THE HISTORICAL STATE, LOCAL COLLECTIVE ACTION, AND ECONOMIC DEVELOPMENT IN VIETNAM

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This study examines how the historical state conditions long-run development, using Vietnam as a laboratory. Northern Vietnam (Dai Viet) was ruled by a strong, centralized state in which the village was the fundamental administrative unit. Southern Vietnam was a peripheral tributary of the Khmer (Cambodian) Empire, which followed a patron-client model with more informal, personalized power relations and no village intermediation. Using a regression discontinuity design, the study shows that areas exposed to Dai Viet administrative institutions for a longer period prior to French colonization have experienced better economic outcomes over the past 150 years. Rich historical data document that in Dai Viet villages, citizens have been better able to organize for public goods and redistribution through civil society and local government. We argue that institutionalized village governance crowded in local cooperation and that these norms persisted long after the original institutions disappeared.

KEYWORDS: Collective action, governance, economic development.

1. INTRODUCTION

THE PAST CENTURY has witnessed a large-scale divergence in economic prosperity within the developing world. In particular, initially poor economies in Northeast Asia—such as Japan, Taiwan, and South Korea—have developed much more rapidly on average than economies in Southeast Asia—such as the Philippines and Cambodia. One central difference between these regions is the nature of the historical state, but it is challenging to deduce what role this played in the divergence since many factors differ. Progress can be made by focusing on a single country—Vietnam—that lies at the intersection of Northeast and Southeast Asia. This study uses a regression discontinuity design to compare nearby Vietnamese villages that belonged to different historical states, employing rich historical data to elucidate channels of persistence. We hypothesize that the Northeast Asian historical state crowded in local collective action, and that these norms persisted, influencing

civic engagement, local public goods provision, and economic development long after the original state had disappeared.

The literature commonly divides Asian societies into the Sinic states of Northeast Asia—which were heavily influenced by Chinese statecraft—and the Indic states of Southeast Asia—which were impacted by Hindu-Buddhist statecraft imported from India. Northeast Asian states had well-developed tax systems, bureaucracies, and legal codes. Importantly, institutionalized village governance formed the core of daily administration. The central state set quotas for tax and military conscript contributions at the village level, but did not have the capability to micro-manage local administration. Instead, villages had considerable autonomy in policy implementation, and villagers had to work together to provide local public goods, maintain population and property registers, and meet the village-level tax and military quotas. In contrast, Southeast Asian states followed a more decentralized patron-client model. Power relations were personalized, with peasants paying tribute and receiving protection from landowning patrons, who in turn had their own network of relations with higher-level patrons. The village was not a central unit of administrative organization.

The northern Vietnamese state of Dai Viet was governed by China during the first millennium CE, and it maintained many features of the Chinese state following independence. Over centuries, Dai Viet gradually expanded southward, conquering the relatively weak state of Champa in central Vietnam (Figure 1). In contrast, the southernmost part of modern Vietnam was historically a peripheral tributary of the Southeast Asian state of Khmer (Cambodia), before ultimately being incorporated into Dai Viet. Table I summarizes the key characteristics of the Dai Viet and Khmer states.

This study examines the persistent impacts of the historical state's administrative institutions by comparing nearby locations—initially belonging to Khmer—that were converted into Vietnamese administrative villages at different points in time. Immediately to the east of the black-shaded region shown in Figure 1, territory was organized into Dai Viet administrative villages in 1698, over 150 years prior to French colonization. In contrast, places to the west were not organized as Vietnamese provinces until a few decades prior to the arrival of the French, and hence Dai Viet institutions had little time to take root before colonial rule. Section 2.2 provides detailed evidence that this delay in administrative expansion occurred because of idiosyncratic political circumstances at the center of the Dai Viet and Khmer empires and was not the result of economic or cultural differences at the boundary. Moreover, settlement of the Khmer periphery was a fairly continuous process, and hence we can separate the impacts of administrative organization from those of Vietnamese settlement.

States consist of a bundle of characteristics, all of which in principle could exert long-run impacts, but the Vietnamese context suggests that one feature in Table I is particularly important: institutionalized village governance. Khmer's large landowners have long since disappeared. Moreover, the Dai Viet and Khmer central states were dismantled by colonialism, and the entire study region has since been governed by three different central states: France, South Vietnam, and the Socialist Republic of Vietnam. In contrast, the colonial state did not have the resources to reshape norms of local governance in thousands of villages. In Dai Viet, the central state required village councils elected by popular male suffrage to coordinate taxation, public goods provision, conscription, and record keeping. In Khmer, patron-client relationships, not villages, were the central feature of local administration.

Using a regression discontinuity design, we find that household consumption on the Dai Viet (east) side of the boundary is around one third higher today. Results are highly
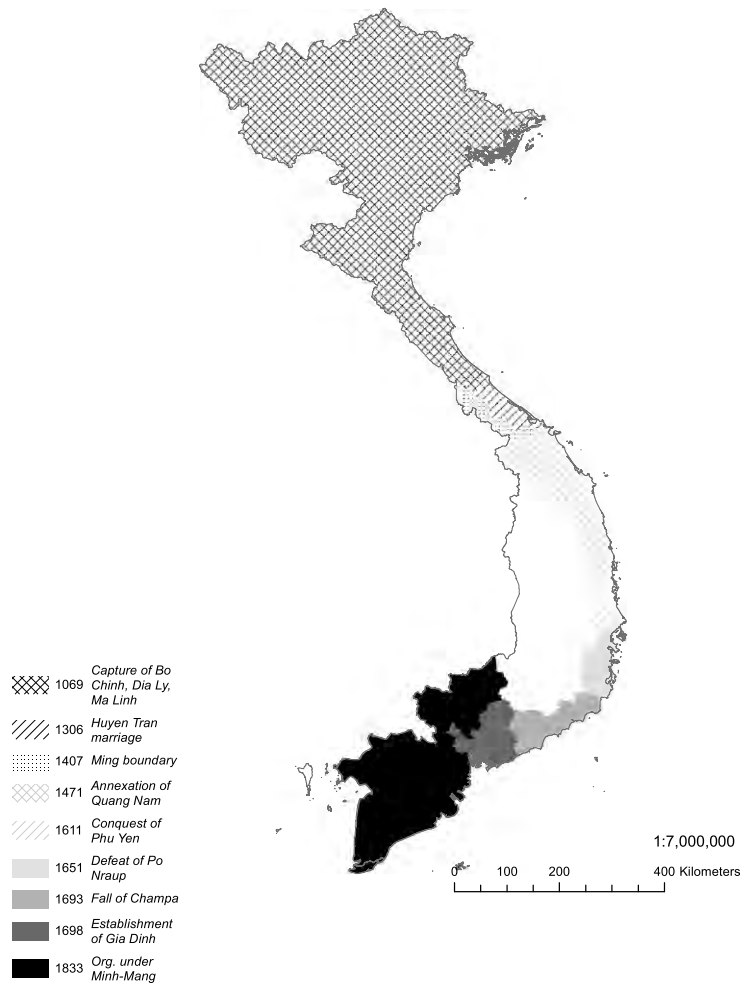
⧆	1069	*Capture of Bo Chinh, Dia Ly, Ma Linh*
⧄	1306	*Huyen Tran marriage*
⬚	1407	*Ming boundary*
⧆	1471	*Annexation of Quang Nam*
⧄	1611	*Conquest of Phu Yen*
▨	1651	*Defeat of Po Nraup*
▨	1693	*Fall of Champa*
▨	1698	*Establishment of Gia Dinh*
■	1833	*Org. under Minh-Mang*

FIGURE 1.—Dai Viet historical boundaries. Sources: Dùc and Tao (1972), Su Quan Trieu Nguyen and Pham (1992).

robust to the selection of bandwidth and RD functional form. Ho Chi Minh City, the administrative center of Dai Viet's 1698 expansion, is in our study area, and the estimates change little when it is dropped. Moreover, the estimates are similar when we extend the sample to all of South Vietnam, rather than focusing near the boundary. We document that economic impacts also obtain historically, using data from the colonial period, household income data from the 1970s, and other historical economic indicators.

After considering contemporary living standards, we examine channels of persistence. While the treatment—date of organization as a Vietnamese administrative village—is institutional, persistence is not through formal institutions. Pre-colonial institutions were abolished by the French, and the entire study region has since been subjected to the same formal institutions. Instead, we argue that informal norms of local cooperation—developed historically in Dai Viet villages to meet their obligations to the central state—are a key mechanism of persistence. Local cooperation can influence economic development by addressing challenges that neither central states nor markets are able to solve,

TABLE I

COMPARING THE DAI VIET AND KHMER KINGDOMS IN PRE-COLONIAL VIETNAM

Dai Viet	Khmer
Colonial outpost of China (111 BCE–939 CE)	Indic patron-client state[a]
Maintained bureaucratic Chinese government system since independence[b]	Accelerated decline after invasion by Siam (1430); weak control of periphery[c]
Centralized state; impersonal centralized bureaucracy under dynastic court; uniform territorial administration[d]	Decentralized state; personalistic rule through court; semi-independent provincial rule[e]
Institutionalized role of village chiefs and village councils (elected since 1461)[f]	Personalistic political appointments and land distribution[g]
Bureaucratic control of local taxation, military recruitment[h]	Temple-based public finance system[i]

[a]Lieberman (1993).
[b]Woodside (1971).
[c]Coedès (1966), Tarling (1999).
[d]Lieberman (2003).
[e]Woodside (1971), Tarling (1999).
[f]Yu (2001).
[g]Osborne (1969), Chandler (1983).
[h]Woodside (1971), Yu (2001).
[i]Tarling (1999), Hall (2011).

for example, allowing communities to overcome incomplete contracting or informational problems that prevent the central state from providing public goods. Local cooperation would typically be unobserved, particularly historically, but detailed information on civil society and local government is available for nearly all 18,000 South Vietnamese hamlets for 1969 through 1973.

Citizens on the Dai Viet side of the boundary were nearly twice as likely between 1969 and 1973 to participate in local civic organizations. They were also more likely to organize and participate in self-development projects and local self-defense forces, to attend local government meetings, and to have civic organizations that redistributed to needy households. Today, though data on civil society are quite limited, available information shows that households in Dai Viet villages are more likely to donate to charitable organizations. These results are robust to dropping Ho Chi Minh City and controlling for village size.

A 1967 constitutional reform granted villages expansive budgetary powers and public goods provision responsibilities, with citizens electing village heads and councils, and our results suggest that the reform worked best in places with a history of participatory village governance. Between 1969 and 1973, villages on the Dai Viet side of the boundary were more likely to collect taxes, and the village heads were more likely to actually reside in the village. They were also more likely to have all the positions filled on the village committee, which organized public goods provision. Dai Viet villages provided better access to basic health care, education, and law enforcement and were more likely to redistribute to needy households. Citizens in Dai Viet villages reported in public opinion surveys that the local government was more responsive to their needs, and they had better knowledge of the village administrative structure. More recently, we continue to observe effects on access to secondary schooling, and in Dai Viet areas, individuals have almost a year of additional schooling.

There are no effects on public goods provided by the provincial government, indicating that the results are unlikely to be driven by higher levels of government. Moreover,

public opinion surveys reveal that citizens on the Dai Viet side of the boundary had more negative views of the national government, suggesting that impacts are unlikely to reflect more positive attitudes towards government in general. Ethnic heterogeneity is one important determinant of collective action, but it does not appear to be a direct cause of the effects we document.[1] Today there is almost no ethnic heterogeneity within villages. Nearly everyone identifies as Vietnamese, which was also true 50 years ago.[2] As discussed in Section 2.2, the qualitative literature indicates a similar multi-ethnic mix throughout the Khmer periphery at the time of Dai Viet's expansion, with Vietnamese settlement of the region occurring in a fairly continuous fashion. Moreover, ethnic group data contained in the *Narodov Mira Atlas* and language group data in *Ethnologue* list the two principal groups in our study area as the Vietnamese and Ma (a Mon-Khmer group), with other smaller groups scattered throughout. The boundary cuts perpendicularly to the Vietnamese and Ma groups, which are distributed along both sides.

The study also examines plausible alternative mechanisms. Extensive evidence indicates that the effects are unlikely to be driven by differential impacts of the Vietnam War, with a variety of measures suggesting that conflict was similar across the boundary. Effects likewise do not appear to be driven by recent land inequality. Dai Viet households are less likely to be agricultural today, but within agriculture there is not a difference in average farm size. Moreover, while 97% of French-owned land was located in Khmer areas at the close of the colonial period, there were almost no French estates near the boundary. We do find that a lower share of land is formally titled in Dai Viet villages today. Well-established norms of de facto property management have long been used to regulate the distribution of land within Dai Viet communities, as this was an area where the Dai Viet central state mandated village control, within the parameters set by the legal codes. Hence, there may be less demand in these villages for formal titles, introduced only recently by the central government in Hanoi.

In summary, this study shows that the historical state plays an important role in generating patterns of development. It goes beyond simply documenting persistence by elucidating specific mechanisms. The findings are consistent with seminal studies by Michalopoulos and Papaioannou (2013) and Gennaioli and Rainer (2007) that document that the organization of pre-colonial states affects long-run prosperity in Africa. By focusing on a single country with rich historical data, we are able to elucidate mechanisms. The evidence on persistence is consistent with a literature highlighting civic capital as an important determinant of economic divergence (Guiso, Sapienza, and Zingales (2016, 2011, 2008, 2004), Knack and Keefer (1997), Putnam, Leonardi, and Nanetti (1994)). This literature focuses largely on the Italian context, whereas in the large economics literature on East Asian development, civic capital makes a very limited appearance.[3] Rather, there has been a voluminous and highly policy relevant debate about whether the East Asian growth miracle is the result of markets or national government interventions (Lane (2017), Perkins (2013), Noland and Pack (2003), Rodrik (1995), World Bank (1993), Ams-

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[1]Bazzi and Gudgeon (2016), Montalvo and Reynal-Querol (2005b, 2005a), Alesina and La Ferrara (2005), Alesina, Baqir, and Easterly (1999), Easterly and Levine (1997).

[2]While it is possible that individuals could self-identify as Vietnamese but still practice the customs of other ethnic groups, we do not find differences across the boundary in patrilocal marriage patterns, an important difference between Northeast and Southeast Asian ethnicities.

[3]An important exception is a recent study by Padro i Miquel, Qian, Xu, and Yao (2015) documenting that Chinese villages with temples, a measure of local social capital, experienced larger increases in public goods following the introduction of local elections.

den (1992), Haggard (1990), Wade (1990)).[4] More generally, the political economy litera-
ture has also tended to emphasize features of central states, such as their ability to protect
property rights, collect taxes, and wage wars (Besley and Persson (2011), Acemoglu, John-
son, and Robinson (2001), Tilly (1992), North and Thomas (1973)). Our results highlight
a third dimension—local cooperation—which has plausibly been central in facilitating
economic production.

This study also provides new insights about the potentially complex relationship be-
tween the central state and civil society. A number of scholars have made strong claims,
based primarily on qualitative evidence, that strong states inhibit civil society. In *Mak-
ing Democracy Work*, the seminal work on social capital, Putnam, Leonardi, and Nanetti
(1994) hypothesized that the autocratic hand of the strong, bureaucratic state crowds out
civil society, as in the case of the Norman state in southern Italy.[5] Similarly, Fukuyama
(1995) argued that strong states crowd out local cooperation by delegating to the central
government functions that would have historically been coordinated by civic organiza-
tions and by repressing or co-opting any organizations that may pose a threat, an argu-
ment that remains highly influential.[6] Specific features—such as institutionalized village
governance—are plausibly more closely linked to civil society than broad notions of state
capacity, discouraging general assertions about whether strong states reduce local coop-
eration.[7] However, we argue that when the state and civil society complement each other,
long-run growth is plausibly more likely. Moreover, we provide suggestive evidence that
complementarities between the historical state and civil society are plausibly important
for economic development in Northeast Asia more generally.

The next section provides an overview of the historical context. Section 3 discusses
the empirical specification, and Section 4 tests whether the historical state impacts long-
run living standards. Section 5 examines mechanisms, and Section 6 offers concluding
remarks.

2. HISTORICAL BACKGROUND

2.1. *The Dai Viet and Khmer States*

For most of the first millennium, the northern part of modern Vietnam was subject
to Chinese overlordship. After gaining independence, the Vietnamese state of Dai Viet
adopted the general political form of the Chinese state, over time modifying it to Viet-
namese needs. The key features of the Dai Viet state are summarized in Table I. It was a
centralized state with an impersonal bureaucracy under a dynastic court and uniform ter-
ritorial administration. Importantly, village chiefs and councils played an institutionalized
role in managing taxation, conscription, record keeping, and public goods provision.

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[4]Qualitative social science has debated the role of village governance in development. Interestingly, James
Scott (1977)—whose field work was based in Dai Viet areas of Vietnam—argued that the village is the key
institution of pre-capitalist society, characterized by an adherence to social arrangements that insure villagers
against subsistence crises. In contrast, Samuel Popkin (1976)—whose fieldwork was in southern Vietnam—
viewed prisoners dilemmas, free rider problems, and other barriers to collective action as prohibitive, and
hence argued that when development happens in rural areas, it is in spite of village social arrangements.

[5]In contrast, Boix and Posner (1996) argued that southern Italy was a highly feudal society and that it was
the unequal and clientelistic nature of these feudal ties that prevented the emergence of social capital.

[6]Acemoglu, Reed, and Robinson (2014) showed that ruling families in Sierra Leone have co-opted civil
society organizations.

[7]Theoretical assessments likewise suggest that the relationship between state capacity and civil society is
ambiguous (Acemoglu and Robinson (2017), Bowles and Gintis (2002)).

While the Dai Viet central state has long since disappeared, we provide extensive evidence that norms of village governance have been highly persistent, and hence argue that historical institutionalized village governance is likely to be particularly important in generating the long-run effects that we document. In Dai Viet, detailed legal codes institutionalized the relationship between the central state, which served as the impetus and enforcer for most policies, and local functionaries, who were responsible for implementation.[8] The central state imposed tax and military recruitment quotas on the village, leaving the village authority to allocate burdens within their jurisdiction.[9] The village maintained population and property lists for the central state, and cadastral records allowed for periodic land redistribution, as well as the collection of property taxes beginning in the 1690s.[10] The state also entrusted the village with the supervision of public works.[11] While Vietnam had a competitive bureaucratic tradition, with an exam system used to select bureaucrats, in 1461 the system was reformed so that village councils were elected by villagers through popular male suffrage.[12]

Over centuries, Dai Viet expanded southward (Figure 1). Most of the expansion in Figure 1 reflects the Vietnamese conquest of Champa, which ruled through a system of loose personalistic alliances.[13] While conquered areas were initially settled as military colonies, they were ultimately converted into Vietnamese administrative villages, whose citizens had the same rights and obligations as areas that had been part of Dai Viet for much longer.[14]

Dai Viet left behind a rich paper trail that historians have used to develop a nuanced understanding of local and national political economy. In contrast, the absence of a record-keeping state in the Khmer periphery has resulted in very little quantifiable knowledge about life on the Khmer frontier prior to Vietnamese invasion.[15] Nevertheless the general features of Khmer society are reasonably well-understood. In Khmer, the village did not serve as an important administrative unit. Political appointments and land distribution were personalistic, and taxation was controlled by a temple-based system.[16] Land-owning elites used the temple to collect tribute from peasants and in turn passed a share up to higher-level elites, who legitimized their claims to land.[17] The Khmer state's control over their Mekong periphery was weak.[18] Comparing Vietnam to Cambodia, Laos, and Thailand, Victor Lieberman (1993, p. 484) argued: "Chinese bureaucratic norms... tended to encourage in that country [Vietnam] a more impersonal, territorially uniform, and locally interventionist system than was found in Indianized polities to the west."

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[8]Haines (1984, p. 309), Yu (2001, p. 165), Lieberman (2003, p. 382), Porter (1993, pp. 4–5).

[9]Lieberman (2003, p. 393), Zottoli (2011, p. 10), Woodside (1971), Porter (1993, pp. 5–6).

[10]Yu (2001, p. 165), Li (1998, pp. 49–56), Pastor (1997).

[11]Mus (1949, p. 266).

[12]Porter (1993, pp. 4–5), Lieberman (2003, pp. 381–384), Woodside (1971, pp. 156–157), Thien (2003, p. 53). National bureaucrats were still selected through an exam system, but very few came from our study region (Meyer and Nguyen (2005, p. 103)). Nola Cooke (1994, p. 306) wrote: "When Gia-long came to power in 1802 the southern examination system had been moribund beyond the local level for sixty years... The absence of any deeply-ingrained, official scholarly heritage in the south and the fact that academic qualifications never mattered much for southern access until well into the 1830s meant standards of official Confucian learning, as measured by examination success, improved very slowly in the nineteenth century."

[13]Lieberman (2003, p. 393).

[14]Nguyen (1985, pp. 8–9).

[15]Hall (1968, pp. 121–123, 126).

[16]Osborne (1969), Sahai (1970, pp. 139–148), Chandler (1983).

[17]Lieberman (1993, p. 227), Hall (2011, p. 162), Tarling (1999).

[18]McHale (2013), Tarling (1999, pp. 231–234), Ebihara (1984, p. 282), Osborne (1966, p. 4).

2.2. *The Dai Viet–Khmer Boundary*

Our treatment of interest is the organization of former Khmer territories into Vietnamese administrative villages. The relevant boundary is the southernmost one in Figure 1, between the black-shaded region and areas immediately to east of it. Areas to the east of this boundary were organized as Dai Viet villages in 1698, around 150 years prior to French colonization, whereas areas to the west did not become Vietnamese provinces until the early 19th century. Abundant historical evidence underscores that idiosyncratic political circumstances—as opposed to economic or cultural differences at the boundary of interest—caused this lag in Vietnamese administrative expansion. Internal political struggles within Vietnam reduced their ability to expand, whereas internal strife within Cambodia reduced the need for Vietnam to formally annex the Mekong. Siding strategically with warring Khmer factions allowed them instead to gain effective economic access without full administrative control.

Initially, our study region formed Khmer's eastern periphery. Information is limited, as the Khmer state did not collect any systematic local-level data. The literature about the pre-Vietnamese era describes the region as a backwater.[19] Archaeological remains indicate scattered Khmer settlements throughout the area, and the literature discusses the agricultural productivity and rice cropping methods of the region in homogeneous terms.[20]

The 1698 boundary originated in an early 17th century defense treaty. Cambodian King Chei Chettha II turned to the southern Vietnamese leader Nguyen Phuc Nguyen in 1622 for assistance in fighting Thailand. At the time, there was not a common border between Khmer and Vietnam, which were separated by Champa. The Vietnamese provided naval assistance in a battle against Thailand. In exchange, Nguyen Phuc Nguyen married a daughter to Chei Chettha II and received a lease to collect taxes for five years at Prei Nokor and Kampong Krabei, adjacent settlements in the basins of the Dong Nai and Sai Gon rivers that formed Khmer's easternmost province, which the Vietnamese named Gia Dinh.

The extent of the area leased to Dai Viet was determined by the river basins. As Taylor (2013, p. 307) wrote: "Vietnamese frontiers had always been mountain passes or rivers or places where the ever-present western mountains ran out into the sea... the Dong Nai and Sai Gon River basin was like an antechamber [into Khmer territory] for the Vietnamese." The area historically played a marginal role in Southeast Asian trade and "would only become important much later when it had been developed as an administrative center [of Dai Viet]."[21] Other natural ports such as Ha Tien, Ninh Kieu, and Binh Long were located on the Khmer side of the boundary and initially played a larger role in trade.

The basic contours of 17th century Vietnamese and Cambodian politics explain the subsequent fate of Gia Dinh, including its ultimate organization as a Vietnamese administrative province in 1698. The Khmer expected to regain the area after five years, as stipulated in the treaty, but by this time Chei Chettha II had died, and Nguyen's daughter interceded repeatedly to prevent Khmer from reclaiming it. The following decades witnessed a series of small-scale conflicts between Khmer and Dai Viet, but the Vietnamese maintained effective control of Gia Dinh, with skirmishes focusing on prizes of greater value to both parties.

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[19]Nguyen (1971, pp. 111–112).
[20]Sakurai (2004, p. 37), Taylor (2013, p. 303).
[21]Vickery (1977, p. 415), Parthesius (2010).

Internal strife in Cambodia and Vietnam fundamentally impacted their interactions with each other and the fate of Gia Dinh. In Vietnam, conflict revolved around two rival kings, Trinh Tac in the north and Nguyen Phuc Tan in the south. After a series of bloody stalemates in the mid-17th century, Vietnam was partitioned into two effectively separate countries, one led by the Trinh in the north and one led by the Nguyen in the south.[22] They would continue to periodically threaten each other until reunification over a century later.

A similar situation existed in Cambodia, and the Nguyen recognized that Vietnam's interests could be met more effectively by cultivating clients in the Khmer royal family than by direct conquest.[23] In 1672, the Cambodian king was killed by his nephew. Civil war broke out, with the conflict ending in a stalemate in which Cambodia was also effectively partitioned in two. Chei Chettha III controlled the north and west, supported by Siam, and Ang Nan controlled the east and south, supported by the Vietnamese. Cambodian chronicles and the Cambodian Legal Code of 1693/8 reveal that much of the Mekong periphery, especially the lower Mekong, was under the semi-independent rule of local Khmer chiefs.[24] The wars that ensued between Chei Chettha III and Ang Nan continued for an extended period, entrenching the Siamese and Vietnamese as regular participants in Khmer politics.

In 1679, a new element was added to the tumultuous political equilibrium in the Khmer frontier: the arrival of the Ming navy, which had been expelled from Chinese seaports by the Qing Manchu who had conquered China. The southern Vietnamese king Nguyen Phuc Tan directed half of them—led by Chen Shangchuan—to settle at Bien Hoa (on what would later become the Dai Viet side of the boundary), and the other half—led by Yang Yandi—to settle at My Tho (on what would later become the Khmer side of the boundary).[25] The Ming joined Vietnamese settlers who, fleeing civil conflict, had arrived in the area throughout the 17th century.[26] The Ming settlers, in addition to setting up markets and trade routes—which were similar in the settlements on both sides of our boundary, maintained armies that in the 1680s began to participate in the Cambodian civil wars. When Nguyen Phuc Tran died in 1691, affairs on the Cambodian frontier were in a state of disarray.[27]

The ascension of Nguyen Phuc Tran's son, Nguyen Phuc Chu—who had ambitions to formally organize areas in the south as Vietnamese provinces—provided an impetus for Gia Dinh's incorporation. At the time, there was still a "Cham gap" between Vietnam and Gia Dinh, consisting of areas controlled by the greatly weakened Cham state. The Cham king Po Sot had taken advantage of succession disorder and seized territory following Nguyen Phuc Tran's death. Nguyen Phuc Chu sent his brother southward in 1693 to capture Po Sot and to organize the Cham kingdom into the province of Binh Thuan.

With the Cham gap resolved, Nguyen Phuc Chu turned his attention southward. In 1698, he established the province of Gia Dinh in the basin of the Dong Nai and Sai Gon Rivers. Dai Viet exercised a strong control over its periphery, and the Vietnamese state believed "firmly in well-defined borders."[28] "Communes, villages, and hamlets were set up with specific boundaries; taxes were regulated; and, the register of farming laborers was made."[29] Khmer, still engulfed in civil war, was too occupied to respond to the loss

[22]Taylor (2013, p. 318).
[23]Taylor (2013, p. 307), Sakurai (2004, p. 40).
[24]Sakurai (2004, p. 42).
[25]Nguyen (1971, p. 108).
[26]Coedès (1966), Taylor (2013, pp. 303–310).
[27]Taylor (2013, p. 322).
[28]Osborne (1969, p. 13).
[29]Nguyen and Cao (2016, p. 19).

of a small peripheral territory that they had not effectively controlled for nearly three quarters of a century. Gia Dinh at this time consisted of a diverse group of individuals, not dissimilar from those living on the other side of the boundary: Khmer communities; various Vietnamese settlers; Chinese merchant communities; and some scattered Cham and Malay settlements.[30] By the time anthropologists began to observe ethnic and language groups (see the *Narodov Mira Atlas* and *Ethnologue*), the territories of the ethnic groups in the region (the Vietnamese and the Ma—a Mon-Khmer speaking group) cut perpendicularly to the boundary of interest.[31]

The historiography strongly suggests that the halt in administrative expansion following 1698 was not about economic fundamentals—as economic agents moved to Khmer in large numbers to exploit opportunities—but rather about idiosyncratic features of Khmer and Vietnamese politics. Settlement was a fairly continuous process, with Vietnamese and Chinese merchants venturing extensively into Khmer territory throughout the 18th century, sometimes led by the same adventurers who had settled Gia Dinh. Settlers expanded the large market at My Tho and established various trading posts along the rivers that crisscross the Mekong.[32] Chen Shangchuan—who had first led Chinese settlers into the Gia Dinh area—subsequently established control along various Cambodian estuaries in areas still controlled by Khmer. Settlers also proved useful for advancing Vietnamese military incursions into Khmer territory, but in exchange for this support often demanded political autonomy.[33]

Periodic Vietnamese incursions into Cambodia occurred throughout the early 18th century, largely organized in conjunction with Chinese and Vietnamese settlers. Nguyen Phuc Chu was, however, occupied with other threats: in 1697 and 1714, he fought wars with upland chieftaincies and also maintained constant surveillance on Trinh military preparedness.[34]

Military expansion deeper into the Mekong was a more continuous and nonlinear process than administrative incorporation, with control of provinces passed back and forth between Cambodia, Vietnam, and local rulers to whom both the Khmer and Vietnamese ceded control in some areas in exchange for military support or economic access. Full administrative control was not required to exploit economic opportunities. Specifically, the Vietnamese military expansion gathered steam in the mid-18th century, with a large expedition against Cambodia in 1754 giving the Vietnamese army control of all the Tien Giang trade routes. The literature heavily emphasizes the economic importance to Vietnam of gaining access to these lucrative routes, and official gazetteers from the time extol the region's resources, especially its timber for shipbuilding.[35] Communities in the area, however, continued to enjoy significant autonomy.[36] In 1757, Vietnam demanded two Cambodian provinces as reward for putting the new Cambodian king on the throne. The Vietnamese, meanwhile, had to contend with relatively independent warlords, such as in Ha Tien in the southern Mekong. The ruler there offered the Vietnamese court part of his territory in 1757, but under the agreement that he would continue ruling the areas as before.

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[30]Taylor (2013, p. 323).
[31]Gordon (2005), Soviet Union. Glavnoe upravlenie geodezii i Kartografii (1954).
[32]Sakurai and Kitagawa (1999), Sakurai (2004).
[33]Sakurai (2004, p. 41).
[34]Taylor (2013, p. 325).
[35]Weber (2011, p. 745), Vo (2011, p. 42), Sakurai (2004, pp. 40, 44).
[36]Sakurai (2004, p. 42).

However, Vietnamese consolidation of these new conquests was delayed by internal strife. In 1772, the Tay Son rebellion erupted in central Vietnam, ending two hundred years of Nguyen rule. In 1776, the Cambodian king Ramaracea exploited the situation to temporarily regain control of Soc Trang, Tra Vinh, and Rach Gia. In 1802, Nguyen Anh finally defeated the Tay Son. His victory ultimately meant the end of the Khmer periphery as a separate region, even though it would be his son, Minh Mang, who finally took the necessary steps in the 1820s and 1830s to organize the area into Vietnamese administrative provinces.

2.3. *The Colonial and Post-Colonial Periods*

Our study region belonged to the directly administered colony of Cochinchina, established in 1862. French formal institutions did not differ within Cochinchina, but de facto norms of local governance varied with the context.[37] The colonial state exploited and preserved pre-existing norms, plausibly halting the Vietnamization of former Khmer territories that would have likely occurred under Dai Viet.

The qualitative literature suggests that weak village-level institutions extended from the Khmer period into the colonial era. For example, Brocheux and Hémery (2009, p. 101) wrote about the "crisis of the village community" in Cochinchina relative to places in northern Vietnam where the corporate village was much stronger, noting that this crisis dated back to at least the 1880s, soon after the start of French colonization. Where existing village structures were strong and deeply rooted, they could be leveraged to meet taxation aims.[38] In contrast, where the village was weak and already lacked legitimacy, village leaders lost further legitimacy in attempting to collect taxes for the French. The French relied on externally appointed officials to facilitate tax collection rather than trying to strengthen village institutions, and in some places French landowners took control of estates that had previously been held by the Khmer landed gentry.[39]

We digitized data on French landownership in Vietnam at the close of the colonial period, and 97.5% of French privately held lands were on the Khmer side of the boundary.[40] Nearly all of these lands are further south than our study region, and thus cannot explain our results, but the overall patterns support the assertion that the French worked through existing societal structures. It does not appear that other French forms of extraction—which could potentially exert negative long-run effects—were higher on the Khmer side of the boundary. Maps held in the collection of the *Bibliotheque Nationale de France* show, if anything, more rubber plantations on the Dai Viet side of the border (though not within our bandwidth). The most widespread protests against labor coercion—which were against forced conscription during World War I—took place throughout Cochinchina (Zinoman (2001, p. 157)).

Following World War II, the Vietnamese engaged in a successful anti-colonial struggle against the French. The Geneva Accords of 1954 demarcated Vietnam at the 17th parallel into two zones—communist North Vietnam and pro-western South Vietnam—and our study region is well within South Vietnam. In 1967, there was a major constitutional reform in South Vietnam that decentralized political power, granting villages expansive budgetary and public goods provision powers and the ability to elect village councils and

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[37]Nguyen (2003, p. 117), Booth (2007).
[38]Nguyen (1985, p. 160).
[39]Nguyen (2003, p. 119), Osborne (1969, p. 151), Popkin (1979, p. 432), Wolf (1969, p. 177).
[40]These data were compiled from French records by the Stanford Research Institute (Bredo (1968)).

shape local development projects. Our results from the South Vietnamese era thus shed light on the impacts of the historical state in a context with a high degree of decentralization.

In 1975, Vietnam was reunited under a communist government, which attempted unsuccessfully to collectivize land in the south and implement a command economy. Liberalization began in the 1990s, and presently Vietnam is one of the more decentralized countries in Southeast Asia. Fiscal administration is conducted at the provincial level, whereas village governments continue to play a role in administering a variety of services.[41] Officials are selected by communist party bodies.[42] However, locally selected village heads exist in a more informal capacity, though the central government does not recognize them, carrying out de facto functions in local politics along with village-level party officials.[43]

2.4. *Parallels to Other Asian States*

Dai Viet and Khmer are representative more generally of Northeast and Southeast Asian civilizations.[44] The literature commonly divides Asian societies into the Sinic states of Northeast Asia and the Indic states of Southeast Asia. Dai Viet, Korea, and Japan adopted a Chinese-style administrative bureaucracy.[45] They had Chinese-style legal norms, a high degree of centralization, and the village was a fundamental administrative unit.[46] Village elections were used at times to select leaders, though their duration was shorter and the franchise narrower in Korea and Japan than in Dai Viet.[47] All three had a tributary relationship with China at some point, with political ties precipitating the adoption of Chinese statecraft.[48]

In contrast, a large literature on state formation in Southeast Asia classifies Laos, Siam (Thailand), Bagan (Myanmar), Khmer, and states such as Srivijaya and Majapahit in island Southeast Asia as Indianized "mandala" states.[49] Since at least the second century, most states across mainland and island Southeast Asia were impacted by Hindu-Buddhist statecraft and elite culture imported from India. Bureaucracies, to the extent that they did exist, were never professionalized, even in the more centralized of the Indic polities and periods; central states had weak control over the periphery; and the village was not typically a fundamental administrative unit.[50] Southeast Asian states also shared common Buddhist-Hindu legal origins, though Islamic tradition eventually influenced Indonesia and Malaysia.[51]

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[41]See Kerkvliet and Marr (2004).

[42]Marr (2004, p. 48).

[43]Kerkvliet and Marr (2004, pp. 4–7).

[44]Hall (1973), Cotterell (2014).

[45]Woodside (1971, 2006), Liu (2007).

[46]Jansen (2000), Barnes (2007), Liu (2007), Lewis (2009, 2011), Kang and Cha (2010), Whitmore (1979).

[47]In Japan, elections occurred primarily in the late Tokugawa (Befu (1965, p. 21), Smith (1952, p. 8)). The Japanese franchise, consisting of taxpayers (landowners), was narrower than in Dai Viet but interestingly in Japan the *hyakushodai*—peasant elders—played a central role in checking the power of the village head, providing the peasant class with institutionalized political power despite their lack of suffrage (Ooms (1996, pp. 121–122), Befu (1965, p. 21)). In Korea, the central government stipulated that village headmen would be selected through a village meeting after a debate had been held (Eikemeier (1976, pp. 101–102)).

[48]Kang and Cha (2010), Kang (2010).

[49]Coedès (1966), Mabbett (1977), Kulke (1986), Tambiah (1977, 2013), Wolters (1999).

[50]Lieberman (1993, 2003).

[51]Hooker (1978b, 1978a), Harding (2001), Acharya (2013).

3. ESTIMATION FRAMEWORK

This study exploits the discontinuous change in exposure to historical state administrative institutions, comparing households in areas converted into Dai Viet administrative villages in 1698 to households in areas incorporated later. This boundary forms a multidimensional discontinuity in longitude-latitude space, and regressions take the form

$$out_v = \alpha + \gamma\,Dai\,Viet_v + f(\text{geographic location}_v) + \sum_{i=1}^{n} seg_v^i + \beta\,dist\_hcm_v + \varepsilon_v, \quad (1)$$

where out_v is the outcome variable of interest in village v, and $Dai\,Viet_v$ is an indicator equal to 1 if village v was on the Dai Viet side of the 1698 boundary and equal to zero otherwise. $f(\text{geographic location}_v)$ is the RD polynomial, which controls for smooth functions of geographic location. The seg_v^i split the boundary into 25 km segments and equal 1 if village v is closest to segment i and zero otherwise. The boundary segment fixed effects ensure that the specification is comparing villages across the same segment of the boundary, and results—available upon request—show that results are highly robust to the choice of segment length. Finally, $dist\_hcm_v$ is the distance of village v from Ho Chi Minh City and is included in all regressions to explicitly control for proximity to the region's largest urban area. For regressions examining equivalent household consumption, we also include a vector of demographic variables giving the number of infants, children, and adults in the household.

The baseline specification limits the sample to villages within 25 kilometers of the threshold. Following Gelman and Imbens (2014), we use a local linear RD polynomial for the baseline and document robustness to a wide variety of different bandwidths and RD polynomials.

The key identifying assumption is that all relevant factors besides treatment vary smoothly at the boundary. That is, letting c_1 and c_0 denote potential outcomes under treatment and control, x denote longitude, and y denote latitude, identification requires that $E[c_1|x, y]$ and $E[c_0|x, y]$ are continuous at the discontinuity threshold. This assumption is needed for observations located just across the Khmer side of the boundary to be an appropriate counterfactual for observations located just across the Dai Viet side.

To assess the plausibility of this assumption, Table II examines a variety of geographic characteristics, using gridded geographic data and regressions of the form described in

TABLE II

BALANCE CHECKS[a]

	Elev. (1)	Slope (2)	Temp. (3)	Precip. (4)	Rice Suit. (5)	Coco. Suit. (6)	Sugar Suit. (7)	Flow Accum. (8)	Km Rivers (9)
				Dependent variable is:					
Dai Viet	−1.562	0.356	0.052	2.084	0.371	0.648	1.064	−1.758	−1.195
	(10.027)	(0.596)	(0.053)	(1.206)	(0.611)	(0.823)	(0.657)	(1.483)	(2.666)
Obs	120	120	120	120	119	119	119	120	120
Clusters	120	120	120	120	119	119	119	120	120
Mean	51.39	2.59	26.65	168.34	27.28	25.77	22.12	0.66	17.01

[a]The unit of analysis is the grid cell. All regressions include a linear RD polynomial in latitude and longitude, a control for distance to Ho Chi Minh City, and boundary segment FE. Robust standard errors are reported in parentheses.

equation (1). The unit of analysis is a 10 km × 10 km grid cell.[52] To be conservative, we treat grid cells as independent observations, as the use of spatially correlated standard errors tends to slightly increase their magnitude. Ideally, we would examine economic characteristics during the period when the entire area was part of Khmer. However, because the state was weak, no systematic data were collected. Suitability for rice—the dominant crop—was plausibly the most relevant characteristic given the agrarian nature of the society at that time.

Columns (1) and (2) of Table II examine elevation and slope, respectively. The point estimates on *Dai Viet* are small relative to the mean and statistically insignificant. Column (3) shows that temperature is likewise balanced. Column (4) does find a modest difference in precipitation that is marginally significant at the 10% level, but the coefficient is quite small relative to the mean. Column (5) documents that suitability for rice—the region's principal crop—is similar on either side of the boundary. Coconut and sugar suitability is also statistically similar (columns (6) and (7)). Column (8) examines flow accumulation, a measure constructed by the USGS Hydrosheds project that calculates how many cells are uphill from the cell under question. The higher the number, the more water we would expect to flow through the cell. There is not a statistically significant difference. Finally, column (9) examines the kilometers of river flowing through each cell, which is also balanced.

Section 2.2 provides extensive historical evidence that the delay in administrative expansion of Dai Viet was due to political factors internal to the Dai Viet and Khmer empires and not to economic differences at the boundary. Nevertheless, we can consider the plausibility of alternative explanations of our findings based on initial unobserved differences. One alternative story would be that areas to the east of our boundary were initially richer, and persistence of the initial capital stock has given them an edge. However, the Khmer periphery was a poor agricultural society with a very low capital stock. Moreover, given the many conflicts that have wracked this region over the past 300 years (Vietnam is the most bombed country in human history), even if there had been differences initially, economic effects resulting from the persistence of the initial capital stock would be very unlikely. Another alternative explanation would be initial unobserved differences in ethnic groups. However, large-scale settlement occurred in our study region during the 18th and 19th centuries, making it unlikely that small differences in cultural practices— unobserved in the historical literature—would generate large differences in economic outcomes, civil society, and local governance hundreds of years later.

An additional assumption is no selective sorting across the treatment threshold. This would be violated if relatively productive individuals moved from Khmer to Dai Viet and these differences persisted, leading to a larger indirect effect. Historical state institutions would still exert long-run impacts, but the interpretation would be different. Section 2.2 presented qualitative evidence that the initial Vietnamese settlement of our study region was a fairly continuous process, involving similar types of settlers on either side of the boundary. After initial land reclamation, negative attitudes towards outsiders created substantial barriers to moving into established villages:

> "An outsider who was allowed to live in a village had fewer rights to village possessions than did insiders. His descendants, furthermore, might not receive full citizenship—and with it, the right to own property and be notables—for several generations. Such marked distinctions made it exceedingly difficult, if not impossible, for a man to move into a village and take over another man's land. Even well into the period of French rule, a person from another village who tried to farm was likely to have his

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[52]Results are similar when other sized cells or villages are used as the unit of analysis.

crops destroyed… The emphasis on village citizenship, therefore, encouraged local ownership" (Popkin (1979, p. 89)).

Moreover, the Pacification Attitudes and Analysis Survey, conducted in the early 1970s, asked individuals if they would hypothetically be willing to move to a different village or province if they received an offer for a higher paying job. Only 21% and 12% of respondents answered yes, respectively.

Finally, we use the 2009 census to compare current place of residence to place of residence in 2004 and find low levels of migration between historically Khmer and Dai Viet areas. Two and a half percent of households in areas historically under Dai Viet reported having lived in historically Khmer areas in 2004. One percent of households in historically Khmer areas reported having lived in historically Dai Viet areas in 2004. While migration is unlikely to be a primary driver of results, we will examine its potential effect on the estimates in Section 4.

4. LONG-RUN EFFECTS ON ECONOMIC PROSPERITY

This section examines the impacts of the historical state on economic prosperity across the past century and a half. Places exposed to Dai Viet administrative institutions beginning in the 17th century are more economically developed, both today and historically, than nearby places that were exposed for a much shorter period.

4.1. *Economic Prosperity Today*

We measure economic prosperity today using the biennial Vietnam Household Living Standards Surveys (VHLSS), which were collected between 2002 and 2012 by the General Statistics Office of Vietnam with technical assistance from the World Bank.[53] The set of sampled villages remains mostly constant across 2002–2008, and then changes substantially in 2010. In each year, a core survey is administered to a large number of households, and an additional module on expenditures is administered to a subsample of households. In order to create a panel, there is a 50% rotation of households from one survey round to the next. To avoid repeated observations for the same household, we drop all households in 2004 that were also surveyed in 2002, all households in 2006 that were also surveyed in 2004, and so forth. Results, available upon request, are quantitatively similar if all observations are retained. To construct a measure of consumption that reflects productive capacity, we subtract transfers received from total consumption, though estimates are similar when transfers are included.[54]

Table III reports estimates from equation (1), using the log of equivalent household consumption as the dependent variable. Following Deaton (1997), we assume that children aged 0 to 4 are equal to 0.4 adults and children aged 5 to 14 are equal to 0.5 adults. All regressions control for survey year fixed effects and the number of household members aged 0–4, 5–14, and 15 and older.[55] Standard errors are clustered at the village level, and none of the significance levels in Table III change if errors are clustered at a higher administrative level or adjusted for spatial dependence.

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[53]The survey was collected during the 1990s but only for a very small sample of villages.

[54]We classify transfers as remittances and gifts received by the household as well as all income from social welfare and charity organizations.

[55]Household demographics are balanced at the boundary.

TABLE III

CONTEMPORARY HOUSEHOLD CONSUMPTION[a]

	Lat-Lon	Dist. Bnd.	Lat-Lon & Dist.	No Urban HCMC	No HCM Prov.	No Prov. Cap.	No	Only	Consist. Prov. FE	Trim For Migr.	25 to 100 Km	All SVN
		Polynomial					River Bnd.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dai Viet	0.338	0.263	0.283	0.352	0.315	0.333	0.323	0.335	0.405	0.288	0.293	0.346
	(0.051)	(0.058)	(0.059)	(0.053)	(0.082)	(0.058)	(0.062)	(0.083)	(0.063)	(0.048)	(0.090)	(0.026)
Obs	4312	4312	4312	3476	2560	2861	3590	722	4312	4233	6773	25,556
Clusters	450	450	450	362	258	312	374	76	450	450	670	2581

[a]The unit of analysis is the household. Outcome measured between 2002 and 2012. Columns (1) and (3) through (11) include a linear polynomial in latitude and longitude, and columns (2) and (3) include a linear polynomial in distance to the boundary. All columns include a control for distance to Ho Chi Minh City, demographic controls for the number of infants, children, and adults in the household, and survey year fixed effects. Columns (1) through (11) include boundary segment fixed effects, and column (9) includes consistent province fixed effects. Robust standard errors, clustered at the village level, are reported in parentheses.

Overall, the point estimates suggest that household consumption is around a third higher in Dai Viet villages. Column (1) uses a local linear polynomial in latitude and longitude, whereas column (2) uses instead a local linear polynomial in distance to the boundary, and column (3) includes both. Results are similar across these specifications. In a regression discontinuity, there are many options for how to specify the RD polynomial and bandwidth, and we are not aware of a widely accepted optimal bandwidth for a multidimensional RD employing a variety of outcomes. Fortunately, the choice of bandwidth and RD polynomial makes little difference. Each panel in Figure 2 plots point estimates of γ using equation (1) and different bandwidth values between 10 and 100 kilometers, with the bandwidth under consideration denoted on the x-axis. Thin lines show 95% confidence intervals, while the slightly thicker lines show 90% confidence intervals. The panels in different rows employ different functional forms for the RD polynomial: linear latitude-longitude (row 1), linear distance to the boundary (row 2), both linear latitude-longitude and linear distance to the boundary (row 3), and analogous specifications using quadratic functional forms (rows 4 through 6). The estimates in the first column include the full border and show that impacts are remarkably robust to alternative bandwidth and RD polynomial choices, though naturally estimates for smaller bandwidths tend to be noisier, particularly for quadratic polynomials.

The results can be seen graphically in Figure 3. Each sub-figure shows a scatter plot for one of the paper's outcomes. These are the three-dimensional analogues to standard two-dimensional RD plots, with each village's longitude on the x-axis, its latitude on the y-axis, and the outcome shown using an evenly spaced monochromatic color scale. Data at the individual or household level have been aggregated to the village level, and in the case of household expenditure, the plot shows the village-level residuals after household demographics and year fixed effects have been partialed out. The background shows predicted values, for a finely spaced grid of longitude-latitude coordinates, from a regression for the outcome under consideration using equation (1). In the typical RD, the predicted value plot is a two-dimensional curve, whereas here it is a three-dimensional surface, with the third dimension indicated by the color gradient. Lighter shades indicate higher values of the outcome variable. The actual data are shown with analogously colored dots. The data are not binned by the running variable, the way they often are in a two-dimensional RD, so will tend to show considerable variation. Panel (a) for household consumption il-
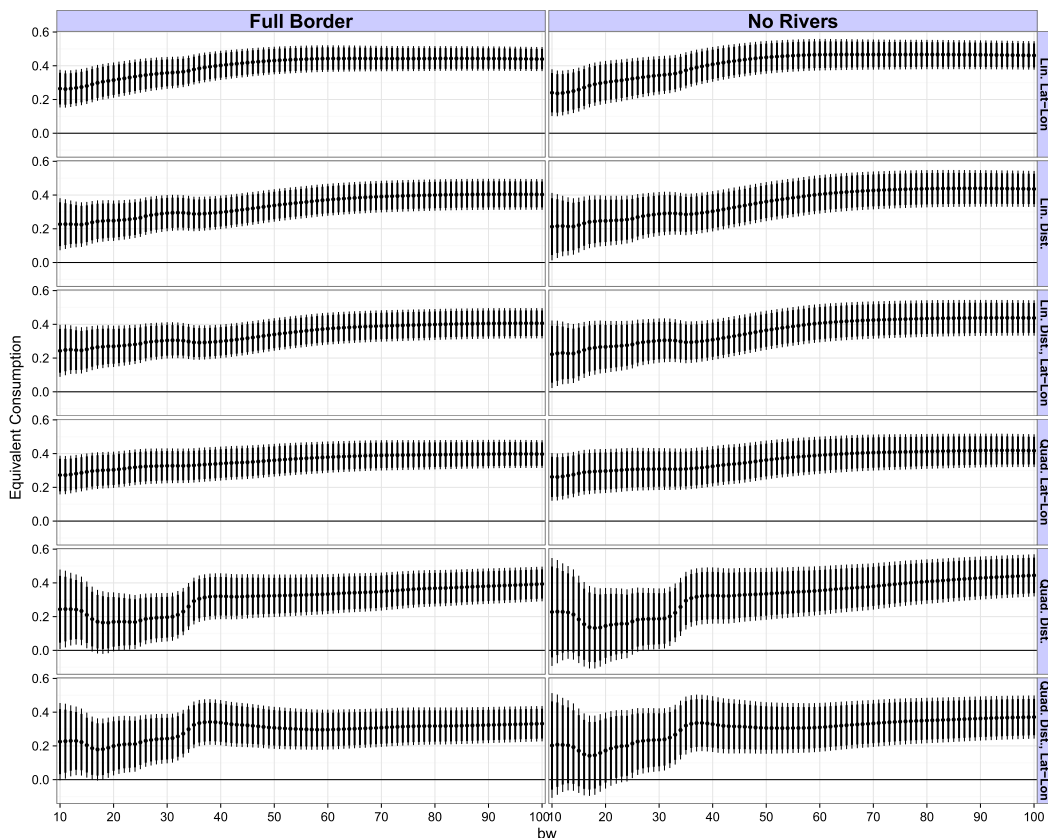
FIGURE 2.—Robustness of household consumption estimates. Notes: Each sub-figure plots the point estimates of γ (vertical axis) from equation (1) for different bandwidth values between 10 and 100 kilometers in 1 km increments (horizontal axis). Thin lines stemming from the point estimates show 95% confidence intervals, while the slightly thicker lines show 90% confidence intervals. The panels in different rows correspond to different polynomial functions for geographic location. The estimates in the first column are based on the full border, while those in the second column exclude households closest to boundary segments that coincide with a river.

lustrates the predicted jump across the boundary and darker (poorer) dots tend to overlay darker-shaded areas, indicating that the predicted values do a good job of fitting the data.

The cluster of points on the Dai Viet side of the boundary is Ho Chi Minh City, and one concern is that it drives the effects. Its placement is not by chance—it was the administrative center of Dai Viet's 1698 expansion—but if it determined the results, the interpretation would be different. Column (4) shows that results barely change upon dropping urban districts comprising Ho Chi Minh City, and column (5) documents that results are also unchanged when all of Ho Chi Minh Province—which includes urban and rural areas—is excluded. Dai Viet villages do tend to be slightly closer to Ho Chi Minh City, but this does not change discontinuously at the boundary. Hence, the RD controls for it. Column (6) shows that results are also robust to dropping all provincial capitals, which largely removes urban areas.

Recall from Section 2.2 that river basins played a role in determining Gia Dinh's extent. An RD across only river segments of the boundary might be preferred to the extent they constitute exogenous barriers. On the other hand, it is possible that rivers could impose
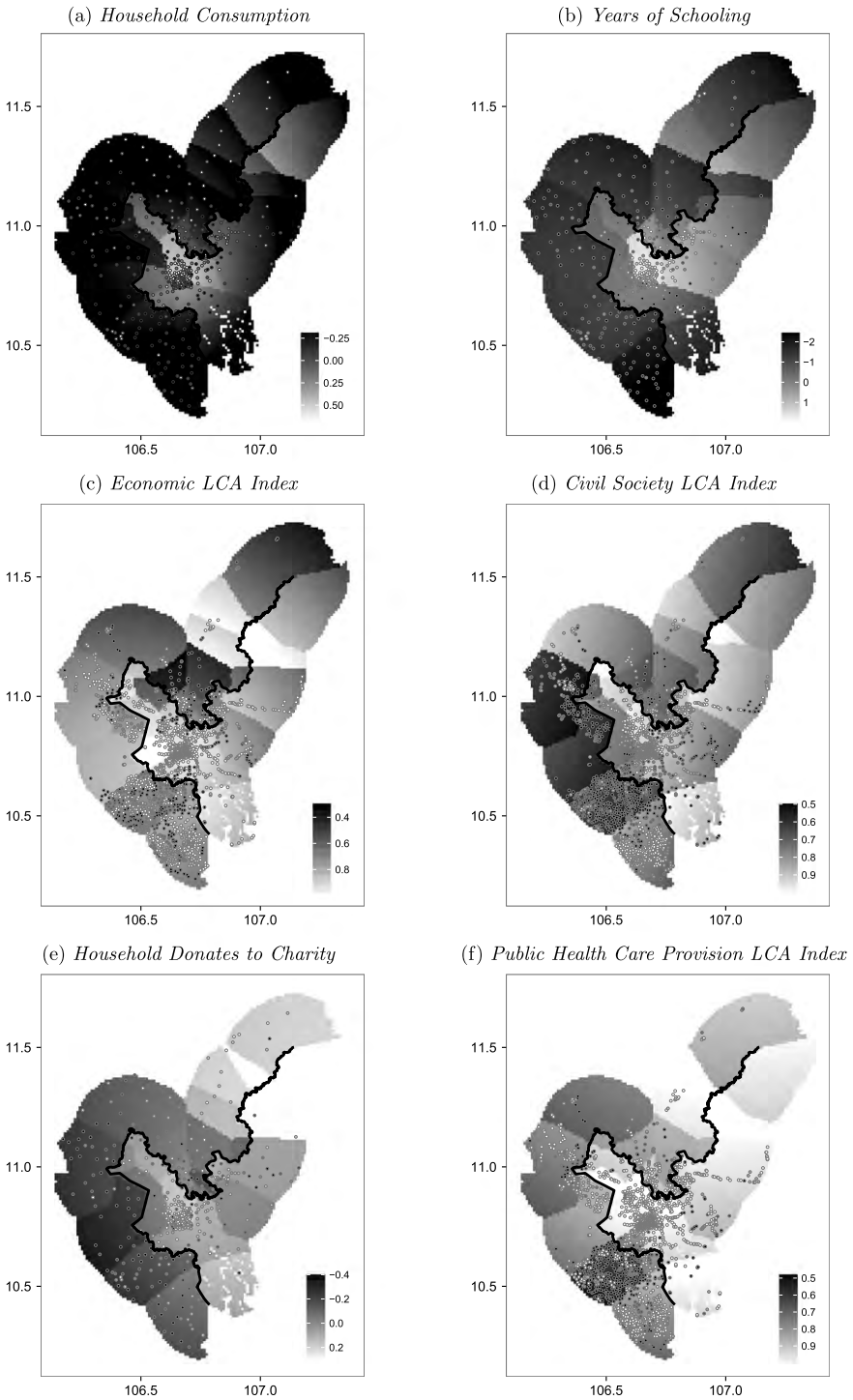
FIGURE 3.—RD graphs. Notes: Longitude is on the *x*-axis, latitude is on the *y*-axis, and the data value is shown using an evenly spaced monochromatic color scale. The background shows predicted values, for a finely spaced grid of longitude-latitude coordinates, from a regression of the outcome variable under consideration using equation (1).

discontinuities in transport costs, though they are well spanned by bridges today. Column (7) limits the sample to villages closest to boundary segments that do not coincide with rivers, and column (8) does the same for segments that are formed by rivers. The point estimates are of similar magnitude. While one could tell a story where the discontinuity along the river segments is caused by the river imposing large travel costs, whereas the discontinuity along the non-river segments is caused by an unobservable that happens to generate an effect of the same magnitude, this appears unlikely. The second column of Figure 2 documents that this robustness holds more generally, regardless of the bandwidth or RD polynomial employed. One might also wish to compare within the same higher-level administrative units. Provinces change across the study period, so we aggregate these changes to create provinces with consistent boundaries across time. There are two in our study region. Comparing villages within these, by including province fixed effects, if anything makes the estimates larger (column 9).

An additional question to consider is whether selective migration today may be responsible for living standards differences across the boundary. Given that in-migration to provinces historically under Dai Viet is about 2.5%, we omit the 2.5% of the Dai Viet sample with the highest consumption. To be conservative, we similarly omit the 1% of the Khmer sample with the lowest consumption, as in-migration to Khmer areas is 1%. The estimate in column (10) based on the trimmed sample remains similar, indicating migration today is not large enough to generate the differences. We have no way to measure migration historically, but the discussion in Section 3 suggests that it is unlikely to drive our results.

Another potential concern is that the boundary may be an unusual place. We address this by examining two alternative samples. The first considers only places 25–100 km away, omitting the boundary region itself (column (11)). The second compares all of South Vietnam organized as Dai Viet villages by 1698 to all of South Vietnam that was not (column (12)).[56] We focus on South Vietnam to increase comparability, since the North had a very different history under Communist North Vietnam between independence and reunification. While these estimates are not causally identified, they remain similar to the baseline, demonstrating that the effects near the boundary are not a fluke. Results (available upon request) are also robust to dropping other places that may be unusual, such as coastal villages, to varying the length of the boundary segment fixed effects, and to limiting the sample to before or after the VHLSS sampling frame was redefined in 2010.

As an additional check, we conduct the following exercise. For each of the study's outcomes, we randomly reassign distance to the boundary. We regress the outcome of interest on the reassigned indicator for whether the village is on the Dai Viet side of the boundary, and then repeat this exercise 1000 times. Appendix Table A-I reports the share of the 1000 absolute placebo coefficients that are larger in magnitude than the absolute actual coefficient on the Dai Viet dummy.[57] The *p*-values computed using the randomization exercise provide a broadly similar picture to those computed using conventional inference.

Finally, Appendix Table A-II reports several placebo tests. First, the rivers coinciding with the Dai Viet boundary also flow through areas that are not along the boundary (Appendix Figure A-1). Column (1) estimates the baseline regression on the sample of districts bordering other portions of the rivers that partially form the boundary, assigning

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[56]We do not include an RD polynomial since the sample contains places very far from the boundary, but estimates are larger when it is included.

[57]We use absolute coefficients in order to conduct a two-sided test.

TABLE IV

HUMAN CAPITAL[a]

	Dependent variable is:			
	Years Schooling			
	Cohort			
	>25	25–40	40–60	>60
	(1)	(2)	(3)	(4)
Dai Viet	0.950	0.899	0.989	0.984
	(0.195)	(0.192)	(0.237)	(0.232)
Obs	42,190	17,985	17,273	6932
Clusters	453	452	453	442
Mean	7.45	8.41	7.67	4.38

[a]The unit of analysis is the individual. All outcomes measured between 2002 and 2012. All columns include a linear RD polynomial in latitude and longitude, a control for distance to Ho Chi Minh City, boundary segment fixed effects, and survey year fixed effects. Robust standard errors, clustered at the village level, are reported in parentheses.

as treated whichever side of the river segment is richer in order to stack the test in favor of finding a difference. The difference is small relative to the actual RD coefficient and statistically insignificant, providing further evidence that the rivers along our boundary do not drive the discontinuity. Column (2) performs a placebo comparing across the provincial boundaries in the study area that fall entirely within Dai Viet or Khmer, in order to see whether income differentials of the magnitude found along the 1698 boundary are typical. We assign the richer side of each provincial boundary segment as treated, and the specification does not reveal a statistically significant discontinuity. Finally, column (3) examines other historical boundaries of Dai Viet's southward expansion. To increase power, we pool all observations near the other boundaries, and the treatment indicator equals 1 if the district is located on the side of the boundary conquered earlier. Since—in contrast to the Khmer areas—all of these places were organized under the village government system for hundreds of years, we would expect there to be little effect of being brought in modestly earlier. The estimate is indeed small and statistically insignificant.

Human capital is an important proximate cause of the disparities in economic prosperity. Table IV examines individual-level data from VHLSS on years of schooling. Column (1) reports the average effect for all individuals over 25, whereas columns (2) through (4) consider different cohorts separately. We focus on adult cohorts, as they are likely to have completed schooling. The estimates are positive and statistically significant, documenting that individuals in Dai Viet areas have an additional 0.95 years of schooling (Figure 3, panel (b)). While the absolute effect is roughly similar across cohorts, the effect is proportionally larger for older individuals, since the older cohort has only half the schooling of the younger cohort. The direct impacts of education today are large enough to explain about a third of the economic differences, using typical returns to education. The estimates are robust to dropping Ho Chi Minh City (Appendix Table A-III) and to the other variations examined for consumption (available upon request) and also remain stable when the bandwidth is varied.

4.2. *Economic Effects in the Colonial Period*

We turn next to an examination of economic variables across the past century and a half. Data from the pre-colonial period are not systematically available, in particular for

TABLE V

ECONOMIC OUTCOMES: COLONIAL PERIOD[a]

	Telegraph Density		Rail/Road Density	Motor Road Density	Rail Density	Paved Road Dens.	Rail Density
	1878	1901	1878	1910	1910	1926	1926
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dai Viet	0.013	0.061	−0.011	0.058	0.036	0.121	0.007
	(0.006)	(0.032)	(0.031)	(0.037)	(0.021)	(0.043)	(0.016)
Obs	691	691	691	691	691	691	691
Clusters	691	691	691	691	691	691	691
Mean	0.01	0.17	0.19	0.42	0.09	0.43	0.06

> **Dependent variable is:**

[a]The unit of analysis is the village. All regressions include a linear RD polynomial in latitude and longitude, a control for distance to Ho Chi Minh City, and boundary segment fixed effects. Robust standard errors are reported in parentheses.

the Khmer side of the boundary. When the French arrived, they did collect some systematic data, but disaggregated data are nearly non-existent. The only source of extant village-level information is maps held by the *Bibliotheque Nationale de France*, for 1878, 1901, 1910, and 1926, which we georeferenced and intersected with village boundaries. Each map shows different types of infrastructure—roads, railroads, and telegraph lines—though not all types of infrastructure appear in all maps. Since our entire study region is within the same colonial administrative unit, Cochinchina, we would not expect these outcomes to differ if pre-existing conditions were the same. The colonial state and private companies plausibly invested in infrastructure in areas with the greatest economic surplus.

Table V, columns (1) and (2) consider density (in km per village area) of telegraph lines in 1878 and 1901, respectively. Telegraph lines were more prominent on the Dai Viet side of the boundary, and the coefficients are large relative to the sample means. The 1878 map also shows lines denoting a rail or road (of any type), and there is not a statistically significant difference across the boundary (column (3)). However, by 1910, the maps reveal that railroad density was higher in Dai Viet villages (column (5)), and the coefficient on motor roads (which may be paved or unpaved) is positive but noisy (column (4)). Finally, the 1926 map shows a strong positive effect on paved roads (column (6)). The railroad effect, in contrast, is no longer statistically significant, and the density of railroads by this time had fallen nearly in half relative to 1910 (column (6)). These estimates are broadly robust to the choice of bandwidth and RD polynomial; when Ho Chi Minh is dropped, coefficients fall modestly in magnitude but remain broadly similar (results available upon request).

4.3. *Economic Effects in the South Vietnamese Period*

We finally turn to the period following independence, when the region was governed by the non-communist state of South Vietnam. Across very different historical contexts, the economic effects persist.

Income data are available for a sample of hamlets through the Pacification Attitudes and Analysis Survey (PAAS, U.S. National Archives RG 330 and 472). A hamlet is a cluster of dwellings within a village, typically surrounded by fields. PAAS was a joint U.S.-South Vietnamese effort, compiled by Vietnamese enumerators. It was launched

in March of 1970 and was conducted monthly until December of 1972, though not all months have been preserved.[58] Each month, surveys were conducted in six randomly selected hamlets per province. Fifteen respondents were randomly selected per hamlet, with stratification on demographic characteristics. The survey focused on citizens' attitudes and opinions, but also asked about household income in the past year. Households identify which income bin describes their situation, and we assign their income as the midpoint of the bin. The data are not of the same quality as modern expenditure surveys but are nevertheless a rare example of income measurement in a developing country before the advent of living standards surveys.

We also obtain a variety of economic indicators from the Hamlet Evaluation System (HES, RG 472), collected jointly by the United States and South Vietnam between 1969 and 1973. HES contains information on economic, social, political, and security conditions in all South Vietnamese hamlets, with data collected on a quarterly basis. The information was compiled by U.S. and Vietnamese advisers, in conjunction with local officials, and the questions are at the hamlet or village level.[59] The data provide unusually rich local-level information covering a broad set of variables. We focus in the main text on variables of relevance to our research question, that appear in all rounds of the survey and that are not answered only if some other condition (which may itself be affected by the treatment) holds. To avoid concerns about researcher degrees of freedom, however, Appendix C of the Supplemental Material (Dell, Lane, and Querubin (2018)) presents an analysis of the complete set of HES questions. The results are consistent with those in the main text.

Some of the HES questions have categorical responses, and we code these into binary indicators, as there is usually not enough variation across all the response categories to estimate a multinomial logit. These indicators are then averaged across the sample period. Appendix Table B-I provides a complete listing of the economic questions and response codings—primarily chosen to maximize variation in the resulting binary indicators—and we report estimates for all available questions.

To address potential concerns about the coding of categorical responses and about multiple hypothesis testing, we also report estimates from Bayesian latent class analysis (LCA).[60] LCA is designed to address multiple comparison concerns in categorical data, where other techniques such as principal components or a simple mean of the sub-component variables are difficult to interpret. Based on the observed categorical responses, the LCA uses a finite mixture model to estimate the posterior probability that each hamlet belongs to one of two latent groups associated with "high" and "low" economic prosperity. For example, suppose there are four questions, each of which takes on three possible values. This leads to $3^4 = 81$ possible response combinations. Latent class analysis reduces the number of comparisons by assigning observations posterior probabilities that they belong to each latent group, given the observed question responses. To ensure a comparable set of inputs across observations, we specify the LCA to consider all questions available throughout the sample period that hamlets responded to regardless of their answers to other questions—rather than skipping the question if the answer to another one implied it was not applicable—though estimates would be similar if these

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[58]Tapes containing information for May, 1970 through February, 1971 and for August and September of 1971 were not preserved.

[59]Most questions are quarterly, but a few of the security questions were collected monthly.

[60]When we compute the LCA, we include all observations, to avoid needing to recompute the LCA when changing the bandwidth. However, if we just include hamlets within 25 kilometers of the boundary in the LCA computations, results are very similar.

TABLE VI

ECONOMIC OUTCOMES: SOUTH VIETNAMESE PERIOD[a]

	Log Family Income (1)	Econ. LCA (2)	Non-rice Food Avail. (3)	Manuf. Goods Avail. (4)	Surplus Goods Produced (5)	Households Require Assist. (6)	% HH Access Vehic. (7)	Land Unfarmed Bad Sec. (8)	Pop Growth (9)
					Dependent variable is:				
Dai Viet	0.238	0.170	0.279	0.196	0.184	−0.075	0.143	0.009	−0.004
	(0.043)	(0.055)	(0.060)	(0.065)	(0.052)	(0.038)	(0.020)	(0.047)	(0.006)
Obs	18,273	2348	388	388	388	2330	2332	330	2276
Clusters	220	399	388	388	388	397	396	330	396
Mean	9.93	0.83	0.71	0.63	0.44	0.61	0.34	0.26	0.01

[a]The unit of analysis is the household (column (1)), hamlet (columns (2), (6), (7), and (9)), or village (columns (3)–(5) and (8)). Outcomes measured between 1970–1972 (column (1)) and 1969–1973 (columns (2)–(9)). All regressions include a linear RD polynomial in latitude and longitude, a control for distance to Ho Chi Minh City, and boundary segment fixed effects. Robust standard errors, clustered at the village level, are reported in parentheses.

questions, few in number, were included (see Appendix B of the Supplemental Material for details). Dell and Querubin (2018) provided a technical description of the LCA computation.

Table VI, column (1) examines log household income between 1970 and 1972. Income on the Dai Viet side of the boundary is around 24 percentage points higher, and the estimate is statistically significant at the 1% level. Column (2) documents that hamlets historically under Dai Viet are 17 percentage points more likely to be in the high prosperity latent class (s.e. = 0.055), and the effect is significant at the 1% level. See also Figure 3, panel (c). The results for the individual outcomes that contribute to the LCA show a similar pattern. In places with a strong state historically, non-rice foodstuffs—which refers primarily to luxury goods such as meat and fruit (see Appendix Table B-I for the question text)—are 28 percentage points more likely to be amply available (column (3), s.e. = 0.06), and manufactured goods are 20 percentage points more likely to be available (column (4), s.e. = 0.07). Surplus goods are also more likely to be produced, households are less likely to require assistance to subsist, and households are more likely to have access to a vehicle (columns (5)–(7)). However, there is no difference in whether land is left fallow due to poor security (column (8)). The next section will show that security did not differ substantially across the Dai Viet boundary, alleviating the concern that these effects could be largely driven by the war. Finally, column (9) shows that there is no difference in quarterly population growth, suggesting that differential migration during this period is unlikely to contribute substantially to the effects.

One concern is that the results could be driven by hamlet size. While we do not control for this in the baseline, since it is endogenous, Appendix Table A-IV documents that results are similar when we do. Results are also similar when we drop Ho Chi Minh City (Appendix Table A-V)—which during this period composed the entirety of Ho Chi Minh Province, when we drop all provincial capitals, and when we vary the bandwidth (available upon request).

We also digitized district-level data on land ownership and rice cultivation during 1975–1985, the period after Vietnamese reunification, from provincial yearbooks and declassified Vietnamese Communist Party documents. The main drawback of these data is that there are relatively few districts, and thus we lack statistical power. Estimates (available upon request) using a wider 100 kilometer bandwidth, in order to have enough observa-

tions to run the analysis, suggest that districts in historically Dai Viet areas had a higher share of state-owned land, a lower share of private land, and may have had less land cultivated with paddy rice. Conditional on land being in paddy, it was more likely to be irrigated and mechanized. Most effects are marginally significant at the 10% level.

5. MECHANISMS

These results raise the intriguing question of why the historical state's influence would be so persistent in the face of the major upheavals that have followed, including colonialism, the Vietnam War, and the implementation of a command economy followed by major market reforms. We hypothesize that Dai Viet's long history of institutionalized village government fostered highly persistent norms of local collective action that have remained important long after the Dai Viet central state ceased to exist. Providing local public goods that promote development inherently requires working together. It is possible that villages that are richer might then be able to afford to invest more in local collective action, creating a virtuous feedback loop that is sustained in the long run. We do not claim that local collective action is the only mechanism linking the historical state to long-run development, but the historical and empirical evidence make it difficult to tell a story where it does not play a central role.

Local cooperation is typically unobserved, particularly historically, but between 1969 and 1973, the U.S. and South Vietnamese governments compiled unique local-level data on civil society, village government, and public opinion. The Hamlet Evaluation System (HES; 1969–1973) includes monthly and quarterly data on civil society and local government for nearly all of South Vietnam's 18,000 hamlets (clusters of dwellings within villages), and public opinion surveys (PAAS; 1970–1972) provide data for a random sample of hamlets, as outlined in more detail in Section 4.3. We consider all questions that could reflect local cooperation and also use HES to examine security, with variable definitions and codings described in Appendix Tables B-II through B-VI. Since PAAS is a much smaller sample than HES, when questions are available in both, we use HES.

5.1. *Civil Society*

A well-functioning civil society can coordinate public goods provision and insure against subsistence crises. This plausibly provides an important mechanism linking historical institutions—which we hypothesize crowded in local collective action—to economic development. To examine this, we construct a summary measure using Bayesian latent class analysis and the HES question responses, as described in Section 4.3. The dependent variable in Table VII, column (1) is the posterior probability that the hamlet is in the high civil society group. Dai Viet areas historically had to work together to meet their obligations to the state and provide local public goods, and in the 1960s and 1970s, their citizens were more engaged in civil society. Specifically, the probability that Dai Viet hamlets are in the high civil society latent group is 20 percentage points higher (s.e. $= 0.033$), relative to a sample mean posterior probability of 0.79. This effect is shown in Figure 3, panel (d). One concern is that civil society might be higher in some Dai Viet hamlets, and economic outcomes could be better in completely different ones, but Appendix Figure A-2 shows that they are highly correlated.

Columns (2) through (11) consider individual outcomes, which are described in detail in Appendix Table B-II. In hamlets historically under Dai Viet, households are 26 percentage points more likely to participate in civil organizations, relative to a sample mean

TABLE VII

CIVIL SOCIETY[a]

	Civil Society	% Households Participate in		% HH Active	Self-Dev. Project	Org. Youth	Council Convenes	% HH Attend	RD Cadre in	% HH Part.	Civ. Soc. Provides	Contrib. to Charity
		Civic Org.	Econ. Train.	in PSDF	Underway	Activ.	Meetings	Govt. Mtgs.	Hamlet	RD Cadre	Assist.	Fund
	LCA											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dai Viet	0.199	0.262	0.211	0.077	0.099	−0.036	−0.011	0.104	0.009	0.174	0.165	0.153
	(0.033)	(0.027)	(0.027)	(0.028)	(0.024)	(0.033)	(0.020)	(0.028)	(0.030)	(0.035)	(0.042)	(0.037)
Obs	2348	2325	2348	2330	388	388	384	2331	2337	2314	2206	5889
Clusters	399	397	399	397	388	388	384	397	397	396	388	450
Mean	0.79	0.37	0.22	0.62	0.83	0.78	0.93	0.37	0.76	0.52	0.24	0.65

[a]The unit of analysis is the hamlet (columns (1)–(4) and (8)–(11)), the village (columns (5)–(7)), or the household (column (12)). Outcomes measured between 1969–1973 (columns (1)–(11)) or 2002–2012 (column (12)). All regressions include a linear RD polynomial in latitude and longitude, a control for distance to Ho Chi Minh City, and boundary segment fixed effects. Robust standard errors, clustered at the village level, are reported in parentheses.

of 0.37, and are 21 percentage points more likely to participate in local economic train-ings (columns (2) and (3)). Both effects are significant at the 1% level. Households in Dai Viet villages are 8 percentage points more likely to participate in the People's Self De-fense Forces—a local self-defense organization—and the effect is statistically significant at the 1% level (column (4)). Dai Viet villages are also substantially more likely to have self-development projects underway (column (5)). We do not find a difference in whether the village has organized youth activities (column (6)).

We likewise do not find a difference in whether the village council holds public meet-ings and over 90% did so (column (7)). However, Dai Viet households are 10 percent-age points more likely to attend meetings held by the village government, relative to a mean of 0.37 (column (8)). Moreover, in Dai Viet villages, households are more likely to participate in activities initiated by the Revolutionary Development (RD) Cadre, South Vietnam's development aid workers. There is no difference in whether the RD cadre are present in the hamlet, plausibly because their allocation was determined by higher-level government (columns (9) and (10)). Finally, Dai Viet villages are substantially less likely to have households that require assistance to subsist (Table VI, column (6)), but are nev-ertheless 17 percentage points more likely to have organizations that provide assistance to such households, relative to a sample mean of 0.24 (column (11)).[61] These results are robust to controlling for population (Appendix Table A-VI) and to dropping Ho Chi Minh City (Appendix Table A-VII) and are also robust to varying the bandwidth and dropping all provincial capitals.

Current data about local cooperation are sparsely available for Vietnam, a communist country where officially civic engagement occurs through the Party and local government is managed by communist officials. As discussed in Section 2.3, informal institutions re-flecting village structures remain active, but the state has been hesitant to acknowledge or collect information on these arrangements. Unlike many household surveys, VHLSS does not have a social capital module. Nevertheless, in the available data, we continue to see legacies of the historical state. The closest question to civic engagement systematically available in VHLSS asks about household expenditures on donations to charitable organi-zations, and we code an indicator for whether the household has donated to a charitable group. Column (12) documents that households in Dai Viet villages are 15 percentage points more likely to make charitable contributions (see also Figure 3, panel (e)).

5.2. *Local Government*

Next, we turn to local governance and public goods provision, drawing outcomes pri-marily from HES (1969–1973). During this period, a constitutional reform decentralized many governance and public goods provision roles to the village level, making local gov-ernment particularly relevant. Theoretically, it is unclear whether we would expect bet-ter functioning local government in places with more active civil societies. On the one hand, when the local government fails to provide public goods, citizens might compensate through civic organizations, or such organizations might exist primarily in places where the government is too weak to co-opt them. On the other hand, both local government and civil society might reflect persistent underlying norms of local cooperation, transmit-ted within communities over time. Our results support the latter hypothesis and suggest that participatory decentralization reforms work best in areas with a history of participa-tory governance.

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[61]The response to this question is coded as 0 if villages do not have such households.

TABLE VIII

LOCAL ADMINISTRATION[a]

| | Dependent variable is: | | | | | | | | |
| | | | | | | | Provincial Placebos | | |
	Local Admin. LCA (1)	Govt. Syst. Taxes (2)	Vilg. Comm. Filled (3)	Vilg. Chief Present (4)	Hamlet Chief Present (5)	Chief Controls RD Cadre (6)	Lack Prov. Tech. Assist. (7)	Tech. Pers. Visit (8)	Prov. Land Affairs Visit (9)
Dai Viet	0.030	0.060	0.062	0.057	0.036	0.081	0.012	0.003	0.001
	(0.013)	(0.035)	(0.028)	(0.033)	(0.024)	(0.020)	(0.030)	(0.048)	(0.055)
Obs	2348	388	388	388	2317	382	387	386	308
Clusters	399	388	388	388	396	382	387	386	308
Mean	0.98	0.84	0.87	0.93	0.92	0.88	0.18	0.53	0.72

[a]The unit of analysis is the hamlet (columns (1) and (5)) or the village (columns (2)–(4) and (6)–(9)). All outcomes measured between 1969 and 1973. All regressions include a linear RD polynomial in latitude and longitude, a control for distance to Ho Chi Minh City, and boundary segment fixed effects. Robust standard errors, clustered at the village level, are reported in parentheses.

Table VIII, column (1) considers the posterior probability that the hamlet belongs to the latent class associated with better functioning local government administration, which encompasses information about tax collection, the staffing of government positions, and control of government officials over bureaucrats. Dai Viet areas are more likely to be classified in the good local administration latent class, and the effect is statistically significant at the 5% level. Observations do tend to cluster in the same latent class, because there is limited variation in the underlying question responses (see the means in columns (2) through (6)). We will see that there is significantly more variation in the public goods questions. It is difficult to say whether there is genuinely less variation in local administration, or whether the public goods questions are simply better designed to elicit variation.

A classic measure of state capacity is tax collection, and column (2) shows that local governments in Dai Viet villages are six percentage points more likely to systematically collect taxes, relative to a sample mean of 0.84. Column (3) documents that Dai Viet villages are also more likely to have all the positions on their village committee—which organizes public goods provision—filled. The village chief is more likely to be regularly present in Dai Viet villages, though there is not a statistically significant effect on the presence of the hamlet chief (columns (4) and (5)). Finally, Dai Viet village heads are more likely to effectively control the RD cadre teams, South Vietnam's development aid workers (column (6)).

Examining policies under the control of provincial government is a useful placebo, to the extent that local cooperation primarily influences local public goods provision. HES asked three questions about provincial governments: whether projects have failed due to a lack of provincial technical assistance (column (7)), whether provincial technical personnel—such as agricultural extension workers—regularly visit the village (column (8)), and whether provincial land affairs officials visit the village to assist with the Land to Tiller reform (column (9)). All coefficients are small relative to the mean and statistically insignificant.

Historically, the Dai Viet state required citizens to work together to provide local public goods and meet various obligations. Informal norms plausibly helped these villages to coordinate through local government for common ends long after the formal institutional impetus to do so had disappeared. This would have been particularly important following

the 1967 constitutional reform, when most public goods provision was decentralized to the village. Table IX, column (1) reports the LCA for government health care provision, computed from HES. Dai Viet villages are substantially more likely to be in the high latent class (Figure 3, panel (f)). Government-provided medical services are 20 percentage points more likely to be available, relative to a mean of 0.39, and health workers are more likely to regularly visit all neighborhoods in the village (columns (2) and (3)). There is more likely to be a village health clinic, but we do not find an impact on the presence of a maternity clinic (columns (4) and (5)).

The provision of schooling, recorded in HES, also differs at the boundary. This helps explain the large human capital impacts for the older cohorts in the current living standards surveys. While the education LCA is not statistically significant (though it is positive; column (6)), there are large impacts on primary schooling, which was the most widespread in this period. Dai Viet villages are 6 percentage points more likely to have access to a primary school, and the primary school completion rate is 9 percentage points higher, relative to a sample mean of 0.61 (columns (7) and (8)). There is not a statistically significant impact on whether there is a secondary school in the village—though the coefficient is positive—but the secondary school attendance rate is 3 percentage points higher, relative to a sample mean of 0.18 (columns (9) and (10)). There is not a statistically significant difference in whether attendance is limited due to the security situation (result available upon request).

Dai Viet villages also provided law and order more effectively. Police are more likely to be present, and authorities are 22 percentage points more likely to enforce the law (columns (11) and (12)). We will see, however, that this does not mean that Dai Viet villages were less likely to subvert national institutions through force during the Vietnam War. Finally, while households in Dai Viet villages are less likely to require assistance to subsist (Table VI, column (6)), the village government is 14 percentage points more likely to provide assistance, relative to a sample mean of 0.3 (column (13)). The local administration and public goods estimates are robust to our standard array of robustness checks.

Following Vietnamese reunification, primary schooling became nearly universally available, as did access to a basic health post. Column (14) examines district-level information from provincial yearbooks (1999–2004) on the share of communes in each district with a secondary school, an important basic public good that lacks universal availability. We use an extended bandwidth of 100 kilometers in order to have enough districts for regression analysis. Estimates document a greater prevalence of secondary schools in Dai Viet areas.

5.3. *Public Opinion Data*

Public opinion data (1970–1972), described in Section 4.3, corroborate the above results with an independent data source and provide additional nuance. We examine the available questions related to opinions about local government and central government and questions about civic engagement. Since different questions are asked in different sets of months and the sample changes monthly, the number of observations can vary substantially. Table X, column (1) documents that respondents in Dai Viet villages are 9.8 percentage points more likely to report that their local government is responsive to the needs of its citizens, relative to a sample mean of 0.37. Consistent with previous results, they are also 20 percentage points more likely to report that their local government is successful in providing law and order, relative to a sample mean of 0.52, and they have more knowledge of their village administrative structure (columns (2) and (3)). Respondents in Dai Viet areas are 35 percentage points more likely to feel that the Land to Tiller

TABLE IX
PUBLIC GOODS[a]

	Health Care	Govt. Med. Serv.	Health Wkrs. Visit	Health Clinic in Village	Mat. Clinic in Village	Educ.	Primary School		Secondary School		Police	Law	Govt. Provides	Share Communes
							Access.	Completion	In Vilg.	Attend.	Reg. Present	Enforced Day/Night	Assist.	Lower Sec.
	LCA	Avail.	Reg.			LCA								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Dai Viet	0.125	0.204	0.339	0.140	0.022	0.051	0.057	0.089	0.085	0.030	0.166	0.215	0.141	0.292
	(0.039)	(0.037)	(0.042)	(0.050)	(0.067)	(0.041)	(0.022)	(0.031)	(0.059)	(0.013)	(0.048)	(0.046)	(0.048)	(0.069)
Obs	2348	2339	2336	388	388	2348	2336	388	388	388	2339	2333	2221	124
Clusters	399	397	397	388	388	399	396	388	388	388	397	397	390	124
Mean	0.88	0.39	0.47	0.79	0.61	0.84	0.90	0.61	0.35	0.18	0.56	0.79	0.30	0.78

[a]The unit of analysis is the hamlet (columns (1)–(3), (6)–(7) and (11)–(13)), the village (columns (4)–(5) and (8)–(10)), or the district (column (14)). Outcomes measured between 1969–1973 (columns (1)–(13)) or 1999–2004 (column (14)). All regressions include a linear RD polynomial in latitude and longitude, a control for distance to Ho Chi Minh City, and boundary segment fixed effects. Robust standard errors, clustered at the village (columns (1)–(13)) or district (column (14)) level, are reported in parentheses.

TABLE X

PUBLIC OPINION[a]

	Views of Local Gov.				Views of National Gov.		Civic Engagement	
					Natl. Gvt.		Active in	People
	Gvt. Responsive Citizens	Local Officials Successful	Knows Vilg. Admin. Struct. Well	LTT Fairly Administ.	Performs Poorly	Man. Econ. Poorly	Interest Group	Decide SDP
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dai Viet	0.098	0.202	0.119	0.350	0.110	0.087	0.395	0.222
	(0.044)	(0.075)	(0.044)	(0.075)	(0.040)	(0.040)	(0.146)	(0.052)
Obs	2779	3487	1457	999	2811	5778	243	353
Clusters	190	183	89	101	182	215	35	53
Mean	0.37	0.52	0.22	0.57	0.19	0.31	0.18	0.23

Dependent variable is shown as the overarching header.

[a]The unit of analysis is the individual. All outcomes measured between 1970 and 1972. All regressions include a linear RD polynomial in latitude and longitude, a control for distance to Ho Chi Minh City, and boundary segment fixed effects. Robust standard errors, clustered at the village level, are reported in parentheses.

program—South Vietnam's land reform—was administered fairly in their village (column (4)).

These views do not extend to the national government (columns (5) and (6)). Respondents in Dai Viet villages are 11 percentage points more likely to respond that the national government performs poorly, an effect that is significant at the 1% level. They are also more likely to feel that the national government has done a poor job of managing the economy, suggesting that effects cannot be explained by Dai Viet areas having more positive attitudes towards government in general.

A final set of questions considers civic engagement. These have a smaller sample size and should be interpreted cautiously. Dai Viet respondents are more likely to be active in an interest group and are more likely to report that the people of the village decide which self-development projects will be implemented, rather than government heads (columns (7) and (8)).

5.4. *The Vietnam War*

The Vietnam War was a formative event in the history of our study region. Insurgency during the war could itself reflect local cooperation, or it could alternatively represent a distinct channel of persistence if it varied for reasons beyond collective action. The war, however, is unlikely to be an omitted variable, as our study region is in the same military corps region, with no reason to expect military strategy to change discontinuously at the boundary, and we document economic impacts prior to the war. Moreover, Dell and Querubin (2018) did not find long-run economic effects of bombing—one of the most destructive features of the war—using the same data sources as this study, and Miguel and Roland (2011) likewise did not find long-run impacts of bombing.

In any case, an examination of extensive data about the war suggests that major differences in conflict at the boundary are unlikely. Table XI, column (1) considers a security LCA combining questions on insurgency available in HES (see Appendix Table B-VI). The coefficient is small in magnitude and statistically insignificant. Columns (2) through (7) examine representative outcomes that enter the LCA. Columns (2) and (3) do not find impacts on whether there are Viet Cong (VC) insurgent forces or a VC base nearby.

TABLE XI
THE VIETNAM WAR[a]

	Dependent variable is:									U.S.	SVN	
	Security LCA	VC Forces Present	VC Base Nearby	Vilg. Guerr. Squad	VC Main Squad	VC Infra Activity	VC Taxation	Friendly Forces Nearby	Air/Art. Strike Nearby	Initiated Attack	Initiated Attack	Territ. Forces Present
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dai Viet	0.004	−0.049	−0.035	0.065	−0.102	0.023	−0.014	−0.024	−0.040	−0.000	−0.109	−0.015
	(0.038)	(0.035)	(0.052)	(0.038)	(0.039)	(0.032)	(0.016)	(0.037)	(0.031)	(0.001)	(0.024)	(0.026)
Obs	2348	2335	390	390	390	2339	389	389	388	2358	2358	2348
Clusters	399	398	390	390	390	398	389	389	388	400	400	399
Mean	0.83	0.15	0.49	0.20	0.23	0.09	0.07	0.49	0.13	0.00	0.71	0.24

[a]The unit of analysis is the hamlet (columns (1)–(2), (6), and (10)–(12)) or the village (columns (3)–(5) and (7)–(9)). Outcomes measured between 1969–1973 (columns (1)–(9), (1970)–(1973) (columns (10)–(11)), or 1970–1974 (column (12)). All regressions include a linear RD polynomial in latitude and longitude, a control for distance to Ho Chi Minh City, and boundary segment fixed effects. Robust standard errors, clustered at the village level, are reported in parentheses.

Dai Viet villages are 6.5 percentage points more likely to have a VC village guerrilla squad, which consists entirely of locals who are part-time fighters (column (4)). At the same time, they are less likely to have a VC regular force squad, which typically consists of forces from elsewhere (column (5)). Consistent with our other results, VC supporters in Dai Viet villages appear better able to organize locally, but this was compensated by VC regular forces in Khmer areas. Columns (6) and (7) do not find impacts on presence of the VC Infrastructure, which organized VC political activities, or on VC taxation.

HES likewise contains information on whether friendly (U.S. and South Vietnamese) forces operated nearby in the past month and whether friendly air or artillery strikes hit near populated areas (columns (8) and (9)). While the coefficients are negative, neither is close to being statistically significant. We can likewise examine security using administrative data from the U.S. and South Vietnamese armed forces that track ground troop activity ("Situation Report Army," US National Archives RG 218). There is not an impact on U.S. initiated attacks near the hamlet (column (10)), but South Vietnamese initiated attacks are lower in Dai Viet villages (column (11)). This is likely because South Vietnamese ground troops pursued VC regular squads. Finally, we consider data on South Vietnamese regional defense forces from the "Territorial Forces Evaluation System" (RG 472) and the "Territorial Forces Activity Reporting System" (RG 330) and again do not find a discontinuity (column (12)). These results are robust to our standard array of robustness checks.

5.5. *Land and Markets*

While the historical state may have initially influenced the land distribution, the persistent effects do not appear to be driven by land inequality. Recall from Section 2.3 that there were almost no French private estates near the 1698 boundary at the close of the colonial period. We also examine agricultural and land outcomes more recently. The dependent variable in column (1) of Table XII is an indicator equal to 1 if the household is engaged in agriculture, taken from VHLSS. Dai Viet households are less likely to work in agriculture, consistent with the economic effects discussed earlier. Column (2) examines agricultural land size, in hectares, for agricultural households. Though caution is war-

TABLE XII

LAND AND MARKETS[a]

	Agric. H.H. (1)	Agric. Land Size (2)	Main Job in Industry (3)	Share			H.H. Interest Expenses (7)	Employed Informal Sector (8)
				Annual	Perennial	Residential		
				Land Certified				
				(4)	(5)	(6)		
Dai Viet	−0.190	−0.020	−0.013	−0.131	−0.149	−0.184	−0.090	−0.069
	(0.034)	(0.103)	(0.022)	(0.031)	(0.030)	(0.038)	(0.032)	(0.021)
Obs	16,419	4518	20,357	462	449	445	4553	20,343
Clusters	453	285	453	192	190	189	251	453
Mean	0.24	0.87	0.25	0.93	0.92	0.91	0.25	0.62

[a]The unit of analysis is the household (columns (1), (2), and (7)), individual (columns (3) and (8)), or commune (columns (4)–(6)). All outcomes measured between 2002 and 2012. All columns include a linear RD polynomial in latitude and longitude, a control for distance to Ho Chi Minh City, year fixed effects, and boundary segment fixed effects. Robust standard errors, clustered at the village level, are reported in parentheses.

ranted since this outcome is selected, the coefficient is small relative to the mean and statistically insignificant, indicating that differences in average farm size are unlikely to drive the observed economic differences. In column (3), the dependent variable is an indicator equal to 1 if the individual works in manufacturing, again from VHLSS. We restrict analysis to prime-age men, in order to avoid conflating effects with selection into the labor force. The point estimate is small and statistically insignificant, suggesting that households in Dai Viet areas are more likely to move out of agriculture into owner-operated businesses and services.[62]

However, the VHLSS commune questionnaire does reveal that a lower share of land is titled in Dai Viet villages. Columns (4) through (6) document a lower prevalence of land-use certificates in areas historically under Dai Viet, for annual, perennial, and residential land. This result is most straightforward to interpret through the lens of local cooperation. If property rights are de facto secure for villagers due to strong communal enforcement, they may demand fewer formal titles, granted only recently by higher-level government, or there may be social pressure to participate in community norms rather than formal titling.

Additionally, column (7) examines whether the use of formal financial services is more or less widespread in historically Dai Viet areas. Results are again consistent with less active impersonal markets. Households in Dai Viet villages are 9 percentage points less likely to make interest expenses on formal financial instruments, despite being wealthier. This contrasts to Italy, where Guiso, Sapienza, and Zingales (2004) found that in high social capital areas, households are more likely to use formal instruments. Nevertheless, in the Vietnamese context, it appears quite consistent with the results on local cooperation. Market institutions arrived in Vietnam recently, and may still be less effective than non-market interactions in places where social capital is used to sustain non-market arrangements. Finally, column (8) considers informal sector employment, limiting to prime-age males. In contrast to the above results, informal sector employment is lower in Dai Viet villages. This is largely driven by the fact that there is less agriculture, which makes up the bulk of the informal sector. These results are robust to our standard array of robustness checks.[63]

6. CONCLUSION

This study uses a regression discontinuity design to document that areas exposed for a longer period to a strong historical state that implemented institutionalized village government have had better economic outcomes over the past 150 years. In these villages, citizens have been better able to organize for public goods and redistribution through civil society and local government. We argue that institutionalized village governance crowded in local cooperation and that these norms persisted long after the original institutions disappeared.

Empirical evidence demonstrates that history matters through a wide variety of channels, ranging from the distribution of economic resources and political power, to trust

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[62]We also examined manufacturing in detail using the 2012 Enterprise Census and did not find major differences in the distribution of employment across manufacturing sectors.

[63]Data from the 2011 Enterprise Census show that foreign sector employment is also actually lower in Dai Viet villages (results available upon request), and hence greater FDI in Dai Viet villages is not the driver of our results. This is consistent with historically tight-knit villages being more closed towards outsiders, although other explanations could also be at play.

and behavioral norms, to infrastructure investments and agglomeration.[64] In this literature, the most closely related work is a recent paper by Lowes et al. (2017), which likewise examines how the historical state's impacts persist. The study measures how the Kuba Kingdom affected the long-run transmission of individual norms of cheating behavior from parents to children, and hence the sample consists of individuals from different historical kingdoms who are living in the same city today. In contrast, we examine persistent norms of community engagement, focusing on villages that belonged to different historical states. Both studies support a nascent literature arguing that culture and institutions co-evolve to generate persistent economic patterns (Bisin and Verdier (2017), Alesina and Giuliano (2015)).

We expect persistent local norms to be important in the Vietnamese context for various reasons. Migration has been low, as in much of the developing world, plausibly increasing the probability that local norms persist (Besley (1995)). As is likewise common in developing countries, the colonial central state was quite weak, and markets have been limited during various periods. Local cooperation—while initially crowded in by a strong central state—could later be employed to coordinate public goods provision when the central state was absent and to enforce informal interactions where markets were missing.

Moreover, qualitative evidence suggests that institutionalized village governance is a commonality across historical Northeast Asian states that is more broadly relevant for long-run development, even in contexts where central states and markets have been more active than in Vietnam. For example, a literature on the Japanese firm (see Bowles and Gintis (2002) for a summary) argues that norms of horizontal cooperation that were developed in Japanese villages translated to horizontal cooperation within firms, allowing them to overcome contracting and informational problems that would have otherwise prevented the emergence of high tech manufacturing. Sociologist Peter Evans (1995) hypothesized that the interaction between a national Weberian bureaucracy and local civil society was fundamental to the East Asian growth miracle. While one could argue that some idiosyncratic detail led to Japan's relative success, a completely different idiosyncratic detail mattered for Korea, etc., it is more compelling to construct a tractable framework of long-run Asian development by applying Occam's Razor to focus on the central features that many states have in common. Expanding the scope of the current literature—which primarily emphasizes national policies and markets—to consider how differences in informal norms have influenced Asian growth trajectories is a promising direction for future research.

REFERENCES

ACEMOGLU, D., AND J. A. ROBINSON (2017): "The Emergence of Weak, Despotic and Inclusive States," Working Paper 23657, National Bureau of Economic Research. [2088]

ACEMOGLU, D., D. CANTONI, S. JOHNSON, AND J. A. ROBINSON (2011): "The Consequences of Radical Reform: The French Revolution," *The American Economic Review*, 101, 3286–3307.[2116]

ACEMOGLU, D., C. GARCIA-JIMENO, AND J. A. ROBINSON (2015): "State Capacity and Economic Development: A Network Approach," *The American Economic Review*, 105, 2364–2409.[2116]

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[64]See Lowes, Nunn, Robinson, and Weigel (2017), Dell and Olken (2017), Becker, Boeckh, Hainz, and Woessmann (2016), Acemoglu, Garcia-Jimeno, and Robinson (2015), Bukowski (2016), Oto-Peralías and Romero-Ávila (2014), Grosjean (2014), Spolaore and Wacziarg (2013), Alesina, Giuliano, and Nunn (2013), Voigtländer and Voth (2012), Acemoglu, Cantoni, Johnson, and Robinson (2011), Nunn and Wantchekon (2011), Luttmer and Singhal (2011), Grosjean (2011), Tabellini (2010), Dell (2010), Fernández and Fogli (2009), Nunn (2008), Tabellini (2008), Giuliano (2007), Banerjee and Iyer (2005), Acemoglu, Johnson, and Robinson (2002), Acemoglu, Johnson, and Robinson (2001).

ACEMOGLU, D., S. JOHNSON, AND J. A. ROBINSON (2001): "The Colonial Origins of Comparative Development: An Empirical Investigation," *The American Economic Review*, 91, 1369–1401.[2088,2116]

——— (2002): "Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution," *The Quarterly Journal of Economics*, 117, 1231–1294.[2116]

ACEMOGLU, D., T. REED, AND J. A. ROBINSON (2014): "Chiefs: Economic Development and Elite Control of Civil Society in Sierra Leone," *Journal of Political Economy*, 122, 319–368.[2088]

ACHARYA, A. (2013): *Civilizations in Embrace: The Spread of Ideas and the Transformation of Power: India and Southeast Asia in the Classical Age*, Vol. 2. Singapore: Institute of Southeast Asian Studies. [2094]

ALESINA, A., AND P. GIULIANO (2015): "Culture and Institutions," *Journal of Economic Literature*, 53, 898–944.[2116]

ALESINA, A., AND E. LA FERRARA (2005): "Ethnic Diversity and Economic Performance," *Journal of Economic Literature*, 43, 762–800.[2087]

ALESINA, A., R. BAQIR, AND W. EASTERLY (1999): "Public Goods and Ethnic Divisions," *The Quarterly Journal of Economics*, 114, 1243–1284.[2087]

ALESINA, A., P. GIULIANO, AND N. NUNN (2013): "On the Origins of Gender Roles: Women and the Plough," *The Quarterly Journal of Economics*, 128, 469–530.[2116]

AMSDEN, A. H. (1992): *Asia's Next Giant: South Korea and Late Industrialization* (Second Ed.). New York, NY: Oxford University Press. [2087,2088]

BANERJEE, A., AND L. IYER (2005): "History, Institutions, and Economic Performance: The Legacy of Colonial Land Tenure Systems in India," *The American Economic Review*, 95, 1190–1213.[2116]

BARNES, G. L. (2007): *State Formation in Japan: Emergence of a 4th-Century Ruling Elite*. London, England and New York, NY: Routledge, Taylor & Francis. [2094]

BAZZI, S., AND M. GUDGEON (2016): "Local Government Proliferation, Diversity, and Conflict," Working paper, Boston University, https://www.bu.edu/econ/files/2016/04/BazziGudgeon_Manuscript.pdf. [2087]

BECKER, S. O., K. BOECKH, C. HAINZ, AND L. WOESSMANN (2016): "The Empire Is Dead, Long Live the Empire! Long-Run Persistence of Trust and Corruption in the Bureaucracy," *The Economic Journal*, 126, 40–74.[2116]

BEFU, H. (1965): "Village Autonomy and Articulation With the State: The Case of Tokugawa Japan," *The Journal of Asian Studies*, 25, 19–32.[2094]

BESLEY, T. (1995): "Nonmarket Institutions for Credit and Risk Sharing in Low-Income Countries," *The Journal of Economic Perspectives*, 9, 115–127.[2116]

BESLEY, T., AND T. PERSSON (2011): *Pillars of Prosperity: The Political Economics of Development Clusters*. Princeton, NJ: Princeton University Press. [2088]

BISIN, A., AND T. VERDIER (2017): "On the Joint Evolution of Culture and Institutions," Working Paper 23375, National Bureau of Economic Research. [2116]

BOIX, C., AND D. N. POSNER (1996): *Making Social Capital Work: A Review of Robert Putnam's Making Democracy Work, Civic Traditions in Modern Italy*. Cambridge, MA: Center for International Affairs, Harvard University. [2088]

BOOTH, A. (2007): "Night Watchman, Extractive, or Developmental States? Some Evidence From Late Colonial South-East Asia," *The Economic History Review*, 60, 241–266.[2093]

BOWLES, S., AND H. GINTIS (2002): "Social Capital and Community Governance," *The Economic Journal*, 112, F419–F436.[2088,2116]

BREDO, W. (1968): "Land Reform in Vietnam," Stanford Research Institute. [2093]

BROCHEUX, P., AND D. HÉMERY (2009): *Indochina: An Ambiguous Colonization, 1858–1954*. Berkeley and Los Angeles, CA and London, England: University of California Press. [2093]

BUKOWSKI, P. (2016): "How History Matters for Student Performance. Lessons From the Partitions of Poland," Working paper, Central European University, http://www.personal.ceu.hu/staff/repec/pdf/2015_3.pdf. [2116]

CHANDLER, D. P. (1983): *A History of Cambodia*. Boulder, CO: Westview Press. [2086,2089]

COEDÈS, G. (1966): *The Making of South East Asia*. Berkeley, CA: University of California Press. [2086,2091,2094]

COOKE, N. (1994): "Nineteenth-Century Vietnamese Confucianization in Historical Perspective: Evidence From the Palace Examinations (1463–1883)," *Journal of Southeast Asian Studies*, 25, 270–312.[2089]

COTTERELL, A. (2014): *A History of Southeast Asia*. West Sussex, UK: Wiley Blackwell. [2094]

DEATON, A. (1997): *The Analysis of Household Surveys: A Microeconometric Approach to Development Policy*. Washington, DC: World Bank. [2097]

DELL, M. (2010): "The Persistent Effects of Peru's Mining Mita," *Econometrica*, 78, 1863–1903.[2116]

DELL, M., AND B. OLKEN (2017): "The Development Effects of the Extractive Colonial Economy: The Dutch Cultivation System in Java," Technical Report, https://scholar.harvard.edu/files/dell/files/170414draft.pdf. [2116]

DELL, M., AND P. QUERUBIN (2018): "Nation Building Through Foreign Intervention: Evidence From Discontinuities in Military Strategies," *The Quarterly Journal of Economics*, 133, 701–764.[2105,2112]

DELL, M., N. LANE, AND P. QUERUBIN (2018): "Supplement to 'The Historical State, Local Collective Action, and Economic Development in Vietnam'," *Econometrica Supplemental Material*, 86, https://doi.org/10.3982/ECTA15122. [2104]

DÙC, T. H., AND N. TAO (1972): *Gia Đình Thành Thông Chí*. Saigon: Nha Ván hóa, Phù Qúôc-vu-khanh Đactrách Văn-hóa. [2085]

EASTERLY, W., AND R. LEVINE (1997): "Africa's Growth Tragedy: Policies and Ethnic Divisions," *The Quarterly Journal of Economics*, 112, 1203–1250.[2087]

EBIHARA, M. (1984): "Social Organization in Sixteenth and Seventeenth Century Cambodia," *Journal of Southeast Asian Studies*, 15, 280–295.[2089]

EIKEMEIER, D. (1976): "Villages and Quarters as Instruments of Local Control in Yi Dynasty Korea," *T'oung Pao*, 62, 71–110.[2094]

EVANS, P. B. (1995): *Embedded Autonomy: States and Industrial Transformation*. Princeton, NJ: Princeton University Press. [2116]

FERNÁNDEZ, R., AND A. FOGLI (2009): "Culture: An Empirical Investigation of Beliefs, Work, and Fertility," *American Economic Journal: Macroeconomics*, 1, 146–177.[2116]

FUKUYAMA, F. (1995): *Trust: The Social Virtues and the Creation of Prosperity*. New York, NY: Free Press. [2088]

GELMAN, A., AND G. IMBENS (2014): "Why High-Order Polynomials Should not be Used in Regression Discontinuity Designs," Working Paper 20405, National Bureau of Economic Research. [2095]

GENNAIOLI, N., AND I. RAINER (2007): "The Modern Impact of Precolonial Centralization in Africa," *Journal of Economic Growth*, 12, 185–234.[2087]

GIULIANO, P. (2007): "Living Arrangements in Western Europe: Does Cultural Origin Matter?" *Journal of the European Economic Association*, 5, 927–952.[2116]

GORDON, R. G. (2005): *Ethnologue: Languages of the World* (Fifteenth Ed.). Dallas, TX: SIL International. [2092]

GROSJEAN, P. (2011): "The Weight of History on European Cultural Integration: A Gravity Approach," *The American Economic Review*, 101, 504–508.[2116]

——— (2014): "A History of Violence: The Culture of Honor and Homicide in the US South," *Journal of the European Economic Association*, 12, 1285–1316.[2116]

GUISO, L., P. SAPIENZA, AND L. ZINGALES (2004): "The Role of Social Capital in Financial Development," *The American Economic Review*, 94, 526–556.[2087,2115]

——— (2008): "Alfred Marshall Lecture: Social Capital as Good Culture," *Journal of the European Economic Association*, 6, 295–320.[2087]

——— (2011): "Civic Capital as the Missing Link," in *Handbook of Social Economics*, Vol. 1, 417–480. San Diego, CA: North-Holland. [2087]

——— (2016): "Long-Term Persistence," *Journal of the European Economic Association*, 14, 1401–1436.[2087]

HAGGARD, S. (1990): *The Politics of Growth in the Newly Industrializing Countries* (First Ed.). Ithaca, New York and London, UK: Cornell University Press. [2088]

HAINES, D. (1984): "Reflections of Kinship and Society Under Vietnam's Le Dynasty," *Journal of Southeast Asian Studies*, 15, 307–314.[2089]

HALL, D. (1968): *A History of South-East Asia*. New York, NY: Macmillan and Company, Limited and St. Martin's Press. [2089]

——— (1973): "The Integrity of Southeast Asian History," *Journal of Southeast Asian Studies*, 4, 159–168.[2094]

HALL, K. R. (2011): *A History of Early Southeast Asia: Maritime Trade and Social Development, 100–500*. Totowa, NJ: Rowman & Littlefield Publishers. [2086,2089]

HARDING, A. (2001): "Comparative Law and Legal Transplantation in South East Asia: Making Sense of the 'Nomic Din'," in *Adapting Legal Cultures*, ed. by D. Nelken and J. Feest. London, UK: Hart Publishing. [2094]

HOOKER, M. B. (1978a): *A Concise Legal History of South-East Asia*. Oxford and London, UK: Clarendon Press and Oxford University Press. [2094]

——— (1978b): "The Indian-Derived Law Texts of Southeast Asia," *The Journal of Asian Studies*, 37, 201–219.[2094]

JANSEN, M. B. (2000): *China in the Tokugawa World*. Cambridge, MA: Harvard University Press. [2094]

KANG, D. C. (2010): "Hierarchy and Legitimacy in International Systems: The Tribute System in Early Modern East Asia," *Security Studies*, 19, 591–622.[2094]

KANG, D. C., AND V. D. CHA (2010): *East Asia Before the West. Five Centuries of Trade and Tribute*. New York, NY: Columbia University Press. [2094]

KERKVLIET, B. J., AND D. G. MARR (2004): *Beyond Hanoi: Local Government in Vietnam*. Institute of Southeast Asian Studies/Nordic Institute of Asian Studies. [2094]

KNACK, S., AND P. KEEFER (1997): "Does Social Capital Have an Economic Payoff? A Cross-Country Investigation," *The Quarterly Journal of Economics*, 112, 1251–1288.[2087]

KULKE, H. (1986): "Early and the Imperial Kingdoms in Southeast Asian History," in *Southeast Asia in the 9th to 14th Century*, ed. by D. G. Marr and A. C. Milner. Institute of Southeast Asian Studies and Australian National University, Research School of Pacific Studies. [2094]

LANE, N. (2017): "Manufacturing Revolutions—Industrial Policy and Networks in South Korea," Technical Report, https://www.dropbox.com/s/b9mll7fx26j6uia/ManufacturingRevolutions_Lane_Live.pdf?dl= 0. [2087]

LEWIS, M. E. (2009): *China's Cosmopolitan Empire*. Cambridge, MA: Belknap Press and Harvard University Press. [2094]

———— (2011): *China Between Empires: The Northern and Southern Dynasties*. Cambridge, MA: Harvard University Press. [2094]

LI, T. (1998): *Nguyen Cochinchina: Southern Vietnam in the Seventeenth and Eighteenth Centuries*. SEAP Publications. [2089]

LIEBERMAN, V. (1993): "Local Integration and Eurasian Analogies: Structuring Southeast Asian History, c. 1350–c. 1830," *Modern Asian Studies*, 27, 475–572.[2086,2089,2094]

———— (2003): *Strange Parallels: Volume 1, Integration on the Mainland: Southeast Asia in Global Context, c. 800–1830*. Cambridge, UK: Cambridge University Press. [2086,2089,2094]

LIU, H. (2007): "Influence of China's Imperial Examinations on Japan, Korea and Vietnam," *Frontiers of History in China*, 2, 493–512.[2094]

LOWES, S., N. NUNN, J. A. ROBINSON, AND J. L. WEIGEL (2017): "The Evolution of Culture and Institutions: Evidence From the Kuba Kingdom," *Econometrica*, 85, 1065–1091.[2116]

LUTTMER, E. F. P., AND M. SINGHAL (2011): "Culture, Context, and the Taste for Redistribution," *American Economic Journal: Economic Policy*, 3, 157–179.[2116]

MABBETT, I. W. (1977): "The 'Indianization' of Southeast Asia: Reflections on the Historical Sources," *Journal of Southeast Asian Studies*, 8, 143–161.[2094]

MARR, D. G. (2004): "A Brief History of Local Government in Vietnam," in *Beyond Hanoi: Local Government in Vietnam*, ed. by B. J. T. Kerkvliet and D. G. Marr. Institute of Southeast Asian Studies/Nordic Institute of Asian Studies. [2094]

MCHALE, S. (2013): "Ethnicity, Violence, and Khmer-Vietnamese Relations: The Significance of the Lower Mekong Delta, 1757–1954," *The Journal of Asian Studies*, 72, 367–390.[2089]

MEYER, K. E., AND H. V. NGUYEN (2005): "Foreign Investment Strategies and sub-National Institutions in Emerging Markets: Evidence From Vietnam," *Journal of Management Studies*, 42, 63–93.[2089]

MICHALOPOULOS, S., AND E. PAPAIOANNOU (2013): "Pre-Colonial Ethnic Institutions and Contemporary African Development," *Econometrica*, 81, 113–152.[2087]

MIGUEL, E., AND G. ROLAND (2011): "The Long-Run Impact of Bombing Vietnam," *Journal of Development Economics*, 96, 1–15.[2112]

MONTALVO, J., AND M. REYNAL-QUEROL (2005a): "Ethnic Diversity and Economic Development," *Journal of Development Economics*, 76, 293–323.[2087]

———— (2005b): "Ethnic Polarization, Potential Conflict, and Civil Wars," *The American Economic Review*, 95, 796–816.[2087]

MUS, P. (1949): "The Role of the Village in Vietnamese Politics," *Pacific Affairs*, 22, 265–272.[2089]

NGUYEN, A. T. (1985): "The Vietnamese Monarchy Under French Colonial Rule 1884–1945," *Modern Asian Studies*, 19, 147–162.[2089,2093]

———— (2003): "Village versus State: The Evolution of State-Local Relations in Vietnam Until 1945," *South East Asian Studies*, 41, 101–123.[2093]

NGUYEN, H. C. (1971): "Some Aspects of the Chinese Community in Vietnam, 1650–1850," *Papers on China*, 24, 104–125.[2090,2091]

NGUYEN, T. V. H., AND T. T. CAO (2016): "The State Organization in South Vietnam at the Cochin-China Ruling Time of the Nguyen Lords," *Vietnam Social Sciences*, 4, 15–30.[2091]

NOLAND, M., AND H. PACK (2003): *Industrial Policy in an Era of Globalization: Lessons From Asia*. Washington, DC: Institute for International Economics. [2087]

NORTH, D. C., AND R. P. THOMAS (1973): *The Rise of the Western World: A New Economic History*. Cambridge, UK: Cambridge University Press. [2088]

NUNN, N. (2008): "The Long-Term Effects of Africa's Slave Trades," *The Quarterly Journal of Economics*, 123, 139–176.[2116]

NUNN, N., AND L. WANTCHEKON (2011): "The Slave Trade and the Origins of Mistrust in Africa," *American Economic Review*, 101, 3221–3252.[2116]

OOMS, H. (1996): *Tokugawa Village Practice: Class, Status, Power, Law*. Berkeley, CA: University of California Press. [2094]

OSBORNE, M. (1966): "History and Kingship in Contemporary Cambodia," *Journal of Southeast Asian History*, 7, 1–14.[2089]

OSBORNE, M. E. (1969): *The French Presence in Cochinchina and Cambodia: Rule and Response (1859–1905)*. Ithaca, NY: Cornell University Press. [2086,2089,2091,2093]

OTO-PERALÍAS, D., AND D. ROMERO-ÁVILA (2014): "The Distribution of Legal Traditions Around the World: A Contribution to the Legal-Origins Theory," *Journal of Law and Economics*, 57, 561–628.[2116]

PADRO I MIQUEL, G., N. QIAN, Y. XU, AND Y. YAO (2015): "Making Democracy Work: Culture, Social Capital and Elections in China," Working Paper 21058, National Bureau of Economic Research. [2087]

PARTHESIUS, R. (2010): *Dutch Ships in Tropical Waters: The Development of the Dutch East India Company (VOC) Shipping Network in Asia 1595–1660*. Amsterdam Studies in the Dutch Golden Age. Amsterdam, The Netherlands: Amsterdam University Press. [2090]

PASTOR, J. (1997): "Land and Economy in Ancient Palestine," *Journal of Southeast Asian Studies*, 1, 306.[2089]

PERKINS, D. H. (2013): *East Asian Development: Foundations and Strategies (the Edwin O. Reischauer Lectures)*. Cambridge, MA: Harvard University Press. [2087]

POPKIN, S. (1979): *The Rational Peasant: The Political Economy of Rural Society in Vietnam*, Political science. Berkeley, CA: University of California Press. [2093,2097]

POPKIN, S. L. (1976): "Corporatism and Colonialism: The Political Economy of Rural Change in Vietnam," *Comparative Politics*, 8, 431–464.[2088]

PORTER, G. (1993): *Vietnam: The Politics of Bureaucratic Socialism*. Ithaca, NY: Cornell University Press. [2089]

PUTNAM, R. D., R. LEONARDI, AND R. Y. NANETTI (1994): *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press. [2087,2088]

RODRIK, D. (1995): "Getting Interventions Right: how South Korea and Taiwan Grew Rich," *Economic Policy*, 10, 53–107.[2087]

SAHAI, S. (1970): *Les Institutions Politiques et l'Organisation Administrative du Cambodge Ancien (VIe-XIIIe siècles)*, Vol. 75. Paris, France: École française d'Extréme-Orient Publications. [2089]

SAKURAI, Y. (2004): "Eighteenth-Century Chinese Pioneers on the Water Frontier of Indochina," in *Water Frontier: Commerce and the Chinese in the Lower Mekong Region, 1750–1880*, ed. by T. Li and N. Cooke. Singapore: Singapore University Press and Rowman & Littlefield Publishers, 35–52, Chapter 3. [2090-2092]

SAKURAI, Y., AND T. KITAGAWA (1999): "Ha Tien or Banteay Meas in the Time of the Fall of Ayutthaya," in *From Japan to Arabia: Ayutthaya's Maritime Relations With Asia*, ed. by K. Breazeale. Bangkok: The Foundation for the Promotion of Social Sciences and Humanities Textbooks Project, 150–220. [2092]

SCOTT, J. C. (1977): *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia*. New Haven, CT: Yale University Press. [2088]

SMITH, T. C. (1952): "The Japanese Village in the Seventeenth Century," *The Journal of Economic History*, 12, 1–20.[2094]

SOVIET UNION. GLAVNOE UPRAVLENIE GEODEZII I KARTOGRAFII (1954): *Atlas Narodov Mira*. Moscow: Glavnoe upravlenie geodezii i kartografii pri Sovete Ministrov SSSR. [2092]

SPOLAORE, E., AND R. WACZIARG (2013): "How Deep Are the Roots of Economic Development?" *Journal of Economic Literature*, 51, 325–369.[2116]

SU QUAN TRIEU NGUYEN, Q., AND T. D. PHAM (1992): *Dai Nam Nhat Thong Chi*. Hue, Vietnam: Nha Xuat Ban Thuan Hoa. [2085]

TABELLINI, G. (2008): "Presidential Address: Institutions and Culture," *Journal of the European Economic Association*, 6, 255–294.[2116]

——— (2010): "Culture and Institutions: Economic Development in the Regions of Europe," *Journal of the European Economic Association*, 8, 677–716.[2116]

TAMBIAH, S. J. (1977): "The Galactic Polity: The Structure of Traditional Kingdoms in Southeast Asia," *Annals of the New York Academy of Sciences*, 293, 69–97.[2094]

——— (2013): "The Galactic Polity in Southeast Asia," *HAU: Journal of Ethnographic Theory*, 3, 503–534.[2094]

TARLING, N. (1999): *The Cambridge History of Southeast Asia*. Cambridge, UK: Cambridge University Press. [2086,2089]

TAYLOR, K. W. (2013): *A History of the Vietnamese*. Cambridge Concise Histories. Cambridge, UK: Cambridge University Press. [2090-2092]

THIEN, D. (2003): *Vietnamese Supernaturalism: Views From the Southern Region*. London, UK: Taylor & Francis. [2089]

TILLY, C. (1992): *Coercion, Capital, and European States, AD 990–1990*. Oxford, UK: Blackwell. [2088]

VICKERY, M. (1977): "Cambodia After Angkor, the Chronicular Evidence for the 14th and 15th Centuries," Ph.D. thesis, Yale University. [2090]

VO, N. M. (2011): *Saigon: A History*. Jefferson, MO: McFarland & Company, Inc. [2092]

VOIGTLÄNDER, N., AND H.-J. VOTH (2012): "Persecution Perpetuated: The Medieval Origins of Anti-Semitic Violence in Nazi Germany," *The Quarterly Journal of Economics*, 127, 1339–1392.[2116]

WADE, R. H. (1990): *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization* (Second Ed.). Princeton, NJ: Princeton University Press. [2088]

WEBER, N. (2011): "Securing and Developing the Southwestern Region: The Role of the Cham and Malay Colonies in Vietnam (18th–19th Centuries)," *Journal of the Economic and Social History of the Orient*, 54, 739–772.[2092]

WHITMORE, J. K. (1979): "Merit Subjects: China, Korea, Vietnam," *Ming Studies*, 1979, 42–51.[2094]

WOLF, E. R. (1969): *Peasant Wars of the Twentieth Century*. Norman, OK: University of Oklahoma Press. [2093]

WOLTERS, O. (1999): *History, Culture and Region in Southeast Asian Perspectives*. Southeast Asia Program Publications, Cornell University. [2094]

WOODSIDE, A. B. (1971): *Vietnam and the Chinese Model: A Comparative Study of Vietnamese and Chinese Government in the First Half of the Nineteenth Century*. Harvard University Asia Center. [2086,2089,2094]

——— (2006): *Lost Modernities: China, Vietnam, Korea and the Hazards of World*. Cambridge, MA: Harvard University Press. [2094]

WORLD BANK (1993): *The East Asian Miracle: Economic Growth and Public Policy*. New York, NY: Oxford University Press. [2087]

YU, I. (2001): "The Changing Nature of the Red River Delta Villages During the Lê Period (1428–1788)," *Journal of Southeast Asian Studies*, 32, 151–172.[2086,2089]

ZINOMAN, P. (2001): *The Colonial Bastille: A History of Imprisonment in Vietnam, 1862–1940*. Berkeley and Los Angeles, CA: University of California Press. [2093]

ZOTTOLI, B. A. (2011): "Reconceptualizing Southern Vietnamese History Form the 15th to 18th Centuries: Competition Along the Coasts Form Guangdong to Cambodia," Ph.D Dissertation, The University of Michigan, https://deepblue.lib.umich.edu/handle/2027.42/89821. [2089]