

Meritocracy or Patronage?

Internal Conflicts and the Political Control Over Bureaucracy in the Imperial China 1644-1911

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Abstract

The quality of state bureaucrats is often key for maintaining social stability. This paper analyzes the political mechanism of control over governors in the Qing dynasty. The ethnicity-based patronage favored Manchus within the central government, yet the majority Han officials were instrumental for maintaining social stability. We find that sanctions and promotions for governors were responsive to internal conflicts within their jurisdictions. Moreover, new appointments tended to be drawn from the majority group when there were more internal conflicts nationwide. This pattern of control over bureaucracy suggests a competence-versus-loyalty trade-off, which is echoed by the history of contemporary China.

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1 Introduction

The quality of state bureaucrats is key for the thriving of all kinds of political systems. Democracies and dictatorships face similar problems of appointing competent officials and replacing those who fail to do their jobs properly. Moreover, no ruler can rule single-handedly: delegation is inevitable. Even when political power is monopolized, as in the case of the majority of regimes in human history, political elites may need to reach outside their own group to govern effectively.

With a history of over two thousand years of bureaucracy, China has been under close examination in the scholarly literature. Some social theorists characterize China as a patrimonial system without government accountability (Weber, 1978; Eisenberg, 1998). By contrast, historians argue that the Chinese bureaucracy was considerably responsive to the need for public goods (Kuhn, 1970; Hamilton, 1990; Will, 1990; Guy, 2010; Rosenthal and Wong, 2011). The debate continues with regard to the current political system. Economists as well as political scientists attribute the miraculous economic performance of China during the past three decades to one institutional feature: the control of personnel by the central government (Huang, 1996; Bo, 2002; Li and Zhou, 2005; Cai and Treisman, 2006; Xu, 2011). The economic reforms would have been impossible without a political mechanism to evaluate performance of sub-national officials — meritocracy.

This interpretation about the Chinese political system, however, is controversial. Recently, Shih, Adolph, and Liu (2012) contend that factional connection is the single most important factor in determining promotions for Chinese high-ranking officials. Kung and Chen (2011) attribute the Great Leap Forward Famine to the incentive of the Communist Party cadres for promotion. Both papers seem to suggest that meritocracy can be severely undermined by the pursuit of political loyalty. Consistent with these views, several political economic models show that the selection of government bureaucrats involves a trade-off between loyalty and competence from the ruler's perspective (Acemoglu, Egorov, and Sonin, 2010; Egorov and Sonin, 2011). Hence, meritocracy has limits.

With these controversies in mind, we examine the mechanisms of the control over bureaucracy, using the transformations of provincial governorship in the Qing dynasty as a case in point. It is demonstrated that the decisions of sanction and appointment were a function of threat posed by internal military conflicts. Moreover, the proportions of the majority Han group among top provincial

leaders — governors as well as governors general — was U-shaped over time, consistent with the trend of internal social instability.

The point of departure in our argument is that rulers managed to survive not because of the “Patrimonialism”, but political institutions through which they recruit and oversee government officials. As many other rulers in history, the Chinese emperors relied on a large pool of talent from which local and sub-national officials were selected to maintain social order. What makes a difference is ethnicity. The Qing rulers belonged to the group of Manchus, the ethnic minority group which conquered China in the mid-17th century. To assure political dominance, the Manchu rulers implemented an ethnicity-based patronage system, resulting in an over-representation of Manchus among the top state bureaucrats. At the same time, officials from the majority Han group entered bureaucracy through a meritocratic system known as the Imperial Examination (*Ke Ju*). The selection via examination was competitive and the officials had to have extensive experience in local governments before promotion.

In comparison with the Manchu counterparts, the Han officials were more adept at managing, organizing, and coordinating local affairs. The Hans, however, were short on loyalty. Being excluded from the center of political power, the Han governors and governors-general tended to defend regional interests first and may have not prioritized mandates from the ruler. Hence, bureaucratic control involved a simple trade-off between hiring competence and using one’s own men. The rulers essentially looked at the situation within a jurisdiction and saw whether there was a pressing demand to defuse conflicts. With the presence of conflicts, the probability of sanction increased and new appointments to governor were more likely to be from the majority group. Changes toward a more meritocratic bureaucracy were induced by crises.

We use originally collected data about conflicts and the tenure of governors to test the arguments. The empirical results demonstrate a strong effect of internal conflict on bureaucratic control. A unit increase of rebellion led to a rise in the probability of sanction by more than 5 percentage points. There was no discrimination between the Manchus and Hans in terms of negative sanctions, with or without internal conflicts. When the number of conflicts nationwide increased, new appointments to governor were more likely to be Han. The Han governors, however, were disadvantaged with

regard to the upward mobility. The chance of promotion for Han governors was significantly lower than that of the Manchu counterparts. Ethnicity alone can explain 3 percentage point, or 40% of the average probability of promotion. Altogether, the empirical evidence suggests that governors were accountable for their performance, that the bureaucratic system was meritocratic up to a certain extent, and that the concern about loyalty carried different weights in different times.

In the recent literature on non-democratic regimes, the importance of institutions is often emphasized (Bueno de Mesquita et al., 2003; Gandhi and Przeworski, 2006; Myerson, 2008), yet it is not entirely clear how institutions are established. By focusing on the control over the Chinese bureaucracy, we provide an in-depth case study on how institutionalization was implemented. Moreover the process of institutional change was driven by the loyalty-versus-competence trade-off. As Machiavelli once wrote, rulers should prefer “to lose with his own (arms) than to win with others” (*The Prince*, XIII). One will not be surprised at many stories reflecting the tension between competence and political loyalty in the contemporary China. For example, the “red-vs-expert” (the revolutionary versus professional technocracy) debate emerged in the 1950s and only ended up with the principle of “politics takes command” (MacFarquhar, 1958; Baum, 1964; Ray, 1970). The restoration of entrance examination to college by Deng Xiaoping in 1977 is an example of meritocratic reform, when the Communist Party was struggling to recover from the Cultural Revolution.

While this paper focuses on the Imperial China, similar problems are ubiquitous in western democracies. Political appointments of public bureaucrats tend to be partisan. In the history of the United States and European countries, the civil service reforms were adopted to mitigate the influence of partisan politics and improve the quality of governance (Carpenter, 2001; Hollyer, 2010). The legislators today often choose between securing policy responsiveness and granting autonomy to government agencies (Calvert, McCubbins, and Weingast, 1989; McCubbins and Schwartz, 1984). Iyer and Mani (2012)’s study on the Indian bureaucrats shows that political turnover in the central government induces lateral transfers of public bureaucrats, in which caste affinity to politicians’ party base makes one more likely to hold an important position.

Finally, this paper is related to the literature on conflicts and state capacity. Tilly (1990) points out that preparation for wars was a primary force behind the formation of modern states. Following

this logic, Besley and Persson (2010) make a distinction between the effects of internal and external wars on state capacity, of which they think in terms of fiscal revenue and law. They suggest that internal conflicts reduce the incentive for investing in public goods and hinder economic development. Our paper is related to a large literature on internal conflicts in the imperial China (Bai and Kung, 2011; Jia, 2011; Chen 2014). What is new in this paper is the examination of a reverse channel through which internal conflicts may affect institutions and state capacity, which we think in terms of bureaucracy.

The rest of this paper proceeds as follows. The next section presents a heuristic model of the ruler's decision in regard to sanction and appointment. It is followed by a discussion of the historical pattern of bureaucracy and politics in the Qing dynasty. We then present econometric evidence for specific questions. The final section concludes.

2 Theory

2.1 Competence versus Loyalty

This section presents a heuristic model with regard to the ruler's decisions of sanction and appointment. The point of departure is the divergence of competence between the group of Han and Manchu. This assumption is reasonable given the empirical issues we address. It is recognized by historians that bureaucrats from the majority Han group were more experienced with local affairs of Han regions (Oxnam 1970, cited by Guy, 2010, p.49). The advantage of Han bureaucrats stemmed from the common language, customs, and the Confucius value shared with local elites, whose support was crucial for the collection of tax revenue and disaster relief (Will, 1990).

The divergence in competence was also due to the way of political selection of Manchus to the state bureaucracy. The promotion system was characterized by ethnicity-based privileges for Manchus, resulting in an over-representation relative to the population base. When the Imperial Examination was first installed, the court implemented a 4:6 Manchu-to-Han quota for the final pass (Elman, 2000, p.166). Although the quota was canceled afterwards, the admission rate was higher for Manchus. Special kinds of examinations, such as translation exams, were preserved for Manchus.

Outside the Imperial Examination system, there were a multitude of entry ways for Manchus, such as hereditary privilege, serving as bodyguard of senior officials, and purchasing a position (Zhao, 1977, Vol. 108). We thus feel justified to conclude that the selection process for Han candidates was more competitive.

At the same time, Han officials might fall short of political loyalty, which we understand in terms of the willingness to follow the ruler's order. The potential of non-compliance of policies gave rise to a disutility when appointing Han officials. While in principle, rulers could induce preferable policies by the threat of punishment, in practice the deviation from their courses was unavoidable. Ex ante, it was almost impossible to specify what the "optimal" policy must be, and precisely how an official should be punished for defection in each hypothetical circumstance. There were plenty of examples of non-compliance by high-ranking bureaucrats in the Qing history. When the Anglo-French army marched to Beijing amidst the Second Opium War, the emperor sent a royal edict to Zeng Guofan, the governor general presiding the war in the South, for military operation. Following a discussion with his staff, however, Zeng decided to procrastinating the mandate by asking for clarification on minor issues. The rationale was two-fold: that he would not be able to defeat the Anglo-French army anyway; and that the war against the Taiping Rebellions in his jurisdiction should be given the priority (Xie 2006, p.53).

2.2 A Heuristic Model

We consider a static problem with a ruler and an agent, who may be hired from either the group of Manchus (M) and Hans (H). The agent i is in charge of implementing a mandate by the ruler. Here we abstract away from the substance of the mandate. It can be anything deemed by the ruler to help him stay in power: an increase in revenue, investigation into a social movement, appeasing peasant riots, and so on. When the task is implemented to the ruler's satisfaction, a value $y = 1$ is yielded. Otherwise the ruler is dissatisfied and the value he obtains is $y = 0$.

The probability that a task being carried out successfully depends on two components: the effort of agent and the fundamental political situation. Specifically, the probability of success for agent i is equal to $e_i + \Delta$. In this formulation e with subscript i represents the unobservable effort level.

The positive parameter Δ indicates the fundamental situation of social instability, or the potential of social conflicts. The smaller Δ is, the society is more unstable, and thus the probability of success is lower. If the mandate is successful, the agent gets reward ω , which can be understood as material benefits granted by the central government. Providing effort is costly for the agent. Each effort level e_i is associated with cost $\frac{c_i e_i^2}{2}$. We interpret c_i as a measure of competence: small c_i implies high competence. For our purpose, we assume $c_H < c_M$.

If the mandate does not succeed, the ruler removes the agent with probability p . In this case we simply assume the agent walks away with zero payoff. We define this as a case of bureaucratic sanction. For a static problem, it is without loss of generality to assume the probability of removal following a failure is one: $p = 1$. The agent's problem can be further written as the following.

$$\max_{e_i} U_i = (e_i + \Delta)\omega - \frac{c_i e_i^2}{2} \quad (1)$$

The above problem implies that the agent's effort level is $e_i^* = \frac{\omega}{c_i}$ provided that the value $e_i^* + \Delta$ is less than or equal to one, which we assume for simplicity. The ruler's problem then is:

$$\max_{\omega} V = (e_i^* + \Delta)(1 - \omega) \quad (2)$$

We have assumed that the ruler is risk neutral and his payoff is linear in the reward he has to pay. Solving the problem obtains $\omega^* = \frac{1 - \Delta c_i}{2}$. We assume the reserve value for agents are zero and $\Delta < \frac{1}{c_i}$, so the participation constraint is satisfied. Replacing ω^* we can get $e_i^* = \frac{1}{2c_i} - \frac{\Delta}{2}$. For simplicity, we assume that parameter conditions guarantee an interior solution and focus on the local effects of change in Δ and c_i . The probability of removal is then equal to $1 - e_i^* - \Delta$.

$$\Pr(\text{removal}) = 1 - \frac{\Delta}{2} - \frac{1}{2c_i} \quad (3)$$

Hypothesis 1. *The probability of removal increases when there are more threats from internal conflict.*

It is readily seen from equation 3 that the probability of removal is larger when Δ is small, i.e. the society is more unstable and the mandate is more difficult to implement. The result holds regardless

of the appointment decision. We now consider the ruler's choice between the group of Manchus and Hans when making a new appointment. Obviously, if the ruler is only concerned with competence, appointing Han should be a dominant strategy. To illustrate the intuition in a simple way, we assume that there is an ideological affinity between the ruler and the group of Manchus, $x > 0$. As a result, the ruler will appoint an official from the group of Han only if $EV(i = Han) - EV(i = Manchu) > x$. Here x stems from the distrust for the majority group of Hans, e.g. a possibility that Han officials might digress from the priority of the ruler. x may vary from one jurisdiction to another and over time. Replacing e_i^* in equation 2, we obtain the condition for a new appointment being Han official:

$$\left(\frac{c_M - c_H}{4}\right)\left[\frac{1}{c_H c_M} - \Delta^2\right] > x \quad (4)$$

Hypothesis 2. *A new appointment is more likely to be from the majority group of Han when there are more threats from internal conflict.*

Since $\Delta < \frac{1}{c_i}$ and $c_M > c_H$, the left hand side is always positive. When Δ becomes small, the gain by appointing Han officials increases relative to Manchus. This is consistent with our conjecture that the rulers were more likely to appoint Hans when the society was exposed to more internal conflicts.

3 Bureaucracy in Qing Dynasty

3.1 Manchu versus Han Officials

The Qing rulers attempted to strike a proper balance between competence and loyalty. Right after the ascendance of the first emperor, Shun Zhi, the Qing court declared the resumption of Imperial Examinations as a primary means for selecting bureaucrats (Zhang 2000, p.70). A decade later, the emperor revitalized the old Hanlin Academy, composed primarily of Hans (Zhang 2000, p.399). The rulers realized that with about 250,000 soldiers and 1.5 million total population (2 percent of the Han population), the court could not maintain stability merely by force (Wakeman, 1985, p.415). A number of "twice-serving ministers," the ranking bureaucrats serving the previous Ming dynasty, were instrumental in suppressing riots. The Han Grand Secretariats also played a key role in designing the administration after the model of preceding Ming dynasty.

Yet the distinction between the Manchu and Han identities clearly existed. While the regent Dorgon famously declared “the empire is a single whole,” (*Tian Xia Yi Jia*) and the Manchus and Hans were of the same qualifications, Manchus were granted higher ranks in almost all jurisdictions within the central government (Wakeman 1985, p.873). When Emperor Shun Zhi received a memorandum about reform favoring Hans, he warned the Han grand secretariats that: “I am beginning to think that you are all Ming ministers” (Wakeman 1985, p.953). This kind of distrust is reflected by a persistent over-representation of Manchus within the top state bureaucracy. Our data show that for the entire Qing dynasty, Manchus occupied 30.33 percent of 6,719 incumbent governorships¹. Among top administrative positions in the center, Manchus accounted for 41.79 percent of 4,824 incumbent grand secretariats, the most powerful bureaucratic position, and 47.42 percent of 3276 incumbents in the grand council, the chief consultative body for the court.

Figure 1 reports the proportion of Hans among provincial governors and governors general for the eighteen provinces in each year². As we can observe, the governors were predominantly Han during the first two decades. The ratio started declining from 1668, when regent Oboi invested in his patronage network. There was then a substantial contraction of the Han group after Emperor Kang Xi (1662-1722) consolidated his power. During the course of the 18th century, the Han governorships continued to exhibit a long-term downward trend that only reversed during the 19th century, when the state was severely weakened by military setbacks.

To understand the historical trend of the Qing governorship in light of social stability, we plot the temporal trend of internal conflicts³ Figure 2 shows that the proportion of Han governor is highly correlated with internal conflicts, but not with external wars. The two periods of most frequent rebellion are the early Qing years and the second half of the 19th century. The timing is consistent

¹The codebook for the data is available upon request.

²The provinces correspond to the region of “China proper,” the concept used by westerners in the 18th century to describe regions where a majority of residents were Han. They include all the provinces except for Beijing (*Shun Tian Fu*), Manchuria, Mongolia, *Xin Jiang*, and Tibet. A provincial governor (*Xun Fu*) was the provincial chief executive responsible for disciplining local officials, carrying on public works, overseeing revenue collection, and maintaining regional order and security. A governor general’s (*Zong Du*) authority covered one or several provinces. Governors general coordinated administrative affairs, and they had power to command troops. The capacities of provincial governors and governors general were independent and both reported directly to the emperor. I count an official as Han if he was either a Han Chinese or Han Banner-man, a Han who was granted a standing title within the Manchu’s Eight Banners system.

³The conflicts are counted on a provincial-yearly base. If a rebellion took place simultaneously in three provinces, it is counted in each province as one. In contrast, wars against foreign countries are counted on a yearly base.

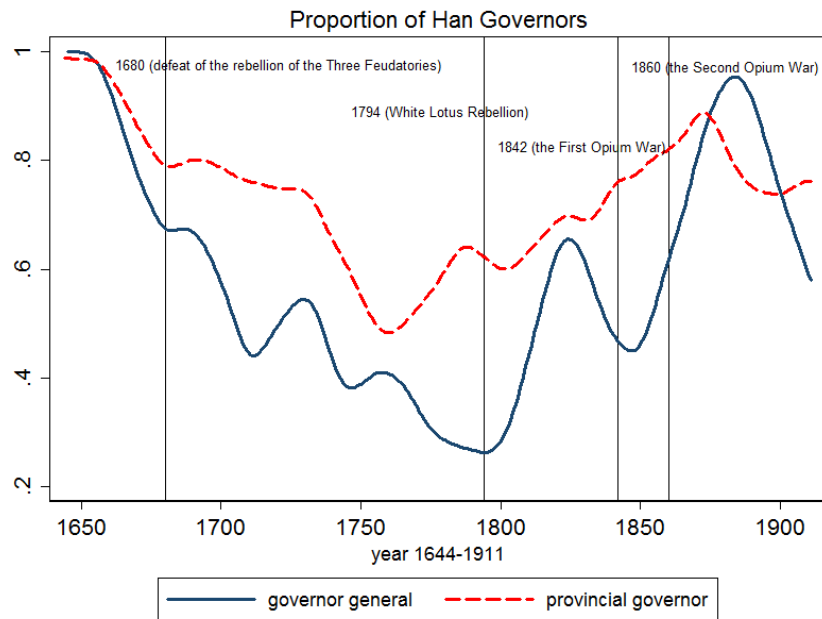


Figure 1: Proportion of Hans Serving as Governor General and Provincial Governor (lowest smoothing)

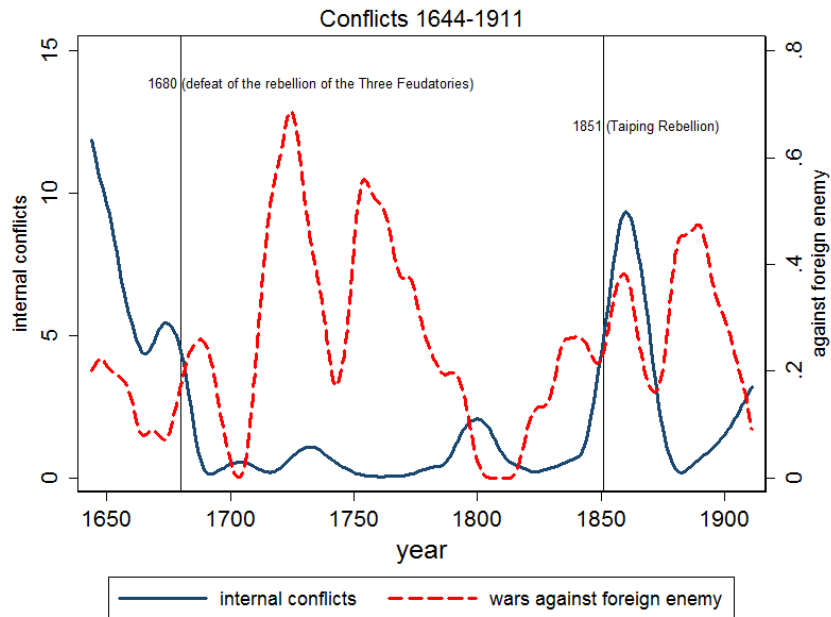


Figure 2: Nationwide Conflicts: Internal and External Wars (lowest smoothing)

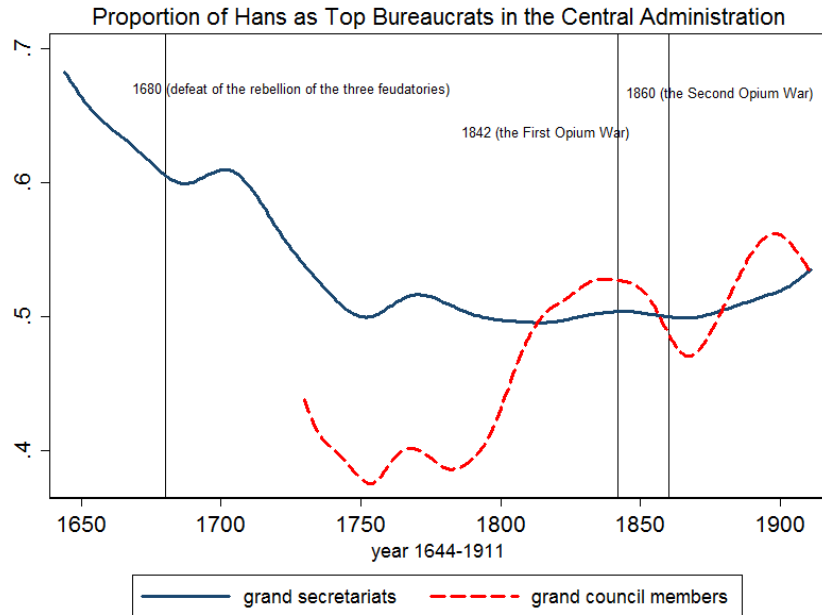


Figure 3: Proportion of Han Officials of Top Administrative Rank (lowest smoothing)

with the dominance of Han officials as provincial governors. Almost all large rebellions were followed a increasing trend of Han governorships: the Rebellion of Three Feudatories in 1680, the White Lotus Rebellion in 1794, the Taiping Rebellion in 1851, and the Nien Rebellion in 1851. In comparison, foreign wars seem to be positively correlated to Han governors only during the late Qing period. When China was actively engaged in foreign wars in the 18th century, the Han governors were relatively fewer. The contrast between the mid and late Qing periods lies in state capacity. While China prevailed in most wars in the 18th century, it suffered from military setbacks and internal conflicts in the century following. Thus, it became more difficult to maintain stability by using military strength.

The simultaneous occurrence of internal conflicts and appointments of Han suggests that the rulers increasingly depended on Hans at the provincial level during times of crisis. We argue that the reason of this pattern is the demand for competence. An alternative explanation, though, is that the rulers might have been forced to share more power with the Han elites. The increase in Han governors might be due to the influence of powerful Han bureaucrats within the central adminis-

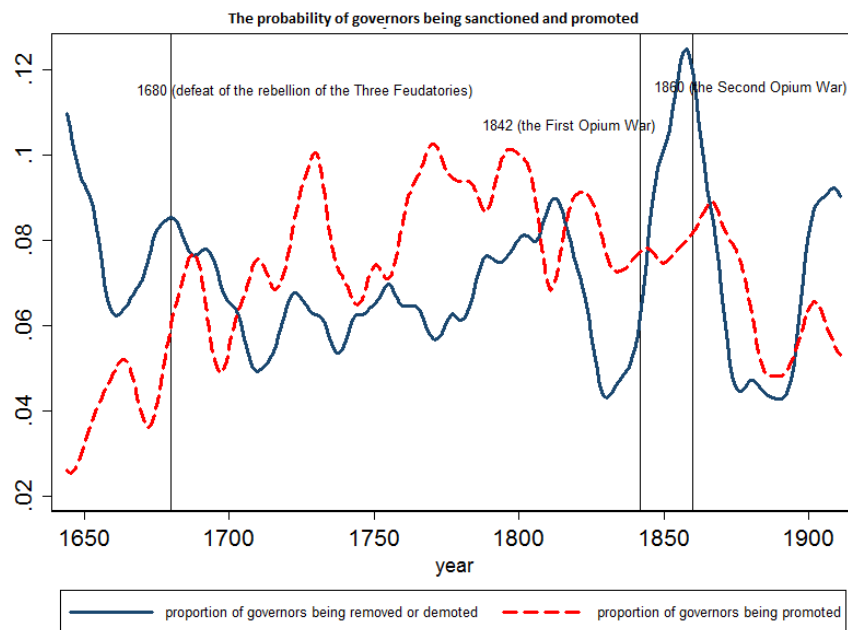


Figure 4: Proportion Governors (Provincial Governor and Governor General) of Being Punished and Promoted (lowest smoothing)

tration. Figure 3 plots the proportion of Han grand secretariats and the grand council members. In contrast with provincial governors and governors general, the share of Hans within the central administration was not closely related to rebellions. During the Taiping Rebellion (1851-1864), for example, the trend for grand secretariats was flat and that of the grand council actually decreased. While we cannot completely rule out power-sharing, it appears that factional affiliation was not the primary force for the transformation of Qing bureaucracy.

3.2 Bureaucratic Sanction and State Capacity

Figure 4 plots the yearly frequency of sanctions and promotions for governors and governors general⁴. Two observations can be made. First, the frequencies of sanction and promotion follow a common trend. A Dickey-Fuller test with 15 lags strongly supports that the two rates are cointegrated ($p = 0.001$). Secondly, the incidences of sanction concentrated in times of crisis: a governor or

⁴A sanction is counted if a governor or governor general was either demoted or removed. An official was promoted when he was either transferred to a position with higher administrative rank, or was retained and granted a higher administrative rank.

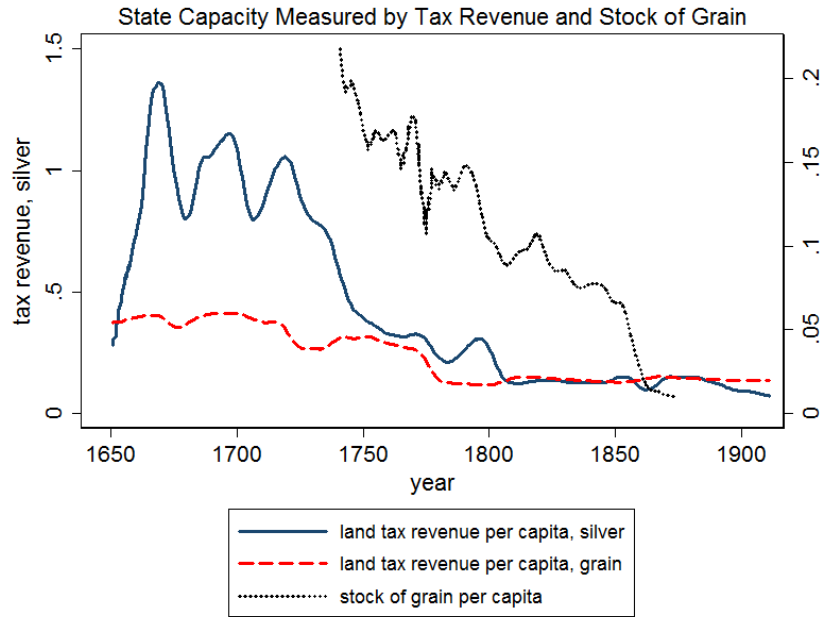


Figure 5: Fiscal Capacity of the State (lowess smoothing)

governor general was most likely to be sanctioned in the early and late Qing periods.

The patterns of sanction and promotion are consistent with internal conflicts, at the same time they illustrate the change in state capacity. Figure 5 shows a clear declining trend for fiscal revenue available to the central government over time. Both per capita tax revenue in taels of silver and the grain tax had been decreasing since the mid-18th century. The stock of grain per individual dropped significantly in the 18th century following decades of foreign wars; and it never returned to the previous levels. The decline in tax revenue might have been caused by inherent problems such as the corruption of tax bureaus (Li and Jiang, 1995; Jones and Kuhn, 1978, pp.120-127). As land tax was a main source of revenue for military expenditure, a strong military presence became infeasible for the central government. Following the defeat of the Qing troops by the Taiping rebellions, the emperor had to appoint Zeng Guofan, a Han governor, as the de facto commander-in-chief of the southern provinces. The bulk of armies against the rebellions since then were local militias, who were recruited and trained by Han officials. The emperor granted to provinces the power to tax on commodities as well as a portion of administrative power.

In line with the model presented in the preceding section, the pattern of personnel control over governors depends crucially on internal conflicts and the fluctuation in state capacity. Following the consolidation of power by Emperor Kang Xi, a number of Manchus entered bureaucracy via patronage and replaced Han governors. The demand for competence decreased, leading to a mix of Manchu and Han governors. Manchus dominated the state bureaucracy at the top level under Emperor Qian Long in the 18th century, but at the same time state capacity started declining following decades of war. Eventually, emerging rebellions pressed for the use of bureaucrats with sufficient experience and competence to govern. The situation suggests a significant decrease in Δ , and, a transition from Manchu privilege to Han dominance in the 19th century.

4 Econometric Evidence

4.1 Data

The main dependent variables in the empirical analysis are about sanctions and appointments. Thanks to historical works on the Qing bureaucracy (Qian, 1980), we are able to construct a provincial level data set on Qing governors. Each incumbent governor occupying an office at the end of a year (December 31 of the Western calendar) is documented of ethnicity and any change in administrative rank during the following year. A range of changes to rank may occur: 0, being demoted (transfer to a position of lower administrative rank); 1, being removed and/or prosecuted; 2, lateral transfer (to a different position of equal administrative rank); 3, staying in the same jurisdiction; 4, staying in the same jurisdiction but being granted a higher rank or position in the central administration; 5, being promoted to a position of higher rank in the central administration and leaving the previous position); 6, dying from a natural cause, retiring, or taking a sabbatical leave due to health or family issues; 7, dying in line of duty (e.g. killed by rebellions or committing suicide after the defeat); 8, the position being canceled (the governor was usually recalled to wait for a new appointment).

We then construct two variables to capture the mode of control by the ruler using the above information. *Sanction* is a binary variable coded as 1 if a governor was either demoted or removed

by the end of the next year (i.e. either 0 or 1 in the original documentation). *Change* is a categorical variable assuming three values: 1, if a governor was either demoted or removed by the end of the next year (0 or 1 in the previous categories); 2, if his rank remained the same (2 or 3 in the previous categories); 3, if he was promoted or granted a higher position in the central administration (4 or 5 in the previous categories).

The main variable of interest with regard to new appointments is governor's ethnicity: the binary variable *Han governor* is equal to 1 if a governor was either an ordinary Han Chinese or Han banner man. It is equal to zero if otherwise. In this case, the governor is Manchu or Mongol. Mongol officials constituted a small fraction (2.5 percent) of the whole sample and is grouped together with Manchus for simplicity.

The primary independent variable is *internal conflict*, the number of armed conflicts occurring within a province in each year. Following several papers on conflicts in Chinese history (Bai and Kung, 2010; Jia, 2011), we use the *Chronology of Warfare in Dynastic China* as a major source of information. We include all types of conflicts involving the state military⁵. In cases where conflicts spread cross provinces, it is registered for each province respectively. A conflict was counted for each year unless the rebellion was decisively defeated by the state army, or that the rebellious army completely withdrew from a province according to the historical documentations.

We make use of variables reflecting the stake of social stability. Following the literature on the economics of civil war (Miguel, Satyanath, and Sergenti, 2004; Bai and Kung, 2010), we control for *weather shock*, a binary variable indicating whether there was at least one case of extreme weather conditions that might have led to famines (in this case, drought or flood). The information is acquired from *the Yearly Charts of Dryness / Wetness in China for the Last 500 Years* compiled by the Chinese State Meteorological Society. The original data provides a category scaling from 1 to 5. We consider value 1 and 5 as representing a weather shock. Severe weather shock is a main source of instability for agricultural societies. The lack of competence and experience for governors might result in inadequate government aids. The pressure of tax collection often escalated the tension between tenants

⁵There are predominately three types of conflicts: wars between Qing and a rebelling military force (such as in the Rebellion of Three Feudatories) or the troops of Southern Ming Dynasty in the early years; riots and uprisings by peasants, which were usually contained within a province; mass rebellions spread over multiple provinces, such as the Taiping Rebellion.

and landlords, posing a threat for social order.

We control for the logarithm of geographic distance (in kilometers) between each provincial capital city and Beijing, the capital of Qing China. The information is available at *The Historical Atlas of China*. The variable *distance* may be correlated to the dependent variables in two ways. First, the farther away a province was from the capital, the more difficult it was for the ruler to oversee bureaucrats. So the concern about political loyalty might be more salient for peripheral provinces. Secondly, a province far from the political center might be more vulnerable to ethnic conflicts and peasant rebellions. It was also costly for the central government to gather information and dispatch troops to repress. This represents an adverse environment of social order and a high demand for competent bureaucrats. Finally, we include the provincial (log) population, (log) land tax in taels of silver, and (log) land tax revenue from the grain tribute system as control variables. A large population entails high demand for public goods and high risk of social conflicts. The accomplishments for revenue collection were correlated to governors' ability, experience, and efforts. Including these economic variables attenuates the biases in estimate due to officials' individual effects.

In average, the Qing governors had a 7.25% chance of being removed or demoted from the jurisdiction in each year. In line with the sanction, they were promoted at a probability of 7.15%. It is probably not surprising that governors were most likely to remain in the same jurisdiction in the year followed: the chance was about 0.6. At the same time they were transferred to other jurisdictions of equal rank with a probability of 0.14. Internal conflicts occurred in 12 out of a hundred province–year pairs. Next table provides a description of the data to be used.

Table 1 About Here

4.2 Determinants of Bureaucratic Sanction

The pattern of bureaucratic sanction is examined by the following linear probability model:

$$sanction_{it+1} = \alpha + \beta conflict_{it} + \gamma_1 Han_{it} + \gamma_2 conflict_{it} * Han_{it} + \delta X_{it} + f(t) + U_i + e_{it}$$

As explained, the dependent variable is whether or not an incumbent governor at the end of year t was demoted or removed any time in the year followed. The main explanatory variable is $conflict_{it}$, the number of internal conflicts in a province during year t . We expect the sign of $conflict_{it}$ to be positive. A statistically significant effect supports hypothesis 1 about the pattern of bureaucratic sanction for governors. In addition to the effect of conflicts per se, we are also interested in the question whether Han governors were disadvantaged with respect to the rate of sanction. Such effects may be captured by the dummy variable of Han governor and its interaction with the number of internal conflicts. Our simple model would actually lead to an opposite prediction, for the decision of removal by the construction of the model is a function of performance. The same conclusion may not hold when internal conflicts were more likely to emerge in certain Han-dominant jurisdictions. Nonetheless, our theory suggests that the rulers concerning social order should not favor an ethnicity-oriented bias for ex post sanction decisions. Hence we expect neither Han_{it} nor the interaction term to be significant.

X_{it} is a vector of control variables: weather shock, the log of geographic distance, population, land tax revenues in silver and grain. $f(t)$ is a linear time trend. U_i are modeled as either random or fixed effects to further deal with the endogeneity due to unobserved provincial effects.

Table 2 About Here

Table 2 reports the estimates for the probability of a governor being demoted or removed. Column 1 includes *internal conflict*, the dummy variable *Han governor*, *weather shock*, and the logarithm of distance from provincial capital to Beijing as independent variable. Column 2 to 4 adds to the model the interaction between *Han governor* and *internal conflict*. The results of column 1 and 2 are based on provincial random effects, and column 3 and 4 assume fixed effects. In agreement to our argument, *internal conflict* has a significant positive effect on the probability of governors being sanctioned. A unit increase in the number of rebellions is associated with 5.5–5.8 percentage points of increase in the probability of sanction. The estimate for *internal conflict* falls only slightly below the significance level of 0.05 when we interact *Han governor* with *internal conflict*, reporting t-statistics ranging from 1.77 to 1.87. There is almost no difference between the results based on random and fixed effects.

Consistent with the theoretic conjecture about the role of competence in determining final outcomes, Han governors were not in an adverse situation of being picked for punishment. Neither did sanction become more frequent when there was more internal conflicts within jurisdictions. The estimates for the dummy *Han governor* and the interaction term are both small and statistically insignificant. Extreme weather conditions appear to add to the probability of sanction, while geographic distance tends to insulate governors from punishment. The effects of them are statistically insignificant, however. To briefly summarize, *internal conflict* was the most important factor driving the sanction of governors. This confirms our argument that social stability was the priority of the state bureaucrats and governors were systemically evaluated and held responsible for it.

4.3 Sanction vs Promotion

To see whether internal conflicts affected the promotion of incumbent governors, we estimate a series of multinomial probit models for the change in governors' position in each year. The dependent variable is a three-way categorical variable, where the baseline category stipulates that the governor stayed at the same administrative rank in the year followed. We use the same set of independent variables to respectively estimate the probability of sanction and promotion of incumbent governor. We expect that the presence of internal conflicts raised the probability of sanction and reduced that of promotion. When social order deteriorated, it became increasingly difficult to accomplish tasks assigned by the rulers. Even when governors did well, it might be the case that replacement was hard to make during crisis, and thus the rulers wanted to retain as opposed to promote them.

Table 3 About Here

As table 3 shows, internal conflicts remain to be a significant contributor to the demotion and removal of governors. The magnitude for internal conflicts in the multinomial probit models is similar to that in the linear models. At the same time internal conflicts appear to have a considerable negative effect on the probability of promotion. An unit increase of the number of conflicts from the mean reduces the probability of promotion by 2.8 percentage points. Including the interaction term between Han governor and internal conflict inflates both the coefficient and standard error for internal conflicts, driving the significance level below 10% (t-statistics = 1.5). Consistent with the results

in table 2, being Han did not make a governor more likely to be demoted or removed. But in sharp contrast to the pattern of sanction, the Han governors were in a significantly disadvantaged position when it comes to promotion: the probability of promotion is 3 percentage points lower for Hans than Manchus. The effects seem to be mediated by internal conflicts — notwithstanding in a statistically insignificant way — via the interaction term.

We consider this finding as evidence for the trade-off between political loyalty and competence in driving the bureaucracy. The patterns are diverged for promotion and sanction because competence and loyalty carried different weights at different levels within bureaucracy. It is plausible that the rulers presumed maintaining social order primarily as the job of governors. For appointments to the higher ranks and the central government, political loyalty might have been a more important concern than the competence to manage provincial level affairs. This implies promotions more in favor of the rulers' own group when they performed well. For the majority of Han Chinese, a glass ceiling existed at the high level within the bureaucracy.

4.4 Appointment

As a third step, the probability of a new appointment of governor being Han is estimated by the following linear model:

$$Han_{it+1}|NewAppointment = \alpha' + \beta'Nconflict_t + \gamma'Han_{it} + \delta'X_{it} + f(t) + u_i + e_{it}$$

The set of independent variables differs from the one being used for estimating sanction and promotion in three respects. First, we take one-year lag for all independent variables at year t for estimation of new appointment at year $t+1$. The use of lagged independent variables takes into account the possibility that an appointment might have been made at the beginning of a year before conflicts occurred. In that case the ruler could not have utilized the information about conflicts and the estimates may be biased. Secondly, we mainly rely on $Nconflict_t$, the total number of internal conflicts nationwide as an indicator for the stake of social order. The magnitude of conflicts nationwide can better capture the overall emergency faced by the ruling group and the demand for competence than

that at the provincial level. The idea is that appointments should be more prospective than retrospective in comparison with sanctions. When severe mass rebellions broke out in some provinces, forward-looking rulers might be prompted to make more meritocratic appointments for neighboring provinces. This scenario is quite plausible during the Taiping and Nian Rebellions. Thirdly, we include a dummy indicating whether the predecessor was Han, but we do not control the interaction term between Han governor and internal conflicts. A Han predecessor may have already represented a high degree of social antagonism and a tendency of the ruler to relying on Hans bureaucrats. The interaction is never significant in previous models and not of the main interest here.

Table 4 About Here

New appointments were driven by several different factors. Column 1 confirms the intuition that the number of conflicts nationwide outperforms internal conflicts in provinces per se. The effect is positive and statistically significant at 5% level. In the meantime the ethnicity of new governorships strongly depended on the previous path: a Han predecessor raised the probability of a new Han governor by 17 to 24 percentage points. Following a weather shock, the probability of a new appointment being Han increased by 6 to 7 percentage points. Geographic location also matters: Han bureaucrats were more likely to be appointed in peripheral provinces. All these effects are statistically significant at 1% or 5% level. The results are robust to the inclusion of economic variables (column 2 and 3) and fixed effects (column 3). Consistent with hypothesis 2, the results suggest a tendency in favor of Han bureaucrats when there was a high demand for competence, as represented by internal conflicts, weather shock, and geographic distance.

4.5 Rice Price as Instrumental Variable

It is possible that our estimates for the effects of internal conflicts suffer from various endogeneity problems. One channel can be reverse causality. For example, incompetent governors were removed on the grounds of corruption and negligence, which had contributed to the cause of peasant rebellions. While this implies a potential upward bias, it is likely that we have underestimated the importance of internal conflicts in the decision-making of rulers. Conflicts within a jurisdiction tended to undermine the personnel control over bureaucrats and decrease the probability of sanction. Governors

might also have been given a high incentive for revenue collection and labor conscription, which often escalated conflicts. Omitting these variables tends to attenuate the estimates for internal conflicts.

Table 5 About Here

To correct for any potential bias, we use an index of rice price at the national level as instrumental variable (Lu and Peng, 2004). Lu and Peng (2004) document the annual prices of rice in all major markets in the Chinese history and construct the national average. The fluctuation of rice price is highly correlated to food shortage and the risk of social conflicts. Since the price index is a national average as opposed to be region-specific, it is not directly related to the performance of governors. Table 5 presents the estimates for the probability of sanction with instrumental variable. The first stage results from the instrumental estimates confirm a strong positive correlation between internal conflicts and the price of rice. The effects of internal conflicts remain significant and the magnitude triples. An unit increase of internal conflicts now contributes 16 percentage points to the probability of sanction. This translates into 30 percent of the probability of sanction⁶. The effects of other variables are largely the same in all IV regressions.

Table 6 About Here

Table 6 presents the results of IV regressions for the probability of a new appointment being Han. There is no substantial difference between the results using instrumental variable and those obtained from linear regressions. The number of conflicts nationwide remains a significant contributor to the appointment of Han governor, along with the presence of Han predecessor, weather shock, and geographic distance. The overall results from IV and linear models are consistent with each other and support the theoretic account in section 2. It is pretty clear from our empirical analysis that the historical transformation of Qing bureaucracy was driven by the concern about political survival. The rulers made a trade-off between political loyalty and competence along the incidence of internal conflicts.

⁶The frequencies of internal conflict and sanction in the sample under investigation are 0.122 and 0.067. So the average contribution of internal conflicts to the probability of sanction based on the instrumental variable estimates is $0.16 * 0.122/0.067 \approx 30\%$.

4.6 Political Turnover and Foreign Wars

Table 7 About Here

To further examine the robustness of the empirical results, we include a set of variables reflecting political turnover within the central government and the changing external environment. We first introduce “new emperor”, a dummy variable indicating the period within three years following a new emperor’s accession to the throne. We also include the ratios of Manchu governors general and Manchu Grand Secretariats within the central government. All the three variables are closely related to the shift of power among political factions within the central government. Lastly, we control for the number of external wars engaged by the state within each year. The interaction term of each new variable with the dummy Han governor is controlled for the estimates of sanctions. As table 7 shows, the significance and magnitude of internal conflicts are not affected by political turnover or external wars. Power alternation does not appear to lead directly to a purge of top provincial governors (column 1). Neither did the political dominance of Manchus have significant impacts on the pattern of sanction (column 2 and 3). Fighting wars with foreign enemies also did not make sanctions more likely (column 4). For all these rival explanations, we do not find significant difference between the effects for Manchus and Hans.

Table 8 About Here

Table 8 reports the estimates for the probability of a new appointment being Han using a similar set of control variables. In accordance with table 4, the hypothesized pattern of appointment is robust when taking into account political turnover and external wars. The number of internal conflicts and the presence of Han predecessor significantly increase the probability of a new appointment being Han. The rival explanations, however, are not supported by the empirical results except for in column 2. The appointment of governors was likely to be Han when political survival was at stake. In contrast to this, external conflicts and power shift within the ruling group did not play a central role in appointment decisions.

5 Concluding Remarks

Decisions to appoint, promote, and remove bureaucrats are political decisions. Thus, to explain the dynamics of bureaucracy, one has to account for the political objectives and constraints of the principal who makes the decisions. We argue that the rulers of the Qing dynasty sought to stay in power by maintaining a balance between competence and loyalty. The ethnicity-based patronage established economic and political privileges for the Manchus, laying the political foundation of minority rule. But being constrained by state capacity, the rulers also relied on bureaucrats from the majority group, Hans, to preside over provincial administrations; and a large amount of decisions were delegated to Hans during times of crisis. So the historical change in the ethnic composition of Qing bureaucracy was a function of internal conflicts, and ultimately, the call for meritocracy in a situation of emergency.

Judging through the lens of the competence-loyalty trade-off, we understand sanctions, promotions, and appointments as mechanisms for controlling. The empirical investigation comes down to four conclusions. (1) The probability of governors being sanctioned increased in the face of internal conflicts. (2) The probability of sanction for the majority Han officials was no greater than Manchus. (3) Han governors were in a disadvantaged position in terms of promotion. (4) Internal conflicts, along with other situations that might jeopardize social order, significantly contributed to the probability that a new appointment of governor became Han.

How successful was the system, then? The Qing bureaucracy was successful, in the sense that it enabled the minority group to rule over centuries, surviving enormous natural disasters, peasant riots, internal armed conflicts, and military defeats by the West; that the patterns of sanction and promotion can be identified and explained by measures of performance; that the rulers were able to adjust personnel control according to domestic social and political environment. The limit of bureaucratic efficiency, on the other hand, stemmed from the limit in its political structure. The divergence of interests between the Manchu and Han elites was a key for understanding the transformation of Qing bureaucracy. The paradoxical choice between competence and loyalty by the rulers is not unique for China or the Qing dynasty, however. Patronage within administrations is often a favorite instrument by military dictators to curb the risk of coup d'état (Bratton and Van de Walle, 1994;

Arriola, 2009; Roessler, 2011).

While the political foundation of China today is utterly different, our conclusions seem to be reminiscent of the current bureaucratic system. Similar as the case in the Qing dynasty, the central government today delegates to sub-national governments a large portion of economic and administrative power. Various models are proposed to understand the function of sub-national governments: the market preserving federalism (Montinola, Qian, and Weingast, 1995), the de facto federalism (Zheng, 2007), the tournament competition among local governments (Li and Zhou, 2005), and the regionally decentralized authoritarianism (Xu, 2011). These models share a common feature that competence and efforts are merited for government officials. Nobody can deny, though, that the system of personnel control is centralized for high-ranking bureaucrats; and political loyalty remains a fundamental determinant of promotion (Cai and Treisman, 2006; Shih, Adolph, and Liu, 2012). Yet we see no contradiction between the two lines of argument. Even minority rule can be induced to accommodate meritocracy, a cornerstone for China to govern the people and society over hundreds of years.

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Table 1: Summary Statistics: 1644-1911

Variable	Mean	Std.Dev.	Min	Max
sanction	0.067	0.250	0	1
change	1.999	0.404	1	3
internal conflict	0.122	0.396	0	9
Han governor	0.736	0.441	0	1
weather shock	0.238	0.426	0	1
distance	6.886	0.683	4.894	7.628
log population	2.367	0.935	0.066	4.451
log revenue silver	0.814	0.448	0.027	1.554
log revenue grain	0.273	0.277	0.001	1.222

Notes: *sanction* is a binary variable coded as one if the governor was either demoted or removed by the end of the next year. *change* is a categorical variable assuming three values: 1, if a governor was either demoted or removed by the end of the next year; 2, if he stayed in the same position or transferred to another position with equal administrative rank; 3, if he was promoted or granted a higher position in the central administration. *internal conflict* records the number of rebellions by province in each year. *weather shock* is a binary variable assuming one if the province was featured extreme wetness or drought. *distance* is the log of geographic distance between provincial capital cities and Beijing (in kilometers).

Table 2: The Probability of a Governor Being Sanctioned

	(1)	(2)	(3)	(4)
internal conflict	0.056 (0.010)***	0.057 (0.031)*	0.055 (0.031)*	0.058 (0.031)*
Han governor	-0.003 (0.009)	-0.003 (0.010)	-0.000 (0.010)	-0.001 (0.010)
conflict * Han		-0.001 (0.033)	0.001 (0.033)	0.000 (0.033)
weather shock	0.006 (0.009)	0.006 (0.010)	0.007 (0.010)	0.007 (0.010)
distance	-0.009 (0.007)	-0.010 (0.010)		
log population		-0.013 (0.009)		-0.009 (0.011)
log revenue silver		0.014 (0.018)		0.055 (0.034)
log revenue grain		0.013 (0.018)		0.002 (0.030)
time trend	Y	Y	Y	Y
provincial effects	random	random	fixed	fixed
Constant	Y	Y	Y	Y
N	4217	4217	4217	4217

Dependent Variable is a dummy variable measuring whether a governor was removed or demoted by the end of the next year. All are estimated by linear model. Standard errors are reported in the parentheses. * significant at the 10% level. ** significant at the 5% level. *** significant at the 1% level.

Table 3: The Probability of a Governor Being Sanctioned or Promoted

	(1)	(2)	(3)	(4)
Was a Governor Sanctioned by the End of Next Year?				
internal conflict	0.045 (0.011)***	0.052 (0.024)**	0.050 (0.025)**	0.053 (0.025)**
Han governor	0.000 (0.008)	0.001 (0.009)	0.004 (0.010)	0.004 (0.010)
conflict * Han		-0.009 (0.028)	-0.007 (0.028)	-0.009 (0.028)
weather shock	0.009 (0.012)	0.009 (0.012)	0.010 (0.011)	0.010 (0.011)
distance	-0.009 (0.006)	-0.012 (0.011)	0.023 (0.012)**	0.022 (0.015)
log population		-0.014 (0.006)**		-0.009 (0.008)
log revenue silver		0.013 (0.015)		0.059 (0.030)**
log revenue grain		0.015 (0.020)		0.006 (0.028)
Was a Governor Promoted by the End of Next year?				
internal conflict	-0.028 (0.014)**	-0.060 (0.042)	-0.060 (0.041)	-0.062 (0.040)
Han governor	-0.031 (0.013)**	-0.033 (0.012)***	-0.033 (0.011)***	-0.031 (0.011)**
conflict * Han		0.039 (0.048)	0.041 (0.047)	0.041 (0.047)
weather shock	-0.008 (0.008)	-0.010 (0.008)	-0.011 (0.008)	-0.011 (0.008)
distance	-0.019 (0.011)*	-0.001 (0.015)	0.037 (0.012)***	0.033 (0.016)**
log population		0.007 (0.012)		0.009 (0.009)
log revenue silver		0.027 (0.023)		-0.022 (0.030)
log revenue grain		0.004 (0.014)		0.005 (0.025)
time trend	Y	Y	Y	Y
provincial dummy	N	N	Y	Y
Constant	Y	Y	Y	Y
N	3901	3901	3901	3901

Notes: All are estimated by multinomial probit model with standard errors clustered at provincial level. The base outcome is that a governor's ranks remained the same. Marginal effects evaluated at sample means are reported. For the variable "Han governor" and "weather shock", the marginal effects are computed for discrete change of dummy variable from 0 to 1.

Table 4: How Likely Would a New Appointment of Governor Be Han?

	(1)	(2)	(3)
lagged internal conflict	0.001 (0.031)		
Lagged N conflicts nationwide	0.015 (0.004)***	0.016 (0.003)***	0.017 (0.003)***
predecessor being Han	0.244 (0.025)***	0.242 (0.025)***	0.176 (0.025)***
lagged weather shock	0.066 (0.026)***	0.064 (0.026)**	0.073 (0.026)***
distance	0.097 (0.020)***	0.118 (0.031)***	
lagged log population		-0.029 (0.024)	-0.136 (0.030)***
lagged log revenue silver		0.069 (0.050)	0.031 (0.093)
lagged log revenue grain		0.015 (0.047)	-0.165 (0.081)**
time trend	Y	Y	Y
provincial effects	Random	Random	Fixed
Constant	Y	Y	Y
N	1544	1544	1544

Notes: The dependent variable measures whether a new appointment was Han or not. All are estimated by linear models. Standard errors are reported in the parentheses. * significant at the 10% level. ** significant at the 5% level. *** significant at the 1% level.

Table 5: The Probability of a Governor Being Sanctioned: Instrumental Variable

	(1)	(2)	(3)	(4)
internal conflict	0.160 (0.047)***	0.169 (0.049)***	0.160 (0.047)***	0.166 (0.048)***
Han governor	-0.009 (0.010)	-0.010 (0.011)	-0.007 (0.010)	-0.009 (0.011)
weather shock	0.004 (0.010)	0.004 (0.010)	0.004 (0.010)	0.004 (0.010)
distance	-0.008 (0.014)	0.008 (0.024)		
First Stage: Determinants of Internal Conflicts				
price of rice	0.005 (0.000)***	0.005 (0.000)***	0.005 (0.000)***	0.005 (0.000)***
Han governor	0.065 (0.014)***	0.068 (0.014)***	0.063 (0.014)	0.065 (0.014)
weather shock	0.015 (0.014)	0.014 (0.014)	0.013 (0.014)	0.012 (0.014)
distance	0.027 (0.020)	-0.042 (0.035)		
log population	N	Y	N	Y
log revenue silver	N	Y	N	Y
log revenue grain	N	Y	N	Y
time trend	Y	Y	Y	Y
provincial effects	Random	Random	Fixed	Fixed
Constant	Y	Y	Y	Y
N	4217	4217	4217	4217

The dependent variable measures whether a governor was removed or demoted by the end of the next year. The results are obtained using the national-level price index of rice as an instrumental variable. * significant at the 10% level. ** significant at the 5% level. *** significant at the 1% level.

Table 6: How Likely Would a New Appointment of Governor Be Han? Instrumental Variable

	(1)	(2)	(3)
lagged N conflicts nation-wide	0.017 (0.009)*	0.018 (0.009)**	0.023 (0.009)**
predecessor being Han	0.243 (0.027)***	0.240 (0.027)***	0.169 (0.027)***
lagged weather shock	0.066 (0.026)**	0.064 (0.026)**	0.073 (0.026)***
distance	0.098 (0.021)***	0.120 (0.033)***	
First Stage: Determinants of Internal Conflicts			
lagged price of rice	0.079 (0.005)***	0.077 (0.005)***	0.080 (0.005)***
predecessor being Han	1.114 (0.177)***	1.120 (0.176)***	1.100 (0.181)***
lagged weather shock	-0.068 (0.189)	-0.060 (0.188)	-0.062 (0.190)
distance	-0.449 (0.145)***	-1.109 (0.221)***	
log population	N	Y	Y
log revenue silver	N	Y	Y
log revenue grain	N	Y	Y
time dummy	Y	Y	Y
provincial dummy	Random	Random	Fixed
Constant	Y	Y	Y
N	1544	1544	1544

The dependent variable measures whether a new appointment was Han or not. Results are obtained using the national-level price index of rice as an instrumental variable. * significant at the 10% level. ** significant at the 5% level. *** significant at the 1% level.

Table 7: The Probability of a Governor Being Sanctioned: Robustness

	(1)	(2)	(3)	(4)
internal conflict	0.056 (0.010)***	0.050 (0.011)***	0.056 (0.010)***	0.057 (0.010)***
Han governor	-0.006 (0.010)	-0.018 (0.021)	-0.009 (0.038)	-0.003 (0.010)
New Emperor	-0.015 (0.031)			
New Emperor * Han	0.028 (0.034)			
Ratio of Manchu Governors-general		-0.054 (0.036)		
Ratio of Manchu Governors-general * Han		0.027 (0.041)		
Ratio of Manchu Grand Secretariats			-0.029 (0.076)	
Ratio of Manchu Grand Secretariats * Han			0.013 (0.086)	
N External Wars				-0.008 (0.015)
N External Wars * Han				-0.001 (0.017)

Dependent Variable is a dummy variable measuring whether a governor was removed or demoted by the end of the next year. All are estimated by linear models. Standard errors are reported in the parentheses. * significant at the 10% level. ** significant at the 5% level. *** significant at the 1% level.

Table 8: The Probability of a new appointment Being Han: Robustness

	(1)	(2)	(3)	(4)
Lagged N conflicts nationwide	0.016 (0.003)***	0.012 (0.003)***	0.015 (0.003)***	0.016 (0.003)***
predecessor being Han	0.243 (0.025)***	0.216 (0.025)***	0.240 (0.025)***	0.243 (0.025)***
Lagged New Emperor	-0.016 (0.035)			
Lagged Ratio of Manchu Governors-general		-0.258 (0.048)***		
Lagged Ratio of Manchu Grand Secretariats			-0.149 (0.102)	
Lagged N External Wars				0.017 (0.021)

Dependent Variable is a dummy variable measuring whether the governor was Han. All are estimated by linear models. Standard errors are reported in the parentheses. * significant at the 10% level. ** significant at the 5% level. *** significant at the 1% level.