clear, these imply that increases in the levels of efficiency of the conflict-management technology by O and C relative to R would enhance *ceteris paribus* the probability of transition to a new state. In the reverse case, the probability of repression of O and C by R would be enhanced. The following comparative static result is relevant and interesting for our study, as discussed in the following section.

**Corollary 1:** *In a conflict situation in which O and C cooperate in revolt against R, the resistance of R may be mitigated as his expected loss from transition to the new state is assured to be moderated.*

The last two propositions provide sufficient conditions for the existence of equilibrium. However, relaxing the assumptions of the strategic complementarities in conflict-management technologies even without the assumption of negative externalities in the expected post-transition gains may render equilibrium with  $\kappa_O, \kappa_C > 0$  not possible. This may imply a crucial role of the strategic complementarities in conflict-management technologies between O and C to enhance the possibility of transition. For example, consider a case for which  $\pi^O$  and  $\pi^C$  are constant so that O and C are mutually neutral in expected post-transition gains and their strategies affect only conflict outcomes according to a contest function (Tullock 1980) extended to the case of three-person game:

$$P^N = (\kappa_O + \kappa_C) / (\kappa_R + \kappa_O + \kappa_C + S) \text{ for } \kappa_O \geq 0$$

$$P^P = (\kappa_R - \kappa_O) / (\kappa_R - \kappa_O + \kappa_C) \text{ for } \kappa_O < 0,$$

where S represents the set-up cost of a new state. Note that  $P_{CO}^N = -C(\kappa_R + S) / [\kappa_R + \kappa_O + \kappa_C + S]^3 < 0$ , which implies that O and C are strategic rivals in a possible conflict situation. Consider first the possibility in which  $-K^O \leq \kappa_O < 0$  is a choice for O. Then,  $Eu_{OC}^O = -P_{OC}^O \pi^O + \mu_O = \pi^O \kappa_C / (\kappa_R - \kappa_O + \kappa_C)^C + \mu_O > 0$  so that  $\kappa_O < 0$  cannot be an equilibrium choice for O. So assume  $\kappa_O \geq 0$ . C's strategic reaction to this ought to be to find  $\kappa_C \geq 0$  for which  $Eu_{CO}^C = P_{CO}^N \Delta u^C - \mu_C = (\kappa_R + S) \Delta u^C / [\kappa_R + \kappa_O + \kappa_C + S]^2 - \mu_C = 0$ , where  $\Delta u^C$  is C's net payoff gain from transition equal to  $\pi^C + C^C(\Delta\gamma) - u^{C*} > 0$ . Under what condition is this possible? Let us rewrite the condition as  $\kappa_O + \kappa_C = (\kappa_R + S)^{1/2} [(\Delta u^C / \mu_C)^{1/2} - (\kappa_R + S)^{1/2}]$ . Thus if  $K^R > \Delta u^C / \mu_C - S$ , R can choose  $\kappa_R$  for which there is no strictly positive strategy for  $\kappa_O$  and  $\kappa_C$  to be an equilibrium. In this example, therefore, the only possible solution



is  $\kappa_O^* = \kappa_C^* = 0$ , entailing  $P^{N^*} = 0$  and  $P^{S^*} = 1$  for which  $u^C = u^{C^*} - C^C(\Delta\gamma)$ . This is the case where the collective setup cost for the new state S is very high, the level of R's conflict-managing technology is high enough, and/or the net political-economic gain from the transition relative to its cost is too low for C. Ignoring the time preference of C, if  $-\Delta\gamma + \tau_C < C(\Delta\gamma)$ , it is never worthwhile for C to deviate from its canonical state obligation in period 1, even if it appears beneficial for that period alone with  $-\Delta\gamma + \tau_C > 0$ . Thus, *sustaining the canonical state becomes a subgame perfect equilibrium*.

More generally, we have shown that there exists at least one equilibrium with  $\kappa_O^* \leq 0$  and possibly multiple equilibria in the second period, depending on parameter conditions and functional relations among players' strategies. Let us denote the equilibrium value in period 2 perceived by C in period 1 by  $\langle \kappa_R^*, \kappa_O^*, \kappa_C^* \rangle$ . If  $P^{N^*}[\pi^{C^*} + C^C(\Delta\gamma)] - \mu\kappa_C^* < -\Delta\gamma + \tau_C$ , then it is never worthwhile for C to revolt and be subject to a probable penalty in period 2. Thus it holds:

**Proposition 4:** *If  $P^{N^*}[\pi^{C^*} + C^C(\Delta\gamma)] - \mu\kappa_C^* < -\Delta\gamma + \tau_C$ , then the canonical state becomes sub-game perfect equilibrium.*

However, if  $P^{N^*}[\pi^{C^*} + C^C(\Delta\gamma)] - \mu\kappa_C^* > -\Delta\gamma + \tau_C$ , then C would deviate from the canonical state in period 1, even if  $-\Delta\gamma + \tau_C < 0$ . Its outcome is yet uncertain *ex ante*. However, such a move does not necessarily guarantee a transition to a new state. By unluckiness or a miscalculation of O and C, strategic interactions in period 2 may end up with the failure of C to achieve the new state and the failure of O to support C's revolt in this regard. For a new state to be made more certain, it appears helpful for O and C to shift their mutual positions from rivalries to compromises and complements in terms of the use of their own conflict-management strategies. One reason why O and C are not complementary in their conflict-management technology in the above example can be attributed to the existence of set-up costs denoted by S. Thus, if the agents can reduce the costs through soft coordination, as distinct from hard technology as represented by  $\mu$ , then equilibrium becomes more probable in the direction of favoring transition to a new state.

## 6. AFTER THE TRANSITIONS

In light of the argument in the previous section, let us now discuss the ways in which the Meiji Restoration and the Xinhai Revolution may have had an impact on the subsequent institutional evolution in each country. Consider Proposition 3: even if there are external diseconomies or strategic rivalries in the political agendas of the insurgents, such rivalries may be overcome by effective strategic complementarities in conflict-management technology to transit out of the previous state of play. There are two points to be further noted in this regard. First, the possibility of enhancing strategic complementarities in this regard may not be limited to coordination in the use of hard military technology. "Soft" diplomatic skills may also be used by the challenger vis-à-vis the opportunist to weave their coordinated challenges against the incumbent ruler. However, even if a transition out of the previous state is realized in this way, the absence of an *ex ante* agreement on the post-transition political-economic agenda among the major players will be likely to precipitate another round of conflict after the transition, which may even disrupt the subsequent institutional evolution toward the establishment of the modern nation state. Let us illustrate these points with respect to the Meiji Restoration and the Xinhai Revolution.

## 6.1 Toward the Centralized Bureaucratic State in Japan

An aspect of the Meiji Restoration that distinguishes it from the Xinhai Revolution was that the major reform-seeking players, that is, the rebel Han bureaucrats, had similar backgrounds and attributes in terms of their possession of military force and economic and human resources. Even across Han boundaries they shared a culture of mutual communications, essential for soft conflict-management technology, which had been nurtured as an unintended consequence of the practice of alternating the annual residence of Han lords and their staff between Edo and their own territories. Toward the end of the Tokugawa period, Kyoto, where the emperor resided, became a melting pot of ideas and information exchange among visiting samurai bureaucrats across the Han from all over the country. It is estimated that some 20,000 samurai-bureaucrats were actively involved in the non-violent transition (Banno and Ono 2010).<sup>20</sup> However, the similarity in their bureaucratic backgrounds took its toll on the subsequent institutional evolution.

The quintessential issue in the post-Restoration constitutional design focused on which was to come first: the constitutional design and its promulgation by the interim government or the convening of a constitutional assembly, somewhat reminiscent of Tosa Han's pre-transition proposal. The skillfully engineered governmental dominance by the Chōshū clique nullified the latter option and an imperial ordinance was issued in 1881 to the effect that a constitution that would enable the establishment of a parliament was to be drafted by the interim government and authorized by the emperor. The constitution promulgated in 1899 ascribed to the emperor supreme commanding authority and state diplomacy prerogatives, as well as authority to appoint the prime minister, cabinet ministers, and bureaucrats à la Prussian constitution. As Banno (2008) argues, such authoritarian stipulations did not necessarily exclude the possibility that a government could be formed according to the preference of a two-party parliament. Indeed, between 1918 and 1938 the polity evolved in just such a direction. However, prior to this, the powerful Han cliques refused to form their own party to overrule the parliament, while thereafter the military bureaucracy gained *de facto* veto power over the formation of government by taking advantage of an interpretation of constitutional rules as stipulating the appointment of military ministers to be from among the incumbent military officers (Kitaoka 1993).

## 6.2 Centralized Unification or Federalism in China?

In contrast, in China an alliance to remove the Qing dynasty was formed spontaneously by various agents during the last days of the Qing (cf. Proposition 3). However, once dynastic rule was bloodlessly removed by persuasion (cf. Corollary 1 in the previous section), differences in concepts of constitutional design were bound to emerge, particularly on how to strike a balance between traditional centralized unification and the emerging trend toward federalism. The Provisional Constitution of 1912 stipulated a unitary state, but it did not define the organizational position of the provincial governments within the framework of the unitary republic, relations between the civil administration and the army, and other important issues. Underlying the conflict between centralization and federalism, there was a fundamental political-economy question: how could the potential of the peasant-based economy be linked to the political state in lieu of the Qing tax state? Although the prosperity of the federalist-oriented provinces prior to the transition was based on their market links to the

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<sup>20</sup> This estimate does not include former samurai who were engaged in military actions and other mass political actions simply to remove the Shogunate from its governing position.

developing peasant-based economy in their hinterlands, there was no clear political program among the transition-seekers to explicitly link or mediate rural and urban interests. The so-called “egalitarian land property rights” (*pingjun diquan*), advanced as one of the four elements in Sun’s revolutionary program, was no more than a vague idealistic idea.<sup>21</sup> Its implementation would impose unrealistic administrative burdens and would be inconsistent with the peasants’ and landlords’ incentives for economic development.

After the death in 1916 of Yuan Shikai, who aspired to be emperor, his subordinate generals began to compete with one another for military hegemony.<sup>22</sup> They recruited soldiers from the peasants and the unemployed, while extracting resources from the rural economy wherever their shifting territories happened to be in order to finance their military expenditures and to accumulate wealth. The military conflicts put colossal pressures on the public finance capacity of the provinces. In reaction, the idea of a “federation of self-governing provinces” (*liansheng zizhi*) widely captured the attention of provincial governments and activists in the southern provinces. Even the young Mao Zedong expressed a federalist position, 3 years before he joined in the formation of the Communist Party in 1921. In the journal of his reformist organization he wrote:

From our observation . . . there is no hope for fully establishing people’s rule in China within the next twenty years. During this period Hunan had best protect its own boundaries and implement its own self-rule, making Hunan a haven of peace without bothering about the other provinces or the central government. Thus it can place itself in a position similar to that of one of the states on the North American continent a hundred years ago. We should run our own education, promote our own industry, and construct our own railways and motor roads (Mao [1920] 1992: 526).

The formal position of president of the Republic in Beijing was alternately taken over either by one of the quarreling generals or by compromise among them. In 1923, a constitution, drawn up by Cao Kun, stipulated that local governments “shall be organized according to the Constitution and the laws concerning local autonomy,” which did not make it clear whether China was to be a unitary or a federalist state. Meanwhile, without any effective program to link rural economic development to an effective political program, the so-called warlords devastated the rural hinterland to reach a hurried militaristic solution for unification, creating a vicious cycle of fragmented political governance and a fatigued rural economy.<sup>23</sup> This is a crucial difference from the situation in the West where numerous capable nation-states emerged through military competition on the basis of their respective fiscal competence (Gennaoli and Voth 2013). Sun Yatsen, who had incorporated a federalist idea into the program of the clandestine Revive China Society in 1894, became an avowed centralist as he faced challenges from the generals in the north, and sought to launch the Northern Expedition to wipe them out and to finance costs. Sun and his disciple Chiang Kai-Shek (Jiang Jieshi) were prompted to strike a military blow on the federalist movement

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<sup>21</sup> In a speech at a reception by the Shanghai Newspaper Guild, Sun Yatsen explained his agricultural land policy. Parliaments would determine farmland prices and the government would then charge a tax in a fixed proportion, say 10%, of the value, and the government would acquire a portion of the ownership equivalent to the subsequent appreciation in value.

<sup>22</sup> During his tenure as president of the Republic, Yuan Shikai was partially successful in unifying the national economy, as evidenced by the expanded circulation of the national currency, engraved with Yuan’s portrait. The national currency was originally introduced by the Qing court in 1910, but the appreciation of silver during World War I contributed to its wider acceptance as well as to a reduction in the real value of the government’s debt obligations to foreigners.

<sup>23</sup> For thorough academic treatises on the so-called warlords based on primary historical sources, see Hatano (1973) and Ch’en (1979).

led by Chen Jiongming in relatively resource-rich Guangdong.<sup>24</sup> They then moved north to defeat or drive out the by-then exhausted warlord armies. Chiang Kai-Shek established the National Government in Nanjing in 1927, for all practical purposes putting an end to the constitutional issue of centralized unification versus federalism.

## 7. CONCLUDING REMARKS

The Meiji Restoration produced a centralized bureaucratic state, whereas the Xinhai Revolution produced a centralized national government only after one-and-a-half decades of political turmoil. Did these states transform the complementary relationship between the agrarian-tax state and the peasant-based economy in each country's previous dynastic era, which had lasted in each case almost 270 years? If so, how was this possible? These questions are beyond the scope of this paper, but in these concluding remarks I would like to suggest one point from a strategic perspective that may require further examination to connect the era of the present study to subsequent studies.

Recall that Kuznets identified a reduction in the agricultural share of GDP and labor force as “quantitative aspects of the economic growth of nations” (Kuznets 1957). From this well-accepted economic perspective, we may characterize the dynastic period in each country as “premodern,” as revealed by the robust institutional complementarities that kept more than 90% of the population working in agriculture and rural handicrafts. However, we have also noted that the destabilizing forces in the agrarian-tax states accelerated during the last decades of each dynasty. The encounter with Western military and industrial power was, as is widely recognized, one of the important triggers contributing to the declining governing capacities of dynastic rule. However, as we have stressed, the decisive forces leading to the demise of dynastic rule in each country were the shifts in the strategic plays by agents who had played significant roles in the canonical state. The shifts from complementary to rival strategies of the challengers vis-à-vis the strategies of the incumbent rulers were stimulated and supported by the increasing market involvement of the peasant-based economy: a development somewhat contrary to that emphasized by Acemoglu and Robinson (2012). In this way, a chasm emerged between the agrarian-tax state and the potential of the peasant-based economy. Therefore, the question posed at the beginning of this section may be rephrased as: did the Meiji Restoration and the Xinhai Revolution transform the polity in each country in such a way that the material and human potentials of the peasant-based economy could be jointly mobilized to reduce the agricultural share of GDP and the labor force in line with Kuznets' argument?

The Meiji government decreed that the registry of farmland ownership maintained at the village office should be transferred to the national registry, and any dispute over property rights or breaches of contracts were to be settled by the courts according to the law. In lieu of the village contracting system, farmland taxation was fixed in monetary terms and imposed on individual landowners. Thus, modern property rights appear to have been established in the village, but this did not immediately lead to a fundamental restructuring of the peasant-based economy in such a way as to

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<sup>24</sup> For recent works on Chen Jiongming's federalist movement based on detailed documentary evidence, see Chen (1999), and Duan and Ni (2009). Bertrand Russell, who was a visiting professor at Peking University in 1920, had a high opinion of Chen Jiongming, as did John Dewey who intimately observed the educational scene in China at the time. See Russell (1922: 67, 268–269). Hatano (1973: chapter 6) characterizes Chen's opposition to Sun's Northern Expedition as political expediency, although he recognizes that Chen's popularity in Guangdong was due to his platform based on a “self-determination alliance.”

accelerate the mobility of human resources from the rural sector to the modern industrial sector. A major factor accounting for this was the resilience of membership-based norms in the village. Peasants with small landholdings subject to a fixed-rate land tax suffered from deflationary pressures in the early 1880s that were created in the aftermath of the vast fiscal expenditures to quell the Satsuma Rebellion (1877), the last civilian war in Japan. But the practice of occupational primogeniture meant that peasant household heads remained in the village and engaged in farming. The proportion of tenancy lands increased from 20%–30% in the 1880s to more than 40% in the 1890s, while agricultural employment remained virtually unchanged at some 1.4 billion from that period to as late as the beginning of the Asia-Pacific War in 1941 (Hayashi and Prescott 2008). Nevertheless, the heavier tax burden for agriculture than industry resulted in a de facto transfer of the agricultural economic surplus to industrial accumulation under the Meiji and Taisho governments (Teranishi 1982). Thus the first phase of modern economic growth in Japan after the Meiji Restoration was based on a partial modification of the complementary relations between the agrarian-tax state and the peasant-based economy in a path-dependent manner, while the movement toward the process described by Kuznets proceeded slowly (Aoki 2012).

The fundamental problem of the Meiji Constitution for modern nation-state building was the absence of civilian control over the military. Notwithstanding the interlude of surging democratic politics in the 1920s (Banno 2008), the military bureaucracy gradually took advantage of the constitutional loopholes and ultimately took over the centralized bureaucratic state (Kitaoka 1993). However, the practice of primogeniture generated a redundant labor force that industrial and urban development was slow to absorb. In the 1930s when the hegemony of the military bureaucracy was solidified, this redundant labor force was mobilized as soldiers in the Imperial Army or as the vanguard of emigrants sent to the Manchurian frontier, resulting in misguided complementarities between the military-led bureaucratic state and the outlived peasant-based economy—which Louise Young (1998) has dubbed “Japan’s total empire.” The Kuznets process finally accelerated as the market economy evolved with the market-enhancing bureaucratic state after the Allied defeat of Japan and the fall of the Japanese military.

Meanwhile, the Nationalist Government in China had some achievements in foreign affairs that could only have been accomplished by a nation-state, which included the recovery of tariff autonomy (1931), the transition from the traditional silver standard system to a controlled currency system (1935), and, above all, joining the Declaration by the United Nations (1942) as one of the “Big Four” Allies to oppose Japanese imperial aggression. Nevertheless, nationalist unification based on military power was unable to resolve China’s constitutional issues. Deep below the practical conflicts over centralization versus federalism in the preceding period, we find a fundamental economic development issue over how unification of a market economy can be accomplished on the basis of the potential of a peasant-based economy and beyond. In retrospect, it is easy to say that a solution to this issue required a combination of centralization in constitutional design with the removal of local barriers to market development, backed up by an incentive-compatible transfer of human and material resources from the rural economy to modern urban-oriented industry. But implementing this in one way or another would have required massive and unprecedented efforts.

When the Nationalist Government was established in Nanjing in 1927, Chiang Kai-Shek left traditional land taxation entirely to the provinces, leaving the political-economy structure of the rural economy essentially intact. There is some evidence that land taxes rose in the economically advanced Yangzi Delta region, while the rent extracting power of landlords declined (e.g., Muramatsu 1970; Ash 1976). A clandestine elite organization loyal to Chiang’s authoritarian rule, called the *Lixingshe*

(Society for Vigorous Practice) experimented with agrarian financial institutions and farmers' cooperatives in the economically advanced regions that they controlled (Wakeman 1997; Shiroyama 2011). However, the mixture of "market-democracy-oriented" foreign policies, "authoritarian" militaristic and industrial policies, and rigorous police control over civilian life under "Confucian fascism" (Wakeman 1997), and the degenerating system of fiscal-federalism meant the absence of strategic complementarities among agents in different domains of activities. The government then faced formidable competition from the peasant-based approach to political mobilization led by the Chinese Communist Party's People's Liberation Army. The Communist revolution in 1949 replaced the Nationalists' centralization drive with a wholesale corporatization of the rural economy into people's communes. Via this uneasy route, the reforms and opening of the economy of the 1980s finally released the peasants' energy and provided incentives for market development. After more than 2 decades of mass migration of over 250 million rural workers and their families to urban settings, the nation is now poised to squarely face the problem of how to finally overcome the rural–urban divide that was formally institutionalized through the *hukou* system, a legacy of the people's communes.<sup>25</sup> I hope that the preceding review of this historical path will help elucidate the significance and challenges of this latest transition.

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<sup>25</sup> This is a residence registration system distinguishing rural residents from urban residents. The two categories had different entitlements to social security, medical care, use rights in land, and access to higher education. Reforms to diminish these differences are one of the most important items of the policy agenda laid out in the Decision of the Third Plenum of the Communist Party in November 2013.

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