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ABSTRACT

A Taste of Communists' Own Medicine: The Political Consequences of Land Reforms in Japan and Taiwan*

Postwar land reforms in East Asia were implemented as a geopolitical strategy to curb communism expansion. This paper evaluates their long-term political effects in Japan and Taiwan. In Japan, reform increased support for conservative parties and reduced backing for socialist and communist factions, with intergenerational persistence. Taiwan's reform similarly bolstered electoral support for the Kuomintang. IV analyses support a causal interpretation. Survey evidence suggests that land acquisition fostered a desire for political stability as the mechanism, rather than through reciprocity or pro-market ideology. These findings highlight land reform's critical role in shaping postwar political alignment and deflecting communist influence.

JEL Classification: Q15, Q11, N55, P26
Keywords: land reform, communism, Japan, Taiwan

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1 Introduction

In the early post-WWII years, East and Southeast Asia witnessed a wave of land reforms that substantially redistributed land ownership. These reforms were either directly implemented under US occupation—as in Japan and South Korea—or promoted and supported by the US through technological and financial assistance, as in Taiwan, Vietnam, India, and several other countries. While the reforms were driven by a combination of economic and political motives, a central geopolitical objective was to stem the spread of communism in the Asia-Pacific region (Ladejinsky, 1963, page 445). The communist promise to redistribute land to poor peasants had been a powerful mobilizing force in rural Russia and China, contributing to the eventual rise of communist regimes in both countries. To "steal the communists' thunder" (Walinsky, 1977, page 151), the US-backed land reforms sought to transfer large amounts of land from landlords to tenants at below-market prices. The underlying logic was that the beneficiaries—who vastly outnumbered the dispossessed landlords—would become resistant to communist appeals and, perhaps even more crucially, offer political support to US-aligned governments.

In this paper we assess the effectiveness of this geopolitical strategy by estimating the political consequences Japan's land reform in 1947-49 and Taiwan's land reform in 1953. Both reforms involved the mandatory transfer of land from landlords to incumbent tenants, raising the share of self-owned farmland from 59 to around 90 percent. Our analysis focuses on three questions: (1) Did the reforms suppress support for Japan's left-wing parties—including the Japan Communist Party—and consolidate votes for right-wing parties in subsequent elections? (2) Were these effects just transitory or time persistent? (3) Through which mechanisms did the reforms influence political preferences and vote decisions?

Japan's land reform was implemented by the Japanese government between 1947 and 1949 under the supervision of Douglas MacArthur, then Supreme Commander of the Allied Powers during the Occupation. Wolf Ladejinsky, an American land reform adviser to the Japanese government, described the reform as an effort "to fight Communist ideology with an effective version of American farm tradition," aiming "to win the firmest allies in the clash of ideas with the Communists" (Walinsky, 1977, page 154). In Taiwan, a similar reform—known as the *Land-to-the-Tiller* program—was carried out in 1953 by a semi-governmental organization funded by the United States, with substantial involvement from Ladejinsky as well.

These parallels in political intent help explain why the core designs of the land reforms in Japan and Taiwan were closely aligned. First, both involved large-scale, compulsory redistribution of land ownership. In Japan, the reform increased the share of self-owned farmland from 51 to 89 percent; in Taiwan, from 59 to 90 percent. Second, in both cases, landlords were permitted to retain only a limited amount of land, with any holdings above the cap expropriated by the government and sold to incumbent tenants at highly subsidized prices. This structure generated substantial geographic variation in the intensity of land redistribution, because of various tenancy prevalence across localities prior to the reform. Our empirical strategy exploits this local variation—measured by the proportion of households receiving land—to estimate the reforms' political effects.

We begin by estimating the impact of Japan's 1947–49 land reform on the vote shares of major political parties in the 1955 general election, using data digitalized (by ourselves) from historical archives.[1] Specifically, we examine the two main right-wing parties (the Democratic

[1]The 1955 election is selected for two reasons. First, it provides the earliest complete set of election

Party and the Liberal Party), the Japan Socialist Party, and the Japan Communist Party. Our OLS estimates show that areas with greater exposure to land reform exhibited stronger support for right-wing parties: a one standard deviation increase in the share of land-receiving households led to a 1.47 percentage point increase in the combined vote share won by the right-wing parties, a 1.52 percentage point decrease in the Socialist Party's share, and a minimal decline in the Communist Party's share. These results are robust to a variety of controls, including pre-reform political preferences measured by vote shares in the 1947 general election, held just before the reform began.

A potential concern is that our OLS estimates may be biased by unobserved factors, particularly if the intensity of reform implementation reflects pre-existing political preferences. We address this issue in three ways. First, we show that vote shares from the pre-reform 1947 election have little predictive power for local land reform intensity, suggesting that reform exposure was not systematically driven by prior political leanings. Second, we conduct an Altonji-Oster test by comparing OLS estimates with and without controls for 1947 vote shares. Including these controls substantially improves model fit but does not materially alter the coefficients of interest. Assuming that selection on observables is proportional to selection on unobservables, the results imply that unobserved election-related factors are unlikely to explain our findings. Third, we implement an IV approach, using the proportion of arable plain land in each locality as an instrument for reform intensity. The resulting 2SLS estimates are consistent with, although somewhat larger than, the OLS estimates, further supporting a causal interpretation of the land reform's political effects.

Next, we extend our analysis by incorporating individual-level data from a 1955 household survey. The survey records individuals' political preferences and includes family links that enable us to identify sons of land reform beneficiaries. This provides a unique opportunity to examine whether the political effects of land reform were transmitted across generations. We find that sons of the land reform beneficiaries exhibited a stronger preference in favor of the two right-wing parties, and a stronger resentment against the Socialist Party and the Communist Party. These findings suggest that the political effects of Japan's land reform persisted over time, likely through intergenerational transmission of political preferences.

We then turn to Taiwan's 1953 land reform, implemented by the Kuomintang (KMT), which at the time governed as an authoritarian regime. Although local elections began in the late 1940s, meaningful opposition did not emerge until the early 1970s. Accordingly, we focus on estimating the effects of land reform on the vote shares won by the KMT in four elections held in 1972, 1975, and 1980. If the reform strengthened support for the KMT, we would expect to observe this effect in subsequent voting decisions. Indeed, our OLS estimates show that KMT vote shares are positively associated with the proportion of tenant households that received land in 1953 and negatively associated with the proportion of landlord households whose land was expropriated. These findings are robust to instrumental variable estimation, which confirms the causal direction of the effects.

We examine three potential mechanisms that may explain the land reform effects. First, beneficiaries and their descendants may have reciprocated the reform by voting for the implementing party. Second, land acquisition may have shifted preferences toward pro-market policies—a mech-

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data available at the village/city level; the corresponding data for the 1952 and 1953 General Elections are partially missing. Second, the 1955 election coincides with the timing of the 1955 Social Stratification and Social Mobility Survey, which offers individual-level data that enable analysis of the intergenerational transmission of land reform effects in this paper.

anism supported by prior studies such as Di Tella et al. (2007) and De Janvry et al. (2014). Third, acquiring property rights may have strengthened beneficiaries' preference for political and social stability, thereby inducing support for the incumbent party regardless of its ideological position. The evidence does not support the reciprocity mechanism, at least in the case of Japan. The Socialist Party, which actively supported the land reform, held power during its implementation under Prime Minister Tetsu Katayama (1947–48). If reciprocity were the primary driver, we would expect increased support for the Socialist Party rather than a shift toward the political right. To test the second mechanism, we use a unique dataset from Taiwan that includes two measures of individual attitudes toward progressive ideology. We find no significant relationship between exposure to land reform and either measure, suggesting that the reform did not lead to a shift toward pro-market preferences. In contrast, our evidence supports the third mechanism. Using the same Taiwanese data, we find that residents in areas with higher land reform intensity express stronger opposition to the role of opposition parties and dissenting groups. These patterns are consistent with the hypothesis that land ownership heightened beneficiaries' desire for political stability, thereby increasing their support for the incumbent regime.

Our findings contribute to several strands of the literature. While a substantial body of research has examined the economic impacts of land reform—such as improvements in agricultural productivity, alleviation of poverty or inequality, and even long-term growth and development—there is relatively little quantitative evidence on its political consequences.[2] Our results align with prior studies from Chile (González, 2013), Mexico (De Janvry et al., 2014), and Italy (Caprettini et al., 2019), which document significant and lasting effects of land reform on voting behaviors.[3] However, our evidence on mechanisms diverges from existing work. In contrast to studies that find land reform fosters pro-market preferences (De Janvry et al. (2014) and Di Tella et al. (2007)), we find no such effect. Instead, our results suggest that land reform worked by enhancing beneficiaries' desire for political stability following the acquisition of property rights. Finally, our finding of intergenerational transmission offers a plausible explanation for why redistributive policies can generate enduring political returns—a pattern of persistence also noted by Kennedy (1999) and Caprettini et al. (2019).[4]

This paper also contributes to the broader literature—primarily rooted in political science—on pocketbook voting, which refers to voters supporting parties or candidates that they believe will most improve their economic well-being. A large body of evidence suggests that voters tend to reward those who deliver material benefits (Arbatli & Gomtsyan, 2019; Bechtel & Hainmueller, 2011; Levitt & Snyder Jr, 1997; Manacorda et al., 2011; Richter, 2006), respond favorably to

[2]In terms of economic impacts, previous studies have shown that acquiring land ownership or securing tenure rights can alleviate poverty and inequality (Bardhan et al., 2014; Besley & Burgess, 2000; Chernina et al., 2014; Keswell & Carter, 2014), strengthen incentives for investment (Besley, 1995; Fan & Yeh, 2019; Goldstein & Udry, 2008), and promote development and growth (A. Banerjee & Iyer, 2005; A. V. Banerjee et al., 2002; Kitamura, 2022).

[3]González (2013) analyzed the 1958 and 1970 presidential elections in Chile and found that municipalities affected by a land redistribution project implemented in the 1960s voted 3 to 5 percentage points more for the incumbent compared to unaffected municipalities. Similarly, De Janvry et al. (2014) found that, in Mexico, granting full property rights to farmers led to increased support for the pro-market party, rather than for the left-wing party that had implemented the reform.

[4]Caprettini et al. (2019) studied a major land reform in Italy and found a persistent electoral gain for the Christian Democratic Party, accompanied by a corresponding loss for the Communist Party. They further showed that the development of rural organizations and the continuation of favorable public policies in the reform areas were likely mechanisms that sustained this long-term political shift.

economic promises (Elinder et al., 2015), or punish parties that impose economic harm (Avdeenko, 2018). However, the political effects of land reform remain relatively underexplored in this context. Our findings from Japan suggest that the electoral gains following land redistribution were not primarily driven by reciprocity. Instead, they appear to reflect beneficiaries' increased preference for political stability after acquiring property rights.

Finally, this paper contributes to the literature evaluating the post–WWII geopolitical strategies pursued by the United States in East and Southeast Asia (Hanhimäki & Westad, 2004; Sodei, 2001; Tyner, 2006). In addition to military engagements and diplomatic battles, US-backed land reforms in the region were intended as an economic tool to curb the spread of communism. We contribute to the literature by leveraging village-level and individual-level data to estimate the causal effects of land reforms using rigorous empirical strategies. Our findings suggest that these reforms contributed to the long-term political dominance of the Liberal Democratic Party in Japan and the KMT in Taiwan—both close US allies with consistently anti-communist stance. These results imply that land reform effectively served the strategic objectives set by the US in the Cold War period.

The remainder of the paper is organized as follows. Section 2 introduces the historical background of land reforms in East and Southeast Asia, emphasizing the pivotal role played by the US in designing and supporting their implementation. Section 3 presents both OLS and IV estimates of the relationship between Japan's land reform and party vote shares in the 1955 general election. In Section 4, we use individual-level data to examine how the sons of land reform beneficiaries shifted their political preferences in response to the reform. Section 5 turns to Taiwan and estimates the effects of land reform on vote shares received by the ruling party. Section 6 explores and evaluates three potential mechanisms underlying the observed political impacts. Section 7 provides concluding remarks.

2 Background

The term land reform (or agrarian reform) can encompass a wide range of changes to agricultural systems, including land titling, standardized contracts, price and quantity controls, and various regulatory interventions. In this paper, however, we use the term specifically to refer to large-scale government interventions aimed at redistributing land ownership. We exclude from our analysis the communist model of land reform, which abolished private landownership and replaced individual farming with collective agricultural systems.

2.1 Post-WWII land reforms in Asia

The post-WWII wave of non-communist land reforms began in Japan (1947) and South Korea (1948) under American occupation, and was later followed by reforms in Taiwan (1953), India (1961), Indonesia (1962), the Philippines (1963), and South Vietnam (1970). These reforms shared a common feature: large-scale redistribution of landownership while preserving the institution of private property. However, the reforms in India, the Philippines, and South Vietnam were only partially implemented and met with limited success.

Japan's land reform—often referred to as the *emancipation of farming land*—was implemented by the Japanese government between 1947 and 1949 under the direction of General Douglas

MacArthur, then Supreme Commander of the Allied Powers. Wolf Ladejinsky, a key American land reform adviser to the Japanese government and later to several other Asian countries, strongly advocated for compensation-based land redistribution as a peaceful alternative to the violent, coercive reforms seen in communist countries such as North Korea (1946-48), China (1950-52) and North Vietnam (1954-56). In South Korea, land reform was implemented in two stages. The first stage, from 1945 to 1948, involved the transfer of land formerly owned by the Japanese to Korean tenants (Shin, 1976). This process, carried out jointly by the Korean government and the United States Army Military Government in Korea, resulted in 29.6 percent of total tenanted land being redistributed to tenants (Mitchell, 1949). The second stage began after the Korean Land Reform Bill was passed in 1949 and focused on transferring land from Korean landlords to tenant farmers. The core design of the land redistribution mirrored two key features of Japan's 1947 reform: each farming household was permitted to retain up to three *chungbo* of land (1 *chungbo* = 2.45 acres), and any land exceeding this quota was expropriated and transferred to tenants at regulated prices.

The land reforms in other Asian countries were not implemented under direct US occupation but were nonetheless supported—or in some cases shaped—by the US through financial assistance and technical expertise. As Thompson (1951) argued, the widespread appeal of communist promises of land redistribution throughout Asia heightened US awareness of the need to reform prevailing landownership systems in the region. A major US response, he noted, was to promote land reform in countries receiving American aid. One prominent initiative was the Point Four Program, launched by President Truman, which provided substantial economic aid and technical assistance to developing countries. According to a Los Angeles Times report on January 8, 1951, Henry G. Bennett—the first administrator of the Point Four Program (1950–1951)—stated that his policy would be to implement a "capitalistic type of land reform" in aid-receiving countries as a means to "combat the appeal of widely publicized Communist land reform."

The effectiveness of US-promoted land reform depended critically on the willingness and capacity of recipient governments to adopt and implement the American agenda (Ladejinsky, 1963, page 459). In Taiwan, the ruling KMT—which fled to the island in 1949 after its defeat by the Chinese Communist Party—shared the US's anti-communist ideology and interest. Drawing lessons from its failure on the mainland, the KMT adopted some of the communists' strategies and tactics, including mobilizing rural support through land redistribution (Z.-Y. Chen, 2011).[5] Crucially, as an exiled regime, the KMT lacked entrenched political or economic ties to Taiwan's landed elite. This allowed the government to carry out land redistribution in favor of tenant farmers with little domestic resistance. In contrast, in countries such as South Vietnam, the Philippines, and India, land reform faced significant political barriers. In these contexts, landlords were often deeply connected to political elites, creating strong opposition to meaningful redistribution. Elvinia (2011), for instance, documents how in the Philippines, although the government expressed interest in land reform, powerful landowning elites influenced politicians and weakened the design and enforcement of land reform laws, rendering the implementation both difficult and inefficient.

[5]For example, on February 1, 1951, Kuomintang leader Chiang Kai-shek addressed senior party members, urging them to learn from the party's failure in mainland China by studying the Communist Party's strategies and "giving them a taste of their own medicine" (Z.-Y. Chen (2011)).

2.2 The post-WWII land reform and politics in Japan

Prior to WWII, tenancy was widespread in Japan's agricultural sector. As of April 1946, approximately 28.7 percent of farmers were landless tenants, while another 38.4 percent were semi-tenants who cultivated both rented and owned land (Grad, 1948). Land ownership was highly concentrated: the top 3 percent of landholders owned 29 percent of the land, whereas the bottom 75 percent held less than 34 percent (Walinsky, 1977, page 71). With rents commonly consuming 50-60 percent of the annual crop yields, the tenancy system had long been blamed as the root for persistent poverty and peasant discontent in the rural Japan (Dore, 1958).

The legislative foundation for Japan's land reform was established on October 21, 1946, when the Second Agricultural Land Reform Law was passed by the Diet and promulgated on the same day. The law was drafted by Japan's Ministry of Agriculture and Forestry under the direction of the General Headquarters of the Occupation Forces. Land transfers began in mid-1947, with the majority completed in 1948 and 1949. In total, approximately 38 percent of Japan's farmland was redistributed to tenants, reducing the share of tenanted land from 45.9 percent to 9.9 percent (Kitamura, 2022). The reform is widely regarded as the most successful land redistribution in postwar Asia. Dore (1958) attributed this success to the firm commitment and enforcement of the Occupation Forces, without which implementation would have been far more difficult. Figure 1 presents an overview of land reform intensity, measured as the number of land-receiving households divided by the total number of households in each village or city. The intensity varies substantially across localities, offering rich variation for empirical estimation.

The reform had two key features. First, a cap was imposed on landholdings: landlord households were allowed to retain a maximum of one hectare (2.47 acres), and absentee landlords were required to sell all their landholdings. Second, land in excess of the quota was expropriated by the government and subsequently sold to tenants. The purchase price was heavily subsidized—set by multiplying the 1945 nominal rent by 40 for paddy land and by 48 for dry land (Kitamura, 2022). However, due to the extreme inflation Japan experienced in 1946 and 1947—with consumer price index (CPI) exceeding 610 percent in 1946 and 100 percent in 1947—the fixed nominal prices declined sharply in real terms by the time payments were made. As a result, land-receiving tenants obtained their land at a substantial discount, granting them significant economic benefits (Grad, 1948).

The purchase and sale of land were coordinated by local Land Commissions, which were established in each village, city, and township. Each commission consisted of elected members, including five tenant representatives, three landlords, two self-cultivating farmers, and several commissioners appointed by local governments. The commissions were responsible for identifying lands eligible for purchase, granting exemptions in special cases, mediating disputes, and consolidating landholdings after the transactions were completed (Dore, 1958, page 425-426). Elections for Land Commission members were held in December 1946, and the commissions began operations in 1947 (Walinsky, 1977, page 110-111).

Following the end of WWII, Japan underwent a profound transformation in its political system. A new constitution—the *Peace Constitution*—came into effect in May 1947, replacing the imperial monarchy with a parliamentary democracy. Under the new framework, the emperor's role was reduced to that of a symbolic figurehead, with no governing authority. A bicameral legislature was established, consisting of the House of Representatives (lower house) and the House of Councilors (upper house), both elected through parallel voting systems that combined single-member

districts with proportional representation. The postwar political system allowed for free electoral competition and the formation of multiple parties across the ideological spectrum, including the Japan Communist Party. This institutional reconfiguration laid the foundation for democratic governance and open political contestation in the postwar era.

Japan's first House of Representatives election under the new constitution—referred to as the General Election—was held in April 1947. The main political contenders included the Liberal Party and the Democratic Party (both right-leaning), the Japan Socialist Party (left-leaning), the Japanese Communist Party (far-left), and the National Cooperative Party (centrist). The election results made the Japan Socialist Party the largest party in the lower house, winning 143 seats (30.56%) out of 468.[6] Tetsu Katayama, leader of the Socialist Party, became prime minister by forming a coalition government with the Democratic Party and the National Cooperative Party. His tenure ended in March 1948 and was followed by Hitoshi Ashida of the Democratic Party. Ashida was later succeeded by Shigeru Yoshida, leader of the Liberal Party, who served as prime minister from October 15, 1948, to December 10, 1954.

It is important to note that the land reform initiative enjoyed broad support across the political spectrum, albeit to varying degrees. During parliamentary debates over the Agricultural Land Reform Law, the core elements of the reform were endorsed by both left- and right-wing parties (Dore, 1958). If anything, the left-wing parties expressed stronger concern for part-time farmers and day laborers, who were excluded from the redistribution process. Over the course of the reform's implementation, Japan was governed by a coalition, with prime ministers drawn successively from the Japan Socialist Party, the Democratic Party, and the Liberal Party. Given that both right- and left-leaning parties contributed to the reform's passage and execution, it is unlikely that reform beneficiaries would have felt compelled to reward any single party through reciprocal voting in subsequent elections.

The political landscape in the 1955 general election differed somewhat from that of 1947, reflecting key party realignments in the intervening years. Most notably, the Japan Socialist Party split into two factions in 1948—the Leftist Socialist Party and the Rightist Socialist Party—both of which ran as separate entities in the 1955 election. Another change was the dissolution of the centrist National Cooperative Party in 1950. In contrast, the two main right-wing parties—the Liberal Party and the Democratic Party—as well as the Japanese Communist Party, remained largely unchanged in structure during this period.

2.3 The post-WWII land reform and politics in Taiwan

In 1953, Taiwan implemented the Land-to-the-Tiller reform under the supervision of the Sino-American Joint Commission on Rural Reconstruction (JCRR), a semi-governmental organization funded by the United States. The JCRR was originally established in mainland China in 1948 but relocated to Taiwan in 1949 following the KMT's retreat after its defeat by the Chinese Communist Party. The Commission was administered by five commissioners—three appointed by the KMT and two by the US government—reflecting joint oversight and cooperation between the two governments.

The underlying designs of the Land-to-the-Tiller Reform is analogous to those of Japan's 1947-

[6]It was followed by the Liberal Party with 131 seats, the Democratic Party with 124, the National Cooperative Party with 31, and the Japanese Communist Party with 4 seats.

49 land reform: A landlord is allowed to keep a cap of 3 *Jia* (a *Jia* is a unit of land area equal to 0.9699 acre.) of grade-2 paddy land.[7] The over-quota land will be expropriated by the government at the price that was substantially lower than the market land price. In Appendix A, we detail how land-receiving tenants benefited from the highly subsidized pricing—estimated at approximately 32 percent of the market value—and from the installment payment plan, which featured a below-market interest rate. The landlords were not compensated with cash, but with government bonds and shares of state-own enterprises. The bonds and shares were over-valued by the government when they were issued, and, at the absence of public bond and stock markets, it was difficult for ordinary holders to cash out the holdings.

The reform was legally authorized by the Land-to-the-Tiller Act, which was enacted in May 1952 and passed by the Legislative Yuan (Taiwan's legislature) in January 1953 (Z.-Y. Chen, 2011, page 219). All land transactions were completed by December 1953, resulting in the transfer of 139,249 acres to 194,823 tenant households. As a consequence, the proportion of tenanted land declined sharply—from 41 percent to 10 percent—mirroring the scale of land redistribution achieved in Japan's earlier reform.

Japanese colonial rule in Taiwan ended after WWII, and in 1945 governance was transferred to the Republic of China (ROC), then under the control of the KMT. Following its defeat by the communists in the civil war, the KMT retreated to Taiwan in 1949. The early years of KMT rule on the island were marked by widespread corruption, poor military discipline, economic monopolization, and the forced requisitioning of rice and sugar to support the ongoing war effort on the mainland. These issues generated deep tensions between the local Taiwanese population and the new government. The conflict culminated in the February 1947 uprising, which was brutally suppressed in what became known as the 228 Massacre—resulting in an estimated 10,000 civilian deaths.[8] In the aftermath, the KMT imposed the Martial Law to curtail civil liberty and rights, which remained in effect for four decades (1947–1987). During this period, numerous local elites, scholars, and ordinary citizens were executed, disappeared, or imprisoned without trial. These authoritarian measures left a legacy of civil resentment and enduring societal trauma, prompting the alarmed KMT regime to implement land reform as a means of placating rural farmers and preempting the appeal of communist ideology.

Despite the KMT's authoritarian rule, elections at the local (township and county) level began as early as the late 1940s. Elections for central government legislative bodies—the Legislative Yuan and the National Assembly—were introduced later, in 1969.[9] Under Martial Law, the KMT, alongside two minor satellite parties, remained the only legal political parties until 1987. With no formal opposition allowed, dissidents could participate in elections only as independent candi-

[7]The reform distinguished between two types of land: paddy land and dry land. Each type was further classified into four quality grades, with Grade 1 representing the highest quality. The ceiling on landholdings was set at three *Jia* of Grade-2 paddy land. To standardize land of different types and quality levels, an "equivalence scale" was established, allowing all land to be converted into units of Grade-2 paddy land for the purpose of assessing compliance with the holding cap. For example, one unit of Grade-1 paddy land was considered equivalent to two units of Grade-2 paddy land, and similar conversions applied to other grades and to dry land.

[8]An estimate of 10 thousand local Taiwanese were killed in this crackdown (Durdin, 1947). The crisis was exacerbated by the hyperinflation from 1949 to 1951, which was a direct result from the skyrocketed money supply issued by the KMT authority to finance the fled KMT government and the troops.

[9]County (and county-level city) and township (and the township-level city) are respectively the second and third levels of administrative division. In 1980, there were 22 counties and 371 townships.

dates, typically with limited resources to support their campaigns. Moreover, elections during the Martial Law era were closely monitored and often manipulated by the KMT; in some cases, they were rendered non-competitive due to the absence of non-KMT candidates. Nevertheless, over time, dissidents increasingly found ways to contest elections and began winning seats, gradually expanding the space for political opposition.

Our analysis focuses on estimating the effects of the Land-to-the-Tiller Reform on the vote shares won by the KMT in four key elections: (1) the 1972 County Magistrate (Premier) Election, (2) the 1972 Legislative Yuan Election, (3) the 1975 Legislative Yuan Election, and (4) the 1980 National Assembly Election. These elections are selected because they represent the earliest electoral data that can be reliably analyzed. At the time, Taiwan's legislature operated under a bicameral system composed of the Legislative Yuan and the National Assembly—though the latter was dissolved following a constitutional amendment in 2004. Representatives to both bodies were elected using a single non-transferable vote (SNTV) system within multi-member districts, without any form of party-list proportional representation. Electoral districts were defined at the county or city level, each consisting of one of multiple townships.

3 The effects of Japan's land reform on voting behaviors

Due to the absence of individual- or household-level data on land transfers, our primary analyses rely on aggregated data at the village/city level for Japan and the township level for Taiwan. All data were manually collected and digitized into a usable format.

For Japan's 1947–49 land reform, detailed village- and city-level records are available in *Land Reform Data Integration, Volume 11* (in Japanese), compiled by the Land Reform Data Compilation Committee. For each locality, the dataset reports the number of land-receiving households, the total area of redistributed land, and the overall area of farmland. We merge these data with demographic variables—such as total population, agricultural and non-agricultural populations, and gender ratios—sourced from the *1947 Census Summary Statistics Tables*. Election data are drawn from *The Summary of the 27th House of Representatives General Election (1955)* and *The Summary of the 23rd House of Representatives General Election (1947)*, both in Japanese. These archives provide information on the number of open seats, each candidate's demographic characteristics and party affiliation, vote counts, and voter turnout at the township level. In Appendix B, we detail how We harmonize land reform, election, and census data to Japan's 1955 village or municipal boundaries using QGIS, adjusting for administrative changes during the Great Shōwa Mergers through spatial realignment, proportional allocation, and historical shapefile integration.

Our final sample comprises 6,408 observations. Summary statistics are presented in Table 1. On average, 49.1 percent of households in a locality received land through the reform—underscoring the scale of redistribution. Between the 1947 and 1955 general elections, the combined vote share of the two main right-wing parties – the Democratic Party and Liberal Party – rose from 55.7 to 68.8 percent. In contrast, the Socialist Party saw a modest increase in support, with its vote share rising from 22.6% to 24.2%, while the Communist Party experienced a sharp decline, dropping from 2.8% to just 1.0%.

To estimate the effects of land reform, we consider the following equation:

$$VR_{j,1955} = \alpha + \beta LR_j + \gamma_R VR_{j,1947} + \gamma_S VS_{j,1947} + \gamma_C VC_{j,1947} + X_j\pi + \rho_l + \mu_p + \epsilon_j \quad (1)$$

where $VR_{j,1955}$ denotes combined vote share won by all candidates affiliated with the two right-wing parties in village/city j in the 1955 General Election. LR_j measures the intensity of land reform, defined as the proportion of households in village/city j that received land through the redistribution. The vector X_j includes demographic control variables such as the logarithm of population, the male-to-female sex ratio, and population density (total population divided by land area). We include fixed effects ρ_l for locality types (village, town, or city), and μ_p for prefecture. The error term is denoted by ϵ_j. Crucially, the regression also controls for pre-reform political preferences using vote shares from the 1947 general election: $VR_{j,1947}$, $VS_{j,1947}$, and $VC_{j,1947}$, which represent the vote shares won by the two right-wing parties, the Japan Socialist Party, and the Japanese Communist Party, respectively. Given the substantial variation in population size across localities, the regression is weighted by population to improve estimation precision. Standard errors are clustered at the prefecture level.

A key challenge to our identification strategy is the potential for omitted variable bias if cross-locality variation in land transfers is correlated with unobserved factors that also influence the 1955 election outcomes, even after the 1947 vote shares are controlled for in the regression. This concern is particularly salient if the implementation of land reform was influenced by local partisan dynamics. For instance, the government may have enforced the redistribution more rigorously in villages or cities where landlords were perceived as politically oppositional, aiming to weaken a potential resisting elite. In such cases, our estimates of the reform's political effects could be confounded by these underlying political considerations.

A key challenge for our identification strategy is the possibility that the cross-locality variation of land transfers may be correlated with unobserved determinants of the 1955 election outcomes, leading to omitted variables bias. This is particularly a concern if the implementation of the reform was affected by partisan preferences. For example, the government might have implemented the land redistribution more meticulously in villages/cities where landlords were more rebellious in order to reduce the risk that the landed elite developed to be a resisting force. In this case, our estimates of the land reform effects may be confounded with such political influences.

We assess the severity of this identification threat in three ways. First, we examine whether the vote shares obtained by different political parties in the 1947 election predict the intensity of land redistribution. This test is informative because if local political preferences had little predictive power, it would suggest that cross-locality variation in land reform intensity was not systematically driven by political considerations and is therefore unlikely to be correlated with unobserved determinants of the 1955 vote shares. We conduct the examination by regressing land reform intensity (LR_j) on the full set of controls specified in Equation (1), focusing on whether the coefficient estimates of $VR_{j,1947}$, $VS_{j,1947}$, and $VC_{j,1947}$ are different from zero. The results are presented in Table 2, where column 1 shows that land reform intensity is not significantly correlated with the vote shares of the right-wing parties or the Socialist Party. Although there is a statistically significant negative correlation with the vote share of the Communist Party, the magnitude is modest: a one standard deviation increase in the Communist Party's 1947 vote share is associated with only a 0.26 percentage point decrease in the share of land-receiving households. Given that the Communist Party secured only 2.8 percent of the vote, this correlation is unlikely to meaningfully bias our estimates. Column 2 reports estimates from an unweighted regression, in which none of the three vote share coefficients is statistically significant.

Second, we implement the method proposed by Altonji et al. (2005) and extended by Oster (2019) to evaluate the potential for omitted variable bias. This approach leverages the relationship

between observed and unobserved covariates to assess the robustness of the coefficient of interest. Specifically, we compare OLS estimates of Equation (1) under two specifications: one that includes only the baseline controls, and another that additionally controls for vote shares from the 1947 election. The premise of the test is that the 1947 vote shares are positively correlated with unobserved partisan preferences captured in the error term. According to Altonji and Oster, if the inclusion of these observables improves the model's goodness-of-fit, then the resulting change in the estimated coefficient $\hat{\beta}$ provides insight into how unobserved factors might influence the estimate. In particular, if $\hat{\beta}$ remains stable despite an increase in explanatory power, it suggests that bias from omitted variables is likely to be limited.

Columns 1 to 3 of Table 3 present the OLS estimates of β using baseline controls. The dependent variable in Column 1 is the combined vote share won by candidates affiliated with the two right-wing parties in the 1955 general election. The key independent variable, labeled "Percent land-receiving households," refers to land reform intensity. The $\hat{\beta}$ is 0.068 and statistically significant, and it translates into a correlation that a one standard deviation increase in land-receiving households (0.245) is associated with a 1.67 percentage point increase in the right-wing vote share. Columns 2 and 3 report $\hat{\beta}$ for the Socialist and Communist parties: it is negative and significant for the Socialist Party (-0.072), but negative and insignificant for the Communist Party (-0.002), indicating that the effect on Communist vote share is not precisely estimated. Column 4 shows that $\hat{\beta}$ remains positive and statistically significant (0.060) when we additionally control for 1947 vote shares. The R-squared increases from 0.405 to 0.492, indicating improved model fit. A formal χ^2 test fails to reject the null hypothesis that $\hat{\beta}$ in columns 1 and 4 are equal ($p = 0.2706$). Similarly, the estimate for the Socialist Party in Column 5 becomes slightly smaller in magnitude (from -0.072 to -0.062), while the R-squared rises from 0.340 to 0.449. In both cases, the inclusion of additional election-related controls modestly attenuates the estimated effect but greatly improves explanatory power. Finally, the estimates for the Communist Party in Columns 3 and 6 remain close to zero and are imprecisely estimated, providing little useful information. Overall, the stability of our coefficients of interest—despite improved model fit—suggests that omitted variable bias would have to be extremely large to eliminate the observed effects. These findings support the reliability of our OLS estimates.

Third, we implement an instrumental variables (IV) strategy, using the proportion of plain area within a locality as an instrument for land reform intensity. The rationale is that plain terrain is particularly favorable for agricultural production, which historically supported the development of larger farms and more unequal land ownership—conditions that fostered tenancy and thus increased exposure to land reform. Consistently, our data show that the proportion of plain land is a strong predictor of land reform intensity, a satisfying first-stage effect. For the IV to be valid, however, it must also satisfy the exclusion restriction—that is, it should not affect 1955 voting outcomes except through its influence on land reform. To assess this condition, we follow the strategy employed by Alesina et al. (2013) and examine whether our IV estimates are robust to the inclusion of a set of additional geographic controls. Specifically, we control for distance to the nearest coastline, distance to the nearest major river, and annual precipitation—factors that may be correlated both with the prevalence of plains and with voting behavior. The robustness of our estimates to these controls provides supporting evidence for the validity of the exclusion restriction.

Columns 1 to 3 of Table 4 present the IV estimation results. Consistent with the OLS results in Table 3, the IV estimates show that land reform significantly increased vote shares for the right-wing

parties, while reducing support for the Japan Socialist Party and the Japan Communist Party. In all three cases, the IV estimates are larger in magnitude than their OLS counterparts. In Column 4, the IV estimate for the right-wing parties increases from 0.245 to 0.351 after controlling for additional geographic characteristics. Columns 5 and 6 show similar patterns for the Socialist and Communist parties: the negative coefficients become slightly larger in magnitude when geographic controls are added. Overall, the results in Table 4 reinforce the OLS findings, confirming that land reform shifted electoral support toward the right-wing parties while reducing support for left-wing parties.

4 The long-term effects of Japan's land reform

We now turn to individual-level data to examine whether the effects of Japan's land reform persisted into the next generation. Specifically, we estimate the political preferences of the sons of tenant farmers, using data from the 1955 wave of the Social Stratification and Social Mobility Survey (SSM) as it uniquely records each respondent's most preferred political party and includes family relationship data that allow us to identify sons of tenant farmers. The sample includes 2,014 male respondents and provides information on the longest-held occupation of each respondent's father. We define the second generation of land reform beneficiaries as males aged 20 to 45 in 1955 whose fathers' primary occupation was recorded as tenant farming, regardless of the son's occupation. While this classification does not perfectly capture the offspring of land reform beneficiaries—since not all tenant farmers necessarily received land—it offers a reasonable proxy. Consequently, our estimates should be interpreted as capturing an intention-to-treat (ITT) effect rather than the average treatment effect (Angrist et al., 1996). A second source of measurement error arises from the lack of information on whether the respondent's tenant father was still alive in 1947, when the land reform began. In cases where the father had died before the reform, the respondent—particularly if the eldest son—may have directly inherited the tenancy and become the de facto beneficiary. However, we believe this issue is limited in scope, as only 28.31 percent of respondents reported working in agriculture in 1955.

We consider two alternative control groups for comparison. The first, which we refer to as the *broad control group*, consists of males aged 20 to 45 in 1955 whose fathers' primary occupation was neither tenant farming nor landlordship, regardless of the respondent's own occupation. A limitation of this group is that it includes sons of self-cultivated farmers, some of whom may have received land during the reform if they owned only a small parcel and rented additional land prior to the reform. As a result, the broad control group may not be entirely unaffected by the reform. To address this concern, we construct a second group—the *narrow control group*—by removing from the broad control group all respondents whose fathers were classified as self-cultivated farmers. In what follows, we present estimation results using both control groups to assess the robustness of our findings.

To estimate the intergenerational transmission of the land reform effect, we start with estimating the following baseline regression:

$$LDP_i = \alpha + \beta LR_i + \gamma_a + \mu_{pr} + \theta_{pb} + \epsilon_i \tag{2}$$

where the dependent variable LDP_i is a binary indicator equal to 1 if individual i reported the Liberal Party or the Democratic Party as his most preferred political party, and 0 otherwise. LR_i

is a binary variable indicating whether the career of individual i's father is tenant (= 1) or not (= 0). We include age fixed effects (γ_a), as well as prefecture-of-residence (μ_{pr}) and prefecture-of-birth (θ_{pb}) fixed effects to control for regional influences. The error term is denoted ϵ_i , and standard errors are clustered at the prefecture level. The coefficient of interest, β, captures the mean difference in party preference between sons of tenant farmers and those in the control group.

Columns 1 to 3 in Panel A of Table 5 present the estimates of β for each of the three major political parties, using the broad control group. The results indicate that sons of tenant farmers are significantly more likely to report the Liberal Party or the Democratic Party as their most preferred party, and less likely to prefer the Japan Socialist Party or the Japan Communist Party. Panel B reports the corresponding estimates when father's educational attainment is included as an additional control for family background. The estimated coefficients for β increase slightly in magnitude across all three outcomes, and the models' explanatory power (as measured by R^2) improves modestly. According to the logic developed by Altonji et al. (2005) and Oster (2019), this pattern suggests that unobserved family characteristics are unlikely to fully account for the observed results. This reinforces the credibility of our estimates, especially given that family background variables such as socioeconomic status and political ideology are often considered as important determinants of individual political preferences. Nonetheless, we acknowledge that the possibility of confounding from other unobserved factors cannot be entirely ruled out.

Columns 4 to 6 of Table 5 replicate the analysis using the narrow control group, in which sons of self-cultivated farmers are excluded. As expected, the sample size decreases substantially—from 1,070 to 699 observations. Nevertheless, the estimated β are uniformly larger in magnitude than those obtained using the broad control group, further reinforcing the findings. Consistent with earlier results, the comparison between Panels A and B shows that adding father's educational attainment as a control leads to slightly larger β estimates and higher R^2 values, suggesting improved model fit. These patterns again support the argument that unobserved family background characteristics are unlikely to fully account for the observed effects. Taken together, the results in Table 5 suggest that Japan's land reform had long-lasting political consequences: it increased support for right-wing parties not only among the direct beneficiaries but also among their sons, indicating intergenerational transmission of political preferences shaped by land redistribution.

5 Analysis of Taiwan's land reform

We now turn to the analysis of Taiwan's *Land-to-the-Tiller* reform, implemented in 1953. The core design of Taiwan's reform closely resembled that of Japan's 1947–49 land reform, particularly in its compulsory redistribution of land to tenant farmers. As such, our estimates for Taiwan serve as a valuable complement to the analysis of Japan, enabling a broader assessment of the political consequences of US-backed land reforms in East Asia.

5.1 Data

Variables related to land reform outcomes are obtained from the *Statistical Yearbooks* of each county, published annually by the respective county governments. These yearbooks report demographic statistics, economic indicators, government budgets, and other administrative data at the township level. The 1962 and 1963 editions, in particular, record the number of land-receiving households and the amount of redistributed land during the reform for all 271 townships

across Taiwan, although data for 29 townships in Taichung County are missing. Information on pre-reform conditions—including the numbers of tenant households, semi-tenant households, and self-cultivated households—is drawn from the *Report of Investigation on Ownership and Operation of Arable Land, 1951*. Election data are compiled from three official sources: *The 1972 Report on Central Government Representative and the Fifth County Premier and Representative Election in Taiwan*, *The 1975 Report on Central Government Representative Election in Taiwan*, and *The Summary of the 1980 Central Government Representative Election in Taiwan*. These documents provide, at the township level, information on the number of available seats and candidates in each electoral district, each candidate's party affiliation, the number of votes received, and the number of void ballots.

Given data availability, our analysis of Taiwan is conducted at the township level. Under the single non-transferable vote system, each voter casts only one vote for one candidate in a multi-member district. Because opposition parties were not permitted during the Martial Law era, most campaigns featured multiple KMT candidates and independent candidates. We measure electoral support for the KMT by calculating the vote share won by all KMT candidates in a township. One limitation of this measure is that it may not be directly comparable across competitive and non-competitive districts. In non-competitive townships—where only KMT candidates were on the ballot—KMT candidates generally received nearly all votes, except for a small number of void ballots.[10] In contrast, in competitive townships—where both KMT and independent candidates contested—vote shares reflect actual voter choice. In our main analysis, we include all townships, both competitive and non-competitive. However, to address concerns about comparability, we also present the estimated effects using a restricted sample that excludes non-competitive townships.

An important advantage of the Taiwan data over the Japan data is the richer detail available on the implementation of land reform. While the Japanese data report only the number of land-receiving households, the Taiwanese data include both the number of households that received land and those that were dispossessed through expropriation. This enables us to construct two treatment variables—the proportion of land-receiving households and the proportion of land-depriving households—and to estimate their effects simultaneously within the same regression framework. By capturing the political responses in both directions—positive for recipients and negative for those dispossessed—we are able to conduct an internal consistency check. Finding a negative effect for land-deprived households reinforces the credibility of the positive effect observed among recipients.

However, the Taiwan data also have several limitations. First, there were no elections held prior to the 1953 land reform, preventing us from controlling for pre-reform political support for the KMT. Second, only KMT and independent candidates were permitted to run in elections, making it impossible to observe electoral responses across the right-left ideological spectrum. Third, the earliest election data we are able to obtain begin with the 1972 County Premier election—nearly two decades after the reform. This long lag increases the risk of confounding, as other events or

[10]Indeed, in the 1972 County Premier Election, the KMT received an average of 61.5 percent of the vote in non-competitive townships, substantially higher than the 44.9 percent observed in competitive townships. Fortunately, due to the multiple-member district system—which encourages opposition participation—non-competitive districts were relatively rare. The number of townships with uncontested elections was 20 (8 percent) in the 1972 Legislative Yuan election, 0 in the 1975 Legislative Yuan election, and 20 in the 1980 National Assembly election. Non-competitive districts were considerably more common (around 60 percent) in the 1972 County Premier Election, where, unlike parliamentary elections, county premiers were elected in single-member districts. Because only one candidate could win, dissidents often found it extremely difficult to compete effectively in a head-to-head race.

structural changes in the interim could bias our estimates of the reform's long-term political effects.

5.2 Estimation

To estimate the effects of Taiwan's 1953 land reform, we use the following specification:

$$V_{je} = \alpha + \beta_1 LR_j + \beta_2 LD_j + X_j\pi + N_j\sigma + \mu_e + \theta_r + \tau_s + \epsilon_{je} \tag{3}$$

where V_{je} denotes the vote share won by KMT candidates in election e in township j. LR_j and LD_j respectively refer to the proportions of land-receiving and land-depriving households in township j. The vector X_j contains contemporary demographic variables in in township j, including log population, sex ratio, and the proportion of mainlanders, sourced from the 1980 Population Census. The vector N_j includes geographic controls: distance to the nearest river, distance to the nearest coastline, and average annual precipitation. We also control for fixed effects for election (μ_e), region (θ_r), and township type (τ_s). The error term is denoted ϵ_{je}. All regressions are weighted by township population to improve estimation precision, and we assess robustness by comparing the weighted estimates to their unweighted counterparts.

Following the strategy employed in Section 3, we adopt an IV approach to address potential selection bias. Since we aim to instrument both LR_j and LD_j simultaneously, at least two instruments are required. The first instrument is the proportion of plain land area, identical to the IV used in our analysis of Japan's land reform. The second instrument is tenancy prevalence, defined as the proportion of tenant households relative to total households in a township in 1950, just prior to the reform. As a pre-determined variable, tenancy prevalence is plausibly exogenous and strongly correlated with the intensity of land redistribution, a relationship confirmed by the first-stage regression results presented below.

Panel A of Table 6 presents the estimates of β_1 and β_2 obtained from estimating Equation 3 using the full sample, which includes both competitive and non-competitive electoral districts. Column 1 shows that, without any controls, a higher proportion of land-receiving households in a township is significantly associated with a higher vote share for the KMT. Specifically, a one-percentage-point increase in land-receiving households is associated with a 0.555-percentage-point increase in KMT vote share. In contrast, a one-percentage-point increase in land-depriving households is associated with a 0.616-percentage-point decline in KMT vote share, although the estimate is not statistically significant. Columns 2 to 4 demonstrate that the estimates of β_1 and β_2 remain relatively stable with the inclusion of various controls. In column 4, which includes the full set of controls, the estimated effects are both significant at 0.508 for β_1 and -0.706 for β_2, respectively.

Since the two estimates have opposite signs, one might wonder whether the positive and negative effects cancel each other out. To assess this, we compute a delta-method-based Wald test using the estimates of β_1 and β_2 from column 4 along with the mean values of LR_j (0.1804) and LD_j (0.0964) to test the hypothesis that $\hat{\beta}_1 \times \bar{LR}_j + \hat{\beta}_2 \times \bar{LD}_j = 0$. The resulting z-statistic is only 1.19, indicating that we cannot reject the null hypothesis that the two effects offset each other. Nevertheless, it is important to note that β_2 is at best only marginally significant across columns 1 to 4.

Column 5 presents the 2SLS estimates of β_1 and β_2 using the two instrumental variables, without controlling for any additional geographic factor. The estimated coefficients are 0.637 for

β_1 and –0.906 for β_2, both statistically significant. Compared to the corresponding OLS estimates in columns 1 to 4, the magnitudes of the 2SLS estimates are somewhat larger, but the direction and significance remain consistent. In column 6, we repeat the 2SLS estimation while controlling for three geographic variables. The resulting estimates of β_1 and β_2 are slightly attenuated in absolute value relative to column 5, yet the estimate for β_1 and β_2 remains significant.

Panel B of Table 6 presents the estimates of β_1 and β_2 using the narrow sample, which excludes non-competitive electoral districts. The patterns of the estimates in Panel B closely mirror those in Panel A. First, the vote share received by the KMT is positively associated with the proportion of land-receiving households and negatively associated with the proportion of land-depriving households, although the latter estimate is not always statistically significant. Second, the 2SLS estimates corroborate the OLS results, reinforcing the conclusion that Taiwan's land reform had lasting political effects in both directions.

A potential threat to our estimation is cross-township migration, which might incur measurement error. Unfortunately, we are unable to locate data reporting inter-township migration from 1953 to the years when the elections were held. However, the 1980 Census includes a variable indicating individuals' township of residence in 1975—five years prior to the census—which allows us to identify those who migrated across townships between 1975 and 1980. We use this information to construct the (log) number of migrants in each township and include it as a control in our township-level regressions. The results show that controlling for this migration variable leads to only minimal changes in the estimates of β_1 and β_2, suggesting that cross-township migration does not seem to pose a substantial threat to the validity of our findings.

6 Mechanisms

Our estimation results in Sections 3 and 4 show that Japan's 1947-49 land reform increased support for right-wing parties, while Taiwan's 1953 land reform boosted votes for the KMT. What mechanisms might explain these political consequences of land reform, especially given the distinct political contexts in which they occurred? In this section, we explore and empirically assess three plausible mechanisms that may have underpinned these effects.

First, one plausible mechanism is voter reciprocity—beneficiaries may have rewarded the reformers with electoral support. This explanation is particularly compelling in the context of Confucian societies, such as Japan and Taiwan, where reciprocity is a deeply rooted cultural norm (Schultz, 1974). In Taiwan, where the KMT was the sole political actor implementing the land reform, the mechanism of gratitude—driven voting is consistent with the observed increase in electoral support for the KMT. However, this explanation is less consistent with the Japanese case. In Japan, all major political parties—including the Socialist Party and the Communist Party—supported the land reform throughout its preparation and implementation. Wolf Ladejinsky, chief land reform adviser to General Douglas MacArthur during the Occupation, noted that Hiroo Wada, then Minister of Agriculture and Fisheries and a key member of the Japan Socialist Party, was the true architect of the reform (Ladejinsky, 1959). Moreover, when the reform was launched, the prime minister was Tetsu Katayama, leader of the Socialist Party, which had won the 1947 general election. The land reform was one of the key policy initiatives actively pursued by Katayama's administration (Dore, 1958; Hadley, 1983). From the perspective of the general public, the reform was not attributable solely to the Liberal and Democratic parties, but rather the result of cross-party collaboration. Therefore, the finding that land reform induced votes for the right-wing

parties in Japan is unlikely to have operated through a reciprocity mechanism.

This leads us to consider a second potential mechanism identified in prior research. De Janvry et al. (2014) studied a land reform in Mexico that granted farmers full property rights and found that it led to increased support for the right-wing party. They concluded that, after acquiring land titles, beneficiaries developed more pro-market preferences, which translated into a political advantage for conservative parties. This result aligns with the findings of Di Tella et al. (2007), who examined the privatization of water utilities in Argentina in 1990s. Their findings showed that recipients of property rights became more materialistic, individualistic, meritocratic, and trusting—attitudes typically associated with support for market-oriented policies.

To investigate this mechanism, we draw on data from the 1984, 1990, and 1992 waves of the Taiwan Social Change Survey, which document respondents' attitudes toward market-oriented ideology. One relevant question asks respondents to what extent they agree with the statement: "The rich should try their best to earn more, which benefits all," rated on a 4-point scale (1: strongly agree; 2: agree; 3: disagree; 4: strongly disagree). A second question, asked only in the 1990 survey, assesses agreement with the statement: "Enterprises raising profits is the best way to improve a society's living standard," also using the same 4-point scale. For analytical simplicity, we construct a binary variable that equals one if the respondent answered 1 or 2 to the first question (indicating agreement) and zero otherwise. We then regress this indicator on township-level exposure to the 1953 land reform, using a rich set of control variables. Again, land reform exposure is captured by two measures: the proportion of land-receiving households and the proportion of land-depriving households, each as a share of total households in the township. The final sample comprises $4,539$ respondents for the first question (from both survey years) and $1,597$ respondents for the second question (from the 1990 wave only).

The estimation results are presented in Table 7, where column 1 shows that neither measure of land reform exposure is significantly associated with respondents' attitudes toward the earnings of the rich. In column 2, we include interaction terms between the two exposure measures and a dummy variable indicating whether the respondent was age 50 or above, to capture potential differential effects on individuals more likely to have directly experienced the reform. The estimated coefficients on these interaction terms suggest that any additional effect among older individuals is minimal. Columns 3 and 4 report results for attitudes toward enterprise profit. Column 3 shows neither measure of land reform exposure is significantly associated with the notion that enterprise profits improve social living standards. Column 4 again shows that the interaction effects with age are small and statistically insignificant. Taken together, the results in Table 7 offer little support for the hypothesis that land reform boosted votes for right-wing parties by fostering pro-market attitudes.

The third potential mechanism hypothesizes that acquiring land ownership may have strengthened beneficiaries' desire for political stability, which they viewed as essential for securing their newly acquired holdings. This aspiration for security could have translated into support for the incumbent party, regardless of its position on the ideological spectrum. A similar hypothesis was proposed by Dore (1958), who observed that the Japanese land reform substantially alleviated farmers' discontent and sense of injustice, leading them to adopt more conservative political preferences. To examine whether the land reform induced such shifts in preferences, we again turn to data from Taiwan's Social Change Surveys, which include questions on attitudes toward political liberty. Specifically, we analyze responses to two statements: (1) "The existence of opposition parties makes politics chaotic," and (2) "The existence of social groups with different opinions

impedes local stability." Responses are recorded on a 4-point scale (1: strongly agree; 2: agree; 3: disagree; 4: strongly disagree). We then re-estimate the regressions used in Table 7, replacing the dependent variable with these two newly constructed indicators.

The results are presented in Table 8. Column 1 shows that the proportion of land-receiving households is positively associated with agreement that opposition parties make politics chaotic, while the proportion of land-depriving households is negatively associated with this statement. These signs are consistent with our earlier estimates showing that higher proportions of land-receiving households are linked to higher vote shares for KMT, whereas land-depriving households are associated with vote shares in the opposite direction. Column 2 further shows that these attitudinal effects are stronger among respondents aged 50 or above: the interaction term between land-receiving households and the age-50-or-above indicator is significantly positive, while the interaction with land-depriving households is significantly negative. These patterns are in line with the hypothesis that older individuals, who were more exposed to the reform, were more affected. Columns 3 and 4 examine attitudes toward social groups with differing opinions. Column 3 shows a positive association between the proportion of land-receiving households and the belief that such groups threaten local stability, while the coefficient on land-depriving households is negative but statistically insignificant. Column 4 confirms these findings, although the interaction terms with age are not statistically significant. Taken together, the results in Table 8 suggest that individuals in townships with greater exposure to the land reform—especially those who received land—are more likely to hold attitudes that favor stability and oppose political pluralism. These findings support the hypothesis that acquiring land property rights fostered a preference for political order, which in turn translated into sustained electoral support for the incumbent party.

7 Conclusions

This paper investigates the long-run political consequences of land reform by examining Japan's 1947–49 reform and Taiwan's 1953 Land-to-the-Tiller program. Using both cross-regional and individual-level data, we find that in both contexts, land reform significantly increased electoral support for the ruling parties—namely, the Liberal and the Democratic parties in Japan and the KMT in Taiwan. These effects persist across generations: in Japan, the sons of tenant farmers who benefited from the reform were more likely to favor conservative parties in the 1955 election, while in Taiwan, township-level exposure to the 1953 reform remained strongly associated with higher KMT vote shares two decades later.

To explore the mechanisms behind these effects, we consider three possible channels: political reciprocity, pro-market ideological change, and a heightened desire for political stability. While political reciprocity may explain part of the effect in Taiwan, it is less plausible for Japan, where left-wing Socialist Party also championed the reform. Survey evidence from Taiwan provides limited support for the pro-market channel, but reveals a strong link between land reform and anti-pluralist political attitudes, particularly among older individuals more directly exposed to the reform. This suggests that acquiring land ownership likely enhanced preferences for political order and social stability—attitudes that in turn translated into durable support for incumbent regimes.

Together, our findings suggest that the land reforms in both Japan and Taiwan likely succeeded in achieving their original strategic objective of containing the spread of communism in East Asia. More broadly, the results contribute to our understanding of how redistributive land policies can produce long-term political alignment—not only through the material transfer of assets but also

by reshaping political attitudes and identities. These insights shed new light on the institutional legacy of land reform and its enduring role in shaping political development in the region.

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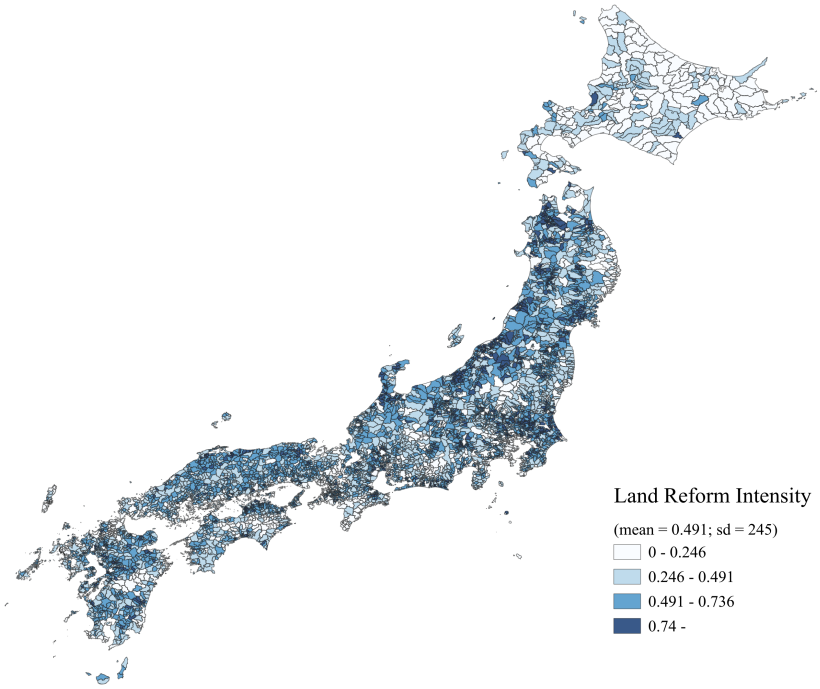

Figure 1: Township-Level Land Reform Intensity in Japan

Notes: Land reform intensity is defined as the number of land-receiving households divided by the total number of households in each village or city in Japan. Shading reflects the degree of reform, with darker tones indicating higher intensity.

Table 1: Summary statistics

	(1) Mean	(2) Standard deviation
Village/city-level data (Observations: 6,408)		
Proportion of land-receiving households	0.491	0.245
1955 Election results		
Vote share won by right-wing parties	0.688	0.165
Vote share won by Japan Socialist Party	0.242	0.138
Vote share won by Japan Communist Party	0.01	0.021
1947 Election results		
Vote share won by right-wing parties	0.557	0.219
Vote share won by Japan Socialist Party	0.226	0.156
Vote share won by Japan Communist Party	0.028	0.038
Locality demographics		
Population density ($\times 10^{-2}$)	4.277	8.771
Log population	8.738	0.919
Male-to-female sex ratio	96.095	7.189
Locality type (proportion)		
City	0.077	0.267
Town	0.266	0.442
Village	0.656	0.475
Geographic variables		
Proportion plain	0.161	0.237
Distance to nearest coastline (km)	26.534	25.578
Distance to nearest main river (km)	101	115
Average precipitation (mm)	1,714	501

Notes: The two right-wing parties are the Democratic Party and Liberal Party. Population density is measured as the total population divided by the land area of a city or village. The proportion of land-receiving households is constructed using data reported by the Land Reform Data Integration vol. 11 (in Japanese). The demographic variables are obtained from the Census of 1947, Summary of Statistics Tables. The 1955 election data are collected from The Summary of The 27th House of Representative General Election (in Japanese), and the 1947 election data from The Summary of The 23rd House of Representative General Election (in Japanese).

Table 2: Estimating the predictive power of 1947 vote shares on the degree of land redistribution

on the degree of land redistribution

	(1) Population weighted	(2) Unweighted
1947 Election results		
Vote share won by right-wing parties	-0.034	-0.014
	(0.023)	(0.022)
Vote share won by Japan Socialist Party	-0.192	-0.018
	(0.119)	(0.089)
Vote share won by Japan Communist Party	-0.069**	0.024
	(0.031)	(0.033)
Locality demographics		
Population density	-14.802**	-43.793***
	(6.186)	(12.859)
Log population	-0.061***	-0.038***
	(0.007)	(0.006)
Male-to-female sex ratio	-0.002***	-0.003***
	(0.000)	(0.000)
Locality type		
Locality = village	0.080***	0.111***
	(0.010)	(0.008)
Locality = city	-0.058***	-0.054***
	(0.014)	(0.014)
Geographic variables		
Proportion of plain	0.145***	0.275***
	(0.020)	(0.019)
Distance to coast	0.034***	0.038***
	(0.004)	(0.004)
Prefecture fixed effects	Y	Y
Mean dependent variable	0.491	0.491
Observations	6,408	6,408
R-squared	0.606	0.412

Notes: Regressions are estimated at the village/city level. The regression is population-weighted in column 1, unweighted in column 2. The dependent variable is the intensity of land redistribution, measured as the proportion of land-receiving households in the village or city. The omitted type of locality is town. Standard errors are shown in parentheses.. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 3: The effects of Japan's land reform on vote shares in the 1955 election (OLS)

	Baseline controls			**Baseline controls + 1947 vote shares**		
	(1)	(2)	(3)	(4)	(5)	(6)
	Democratic Party and Liberal Party	**Japan Socialist Party**	**Japan Communist Party**	**Democratic Party and Liberal Party**	**Japan Socialist Party**	**Japan Communist Party**
Proportion land-receiving households	0.068***	-0.072***	-0.002	0.060***	-0.062***	-0.001
	(0.019)	(0.017)	(0.003)	(0.017)	(0.015)	(0.002)
1947 Election results						
Proportion votes for right-wing parties				0.087***	-0.033	0.002
				(0.024)	(0.022)	(0.004)
Proportion votes for Socialist Party				-0.270***	0.325***	0.006
				(0.031)	(0.030)	(0.004)
Proportion votes for Communist Party				-0.574***	0.352***	0.192***
				(0.101)	(0.102)	(0.033)
Locality demographics	Y	Y	Y	Y	Y	Y
Locality type	Y	Y	Y	Y	Y	Y
Prefecture fixed effects	Y	Y	Y	Y	Y	Y
Mean dependent variable	0.688	0.242	0.010	0.688	0.242	0.010
R-squared	0.405	0.340	0.572	0.492	0.449	0.613
Observations	6,408					

Notes: Regressions are estimated at the village/city level, and are population-weighted. The dependent variable is defined as the vote share won by the Liberal and Democratic Parties in the 1955 General Election. The three types of locality are city, town, and village. Demographic variables are logarithmic population, male-to-female sex ratio, and population density measured as total population divided by land area. Standard errors are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 4: The effects of Japan's land reform on vote shares in the 1955 election (2SLS)

	Baseline IV			**Baseline IV + geographic controls**		
	(1)	(2)	(3)	(4)	(5)	(6)
	Democratic Party and Liberal Party	**Japan Socialist Party**	**Japan Communist Party**	**Democratic Party and Liberal Party**	**Japan Socialist Party**	**Japan Communist Party**
Proportion land-receiving households	0.245**	-0.175*	-0.029*	0.351***	-0.255**	-0.044**
	(0.115)	(0.102)	(0.016)	(0.134)	(0.119)	(0.019)
Geographic variables						
Distance to nearest coastline				-0.019***	0.017***	0.002***
				(0.006)	(0.005)	(0.001)
Distance to nearest main river				0.007	-0.005	-0.002*
				(0.005)	(0.005)	(0.001)
Average precipitation				0.038***	-0.032**	-0.002
				(0.017)	(0.016)	(0.002)
Locality demographics	Y	Y	Y	Y	Y	Y
Locality type	Y	Y	Y	Y	Y	Y
Prefecture fixed effects	Y	Y	Y	Y	Y	Y
Mean dependent variable	0.688	0.242	0.010	0.688	0.242	0.010
R-squared	0.459	0.432	0.588	0.429	0.419	0.564
Observations	6,408					

Notes: Regressions are estimated at the village/city level and are population-weighted. The dependent variable is the vote share won by the Liberal and Democratic Parties in the 1955 General Election. The instrumental variable is the proportion of plain land in the total area. The three types of locality are city, town, and village. Demographic controls include logarithmic population, male-to-female sex ratio, and population density, measured as the total population divided by land area. Standard errors are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 5: The effects of Japan's land reform on individual preference towards political parties

	Broad control group			Narrow control group		
	(1)	(2)	(3)	(4)	(5)	(6)
	Democratic Party and Liberal Party	**Japan Socialist Party**	**Japan Communist Party**	**Democratic Party and Liberal Party**	**Japan Socialist Party**	**Japan Communist Party**
Mean dependent variable	0.356	0.430	0.014	0.352	0.446	0.019
(A) Baseline contols						
Father's career is tenant	0.061**	-0.054*	-0.018***	0.108**	-0.084*	-0.031**
	(0.023)	(0.028)	(0.003)	(0.036)	(0.039)	(0.012)
R-squared	0.139	0.153	0.179	0.220	0.227	0.251
(B) Father's education included						
Father's career is tenant	0.065**	-0.055*	-0.020***	0.101**	-0.083*	-0.032**
	(0.023)	(0.027)	(0.004)	(0.034)	(0.043)	(0.012)
R-squared	0.142	0.155	0.183	0.224	0.229	0.255
Observations	1,070	1,070	1,070	699	699	699

Notes: Regressions are estimated at the individual level. The dependent variable is the respondent's most preferred political party, as reported in the 1955 Social Stratification and Social Mobility Survey (SSM). The treated group comprises men aged 20 to 45 in 1955 whose fathers worked as tenant farmers –capturing the second generation of land reform beneficiaries – regardless of the occupations of the sons in 1955. The broad control group includes males of the same age range whose fathers were not tenant farmers, regardless of the sons' occupations. The narrow control group further excludes individuals whose fathers were self-cultivated farmers. All regressions control for age fixed effects, prefecture-of-residence fixed effects, and prefecture-of-birth fixed effects. Standard errors are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 6: The effects of 1953 land reform on vote shares won by Kuomintang in Taiwan

	OLS				IV	
A: Full sample	(1)	(2)	(3)	(4)	(5)	(6)
Proportion land-receiving households	0.555**	0.571**	0.553**	0.508***	0.637**	0.525*
	(0.200)	(0.203)	(0.192)	(0.163)	(0.270)	(0.256)
Proportion land-depriving households	-0.616	-0.663*	-0.500	-0.706*	-0.906**	-0.853**
	(0.484)	(0.394)	(0.374)	(0.348)	(0.344)	(0.364)
Township demographic controls	N	Y	Y	Y	Y	Y
Township type fixed effects	N	N	Y	Y	Y	Y
Region fixed effects	N	N	Y	Y	Y	Y
Election fixed effects	N	N	Y	Y	Y	Y
Geographic controls	N	N	N	Y	N	Y
Mean dependent variable	0.505					
Observations	980	980	980	980	980	980
R-squared	0.040	0.080	0.268	0.311	0.290	0.319
B: Narrow sample						
Proportion land-receiving households	0.514**	0.568***	0.504**	0.458**	0.630**	0.486**
	(0.184)	(0.183)	(0.193)	(0.158)	(0.214)	(0.179)
Proportion land-depriving households	-0.520	-0.635*	-0.387	-0.559	-0.845***	-0.765***
	(0.433)	(0.345)	(0.345)	(0.334)	(0.261)	(0.252)
Township demographic controls	N	Y	Y	Y	Y	Y
Township type fixed effects	N	N	Y	Y	Y	Y
Region fixed effects	N	N	Y	Y	Y	Y
Election fixed effects	N	N	Y	Y	Y	Y
Geographic controls	N	N	N	Y	N	Y
Mean dependent variable	0.477					
Observations	810	810	810	810	810	810
R-squared	0.036	0.074	0.297	0.331	0.307	0.339

Notes: The regressions are estimated at the township level and are population-weighted. The dependent variable is the vote share won by Kuomintang (KMT) candidates in four elections held in 1972, 1975, and 1980. The two treatment variables are the proportions of land-receiving and land-depriving households in each township. The two instrumental variables used in the IV specifications are the proportion of hill area and the proportion of tenant households, both measured in 1950. Twenty townships in which only Nationalist Party candidates ran are excluded from the narrow sample. Demographic controls include log population, sex ratio, and the proportion of mainlanders. Geographic controls include distance to the nearest river, distance to the nearest coastline, and average annual precipitation. Standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 7: The effects of the 1953 land reform on pro-market attitudes in Taiwan

	The rich should earn more, which benefits all		**Enterprises raising profit is the best way to improve social living standard**	
	(1)	(2)	(3)	(4)
Proportion land-receiving households	0.005	0.006	0.001	0.001
	(0.006)	(0.005)	(0.007)	(0.007)
Proportion land-depriving households	-0.017	-0.019	-0.020	-0.020
	(0.012)	(0.012)	(0.013)	(0.013)
Proportion land-receiving households x Age50p		-0.006		-0.003
		(0.005)		(0.009)
Proportion land-depriving households x Age50p		0.010		-0.003
		(0.009)		(0.020)
Age50p		0.076***		0.139
		(0.021)		(0.099)
Demographic controls	Y	Y	Y	Y
Urban indicator	Y	Y	Y	Y
Survey year fixed effects	Y	Y	Y	Y
County fixed effects	Y	Y	Y	Y
Mean dependent variable	2.217		2.854	
Observations	4,539	4,539	1,597	1,597
R-squared	0.047	0.045	0.043	0.040

Notes: Columns 1 and 2 use a 4-point scale as the dependent variable, reflecting respondents' agreement with the statement: "The rich should earn more, which benefits all." Columns 3 and 4 also use a 4-point scale as the dependent variable, based on responses to the statement: "Enterprises raising profit is the best way to improve social living standards." For the first statement, responses from 1984 were originally recorded on a 6-point scale. To harmonize with the 4-point scale used in 1990, categories were recoded: Responses 1 (strongly agree) and 2 (quite agree) were merged. Responses 5 (quite disagree) and 6 (strongly disagree) were also merged. For the second statement, all responses were recorded on a consistent 4-point scale. Covariates in all regressions include individual demographic characteristics (age, educational attainment, gender, marital status, and place of birth), an urban residence dummy, county fixed effects, and survey year fixed effects. Standard errors are clustered at the county level. *** p<0.01, ** p<0.05, * p<0.1.

Table 8: The effects of the 1953 land reform on political attitudes in Taiwan

	The existence of opposition party makes politics chaotic		**The existence of social groups with different opinions threats local stability**	
	(1)	(2)	(3)	(4)
Proportion land-receiving households	0.016***	0.013***	0.006**	0.004*
	(0.003)	(0.003)	(0.003)	(0.002)
Proportion land-depriving households	-0.023***	-0.019***	-0.006	-0.006
	(0.006)	(0.006)	(0.007)	(0.007)
Proportion land-receiving households x Age50p		0.017***		0.009
		(0.004)		(0.007)
Proportion land-depriving households x Age50p		-0.035***		-0.014
		(0.005)		(0.010)
Age50p		0.105**		-0.039
		(0.046)		(0.045)
Demographic controls	Y	Y	Y	Y
Urban indicator	Y	Y	Y	Y
Survey year fixed effects	Y	Y	Y	Y
County fixed effects	Y	Y	Y	Y
Mean dependent variable	2.154		2.743	
Observations	1,444	1,444	1,666	1,666
R-squared	0.124	0.124	0.115	0.107

Notes: Columns 1 and 2 use a 4-point scale as the dependent variable, reflecting respondents' agreement with the statement: "The existence of opposition parties makes politics chaotic." Columns 3 and 4 also use a 4-point scale as the dependent variable, based on responses to the statement: "The existence of social groups with differing opinions threatens local stability." In both cases, responses are recorded on a scale from 1 to 4. Covariates in all regressions include individual demographic characteristics (age, educational attainment, gender, marital status, and place of birth), an urban residence indicator, county fixed effects, and survey year fixed effects. Standard errors are clustered at the county level. p<0.01, ** p<0.05, * p<0.1.

Appendix A: Under pricing of land during Taiwan's land reform

In Taiwan's 1953 land reform, land was expropriated by the government and subsequently sold to tenant farmers. The expropriation price was set at 2.5 times the designated annual output of the land, which was calculated based on the average annual output of the main crop over a three- to four-year period prior to 1949. The most straightforward way to measure the benefit received by tenants would be to compare the designated price with the prevailing market price of land. However, due to the lack of documented data on nominal land prices in 1953, a direct comparison is not feasible. Instead, we infer the relative magnitude of the subsidy using two historical benchmarks. First, Yeh (2014) reports that in 1927, the average price of an acre of paddy land was approximately 6.6 times the value of its annual output—a ratio far higher than the multiplier of 2.5 used in the 1953 reform. Second, crop output in the years prior to 1949 was significantly lower than in 1953, largely due to increased use of fertilizer provided through US aids beginning in 1950. For example, C. Chen (1961) documents that in Taoyuan County, the average annual output per acre rose by approximately 19 percent between 1948 and 1952. Considering both the understated price multiplier and the rise in productivity into account, we estimate that the price paid by tenants for the transferred land amounted to approximately 32 percent of its market value ($2.5/6.6/1.19 \approx 31.8\%$). Another significant benefit enjoyed by land-receiving tenants was the favorable payment arrangement-low-interest installment plans provided by the government. Yeh (2014, page 175) used detailed data to illustrate the difficulties tenant farmers faced in purchasing land during the Japanese colonial era, largely due to low incomes and liquidity constraints. This supports the adage, "Born a tenant farmer, forever a tenant farmer," which reflected the economic immobility of the rural poor. The installment plan, therefore, offered a rare opportunity for tenants to overcome liquidity barriers and acquire land ownership. Moreover, the installment plan featured a fixed real interest rate of 4 percent over a repayment period of up to ten years—a rate well below prevailing market levels. Between 1953 and 1958, the average real interest rate charged by commercial banks was approximately 12 percent, while interest rates in the underground credit market averaged as high as 27 percent over the same period. The substantial interest subsidy further enhanced the affordability and attractiveness of land ownership for tenant farmers.

Appendix B: Japanese Data Merging

To assess the political impact of the land reform on the 1955 Japanese general election, we compile and integrate three major datasets: land reform records from 1947 to 1949, election results from 1947 and 1955, and demographic census data from 1947. These datasets are geo-spatially merged using QGIS, with the 1955 municipal boundary map serving as the base layer to account for administrative changes following Japan's municipal consolidation efforts during the 1950s.

During this period, the Japanese government initiated the *Great Shōwa Mergers*, a large-scale administrative reform that consolidated smaller villages and townships into larger municipalities. This reform introduces significant complexity into spatial analysis for two main reasons. First, many villages were split and absorbed into multiple jurisdictions or merged with neighboring municipalities, resulting in nontrivial boundary distortions. Second, historical geographic data are limited: while the National Land Numerical Information provides shapefiles for 1920, 1950, and

1955,[11] temporal gaps constrain alignment precision.

To address these challenges, we take three steps. First, we acquire municipal boundary shapefiles from the *National Land Numerical Information* repository and adjust them using merger records from the *Municipality Transition Information* database. Second, we align each dataset to its contemporaneous spatial layer: the land reform data to the 1950 map, the 1947 election results to the 1947 map, and the demographic census to the 1948 map. The 1955 election results are matched directly to the 1955 boundaries. Third, all layers are merged in QGIS using the 1955 map as the spatial anchor. Where village boundaries were fractionally redistributed, we allocate land area, household counts, voting records, and demographic figures based on proportional area weights computed in QGIS.

This methodology ensures that all geocoded data are harmonized to the 1955 administrative map, facilitating accurate longitudinal and cross-sectional analysis in postwar Japan.

[11] Additional spatial layers are available at five-year intervals from 1950 through 2005.