Mamluks, Property Rights and Institutional Durability in Medieval Egypt

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June 2018

Abstract

Historical institutionalists have long been concerned with the conditions under which political institutions provoke their own processes of internal change. Yet understanding how and why institutional arrangements weaken and collapse remains challenging given the complexities associated with measuring the precursors of institutional decline. Using data from Egypt’s Mamluk Sultanate (1250-1517 CE), I provide empirical evidence for changes to landholding patterns which were associated with an institutional bargain between Egypt’s slave soldiers — the mamluks — and the Sultan. Predation on collective state resources by individual mamluks — state actors themselves — was a negative externality associated with the foundational principle of the impermissibility of transferring mamluk status to one’s sons. My characterization of mamluk political institutions provides an empirical illustration of a self-undermining equilibrium with implications for understanding how Middle Eastern political institutions differed from those in other world regions, particularly medieval Europe.

*Many thanks to Connor Kennedy, Shivonne Logan, Vivan Malkani and Kyle Van Rensselaer for outstanding research assistance. Scott Abramson, Carles Boix, Steven Brooke, Gary Cox, Jean-Paul Faguet, David Laitin, Hans Lueders, Jake Shapiro, and Yuki Takagi provided helpful comments and assistance.
Dictatorships, both past and present, exhibit tremendous diversity in terms of their institutional configurations. But what explains the durability of different authoritarian regime types? Boix and Svolik (2013) argue that autocratic regimes that facilitate institutionalized powersharing among the ruling elite are better able to constrain a ruler’s authoritarian tendencies, promoting the survival of the regime. Individual ruler duration is also longer for autocrats who share power through institutions, like parliaments, in medieval and early modern Europe (Blaydes and Chaney 2013). Yet understanding and empirically documenting how and why powersharing arrangements weaken and regimes collapse remains difficult.

An influential literature suggests that institutional equilibria can be indirectly strengthened or weakened by processes dynamically introduced by the institutions themselves (Greif and Laitin 2004). Existing work on the durability of autocratic regimes suggests that certain institutional configurations carry the seeds of their own demise, leading to variation in average duration for different authoritarian regime types (Geddes 1999).

Political scientists have long been concerned with understanding institutional stability (e.g., Piersen 1994; Thelen 1999) but few studies are able to empirically document the precursors of regime or institutional collapse. The factors which reinforce or undermine an institutional equilibrium — like beliefs, identity shifts and relative balances of political power — are difficult to observe and measure. This problem is compounded by the fact that individuals interact with their institutional environments in ways that people and environment mutually shape each other (Bell 2011). In this paper, I overcome some of these challenges through a detailed examination of the institutional features of the land and property rights regime in a relatively well-documented case from the medieval Middle East — the Mamluk Sultanate of Egypt (1250-1517 CE).

The mamluks — a corporate body of elite slave-soldiers who ruled Egypt — controlled most of Egypt’s arable land as a collective, distributing temporary, revocable land grants to individual mamluks and other servants of the state as payment for service. Mamluk status was not intergenerationally transferable, nor were land grants directly hereditable by the children of the mamluks. And because state agricultural land constituted a common pool resource upon which individual mamluks might try to predate, the mamluk regime sought to enforce a series of protocols to mitigate the challenges of managing the common resource problem. The relative longevity of the Mamluk Sultanate suggests ways in which a prevailing institutional equilibrium might be successfully sustained.

Yet some of the core features of mamluk institutions also undermined the stability of the system over the long term. On the one hand, the single-generational nature of mamluk status encouraged forms of military prowess, discouraged corruption and worked against the decentralization of agricultural property; on the other hand, the impermissibility of transferring mamluk status to one’s son may have reduced the time-horizon of any particular mamluk with regard to the investment in the perpetuation of the regime beyond his own lifetime. The common management of agricultural real property as a collective resource

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\(^1\)A mamluk is generally described as an elite military slave, typically well-trained and compensated. After introduction by the Abbasids in the 9th century, mamluk armies were adopted by polities across the Islamic world over the centuries to follow (Crone 2003).
created a large and productive agricultural base upon which to finance the Sultanate; yet exploitation of the common pool by self-interested, individual actors had the potential to degrade the core resource.

To demonstrate some of the challenges associated with the maintenance of the mamluk institutional equilibrium, I examine fine-grained data about land holdings in medieval Egypt. During the period of the Mamluk Sultanate, the regime undertook a series of cadastral surveys — an Egyptian version of medieval England’s much-analyzed Domesday Book, which sought to assess the value of land for purposes of taxation and allocation of land grants. This paper reports on data regarding land type for two cross-sectional periods — the late 14th and late 15th centuries. I find that over the course of the approximately one-century period between the two surveys, the percentage of agricultural property provided as land grants to Egypt’s slave soldiers declined while the percentage of Islamic endowment properties increased. These results speak to strategies by which wealth holders sought to use religious endowments to shelter their assets and protect them from state expropriation. While land allotments were previously held as the exclusive domain of the state for the purposes of paying the army, the regime also witnessed an increasing number of hybridized land types over time, suggesting a “chipping away” of state control over agricultural resources. A reduction in the fiscal basis for the state ultimately made the Mamluk Sultanate vulnerable to external invasion and collapse.

More generally, this paper speaks to the question of what types of institutional equilibria can be sustained when considering the division of real property in autocratic regimes. As suggested by the mamluk system, there exists diversity in historical, real property rights regimes around the world. Yet control of real property as a common resource by a ruling collective creates challenges for individual state actors who want, themselves, to be property owners. Solnick (1994), for example, argues that the breakdown of the Soviet Union was not as a result of elite stalemate or popular revolution from below. Rather, he suggests that mid-level bureaucrats were able to “steal the state” from within by seizing collective assets that they had been tasked to manage. Tsai (2006) argues that the informal coping strategies of local actors seeking to evade restrictions on ownership in Communist China created a revival of China’s private sector, forcing the formal recognition and protection of private property.

Most broadly these findings speak to the issue of the self-undermining qualities of a one-generational nobility. Such regimes, often reliant on gelding or gelded elites, were common in the antique world and extended to the empowerment of eunuchs, who were castrated, and the cultivation of institutions like clerical celibacy, a normative gelding. Gellner (1983, 18) writes that gelding kept elites from becoming corrupted, “seduced by the pursuit of honor and wealth and the lure of self-perpetuation.” While not universal among pre-modern societies, gelding was sufficiently common as to make the mamluk experience more generalizable than it might initially appear. Ayalon (1999) argues that for these regimes, the goal was always to fight against the negative implications of familial nepotism.\footnote{Writing of Muslim societies, Ayalon (1999, 32) describes that “the mamluks were a one-generation nobility...the eunuchs, as a result of their mutilation, could not be but a non-hereditary aristocracy.” Gellner}
of corruption and nepotism was a first-order concern, the solution to which unleashed a second-order problem — an over time decrease in the size of the state’s agricultural tax base.

My characterization of the Mamluk Sultanate also speaks to the question of how and why some regions of the world developed the types of robust private property rights which encouraged investment and industrialization, while other areas of the world did not. Two influential lines of scholarship dominate scholarly understanding of this puzzle with regard to the Islamic world. The first argues that Islamic legal institutions hindered the region’s economic development with inheritance laws and religious endowments blocking private capital accumulation and the development of corporations (Kuran 2004; Kuran 2010). Rubin (2017) argues that, as a result of the historical circumstances surrounding the origins of each religion, Islam was better at legitimating political rule than Christianity. In both cases, Islam — either through its legal institutions or as a result of the religion’s founding narrative — is the causal factor which ultimately damages the Middle East’s economic prospects.

The second influential stream of scholarship suggests that the cultural characteristics of Middle Eastern societies led the Middle East to fall behind economically. Drawing inferences based on documents from the Genizah document collection — manuscript fragments found in the storeroom of the Ben Ezra Synagogue in Cairo — Greif (1994) argues that the collectivist culture of “Magrebi” society had negative, long-run implications for the creation of growth-promoting political and economic institutions. The Genizah documents tell us little, however, about Egypt’s agricultural sector or details about land grants, taxation and the region’s monetary system (Rabie 1972, 1). This paper contributes to the development of a third line of exploration which focuses on the state institutions of Middle Eastern societies (Blaydes and Chaney 2013; Blaydes 2017) rather than either the impact of Islam or Middle Eastern culture.

1 Institutional Change and Stasis

The Mamluk Sultanate in Egypt was among the world’s great powers for a duration of almost three centuries of the medieval period. Perhaps even more notably, the institutional structures associated with mamlukism were common across the Muslim world (Crone 2003).

(1983, 15) contrasts gelded elites with the Chinese bureaucracy, which recruited from the gentry, and European feudal society, which imposed the principle of heredity of land across generations of a family dynasty. The dynasties of pre-modern China combined use of an incorruptible civil service examination with reliance on an influential eunuch class to guard against corrupting influences (Ayalon 1999). Fukayama (2011, 208) explores these issues, arguing that “the one-generation nobility principle worked against the basic imperatives of human biology.”

3Acemoglu et al. (2002) describe the institutions of private property as essential for investment incentives and robust economic performance. They contrast these private property institutions with extractive institutions, which concentrate power in the hands of a small elite thus creating a high risk of expropriation for others in society, dampening investment incentives.

4In addition, this focus reflects the perspective of a minority population deeply involved in long-distance trade, a population which may or may not have been representative of the broader society.
and persisted, in a variety of forms, for nearly a millennium. This section reviews the existing literature on institutional change and stasis with the goal of applying these insights to the question of mamluk persistence and decline.

1.1 Theoretical Concerns

North (1990, 3) describes institutions as “the humanly devised constraints that shape human interaction.” One reason why institutional change is difficult to explain relates to the widespread conception of institutions as an equilibrium outcome and, in particular, the idea that equilibria are self-reinforcing. Indeed, Bates et al. (1998) suggest that one of the limitations of institutional analysis relates to preference for examining stable institutional settings instead of political transitions.

A large and influential literature explores the issue of institutional path dependence. Krasner (1988, 83) describes path dependent processes as ones which are “characterized by self-reinforcing positive feedback.” For Levi (1997, 28), path dependence suggests that once a polity has started down a particular track, the costs of reversal can be high. Yet Thelen (1999, 385) suggests that the concept of path dependence is both “too contingent and too deterministic” — too contingent in the sense that small initial differences can create large later differences and too deterministic because once a path is adopted stability follows almost automatically. Thelen (1999) argues that the key to understanding how external shocks can produce institutional change is through identifying the reproduction mechanisms associated with different institutional arrangements.

Pierson (2000) conceptualizes path dependence as a social process which is dependent on increasing returns. Greif and Laitin (2004) provide a game-theoretic notion of stability and argue that a self-enforcing institution can undermine itself when the changes in the quasi-parameters that it entails imply that the associated behavior will be self-enforcing in a smaller set of situations. For Greif and Laitin (2004), the processes an institution entails can undermine the extent to which the associated behavior is self-enforcing. Hence, institutions can be self-undermining and the behaviors that they entail can cultivate the seeds of their own demise. In this setting, institutional change will endogenously occur only when the self-undermining process reaches a critical level such that past patterns of behavior are no longer self-enforcing.

1.2 Challenges in Historical Institutional Analysis

A key challenge in the existing literature on historical institutional change relates to the identification of high-quality empirical evidence regarding the slow-changing parameters that impact institutional stability. Bates et al. (1998) provide a detailed examination of a series of historical cases with a particular focus on institutions, including their impact and how they change. Through the development of a series of “analytic narratives,” Bates et al. (1998)
describe institutional structures — like the medieval *podesta* and early modern European absolutist regimes — with the goal of reconstructing historical interactions and explaining outcomes related to political order or breakdown but pay less attention to gathering evidence and testing hypotheses using fine-grained historical data.

Bueno de Mesquita (2000) also examines historical institutional structures. He argues that core institutions associated with the medieval state are, at least in part, an endogenous product of strategic political interactions between the Catholic Church and European kings. Bueno de Mesquita provides an argument about the development of new political institutions as an outcome of the contest for control between actors, offers a narrative account of supporting evidence and presents data on the number of bishops who were more closely aligned kings versus popes over time.

Greif and Laitin (2004) ask why and how institutions evolve in a changing environment and how processes that they unleash can lead to institutional collapse. From an empirical perspective, Greif and Laitin (2004) provide a discursive comparison of institutional stability in medieval Venice and Genoa where political regime — in particular, the governing structures of the society — is the institution of interest. In their account, there are a number of quasi-parameters that are explored including wealth, patronage, identity, relative strength of different social groups, like clans, and the salience of revenge norms (Greif and Laitin 2004, 642). Measuring the salience of these quasi-parameters is difficult because they are largely latent or difficult to unobserve and measure.

Like previous projects which explore the implications of historical institutions, I also examine political regimes, including the rules and norms surrounding a particular political system. After characterizing the institutional setting, I next operationalize and provide quantitative evidence for a key quasi-parameter — the state agricultural tax base — that is changing over time with implications for regime stability.

2 Land and Fiscal Authority in the Mamluk Sultanate

The Mamluk Sultanate was established after mamluk leaders wrested control from their predecessors during a period characterized by a series of growing external threats. The mamluks built a system which limited the cost of internal politics by reducing violence through the creation of norms about the distribution of resources and rotation of power (Clifford 2013, 14). The Mamluk Sultanate handled the major functions of a state, including taxation, military protection and the development of a functioning judicial system (Sabra 2000, 4). Since the state had no institutionalized form of succession, “[mamluk] sultans stood or fell based on their reputation as upholders of the constitutional system of distribution of resources and rotation of power” (Clifford 2013, 60).

2.1 Slave Soldiers and State-Society Relations

Mamluks were a class of slave soldiers who served as a military elite. Purchased in slave markets of Genoa and elsewhere and brought to Egypt as children, the mamluks constituted
a separate class from native Egyptians. According to Lapidus (292, 2002), “no one could be a member of the military elite unless he was of foreign origin...nor, in principle, could the sons of slaves and rulers.” Indeed, the mamluk system was predicated on the “importation of new men in each generation” (Lapidus 1984, 116). As a result, the mamluk system relied upon a continued and steady importation of military slaves (Faroqhi 2010, 315).

Mamluks — as a corporate body — enjoyed strong feelings of comradeship since all members underwent similar processes of recruitment and training (Tsugitaka 1997, 146). The children of mamluks were excluded from the mamluk status since they lacked the background thought to be essential “to knit the socio-political ‘system’ ” together (Steenbergen 2006, 77). And because mamluks had no social ties to local groups, the native peoples had no “patrons, relatives or neighbors who were part of the power structure...on the contrary, they were completely alienated from the new military and its elites” (Kennedy 2004, 10-11).6

During peacetime, the majority of mamluks lived in Cairo (Poliak 7, 1939). Since they were a closed social class, their connections to native urban dwellers was limited (Sabra 2000, 4). Mamluks were also typically of Turkic background, preferring to speak their native language, to bear Turkic names and to mainly marry female slaves from their countries of origin (Ayalon 1994, 16-17). According to Petry (1994, 73), the objective of the system was to “instill allegiance through isolation.” All of these factors contributed to the high level of group solidarity which existed within the mamluk ranks (Petry 2012, 93).

Mamluk corporateness and relative social isolation did not preclude the existence of intense rivalries within the mamluk class. For example, to rise to the highest levels of the mamluk aristocracy, recruits were required to demonstrate “personal adroitness, impeccable courage, and absolute belief in one’s own worth” (Petry 1994, 73). Petry (1994, 79) argues that there was a tension of allegiance built into the mamluk system. While the military caste system “imbued recruits with an abiding collective identity and trained its members to form tightly knit factions as cadets” at the same time there were strong incentives to be personally savvy and to look out for one’s self (Petry 1994, 79).

2.2 Military Affairs and Fiscal Administration

Maintaining a costly, alien military elite required that governments exert considerable effort to manage state agricultural resources (Goldberg 2012, 351). Controlling agricultural assets was especially important since agricultural products were the source of most of the Sultanate’s wealth (Stilt 2011, 21).7 As a result of a relatively high degree of bureaucratic sophistication, the Mamluk Sultanate was able to enjoy the rents associated with Egypt’s rich agricultural product (Petry 1994, 103). In this setting, the primary role of the bureaucracy was to serve as an intermediary between the agricultural society and the military since land revenue supported the mamluk army and government (Lapidus 1984, 45).

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6Mamluks were also differentiated from locals through status markers, including dress and horseback riding (Steenbergen 2006, 20).

7The bureaucracy served the needs of the Sultan where the most important job was to manage administration of rural revenue which was required to support the army (Lapidus 1984, 46).
In compensation for their service, mamluks typically held a temporary, nonhereditary deed to land, called an *iqta’*, despite the fact that they lived in urban areas far from their agricultural holdings (Rabie 1972, 59-60; Borsch 2005, 26-32). While military slaves enjoyed the ability to serve as tax collectors as part of the *iqta’* system, “slave soldiers were no barons” as the *iqta’* did not invest the soldiery with land in a way comparable to the European fief (Crone 2003, 87; Finer 1997, 674). Abu-Lughod (1989, 239) characterizes the mamluk system as “essentially a mechanism for mobilizing the natural resources and labor of the country to support an elaborate military machine and the luxurious style of life of its alien elite.”

By the late medieval period, most of the arable land in Egypt — both in the Nile Valley and the Delta — was state-controlled, with taxes paid to absentee landlords and bureaus associated with the sultanate and the military (Petry 1994, 106). A mamluk commander (i.e., *amir*) might receive an *iqta’* assignment made up of between one and ten villages (Poliak 1939); this served as his main source of revenue (Steenbergen 1972, 476; Rabie 1972, 34). In this context, the military man acted as landlord and as final arbiter of disputes in rural areas (Hodgson 1974, 93). From this revenue, the commanders were responsible for financing expenses and equipment associated with his subordinate soldiers, who were expected to be ready to fight if needed (Rabie 1972, 32-34). Under this system, the military and fiscal organization of the state became structurally linked (Brett 2010, 552).

Powerful as a result of their military prowess, the strength of the mamluks was found in their agglomeration rather than in the strength of any particular mamluk commander. Indeed, if they had been individuals isolated on rural estates, they would have likely faced rebellion; as a group they were intimidating and could put down threats. When mass disturbances did occur, this was primarily a way for citizens to “signal dissatisfaction with regime policies” (Petry 2012, 23), providing opportunities for negotiated settlement of grievance (Clifford 2013, 16).

### 2.3 The Problem of Intergenerational Wealth Transfer

Mamluk governance was predicated on a set of foundational principles. Perhaps the most important of those institutionalized norms was what Haarmann (1984, 141) calls the “basic law” of the Mamluk Sultanate — that only a mamluk had access to political and military authority and only a limited group might qualify as a mamluk. This limited group did not

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8Lapidus (1984, xiii) defines the *iqta’* as a “benefice administration for the collection of taxes and the payment of troops.” The *iqta’* system is generally believed to have originated in 10th century Iraq spreading shortly thereafter to a variety of other Middle Eastern sultanates and continuing, in some form, until the 19th century in some Muslim societies (Sato 1997).

9Despite the close ties between land and military service, the *iqta’* never came to resemble the feudal fief of Europe. Wickham (1985, 178), writes that the “possession of *iqta’* never became ideologically separated from a recognition of the tax system...it never became simply landholding.” The majority of *iqta’* holders lived far from their land assignments (Rabie 1972, 64), residing in big cities and leaving *iqta’* management to agents, visiting as needed (Tsugitaka 1997, 90).
include the sons of mamluks (i.e., *awlad al-nas*).\(^\text{10}\) Haarmann (1984, 144) suggests that the question about how to maintain the status of mamluk sons tested the system’s one-generation principle.

In particular, because the mamluks were not a hereditary landed baronage they faced the core challenge of how to transfer wealth and status to their children. Indeed, the mamluk institutional setting worked against “the predictable desire” of a typical mamluk commander “to retain freely disposable property secure against seizure” (Conermann and Saghbini 2002, 27). These basic conditions associated with the mamluk milieu created incentives for individuals to find workarounds. Because fathers were unable to pass on their status to their sons, they felt “compelled to make a place for them in the larger society” (Lapidus 1984, 74). Mamluk sons were often channeled into less prestigious, auxiliary military units or they entered civilian life in a variety of occupations including as scholars and clerics (Stilt 2011, 21).

Among the most commonly attempted approach for solving the intergenerational wealth transfer problem related to the creation of religious endowments (i.e., *awqaf*; sing. *waqf*) which might serve as a wealth shelter over which their children could enjoy benefits and financial control. Philipps and Haarman (1998, 71-72) summarize the problem, and possible solution, as follows:

“The philosophy of limiting Mamluk benefits strictly to the first generation...collided again and again with the powerful and all-too-human urge of an individual Mamluk dignitary to gather possessions that were safe against collections by the fisc and could be disposed of freely to provide appropriate upkeep for his own progeny. Legal stratagems were elaborated that helped to circumvent this prohibition of alienating state land and provided the all-too-often venal judiciary with lucrative sources of income. One popular device seems to have been returning one’s fief voluntarily to the army office, then purchasing it back as private property (*milk*) that could now be sold, passed on to heirs, and turned into an endowment (*waqf*) in full consistency with the Sacred Law of Islam.”

In other words, mamluk wealth holders founded religious endowments on behalf of their children to ensure their descendants would be reasonably well taken care of in the future (Sabra 2000, 5).\(^\text{11}\)

The precise mechanics by which religious endowments were created followed a typical pattern. Parcels of land could be purchased through negotiation with the public treasury;

\(^{10}\)Conermann and Saghbini (2002) suggest that the term *awlad al-nas* refers most explicitly to the sons of mamluks but may also include reference to the grandsons of mamluks.

\(^{11}\)Sabra (2004, 209) argues that to prevent the state from reasserting their rights over these lands, the new owners quickly turned into trust and endowments. This explanation for the founding of religious endowments differs from the purpose emphasized by Kuran (2004; 2010). While Kuran sees the *waqf* as a way to work around Islamic inheritance laws, the use of the *waqf* in Mamluk Egypt was primarily a strategy for sheltering wealth from expropriation by a large and centralized state. According to Lapidus (1984, 74) “family self interest guided the Mamluks...the donation of a religious institution or of *waqf* properties was a way of providing for the future of their families.”
judicial consent would make them eligible for transformation into *waqf* property (Lapidus 1984, 60). Because the mamluk commanders were high ranking officials they had a favored position that allowed them to use personal influence to obtain property sales (Lapidus 1984, 61). Judges in medieval Egypt were religious elites who, as a class, benefited from the creation of charitable properties since they were obliged to produce religiously-sponsored public goods. A descendant of the mamluk who founded the *waqf* would often be named custodian of the *waqf*, with associated benefits. Frenkel (2009, 152) argues that the creation of a *waqf* was rarely a random act of charity but rather a deliberately formulated legal arrangement.

Establishing a religious endowment and naming one’s descendants as hereditary administrators was practiced with increasing frequency over time (Haarmann 1984, 145). And because this practice enjoyed a degree of social sanction by the religious elites, it became “the most expedient way of circumventing the social barrier separating mamluk fathers from non-mamluk sons” (Haarmann 1984, 145). This act may have also “won the gratitude of the ulama and an influential place in the community for Mamluk families” (Lapidus 1984, 74). Religious elites often came to rely on these pious endowments as important social and cultural institutions while simultaneously serving as instruments of “estate preservation” (Petry 1994, 9). While private property was “totally unprotected against seizure by the state” (Conermann and Saghbini 2002, 29), religious endowments enjoyed a degree of immunity from state confiscation (Philipps and Haarman 1998, 71-72).

Religious elites, therefore, had a vested interest in the proliferation of Islamic charitable endowments. In Cairo, *waqf*s endowed by mamluks “built and maintained the waterworks, repaired streets and public spaces, invested in commercial properties, and above all endowed the religious, educational and philanthropic life of the community...the ulama were dependent on the Mamluks for indispensable structural capital and great reserves of permanently endowed funds” (Lapidus 1984, 189).

If the goal of an individual mamluk was to transform public authority into private power and “state authority into personal superiority” (Lapidus 1984, 50), historians have suggested something about how this goal was accomplished. Yet to do this, mamluks had to circumvent the system by passing on some of their wealth to their children through activities that were “against the rules of *iqta’*” and existing regulations (Elbendary 2015, 35). In doing so, these actions “meant violating the invisible barrier separating the mamluks from the non-mamluks” (Haarmann 1984, 142). Who enjoyed the benefits of such wealth transfers? Haarmann (1998, 62) draws the important distinction between sons of mamluks in the most elite households versus those that were born into the households of non-royal mamluk officers. In other words, not all mamluks had the ability to engage in the desired outcome of transforming *iqta’* into (what amounted to) private property (Elbendary 2015, 37).

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12While religious leaders enjoyed forms of religious dignity which was an “independent basis of social esteem” (Lapidus 1984, 81), access to the institutions which provided public goods to local communities would have made them more effective power brokers within society. Religious elites maintained leverage within society through their control of judicial decisions and as a result of their ability to mobilize urban revolts (Chaney 2013).
Frenkel (2009, 150) asks why the military class allowed the transfer of such a considerable amount of agricultural land into religious endowment, diminishing the regime’s aggregate resources in the process. Mamluk corporate interests led there to be resistance to attempts to “hand down to his offspring anything which might have seriously jeopardized the non-hereditary principle on which Mamluk society was based” (Ayalon 1987, 208). Yet the creation of each waqf represented the slow creep of private over mamluk corporate interests by the most politically influential of mamluks. Individually rational, these acts of land “privatization” created a negative overall effect for the Mamluk Sultanate. Most perniciously, the aggregation of these individual acts led to the “unavoidable rapid shrinking of the state land that was needed for military grants” (Philipps and Haarman 1998, 71-72).

3 Empirical Analysis

If we were to describe the mamluk institutional setting in game theoretic terms, we would find ourselves with two main players, the mamluks and the Sultan (who is, most often, himself drawn from mamluk ranks). The Sultan wants an army to protect his sultanate with officers that will be loyal to him and chooses to sustain order by training slaves as soldiers, who sustain themselves as through land grants, though their children cannot succeed them. The mamluks, in turn, are happy to acquire wealth for their responsibilities but want to give support to their children. In each “play” of this game (say, each generation) each mamluk who is able adds to his cash account and when he acquires enough wealth seeks to invest in a waqf, which allows his progeny to live securely without concern about having their assets expropriated by the sultan. The key quasi-parameter here is the tax base of the sultanate. Each time the game is played and with each waqf created, the taxable land volume of the sultanate decreases. Over time, this undermines the resources that can be transferred to the Sultan, thereby making stability more precarious with every successive generation.

While it was in the interest of the mamluk collective to maintain centralized control of agriculture resources, this objective came into conflict with the goal of individuals to maximize their personal revenue and intergenerational wealth transfers. In this setting, state agricultural land constituted a “common pool” in the sense that there was a limited quantity of agricultural land and it was costly to completely exclude politically influential actors from exploiting that resource.

To counter the challenges associated with this problem, the mamluk regime sought to create protocols for the self-management of the resource. First, the parties with access to state resources were part of a rigid caste system with strong norms restricting individuals from entering or exiting social classes. Second, there existed well-defined norms associated with rotation of mamluks to particular land plots which decreased their claims to a certain locale or connections to local elites who might aid them in usurpation of resources. Third, conflicts within the community of mamuks over thorny issues — like succession — were handled using internal dispute resolution strategies. For example, rather than succession

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13See Ostrom (1990) for more on how communities create common pool protocols to avoid overuse and destruction of a shared resource.
from father to son, long-lived sultans were those mamluks who won support from their fellow military slaves (Faroqhi 2010, 314-315).

Yet some of the very factors which sought to counter the common pool problem generated additional, negative externalities. By creating a closed social class of military elites who did not have the chance to pass their elite status to their sons, Egypt’s slave soldiers had a relatively short time horizon with respect to the future of the Mamluk Sultanate. This led to the usurpation of iqta’ land in a way that tended to disperse political power and fragment the state (Lapidus 2002, 123). The alienation of state land, particularly in rural areas, was a major cause of state revenue loss — a problem which was compounded over time as attempts to increase taxes and raise more revenue for the state increased the incentives for rural unrest and disorder (Daisuke 2009, 30). And finally, the success with which mamluks were able to successfully resolve disputes within their community over issues like succession suggest the possibility for resolving disputes about wealth sharing in pragmatic ways, as well.

3.1 Data from Cadastral Surveys of Mamluk Egypt

State control of agricultural land holdings created the basis from which the regime was able to generate the revenue needed to pay for the military and maintenance of the mamluk system. To this end, it was in the interest of the regime to survey agricultural resources with the goal of assessing land value for purposes of taxation and distribution. Cadastral surveys were a primary method used by the state in order to understand, and in some cases reassert control over, the state agricultural resources (Steenbergen 1972, 476). The Nasiri cadastral survey (i.e., al-Rawk al-Nasiri) of 1315, for instance, surveyed cultivated land with the goal if allocating land holdings (Rabie 1972, 54-55). Surveys typically measured the size of cultivated land measured in feddans, a traditional Egyptian unit of measurement, as well as the land’s estimated annual tax revenue in a theoretical currency — the army dinar (i.e., dinar jayshi) (Steenbergen 1972, 476). Cadastral surveys also indicated the “legal status of each piece of land” (Steenbergen 1972, 476).

Rare are examples of medieval regimes for which state records survive which allow for a comprehensive view of the core systems of governance and taxation. The Domesday Book, medieval England’s “Great Survey” which documents taxes and land ownership, represents among the most detailed surveys of this sort. Scholarly studies have long sought to analyze and map the patterns therein. The cadastral land surveys of medieval Egypt which I analyze in this paper provide the closest equivalent of the Domesday Book for medieval Egypt.

The data used in this analysis were compiled by Ibn al-Gi’an, who lived during the reign of Sultan Qaytbay (who ruled from 1468-1496). The data were collected by Heinz Halm in his two volume Agypten Nach Den Mamlukischen Lehensregistern. Ibn al-Gi’an provides data for two points in time — 1376 during the reign of al-Ashraf Sha’ban (who ruled from 1363-1377) and 1480 during the reign of Sultan Qaytbay.14 Building on information collected in the 1315 survey, the data included the name of the settlement or village, the area of arable

14It is believed that the 1376 survey was undertaken with the goal of bringing the 1315 Nasiri survey up-to-date (Irwin 1986, 148).
land measured in feddans, the hypothetical tax value of the land in army dinar (i.e., dinar jayshi) and the land type or ownership. In many cases, one location was indicated as having multiple land types. In addition to providing information about village and settlement size, value and type, Halm also includes a series of historical maps indicating location.

Land in Mamluk Egypt could take on a number of different forms, most of which were associated with forms of state control. The iqta’ — land holdings granted to mamluk soldiers or other offices in exchange for military or other service — was a common land type in the cadastral surveys. Another state-controlled form of land were the sultanic lands, either listed as part of the sultanic “bureau” (i.e., al-diwan al-sultani) or the domains of the Sultan. In the late 14th century, an additional bureau was created as a special fund for officers and Royal Mamluks (i.e., al-diwan al-mufrad). Deserving retired and disabled mamluks, as well as their widows or orphans, might be given pensions in the form of land grants (i.e., rizaq) which would be for a limited period of time and with no permanent legal claim (Haarmann 1998, 70; Sabra 2000, 72).

In addition to state lands, land could also be privately held (i.e., milk). Although this was the preferred way for an iqta’ holder to convert his land assignment into a lifelong and heredity possession (Poliak 1939, 36), institutional norms stood as an obstacle to this occurrence. In response, land was more frequently transformed into religious endowment (i.e., waqf), which was another major category of agricultural land holding. The waqf was a revenue-generating property which was held outside of state control and whose revenues were paid to persons stipulated by the founder (Sabra 2000, 70).

Land was also held by bedouin, nomadic or pastoral people who often laid claim to fringe land areas (Rapoport 2004). In some cases, bedouin bandits predated on settled areas, a pattern which required mamluk intervention (Petry 2012, 47). Disturbances would sometimes take place in the poorly-defined rural areas; in some cases the peasants allied with the Bedouin against the regime while in other cases the peasants were victims of Bedouin aggression (Garcin 1987, 147-148). Land assignments were sometimes conferred to bedouin who served as an auxiliary military force, with responsibilities for guarding roads and peripheral areas (Rabie 1972, 34). Bedouin control often occurred because the power of the urban-based military varied over space within Egypt (Garcin 1987, 151).

Agricultural land was also listed as belonging to or allocated to named individual people as well as to titled individuals. These titled individuals included positions like governor (i.e., wali), the market regulator (i.e., muhtasib) and various other administrators like the head chamberlain (i.e., hagib al-huggab) and members of the royal court like the sultan’s cupbearer, the chief eunuch and the master of robes. These individuals likely enjoyed temporary, revocable land grants similar to the iqta’ but for bureaucractic and administrative

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15 One feddan equaled 6,368 square meters until reforms introduced by Mohammed Ali in the 19th century. One unit of the dinar jayshi reflected both currency (i.e., dinar) and goods (e.g., wheat, barley).
16 See Elbendary (2015, 42) for additional details on this point.
17 How should we think about property ownership? Individual peasants may have enjoyed the ability to sell or rent their rights to use of a particular plot of land but ownership was an “inappropriate category for describing overall revenue relations between the peasantry and the rulers” (Hodgson 1974, 99). Hamid (2002, 39) suggests that even under the mamluk system, “farmers still retained their usufruct.”
service rather than military service. In the next section, I discuss the cross-sectional variation in land type for two time periods during the Mamluk Sultanate.

Figure 1 is a scatterplot of the relationship between the size of arable land for each location and its value in army dinars (i.e., dinar jayshi) in 1376. Both variables are represented in log terms. Although the value of the army dinar varied somewhat across locations, Figure 1 suggests a high degree of correlation between the tax value of a location and its size.

Table 1 provides summary indicators about the distribution of land type in 1376 and 1480. Column 1 lists the main land types. Columns 2 and 4 provide estimates about the total number of feddans of each type in 1376 and 1480, respectively. Because many villages had more than one property type listed, I provide both a lower bound and an upper bound on those values. The lower bound adds up all feddans represented by each land type when a single land type is indicated. The upper bound adds up all the feddans associated with

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18 The most common land types in 1376 were single type. By 1480, however, this had changed. Some of the most common land types in the latter period included hybrid designations of iqta’-waqf-milk and iqta’-waqf-milk-rizaq as well as iqta’-waqf and iqta’-rizaq.

19 Scholars have pointed out the difficulty in measuring the precise size of agricultural land holdings as a result of the way that Ibn al-Gi’an cadastre was compiled, particularly the multi-type designations for each
each land type for both single and multiple types. Columns 3 and 5 provide the average size for each land type for both single and multiple types in 1376 and 1480, respectively.

The calculations reported in Table 1 suggest a number of important trends. While it is not possible to precisely estimate the total size of state versus non-state forms of landholding, it is possible to undertake some “back of the envelope” calculations. In 1376, state lands would have included iqta' properties as well as lands belonging to the sultan and the mamluk commanders. If we considered the lower bounds as our estimates for the size of these properties, they would have accounted for at least one-half of all agricultural lands in Egypt. Yet this probably represents a vast underestimation. Not only were many of the multiple property types probably primarily iqta’, some percentage of individually held lands were temporary, revocable (yet non-military) land grants offered to bureaucrats and other state officials as payment for service. Similarly, some scholars have suggested that land allocated to bedouin might also be thought of as iqta’ in the sense that rights to that property may have been temporary and revokable as well.20

There also existed considerable variation across land types in terms of their average size. In 1376 CE, sultanic land and land assigned to mamluk emirs tended to be — on average — twice as large as other land units. Bedouin assigned properties were notably small, on average.

The special bureau charged with paying the Royal Mamluks (i.e., diwan al-mufrad) became increasingly important from the perspective of the state seeking more direct forms of control over compensation for elite mamluks (Daisuke 2009, 29). Because of usurpation of iqta’ property, the state was increasingly forced to pay monthly wages to some soldiers (Daisuke 2009, 30). The bureau associated with the Royal Mamluks was also separate from the state treasury (Daisuke 2009, 29). The state treasury of the Mamluk Sultanate saw an expansion of its role over time which suggested some of the challenges and limitations associated with the original iqta’ system (Daisuke 2010, 105). By the late 15th century, the state treasury was providing pensions to retired emirs and stipends to emirs who did not hold an iqta’ (Daisuke 2010, 105). As a result, we observe an increase in the relevance of both the Royal Mamluk bureau as well as the state treasury in 1480.

The patterns for land type in 1480 reflect a vastly different situation when compared to 1376. Most notably, the single land type villages in Egypt fell dramatically between 1376 and 1480. A drop of large magnitude was also witnessed for land held by the sultan, as well as by the mamluks. Looking at the lower bound estimates undoubtedly represents a vast under-estimation of actual state holdings given the likely fact that multiple type land holdings probably included iqta’ at a very high rate. That said, sultanic lands were less likely to have multiple types, so it is possible to have much tighter bounds on those estimates. Even if we use the lower bound estimate for 1376 and compare it to the upper bound estimate of sultanic land for 1480, there was a dramatic decrease in land held by the sultan himself. Much of the reduction of land held by the state appeared to move into the lands of religious

village or agricultural land unit (Sabra 2004, 205; Elbendary 2015, 25). I deal with these challenge by using a conservative approach to this problem.

20See Garcin (1987) for a discussion of Bedouin in this context.
<table>
<thead>
<tr>
<th>Land Type</th>
<th>1376 CE Total Size (Lower - Upper Bound)</th>
<th>1376 CE Average Size (Single/Multiple Types)</th>
<th>1480 CE Total Size (Lower - Upper Bound)</th>
<th>1480 CE Average Size (Single/Multiple Types)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Iqta’</strong></td>
<td>692,027 - 834,203</td>
<td>1,294/1,268</td>
<td>65,253 - 822,975</td>
<td>1,125/1,496</td>
</tr>
<tr>
<td><strong>Waqf</strong></td>
<td>76,345 - 143,052</td>
<td>1,497/1,212</td>
<td>161,645 - 806,312</td>
<td>1,253/1,471</td>
</tr>
<tr>
<td><strong>Bedouin</strong></td>
<td>29,257 - 131,901</td>
<td>861/884</td>
<td>46,932 - 218,216</td>
<td>939/1,291</td>
</tr>
<tr>
<td><strong>Private</strong></td>
<td>31,001 - 100,874</td>
<td>1,824/1,345</td>
<td>21,199 - 617,115</td>
<td>1,247/1,566</td>
</tr>
<tr>
<td><strong>Rizaq</strong></td>
<td>899 - 45,487</td>
<td>899/1,197</td>
<td>13,407 - 351,305</td>
<td>559/1,582</td>
</tr>
<tr>
<td><strong>Sultanic</strong></td>
<td>248,929 - 283,970</td>
<td>2,417/2,218</td>
<td>25,294 - 94,343</td>
<td>2,299/2,144</td>
</tr>
<tr>
<td><strong>Emir</strong></td>
<td>96,517 - 250,924</td>
<td>2,298/3,690</td>
<td>56,005 - 142,916</td>
<td>2,333/2,917</td>
</tr>
<tr>
<td><strong>Royal Mamluks</strong></td>
<td>1,611 - 3,846</td>
<td>1,611/1,923</td>
<td>336,450 - 393,622</td>
<td>3,144-3,099</td>
</tr>
<tr>
<td><strong>Treasury</strong></td>
<td>NA</td>
<td>NA</td>
<td>124,608 - 143,191</td>
<td>3,665/3,330</td>
</tr>
<tr>
<td><strong>Individual</strong></td>
<td>1,017,742 - 1,158,512</td>
<td>2,412/2,645</td>
<td>577,760 - 616,563</td>
<td>3,025/2,950</td>
</tr>
</tbody>
</table>

Table 1: Summary of land types. Lower bound refers to the total number of feddans for single-type properties. Upper bound refers to the total number of feddans for single and multiple type properties. Columns 3 and 5 show the average size of the land units for both single and multiple types in feddans.

\[^a\] There was only one observation of single type rizaq in 1376 CE.
\[^b\] There was only one observation of single type royal mamluk land in 1376 CE.
endowments. The average size of land types did not change as much across the two periods as how land was allocated.

Figure 2 graphically displays changes in the number of single type land observations. By looking at single land types we are able to consider our most conservative estimate for the relative distribution of agricultural land. The top graph shows the change over time for each period in the number of single type observations. The *iqta‘*, for example, drops from being a large percentage of land observations to a much smaller percentage between 1376 and 1480. The number of *waqf* increase considerably, on the other hand. Changes occur in the relative magnitude of other land types as well but the decline — and hybridization — of the *iqta‘* stands out as a dramatic change across the two periods. The bottom graph of figure 2 shows a pie chart for the distribution of single and multiple type *iqta‘* lands in 1376 (left) compared to 1480 (right). The changing distribution across the two pie charts suggests the growth in the number of hybrid *iqta‘* villages and settlements.

It is possible to provide geographic information about the relative distribution of different land types. Figure 3 indicates the distribution of *iqta‘* land in 1376 and 1480 where darker colors reflect higher valued properties. The number of individual *iqta‘* properties appears to decrease over time and this pattern appears to take place for regions across Egypt. Figure 4 provides that same information for the properties designated as *waqf*. *Waqf* properties appear to grow in number and value across Egypt during the century interval between the two cadastral surveys.\footnote{The general patterns that I have reported were discussed and observed by scholars of mamluk Egypt, though typically in a very general form. For example, Haarmann (1984) reports on land grants offered to the *awlad al-nas* using the Halm material but does not do so for other land types. Petry (1994, 106) points out that only a minute percentage of land in mamluk Egypt was held in private freeholdings (i.e., *milk*).}

### 3.2 Analysis of Changing Land Types

In 1376, *iqta‘* settlements were a common property type and the most important way in which mamluks were offered payment for their military service to the state. As I have empirically demonstrated, and other scholars have noted (e.g., Philipps and Haarmann 1998, 72), large numbers of *iqta‘* properties were being converted to other property types, particularly the *waqf* over the course of the late 14th and 15th centuries.

What factors were associated with changes to *iqta‘* properties? In this section, I empirically investigate the covariates associated with the transfer of single-type *iqta‘* land into a number of different land forms. The dependent variable in this analysis takes four forms. The first is if the *iqta‘* is transferred to a hybrid *iqta‘*-*waqf* settlement. This outcome represents about 50 percent of all transformations of single-type *iqta‘* properties from 1376 to 1480. The second is if the *iqta‘* becomes some combination of *waqf* and other property types, but with no remaining *iqta‘*. This outcome accounts for about 18 percent of all outcomes. The third is if the single-type *iqta‘* either remains the same land type or becomes an *iqta‘*-hybrid other than an *iqta‘*-*waqf*. This represents about 16 percent of outcomes. Finally, the fourth outcome is if the *iqta‘* becomes anything else (i.e., does not remain an *iqta‘* and does not
Figure 2: Hybridization of the Iqta'. Bar graph of single type land observations in 1376 and 1480 CE [top]; pie chart of the relative distribution of iqta' and iqta'-hybrid land observations in 1376 and 1480 CE [bottom].
Figure 3: Distribution of *iqta*’ lands and their value in 1376 and 1480 CE as measured by tax value.
Figure 4: Distribution of waqf lands and their value in 1376 and 1480 CE as measured by tax value.
become a *waqf*). This outcome represents about 14 percent of outcomes. Results from a multinomial logistic regression are reported in Table 2.

The three predictors that I include in the analysis are 1) the distance of the settlement to either the Nile River or the closest Sultanic Canal, 2) the distance of the settlement to Cairo and 3) the size of the settlement measured in feddans. All variables enter the regressions logged. The distance to the Nile River and Sultanic Canals provides information about the quality of the arable land.\(^{23}\) The second variable reflects whether the settlement was close to the center of power or peripheral at a time when travel was costly.\(^ {24}\) The third variable gives a sense of the value of the property as size was closely correlated with taxable value.\(^ {25}\)

The regression results suggest that single-\(iqta'\)-properties that transfer to *waqf* or *waqf*-hybrid (outcome 2) are typically further from the Nile River and Sultanic Canals and smaller properties. This finding is consistent with the idea that collective management of land would have made it difficult for individuals to usurp the most profitable and largest settlements. Holding distance to Cairo and feddans at their mean values, we can isolate the effect of increasing a settlement’s distance from a major water source. I find that going from close to far from the river or Sultanic Canal leads to an increase in the probability of an \(iqta'\) becoming entirely *waqf*, or a *waqf*-hybrid with no remaining \(iqta'\) (0.15 to 0.31 when comparing settlements very close to a water source versus 400 km away). This suggests that villages that became primarily *waqf* were typically on land of worse quality, holding other factors constant. A similar finding is observed for predictors of a shift from single-\(iqta'\) properties to non-\(iqta'\), non-*waqf* property types (outcome 4).

What factors explain why some properties remain entirely \(iqta'\); while others become an \(iqta'\)-*waqf* hybrid, an outcome which represents about half of all observations? Settlements that remained \(iqta'\) or became an \(iqta'\)-hybrid (category 3) are typically smaller property types. On the other hand, larger properties were typically hybridized. For example, if we hold the two distance measures at their mean and increase the size of the settlement from a low value (145 feddans) to a high value (8,000 feddans) in the data, the predicted probability of transferring from an \(iqta'\) to an \(iqta'\)-*waqf* hybrid (category 1) increases from 0.16 to 0.84, suggesting that larger settlements were much more likely than smaller ones to see hybridization of this form.

To what extent might monitoring capacity have mattered? Holding size and land quality constant, we can examine the effect of increasing distance to Cairo. As distance to Cairo increases, \(iqta'\)-*waqf* hybrids are common. These results suggest that hopeful private property holders most frequently sought to carve out a small holding out of large, agriculturally-productive settlements closer to the capital. This result is consistent with the idea that mamluk commanders were constrained in their ability to confiscate the most valuable land easily or at will. Wholesale expropriation of valuable land plots was not the norm; rather

\(^{23}\)This measure was created by georeferencing Borsch (2016)’s map depicting the flow of the Nile and Sultanic canals in 15th century Egypt. Distance to the nearest water source — either canal or the Nile River — was then measured for each settlement point.

\(^{24}\)See Stasavage (2010) for more on this point in medieval Europe.

\(^{25}\)See Figure 1.
I have put forward an argument which focuses on the endogenous sources of institutional collapse for the Mamluk Sultanate in Egypt — a regime which was among the most populous and economically influential of the medieval period. In particular, I have provided empirical evidence about the “chipping away” of state-controlled agricultural land by regime insiders who pursued personal interests at the expense of the economic health and stability of the regime as a whole. This process led to a breakdown in the core powersharing agreement which lay at the foundation of the authoritarian regime — that the status quo coalition would be stable as long as the army could be compensated with the agricultural revenue of the state. The empirical results of the paper demonstrate that land shifted from temporary and revocable land grants offered in exchange for service to Islamic religious endowments and hybridized land types, representing a transformation away from state authority over agricultural resources to more privatized forms of property control.

This argument enjoys considerable support within the existing historical literature. A number of scholars have suggested that the regime’s declining economic fortunes were related to the process of the privatization of $iqtâ'$ land. The weakening of the $iqtâ'$ system represented a major change in the social structure of Egypt, hurting the mamluk collective as

<table>
<thead>
<tr>
<th>1: iqta’-waqf hybrid (reference category)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2: waqf or waqf-hybrid</td>
</tr>
<tr>
<td>Distance to Canals: 0.254 (0.088)</td>
</tr>
<tr>
<td>Distance to Cairo: -0.187 (0.353)</td>
</tr>
<tr>
<td>Feddans: -1.155 (0.175)</td>
</tr>
<tr>
<td>Constant: 7.238 (2.039)</td>
</tr>
<tr>
<td>3: iqta’ or iqta’-hybrid</td>
</tr>
<tr>
<td>Distance to Canals: 0.121 (0.090)</td>
</tr>
<tr>
<td>Distance to Cairo: 0.444 (0.362)</td>
</tr>
<tr>
<td>Feddans: -0.478 (0.173)</td>
</tr>
<tr>
<td>Constant: -0.974 (2.029)</td>
</tr>
<tr>
<td>4: other (non-waqf, non-iqta’)</td>
</tr>
<tr>
<td>Distance to Canals: 0.183 (0.096)</td>
</tr>
<tr>
<td>Distance to Cairo: -0.028 (0.387)</td>
</tr>
<tr>
<td>Feddans: -1.033 (0.187)</td>
</tr>
<tr>
<td>Constant: 5.580 (2.215)</td>
</tr>
<tr>
<td>Observations: 503</td>
</tr>
<tr>
<td>Pseudo $R^2$: 0.06</td>
</tr>
</tbody>
</table>

Table 2: Coefficient estimates from multinomial logit regression for four outcomes (the omitted outcome is category 1). All covariates are logged.

the Mamluk Sultanate was hurt by the accumulated losses associated with many small-scale forms of “privatized” land control.

4 Implications for the Decline of the Mamluk Sultanate

I have put forward an argument which focuses on the endogenous sources of institutional collapse for the Mamluk Sultanate in Egypt — a regime which was among the most populous and economically influential of the medieval period. In particular, I have provided empirical evidence about the “chipping away” of state-controlled agricultural land by regime insiders who pursued personal interests at the expense of the economic health and stability of the regime as a whole. This process led to a breakdown in the core powersharing agreement which lay at the foundation of the authoritarian regime — that the status quo coalition would be stable as long as the army could be compensated with the agricultural revenue of the state. The empirical results of the paper demonstrate that land shifted from temporary and revocable land grants offered in exchange for service to Islamic religious endowments and hybridized land types, representing a transformation away from state authority over agricultural resources to more privatized forms of property control.

This argument enjoys considerable support within the existing historical literature. A number of scholars have suggested that the regime’s declining economic fortunes were related to the process of the privatization of $iqtâ'$ land. The weakening of the $iqtâ'$ system represented a major change in the social structure of Egypt, hurting the mamluk collective as
resources were shifted into private hands (Sabra 2004, 208; Elbendary 2015, 27). Decreasing agricultural revenues had important knock-on effects, creating a host of additional problems. Budget shortfalls “exerted pressure for a variety of economically disruptive measures such as heavier taxation of urban commerce, confiscations, and forced purchases, all intended to buttress sagging Mamluk incomes” but instead led to a “descending spiral of urban economic decay” (Lopez et al. 1970, 118). Petry (1994, 81) argues that the most important issue of the late mamluk period was that “the regime’s shortfalls of cash” came up against demands for troop compensation and pay increases. Maintaining the heavy cost of the system became too much for the regime to bear (Lapidus 1984, 36).

As the Mamluk Sultanate began to see declines in the agricultural tax base, why didn’t the Sultan change the underlying institutions of the system — the so-called “rules of the game?” A number of factors may have made this difficult. From a monitoring perspective, the loss of state land was both incremental and difficult to observe in the aggregate. In addition, the time horizon with respect to any individual mamluk Sultan was also relatively short. Ruler duration in medieval Egypt, on average, was shorter than in other parts of the world and hereditary succession of rule to one’s son was not an established norm (though it was known to occur). In addition, the waqf's which were created as benefices for mamluk descendants created positive externalities which were valued by religious elites. Finally, scholars of institutional change have suggested that institutional reversals can be costly (Levi 1997).

Lapidus (1984, 36) has argued that in the 15th century, the compensation for mamluk commanders declined in what amounted to a “catastrophic reduction in Mamluk incomes.” Sabra (2004) also sees the 15th century as a turning point with regard to fundamental changes in land tenure. While there is consensus among scholars that the regime faced an economic crisis by the 15th century, there are multiple explanations for why (Elbendary 2015, 7).

What are the alternative hypotheses to the one I have put forward? A number of different explanations have been offered regarding the decline of the regime. Unsurprisingly, one would be hard pressed to suggest that a single explanation accounts for the outcome entirely given the complexities associated with regime change.26 I review the alternative and, in some cases, complementary arguments here:

Poor Incentives for Agricultural Investment: While the mamluk sultanate as a whole resembled a “stationary bandit” (Olson 1993), the lack of a long term investment in a particular plot made individual mamluks unlikely to make big investments in their assigned iqta’. Hodgson (1974, 136) writes that uncertain ownership dampened incentives for investment, discouraging individual wealth holders from putting funds into agricultural maintenance. Elbendary (2015, 26) expresses a similar sentiment, suggesting that the iqta’ system “did not create enough incentives for the amirs to invest in maintenance.” More generally, Petry (1994) argues that the mamluk system encouraged the hoarding of capital assets, block-

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26Petry (1994, 103) has suggested that much of the existing work has focused on external shocks rather than examining the changes taking place inside the regime. In addition, the issue of kinship is not typically a focus of mamluk studies, given only marginal attention (Steenbergen 2006, 77). My account considers mechanisms related to internal change and kinship to a greater degree than the existing literature.
ing them from more effective deployment. He writes that the system depressed innovation and failed to cultivate the type of “aggressive investment in ventures conducive to economic growth or technical change” (Petry 1994, 221-222). Lack of economic investment might have subsequently hurt economic performance. To what extent did a crisis of agricultural investment create dysfunction independent from the land type transformations I have described? One hypothesis related to these arguments is that the economic collapse of the regime can be tied to the negative accumulated effect of the poor investment environment. Two pieces of evidence work against this mechanism as the sole source of the regime’s economic crisis. The first is that the core form of investment required to maintain the productivity of the land — the maintenance of canals — was controlled by the state and monitored in the interest of sustaining agricultural productivity. In addition, the regime did not suffer an economic crisis for long periods of time with these particularly institutions in place (Petry 1994, 72).

**The Black Death and Rural Depopulation:** Changing environmental conditions impacted agricultural productivity in societies around the world and may have also contributed to the occurrence of the Black Death (Campbell 2016, 22). Abu-Lughod (1989, 239) suggests that reductions in agricultural surplus associated with the plague may have led the mamluks to engage in “increasingly exploitative strategies” which can be interpreted as “desperate attempts to maintain revenues in the face of a severely eroded economic base.” The Black Death may have led to more turnover of *iqta* (Irwin 1986, 138) and could also have empowered bedouin to take over agricultural land in the Nile Delta (Elbendary 2015, 49). This hypothesis would suggest that plague-induced reductions in population would have led to lower agricultural productivity with negative implications for the regime’s economic fortunes. One problem with this explanation relates to the timing of the Black Death relative to the patterns that I have shown. The most significant wave of Black Death in Egypt occurred in 1347-1348 while the data for my baseline analysis (1376) is more than thirty years later. Although there were subsequent waves of Black Death, it would be difficult to explain the patterns that I have described with a thirty-year lag from the main occurrence of the plague.  

**Loss of Spice Trade Monopoly:** Over my interval of analysis, the Mamluk Sultanate lost its monopoly of the spice trade to Portuguese explorers who discovered an all-sea route to India from Europe. In the years leading up to 1500, Mamluk sultans dominated virtually the whole pepper trade, which provided a dependable source of revenue to pay for military expenses (Labib 1970, 77). Indian Ocean commerce had a highly positive impact on Egypt’s economy (Meloy 2015, 79). Crowley (2015) goes as far as to argue that the Mamluk Sultanate lived “parasitically” off merchant commercial success. Portuguese — and later Dutch and English — entry into the spice trade, and associated sultanic mismanagement of the economy, has also been cited as a factor associated with regime decay (Petry 1994, 118). With virtually no indigenous wood resources for the building of ships, the Mamluk Sultanate

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27Plague was recurrent in later years as well but none of the subsequent (or previous) plague waves receive the attention of the 1347-1348 occurrence.
was not a maritime power (Crowley 2015). Blaydes and Paik (2017) estimate the negative economic impact of European seafaring breakthroughs on Middle Eastern and Central Asian trade entrepots more generally. The timing of the decline in the spice trade is consistent with the narrative that I have discussed. As a result, it is important to consider the negative economic impact of declining trade in combination with the endogenous processes that I have described. It is likely that both of these factors contributed to the worsening economic situation.

Indeed, external shocks may have heightened the incentives for state actors to predate on the state. For example, Lapidus (1984, 40) has argued that mamluk efforts to stave off economic collapse only made things worse in terms of taxation and extortion. Elbendary (2015, 11-12) discusses the interrelated nature of economic and administrative crises where the regime undertook a variety of bureaucratic measures to try to mitigate the challenges of a collapsing economy. While a number of exogenous and endogenous factors must have impacted the strength of the regime, there is little doubt that a smaller tax base would have made all shocks more difficult to withstand contributing to the regime’s fall.

5 Conclusion

The Mamluk Sultanate has been described as the “culmination of a long evolution of military slavery” (Philipps and Haarmann 1998, xi). And although slave soldiers were long a commonplace feature of Middle Eastern regimes (Crone 2003), Egypt represents a case where the mamluks took power for themselves by establishing a sultan from within their caste. The authoritarian institutions core to the Mamluk Sultanate provided an institutional solution to the first-order problem of autocratic regimes for much of human history — the need to combat familial nepotism in support of governance and security. The solution to this problem unleashed a problem of its own, however. As a result, the Mamluk Sultanate represents both a case of institutional persistence but also institutional change as a result of the way the core resource of agricultural land became undermined over time.

This paper has sought to characterize the core institutional features of the Mamluk Sultanate while also providing evidence for why and how those institutions were weakened. I find that the regime had difficulty maintaining authority over agricultural resources as state actors predated on state land with the goal of providing wealth transfers to their progeny, but not unexpected given the roots of the regime in the Caucasus and Central Asia.

Sabra (2004, 209) argues that the Ottoman invasion reversed the trend towards the privization of land. Like in the case of the Mamluk Sultanate, the Ottoman state established ownership of land and bestowed hereditary usufruct on peasant families in a system that persisted until the 19th century (Pamuk 2004, 230). Indeed, Ottoman military success depended on the empire’s centralized, land-tenure system which supported its large, cavalry-based army (Pamuk 2004, 229). In this setting, agriculture was the economic livelihood for 90 percent of the Ottoman Empire population and a key fiscal pillar of support for the state leading Pamuk (2004, 230) to argue that “neither the durability nor the eventual demise of the empire can be understood without attention to its agrarian institutions.”
who were unable to become mamluks themselves. In other words, mamlukism created a fundamental problem of intergenerational wealth transfer. And without agricultural rents, the Sultan could not maintain the terms of his powersharing bargain with new generations of mamluks, whose support was crucial for the stability of the regime. While the mamluks were largely successful at creating protocols of self-management which prevented abuse and expropriation of the shared resource, self-undermining qualities of the institutional equilibrium eventually led to the degradation of the state.

How should we think about the Mamluk Sultanate compared to other autocratic regimes? And was the mamluk regime so unusual as to render it a historical case poorly suited for comparative analysis? On the one hand, the organization of a state of slave soldiers, reinvigorated by continuous import of new foreigners, has been described as “in many respects, very remarkable” (Goiten 1967, 38). On the other hand, rulers have long developed a wide range of institutional arrangements associated with public finance and the rule of law. For example, Levi (1997, 19) points out that while some property rights regimes are long maintained others prove to be unsustainable and are eventually abandoned. While scholarly research has paid a great deal of attention to the institutional development of Western Europe, there is much less focus on the history of institutions and institutional change in areas outside of Western Europe. A failure to engage comparatively will render students of historical institutionalism unable to identify the types of institutions that were critical for creating economic development.

Finally, the existence of a single-generational elite, institutionally constrained in its ability to engage in intergenerational wealth transfer, has long been a feature of the pre-modern world. For example, eunuchs have served in critical governance roles across the ancient societies of Greece, Rome and Byzantium, as well as in Asian dynasties of China and the Indian subcontinent. Similarly, Catholic clergy made trusted advisors to European monarchs as clerymen could not aspire to dynasties of their own. Indeed, Hofert (2018, 3) writes that reliance on celibate and childless men was a “transculturally common feature of pre-modern history” and that these gelded elites served as an “integral part of the ruling elites in different societies and regions.” Fukayama (2011) argues that celibacy was vital for battling corruption within the Catholic Church, giving Europeans an advantage over other societies with regard to the establishment of a bureaucratically-competent and rule-governed institution in the church. Yet clerical celibacy also introduced its own self-undermining processes since priests who fathered children or engaged in child abuse generated hypocrisies that reduced the moral standing of the church. While mamluks were permitted to have children, the key principle of non-heredity generated similar challenges. Perhaps it is not surprising that non-hereditary

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30To what extent are extractive regimes sustainable over the long term? The types of extractive institutional structures observed in this setting may emerge as equilibrium institutions by increasing the rents captured by groups with political power, despite potentially adverse effects on aggregate economic performance (Acemoglu et al 2002).

31Hofert (2018, 31) writes that “by being excluded (usually) from a father-son succession...bishops and eunuchs offered societies the potential to use different reproduction patterns, thus providing flexibility and presenting alternatives that other social groups could not offer to this degree.”

32See Gryzmala-Busse (2015) for more on the importance of moral authority and the Catholic Church.
social castes like eunuchs, priests and mamluks have not persisted in their political influence. The problems of nepotism, corruption and inefficiency which gelded elites were empowered to solve may have been self-undermining over the long term.

Bibliography


Meloy, John. 2015. Imperial Power and Maritime Trade: Mecca and Cairo in the Later Middle Ages. Chicago, IL: Middle East Documentation Center.


