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Matriarch for the Patriarch: Female Regency, Two-Sided Commitment and Political Stability in Historical China

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Political succession in authoritarian regimes is perilous. An under-explored aspect of this challenge is the conflict of interest between new leaders and the ruling coalition they inherit from their predecessor right after the transition of power. We theorize that such conflict arises from two-sided commitment problems: the ruling elites cannot credibly commit to relinquishing power when the leader seeks to centralize it; and once in power, the leader cannot credibly guarantee to not purging the elites. We examine the ruler-regent relationship in historical China, where these issues were most pronounced. Using original data on minor emperors and regents, we show that female regents, who were culturally protected from political purges but also discouraged from seizing power, can mitigate the two-sided commitment problems and enhance political stability for the young emperor. Our findings underscore the importance of institutional constraints on incumbent elites in overcoming early leadership challenges, thereby ensuring a smoother transition of authority and long-term political survival for the ruler.

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Abstract

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Keywords: Historical Political Economy, Political Succession, Regency, Autocracy, Gender

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“In the early reign of Emperor Renzong, Empress Dowager [Liu] safeguarded the sovereign, upheld order throughout the realm, promoted the virtuous and removed the treacherous, and maintained stability both domestically and abroad, rendering great service to the Song dynasty.”

— Sima Guang¹

1 Introduction

The problem of leadership succession is central to the study of authoritarian politics. Power transitions in autocracies are often marked by violence and instability, as leaders become ousted through assassinations, coups, and other forms of “unconstitutional” removal (Svolik 2012). Ensuring the survival and stability of new leaders is therefore a critical challenge, especially during the tumultuous process of succession. Existing research highlights various mechanisms, such as term limits (Magaloni 2006), power-sharing arrangements within party systems or legislatures (Boix and Svolik 2013; Gehlbach and Keefer 2012; Wilson and Wright 2017), and succession and marriage norms—ranging from primogeniture in Europe (Kokkonen and Sundell 2014) to polygyny and vertical succession in China (Wang 2018; Nong 2023)—that facilitate smoother transitions and reduce the associated risk of instability.

Yet, much of the literature on authoritarian succession overlooks the precarious political dynamics that emerge soon *after* a new—often young—leader ascends to power. These early years are particularly perilous: roughly one-third of national leaders do not survive beyond their first year in office (Bueno de Mesquita et al. 2003: Chapter 7). The key challenge comes from the ruling coalitions that new leaders inherit from their predecessors, as the relationship between the two can devolve into tension and instability due to *two-sided commitment problems*. On one hand, elites in the coalition lack credible mechanisms to

¹*Extended Comprehensive Mirror in Aid of Governance* (volume 198): 往者大行皇帝嗣位之初，章献明肃皇太后保护圣躬，纲纪四方，进贤退奸，镇抚中外，于赵氏实有大功。

relinquishing power when the new leader seeks to centralize it; on the other, the leader cannot credibly assure the coalition of their personal security once they give up power. These commitment problems, structurally embedded in environments with weak external enforcement (e.g., [Acemoglu 2003](#)), become self-reinforcing and can often lead to political crises.

We examine the ruler-regency relationship in the context of imperial China, a succession arrangement which confers maximal power to the incumbent ruling coalition and in which two-sided commitment problems are the most acute. This arrangement is widely used by empires and monarchies across time and space as a form of interim government, where regent(s) appointed by the preceding ruler would exercise political authority on behalf of the new ruler when s/he was underage (i.e., in his/her minority), and return that authority when s/he reached adulthood (i.e., majority). Regency arrangements are fraught with power struggles. Our data show that 102 out of 115 minor emperors in historical China were assisted by regent(s) at the time of succession; 48% of them were eventually deposed, many at the hands of their own regents (see Section 3). Once in power, the young emperors often purged the regents, resorting to exile, imprisonment or execution as a means of centralizing their authority.

We argue that *female* regents in imperial China—more precisely, empress dowagers who are typically the legal mother or grandmother of the young emperor—were structurally positioned to help stabilize the precarious political landscape that follows a young emperor’s ascension. We outline in Section 2 that cultural norms pertaining to the role of women and the authority of the mother mitigate the two-sided commitment problems by aligning the incentives of the female regent more closely with those of the ruler. On one hand, Confucianism’s prohibition against women becoming the head of state,² while deeply restrictive, inadvertently renders her commitment to return authority to the ruler more credible. Moreover, as the legal (not necessarily biological) (grand)mother of the

²We discuss the unique case of Wu Zetian of Tang, the only female ruler in Chinese history, in Section 6.1.

emperor, the female regent's political status and interests are closely tied to the young emperor's position, providing her with strong incentives to protect, rather than undermine, his authority. On the other hand, Confucianist values increase the credibility of the emperor's commitment to guarantee the empress dowager's security after she steps down, as purging one's (grand)mother is unsanctioned by the principle of filial piety, and is therefore highly costly. Our data indeed demonstrate that only one female regent (out of 51) was executed by the young emperor, whereas 45 male regents (out of 265) were killed by the emperor.

Despite their prevalence throughout imperial China, female regents were not always viewed favorably in history. For instance, Emperor Wudi of Western Han—one of the most renowned emperors in Chinese history and highly regarded by Mao Zedong³—considered female regents to be a destabilizing force to the regime.⁴ This perspective was informed by his interpretation of selective, prominent examples.⁵ In contrast, as the opening quote reflects, Sima Guang—a distinguished historian and prime minister of Northern Song—stated that female regents can be a source of political stability during the early years of an emperor's reign, citing the exemplary case of Empress Dowager Liu. It is evident that these earlier discussions of female regency were largely based on a few notable “outliers,” rather than broader, general patterns.

To move beyond these limited examples, we compile an original dataset covering all minor emperors (those who ascended the throne in or before the year they turned 20) and their regents in imperial China from 221 BCE to 1911 CE. Contrary to Emperor Wudi's

³In one of his poems, Mao Zedong ranks Emperor Wudi of the Western Han among the five most prominent Chinese rulers, alongside the First Emperor of Qin, Emperor Taizong of the Tang, Emperor Taizu of the Song, and Genghis Khan.

⁴According to *Records of the Grand Historian* (volume 49), Emperor Wudi says: “in the past, the reason why states descended into chaos was because the ruler was young while the mother was still in her prime. When a female regent governs alone, she tends to become arrogant and unrestrained, indulging in licentiousness without restraint, and no one can stop her. Have you not heard of Empress Lü?” (往古国家所以乱也，由主少母壮也。女主独居骄蹇，淫乱自恣，莫能禁也。女不闻吕后邪？《史记·卷四十九·外戚世家第十九》) Furthermore, Emperor Wudi was not the only ruler wary of female regency; for instance, Emperor Wendi of the Wei Dynasty likewise prohibited it. (昔魏文帝著令，虽有幼主，不许皇后临朝，所以杜祸乱之萌也。《资治通鉴·卷二零二》)

⁵One such example is Empress Dowager Lü, whom we discuss in Section 6.1.

view, our analysis yields two sets of results: female regency is associated with a significantly lower probability of deposition for the young emperor, and a substantially higher likelihood of the emperor transitioning to personal rule (by 36.1 and 57.0 percentage points in our preferred specification, respectively). To provide suggestive evidence of causality, we also apply an instrumental variable approach that exploits the presence of eligible female candidates for regency, which is often influenced by external factors such as candidates' health conditions. This method yields qualitatively similar results, reinforcing the reliability of our findings.

In terms of mechanisms, we find that our results are indeed stronger in regimes ruled by the Han Chinese compared to those ruled by ethnic minorities (e.g., the Yuan and Jin dynasties). This is consistent with our theory, as Confucianism is predominantly a Han Chinese ideology. Moreover, we show that the positive influence of female regents is not limited to the emperor's biological mothers. This rejects the alternative explanation that our results are driven by blood ties, and point to the importance of incentive alignment, as our theory predicts. These findings highlight the role of Confucianism in mitigating commitment problems in political succession, complementing its documented impact on other governance outcomes (Yao and Qin 2024; Kung and Ma 2014; Chen, Lin and Zhang 2024).

Taken together, our analysis shows that female regents in imperial China are less prone to the two-sided commitment problems that strain the emperor-regent relationship, as cultural norms serve to align the incentives of both sides. As we emphasize in Section 6, our examination of female regency goes beyond gender, culture and the case of China to underscore the importance of institutional mechanisms, formal or informal, in constraining elites in the incumbent ruling coalition in the process of leadership succession, *in addition to* constraining the ruler, as often stressed in existing scholarship. These mechanisms are crucial for enhancing the stability of political transitions during the early years of new leadership, especially if the leader is young, inexperienced or lacks a strong power base.

Moreover, our findings also highlight the role of women in leadership turnovers. Research on women in politics has largely focused on their capacity as government officials, such as village heads ([Chattopadhyay and Duflo 2004](#)), mayors ([Brollo and Troiano 2016](#)), legislators ([Anzia and Berry 2011](#); [Clots-Figueras 2012](#); [Feng, Hou and Liu 2024](#)), and queens ([Dube and Harish 2020](#)), among others. Our work expands this literature by examining female regents, an often overlooked form of female political participation, and their impact on political succession. In contrast to studies that explore the influence of female politicians on direct governance outcomes, our analysis shows that women play a pivotal role at “critical junctures” such as political succession.

2 Minorities, Regencies, and Two-Sided Commitment Problems

Our theoretical framework centers on two actors: a minor ruler and a regent. Since the minor ruler is unable to govern independently, the two actors enter a *regency arrangement*: the regent exercises political authority on the ruler’s behalf during his minority, and returns that authority to the ruler when he reaches adulthood.⁶

Minorities (i.e., minor rulers) occurred frequently in empires and monarchies across various regions and historical periods.⁷ Our data indicate that 26.5% of Chinese emperors were underage when they first ascended the throne; medieval and early modern European polities were ruled by minorities around 20 percent of the time ([Kokkonen, Møller and Sundell 2022](#): 147). While power-sharing is a common feature of autocratic regimes ([Bueno de Mesquita et al. 2003](#); [Svolik 2012](#)), minor rulers typically face greater fragmen-

⁶In historical reality, a minor ruler may have a regency council that consists of multiple regents (e.g., Henry VI of England and Emperor Zhao of Western Han). In our theoretical framework, we treat the regency council as a single entity, and the regent actor corresponds to the leader of the regency council. In our empirical strategy, we control for the number of other regents and the types of offices they hold.

⁷Minorities were often the result of an unexpected death of the preceding ruler ([Bartlett 2020](#): 116). See discussion in Section 6.

tation in their power compared to adult rulers, as they must allow regents to exercise imperial (or royal) prerogatives on their behalf.⁸ Acting in the name of the minority, the regent would issue official decrees on national policy, authorize proposals from senior government officials, make appointments to key positions, and decide on matters of war and foreign diplomacy.

Although the regency arrangement provides for a functional interim government when the legitimate ruler is underage, its primary weakness lies in its proneness to political instability. Minorities suffer from legitimacy deficits and are constrained by their regents. Throughout English history, power struggles between the two sides became particularly disruptive from time to time, as the regent attempted to impose his will on the ruler, and the latter sought retribution upon reaching adulthood (Beem 2008: 4). Similarly, young emperors of Chinese dynasties were more likely to face political crises such as deposition and forced abdication (Xiong 2024). In the following sections, we argue that the political instability inherent in regency arrangements arises from *two-sided commitment problems*. We then discuss how female regency in the context of imperial China can mitigate the commitment problems and, thereby, improve the political survival of the minor ruler.

Two-Sided Commitment Problems

Regent's side. Recall that under the regency arrangement, the regent is expected to return authority to the minor ruler once he reaches adulthood. It is obvious that he cannot credibly commit to doing so. The exercise of supreme authority involves the possession and use of power; power facilitates rent-seeking, strengthens one's position over political rivals, and offers opportunities to advance personal interests using national resources.⁹

⁸In practice, some minor rulers in their teens may retain partial authority, with regent(s) exercising the remainder. Their authority is still fractured, though to a lesser extent. In historical China, the role of these "partial regents" is fulfilled by top officials (more in Section 3.1). Carpenter (1990) describes the case of Henry III of England, who gained authority progressively as he aged.

⁹The regents of Charles VI of France used royal resources to support their own armies (Bartlett 2020: 119-20). Hubert de Burgh, the regent of Henry III of England, amassed tremendous personal wealth during his regency (Lyon 1960: 338).

In extreme cases, power can forge a pathway to usurpation. By virtue of his position, the regent can accumulate even greater power, expand his patronage network, and enhance his own legitimacy through direct governance and cooperation with individuals and organizations that can confer legitimacy (Greif and Rubin 2024). Thus, the regent would have strong incentives to hold onto the supreme authority for personal gain, often at the expense of the ruler.

This type of commitment problems is prevalent in settings with weak external enforcement, such as autocracies and historical regimes (e.g., North and Weingast 1989; Acemoglu 2003). The regent in power faces weak constraints and can delay, sometimes for an unspecified period of time, the transfer of authority.¹⁰ Conflicts of interest between the regent and the minor ruler often escalate into direct confrontations as they strive to defend their own interests, undermining political stability. In some cases, they can culminate in the removal of one party by the other: the regent may depose a noncompliant minority who threatens his hold on power, and the minority could stage a coup against the regent if he perceives himself to be at risk. Huo Guang, the chief minister and regent for Liu He—briefly the ninth emperor of China’s Han dynasty—impeached him just twenty-seven days after his accession; and the Kangxi Emperor of Qing dynasty purged his regent, Oboi, in order to regain power.

Ruler’s side. Suppose the regent has returned political authority to the ruler, as agreed upon, and the ruler now exercises it. At this point, the ruler would have strong incentives to purge the regent, which would be much less costly at this stage—having relinquished political authority, the regent now holds less power for self-protection. In other words, given that the ruler faces weak constraints, he cannot credibly commit to keeping the regent safe.

Rulers, especially new ones, have the need to consolidate power in their own hands.

¹⁰Charles VI’s regents disregarded his father’s stipulation that he should assume personal reign when he reached fourteen, and only relinquished control when Charles VI seized power at the age of twenty.

Power refers to the range of policies and commands that can be implemented, which necessitates the cooperation of officials (Mann 1986).¹¹ The transfer of political authority from the regent to the ruler does not necessarily mean that officials will now display the same level of compliance toward the ruler, as their behavior is affected by non-political factors such as custom and personal ties (Weber 1978: 212-3). In this way, the ruler faces informal constraints from the regent (Jiang, Xi and Xie Forthcoming). Thus, for a new ruler to exert greater control over government and carry out his will more effectively, he would need to install trusted individuals in key positions (Besley and Robinson 2010). This would, in turn, involve the removal of incumbent officials, who are likely trustees or clients of the regent, from these positions, as well as the elimination of any formal or informal influence that the regent may wield over the choices and actions of other officials. In practice, this process often involves purging the regent and his close network of allies and family members, sometimes through violent means and resulting in exile, imprisonment or execution.¹²

The two-sided commitment problems described above can be self-reinforcing equilibrium. From the regent's perspective, the lack of credible commitment from the ruler to guarantee his security means that he will likely be purged once he relinquishes power. As a result, the regent would have even stronger incentives to retain power for his own protection. This would exacerbate the conflict of interest between the regent and the minor ruler, as the regent's prolonged hold on authority would incur greater losses to the ruler's position and resources. As the conflict deepens, the likelihood of its escalating into open confrontations increases, further reducing political stability.

The emperor-regency relationship exemplifies the most extreme form of two-sided commitment problems. We argue that these commitment problems apply more broadly to

¹¹According to Mann (1984), state power comprises of despotic and infrastructural powers, where despotic power refers to the range of actions the state elite can undertake without routine, institutionalized negotiation with civil society groups. Both imperial and authoritarian states have a high degree of despotic power.

¹²Notable examples include Zhang Juzheng of China's Ming dynasty and the Lords Appellant during the reign of Richard II of England.

the power dynamics between new leaders and elites in the incumbent coalition. While one may observe that incumbent elites do not wield the leader's authority in the same explicit manner as a regent—and thus lack a formal commitment to transfer authority—we emphasize that these elites often hold substantial power and deeply entrenched interests. Like regents, they cannot credibly commit to not undermining the leader's authority, particularly when the new leader seeks to centralize power and consolidate his power base. The new leader, on the other hand, faces similar incentives as the minor monarch, and likewise cannot credibly commit to ensuring the elites' security. We discuss the issue of external validity more extensively in Section 6.2.

A (Partial) Solution: Female Regency in Imperial China

The foregoing discussion establishes the link between political instability and two-sided commitment problems inherent in the regency arrangement. In this subsection, we argue that female regency in imperial China mitigates the two-sided commitment problems, highlighting the role of culture in shaping the payoffs from political actions.

Female Regency as an Institution. Regencies of empress dowagers, who are the legal wives of preceding emperors and therefore legal mothers or grandmothers of the reigning emperor, was institutionalized in the Han dynasty (202 BCE–220 CE) and continued until the end of the imperial times (Yang 1960).¹³ They were a typical form of regency during the emperor's minority in imperial China, along with regencies of imperial princes and prominent statesmen (Xu 2006). These regencies were generally formed based on the late emperor's decision or posthumous edict, or in the absence of both, political consensus among highest ministers. As regent, the empress dowager appeared in court, sometimes accompanied by the young emperor, to receive the officials and to exercise the ultimate decision-making power.

¹³Imperial polygamy was the norm in historical China, where the emperor could take one legitimate "main wife" and multiple concubines. The main wife was the empress, and the concubines were strictly lower in status (McMahon 2013: 17).

The institution of female regency is closely connected to the rights and authority of the mother and the wife in the family (Yang 1960). As Ebrey (2004) observes, the power of empress dowagers is underpinned by the requirement that emperors treat their mothers with filial piety,¹⁴ a core value in Chinese culture that achieved intellectual prominence as a Confucian concept (Chan and Tan 2004). Despite the elevation of empress dowagers' status by the principle of filial piety, other cultural values in historical China nonetheless imposed a "silent prohibition" against women becoming emperors (Chao 1928: 111-114). Confucianism, a prevailing state ideology since the Western Han (Zhao 2015: 274-94), entrenched the view that rule by women was unnatural,¹⁵ and that women's duty was confined to domestic matters within the household. Under this restrictive doctrine, regencies of empress dowagers were often criticized, regardless of their actual level of competence, both by contemporaries as well as elites of later generations.¹⁶

Female Regency Mitigates Commitment Problems. We argue that female regency can mitigate the two-sided commitment problems. It lends the regent's commitment to return authority to the ruler more credible, by (1) reducing the regent's incentive to hold onto authority, and (2) aligning the regent's interests more closely with those of the ruler. Moreover, it renders the ruler's commitment to guarantee the regent's safety more credible by (3) substantially increasing the ruler's political cost of purging the regent.

First, the expected gains from holding onto imperial authority are generally smaller for the empress dowager than for their male counterparts. While male regents may have a non-negligible chance of eventually usurping the throne, cultural opposition to

¹⁴The general meaning of filial piety, or *xiao*, encompasses selfless devotion to the welfare of one's elders (Knapp 1995). This concept has enjoyed an "extremely exalted position" since early Chinese history, and was treated almost like an "absolute, metaphysical entity" (Holzman 1998).

¹⁵The Classic of Documents (*Shangshu*), a Confucian classic, contains the following dictum: "The hen does not announce the morning. The crowing of a hen in the morning indicates the subversion of the family." (《尚书·牧誓》: "牝鸡无晨, 牝鸡之晨, 惟家之索。")

¹⁶In spite of its long history and frequent invocation, female regency was prohibited by three dynasties: Cao Wei (220-266 CE), Liu Song (420-479 CE) and the Ming dynasty. The first two were short-lived. In the Ming, despite its founder's opposition to women's participation in government, Emperor Xuanzong left a posthumous edict ordering that key political matters be overseen by Empress Dowager Zhang. She effectively became a *de facto* regent (Zhu 2008).

female rule significantly diminishes this possibility for empress dowagers.¹⁷ In practice, female regents were often constrained by other political elites, including the imperial clan, aristocratic families, and literati-officials (Yang 1960). Empress Dowager Liu of Northern Song, for example, faced objections for wearing the emperor's robes conduct an imperial ritual, a ceremonial act traditionally reserved for the emperor. Officials "adamantly defined her [regency] as temporary," and repeatedly asked her to step down (McMahon 2016: 10-13). Furthermore, usurpation has the additional gain of enabling the usurper to pass the throne to their descendants. This incentive applies to male regents, but not to empress dowagers.¹⁸ Thus, empress dowagers are much more likely to eventually return political authority to the emperor, and the emperor would be less likely to view them as a tangible threat to the throne, and conflict is less likely to transpire.

Second, as the legal (grand)mother of the minor emperor, the empress dowager's political status is closely tied to the emperor's status as the supreme head of state. This (grand)mother-(grand)son relationship not only legitimates her position as regent during the emperor's minority, but also solidifies her "paramount position" (Zhu 2008) as the matron of the realm even after the emperor assumes personal rule, as emperors are expected to show their filial devotion to living mothers (Ebrey 2004). As a result, she would have strong incentives to guard the throne from potential contenders, as they would pose considerable threats to her own interests. This holds true even in relation to her patrilineal kin. As Zhu (2008) notes, throughout imperial Chinese history, there were no recorded instances of an empress dowager consenting to her father or brother seizing the throne, as doing so would demote her status to a mere princess. Empress Dowagers Wang of Western Han and Yang of Sui, for example, expressed explicit objection to their relatives' attempts of usurpation. Thus, under the guardianship of a regent empress dowager, the

¹⁷A salient exception is Wu Zetian, who took the throne from her adult son (and is therefore not in our sample of analysis). She was the only woman in over two thousand years of imperial Chinese history to become emperor. We discuss her case in Section 6.1.

¹⁸Even in the exceptional case of Wu Zetian, she ultimately planned to return authority to her son after her death. See Section 6.1.

minor emperor would likely face fewer external threats to his position.

Last, the cultural value of filial piety serves as effective protection for the empress dowager's security after she relinquishes authority. Any form of mistreatment—let alone prosecution—of the mother would be strongly condemned. Since upholding the virtues of filial piety was a “major responsibility of government” (Kutcher 1999: 2), the emperor would face significant political costs for attempting to purge the empress dowager. This concept is so deeply ingrained that even a depraved parent was entitled to filial devotion from the son (Raphals 2004)¹⁹. When an empress dowager's relatives committed grave offenses punishable by the execution of entire families, she herself could usually be exempted from imprisonment or death. A notable example is Empress Dowager Dou of Eastern Han—her son, Emperor Hedi, refused to harm or demote her even though her brothers were accused of treason (McMahon 2013: 103). A strong commitment as such would therefore eliminate the empress dowager's incentives to act against the emperor out of her own security concerns.

Taken together, the preceding discussion suggests that regency by the empress dowager can improve political stability by mitigating the two-sided commitment problems inherent in regency arrangements. It yields the following hypothesis:

Hypothesis 1. *All else equal, a minor emperor with a female regent is less likely to be deposed, and more likely to assume personal rule.*

3 Data and Empirical Strategy

3.1 Data Sources

Minor Emperors. We construct a dataset on 115 minor emperors from all Chinese dynasties²⁰ between 221 BCE and 1911 CE, using the “Twenty-Four Dynastic Histories”

¹⁹The *Analects* (13:18), a Confucian classic, states that one should cover up for their parents when they have committed a crime.

²⁰We also include Western Xia (1038-1227 CE), a regime that co-existed with the Song dynasty.

collection and the *Comprehensive Mirror in Aid of Governance* (*Zizhi Tongjian*).²¹ An emperor is defined as *minor* if he ascended the throne in or before the year he turns 20.²²

For each emperor, we compile his biographical and political information. The biographical data include years of birth, ascension to and descent from the throne, and death; names and family backgrounds of his biological and legal fathers and mothers.²³ The political data include whether and when the emperor was designated as the crown prince prior to his reign, ever assumed personal rule, was deposed, and whether and when he was killed and the persons responsible for his death. We consider an emperor to rule personally if historical records explicitly make such mention (*qinzheng*), or if records indicate that the emperor presided over court assemblies, issued decrees, or held policy discussions with ministers.²⁴ If an emperor did not exercise personal rule at the beginning of his reign but transitioned to personal rule later on, we also collect information on whether the exchange of power was peaceful or violent.

Female Regents. For each minor emperor, we identify and collect data on his regent empress dowager(s) using the same historical sources as described above. We focus on both formal regents who ruled in name and in practice, and *de facto* regents who extensively participated in politics but were not designated as regents. We identify empress dowagers

²¹The “Twenty-Four Histories” consists of official histories of each imperial dynasty of China. They were compiled by the successor dynasties using a variety of materials including, but not restricted to, court archives and documents, oral histories of elite families, and private histories written by renowned literati. The *Comprehensive Mirror* is a chronicle of Chinese history between 403 BCE to 959 CE, and was published under the commission of the Northern Song court in 1084 CE. The two sources are extensively used by historians to study imperial Chinese history.

²²In imperial China, the legal age of majority for males differed across dynasties, though twenty (*ruoguan*) is traditionally considered the age of adulthood. In Table D4, we use nineteen, eighteen, seventeen and sixteen as alternative thresholds and results remain robust.

²³His legal father and mother are always a preceding emperor and his empress. If he was the biological son of that emperor, his biological mother could be the empress herself or a concubine of that emperor; if he was adopted from another imperial lineage, his biological father and mother would be an imperial prince and his wife or concubine, respectively.

²⁴In practice, a minor emperor who is close to or slightly over the age of adulthood at the start of his reign may partially exercise personal rule under the assistance from regents. Therefore, the minor emperor’s political authority is still fractured compared to a mature-age counterpart who needed no assistance. One example is Emperor Wuzong of Ming dynasty, who ascended the throne at the age of fourteen and ruled with assistance from ministers Liu Jian, Li Dongyang and Xie Qian, who were designated by the late Emperor Xiaozong.

who were formal regents using the following keywords: appear in court, issue imperial orders, behind the curtain, regent, and enthrone (an emperor).²⁵ We consider an empress dowager to be a *de facto* regent if records indicate that she took part in policy discussions and decision-making over key political issues.²⁶ For each regent empress dowager, we extract data on her name, family background, designator, first and last years of regency, whether and when she was removed or killed and persons responsible.

Male Regents. For each minor emperor, we also identify and collect data on male elites who were either formal or *de facto* regents or imperial advisors. We consider an elite to be a formal regent if he was recorded to be regent, to assist the young emperor in governance, or was entrusted with the young emperor by the late emperor.²⁷ To more comprehensively capture the extent of fragmentation in the emperor's political authority, we further define as *de facto* regents elites who held substantial political power and therefore posed a strong threat to the ruler.²⁸ For each male regent, in addition to the data listed for female regents, we also collect information on the titles and years of office(s) that he held.

3.2 Descriptive Patterns of Minor Emperors and Female Regents

Who served as regents for minor emperors in imperial China? Table 1 classifies the regency arrangements for the 115 minor emperors in our dataset. With the exception of 13 minor emperors who began their reigns without a regent, the remaining 102 were overseen by regents drawn from diverse backgrounds. Of these, 57 were assisted by all-male regencies, composed of members of the imperial family, senior court officials, military generals, or,

²⁵The corresponding terms in Chinese are *linchao*, *chengzhi*, *chuilian*, *shezheng*, *yingli* (*huangdi*).

²⁶They include Empress Dowagers Wuming of Northern Qi, Chengxiao and Xiaoding of Ming, and Xiaozhuang (Bumbutai) of Qing. Results are robust to excluding these empress dowagers (Appendix Table B2 and Appendix Table B3).

²⁷The corresponding terms in Chinese are *shezheng*, *fuzheng*, *guming* and *tuofu*.

²⁸Such individuals include chancellors to both the preceding and the reigning emperors (for chancellor titles in early and medieval China, see Zhu (2017) and Du (2006)). For Wei, Jin, Northern and Southern Dynasties and Five Dynasties and Ten Kingdoms, we also include the highest-ranked military generals to both the preceding and the reigning emperors, as they were highly powerful and staged coups against the emperor from time to time. We further incorporate the unusual cases of retired emperors, and powerful eunuchs who helped enthrone the minor emperor.

Table 1. Types of Regencies and Emperors' Relationships with Female Regents

Type of Regency	Female Regent's Relationship with the Emperor	Count
With female regents	Legal wife of father emperor, biological mother	14
	Legal wife of father emperor, not biological mother	8
	Legal grandmother	11
	Legal wife of non-father emperor	12
Male regents only	-	57
No regent on record	-	13
Total		115

Notes: This table displays the types of regencies associated with minor emperors, and the types of female regents involved (if any).

in a few instances, eunuchs. The remaining 45 had at least one female regent at the outset of their reign, typically the legal wife of the previous emperor or the legal grandmother. Importantly, not all female regents were the emperor's biological mother. This variation allows us to demonstrate that our results are not merely driven by blood ties (see Section 5.2). Moreover, the temporal coverage of our data (see Appendix Figure A1) indicates that female regency is a recurrent feature throughout imperial China.

However, a natural concern is selection into treatment: the appointment of female regents may be endogenous to the type of minor emperor, which could bias our estimates. Before addressing this issue more formally in our empirical design and instrumental-variables strategy, we present descriptive comparisons between minor emperors with and without female regency in Table 2. In the raw data, minor emperors assisted by a female regent appear to be more vulnerable at accession—they are younger and less likely to begin their reign with personal rule. Consistent with our argument, this pattern suggests that female regency is more likely when the minor emperor needs greater protection. Nevertheless, since these between-group differences prevent an apples-to-apples comparison,

Table 2. Comparing Emperors with and without Female Regency

	No Female Regent		Female Regent		Comparison	
	Group Size	Mean	Group Size	Mean	Diff	P-value
Age at Ascension	70	14.14	45	8.74	-5.40	0.00
Number of Male Regents	70	2.16	45	1.69	-0.47	0.29
Starts Reign with Personal Rule	70	0.47	45	0.02	-0.45	0.00
Crown Prince	70	0.51	45	0.47	-0.05	0.62
Unified Dynasty	70	0.27	45	0.64	0.37	0.00
Ethnic Minority	70	0.26	45	0.38	0.12	0.17
Deposition	70	0.60	45	0.29	-0.31	0.00
Transitions to Personal Rule	37	0.27	44	0.59	0.32	0.00

Notes: This table presents the mean values of covariates and outcomes for emperors with and without female regency, along with the differences between the two groups.

we need to control for these imbalances in a regression design (see next subsection).

At the same time, the descriptive statistics in Table 2 are consistent with our hypothesis that survival is higher under female regency. The unadjusted probability of deposition declines from 60% to 28.9% when a female regent is present, even though emperors with a female regent are younger at accession and less likely to start with personal rule. Moreover, among the 81 young emperors who did not begin their reign with personal rule, those assisted by a female regent are 32 percentage points more likely to establish personal rule later on.

Turning to regents' fates, Table 3 shows that female regents survive the succession turmoil at markedly higher rates than male regents. Only 4 female regents (8%) were deposed by the emperor, compared to 62 male regents (23%). Moreover, 45 male regents (17%) were killed by the emperor, whereas only 1 female regent (2%) was killed. Lower

Table 3. Comparing Female and Male Regents

Regent Type:	Male		Female		Comparison	
	Number	Mean	Number	Mean	Difference	P-value
Deposed by Emperor	62	0.23	4	0.08	-0.16	0.01
Killed by Emperor	45	0.17	1	0.02	-0.15	0.00
Became Emperor	25	0.09	0	0	-0.09	0.02
Observations	265		51			

Notes: This table presents the probabilities of regents being deposed, being killed, and becoming emperor by the gender of the regents, as well as the comparison between the two groups.

survival among male regents is partially offset by a political prize: 25 male regents (9%) usurped the throne, usually following the minor emperor's deposition. By contrast, no female regent in our sample seized the throne.²⁹

Taken together, these descriptive patterns reflect deep mistrust between minor emperors and male regents. A substantial proportion of male regents do not survive as the emperor seeks to consolidate personal rule. Anticipating such backlash, male regents have incentives to hedge against the young emperor's future power by weakening—rather than reinforcing—his authority; in some cases, they replaced the minor emperor and claimed the throne themselves. The prospect of seizing power may also help rationalize why male regents accept an office associated with a 17% mortality risk. In contrast, the political trajectories of female regents differ sharply from those of male regents, consistent with our core claim that the two-sided commitment problem between a female regent and the emperor is less severe.

²⁹Empress Wu Zhao—the only female emperor in Chinese history—does not enter our sample because her son, Emperor Zhongzong, assumed the throne at age 28, exceeding the 20-year threshold that defines a “minor emperor” in our analysis.

3.3 Empirical Strategy

Moving beyond descriptive patterns, we examine the relationship between female regency and young emperor's political outcomes with the following regression:

$$Y_i = \alpha + \beta \text{FemaleRegent}_i + \theta X_i + \lambda_t + \epsilon_i$$

Our primary explanatory variable, FemaleRegent_i is a dummy variable that takes value 1 if emperor i had a female regent at the beginning of his reign. Y_i denotes an outcome that measures political stability during emperor i 's reign. The two main outcomes used in the analysis are dummy variables indicating whether the emperor was eventually deposed and whether he transitioned to personal rule.³⁰

Our main estimation method is the OLS model. Since our outcome variables are binary, we also use the Probit model to demonstrate robustness to nonlinearity. In addition, we employ survival analysis to assess the relationship between female regency and emperor's deposition, which captures the emperor's survival.

The coefficient β captures the correlation between female regency and emperor's political stability. We control for a vector of emperor-level and dynasty-level variables, X_i , that are likely to be correlated with both the dependent and explanatory variables. Emperor-level controls include his age at ascension, number of male regents (both formal and *de facto*), whether he was the heir of the previous emperor, and whether he began his reign with personal rule.³¹ Emperors who were named crown prince and began their reign at a later age and with personal rule, were politically stronger and therefore more likely to see stability. The number of male regents would also affect the extent and outcome of power struggles. Dynasty-level controls include regime-type variables indicating if the

³⁰In Appendix Tables D5 and D6, we explore alternative measures such as emperor's duration of rule, whether he was killed after deposition, and whether the transition to personal rule was peaceful.

³¹The last variable takes value 1 regardless of whether the emperor exercised partial or full personal rule (see Section 3.1). It is not included in analyses that use as dependent variable a dummy indicating whether the emperor transitioned to personal rule during his reign, because the corresponding sample only contains emperors who began their reign *without* personal rule.

regime was non-Chinese (i.e., ethnic minority), and if the regime unified all of imperial China,³² which may shape the regime's internal politics. Finally, era fixed effects λ_t control for time-invariant characteristics of different historical periods.³³

Our strategy so far does not speak to causality, as it cannot entirely resolve potential endogeneity problems arising from unobserved confounders. To provide at least suggestive evidence of causality, we implement an instrumental-variables strategy (Section 4.2) that leverages variation in the availability of eligible female candidates for regency at the time of accession. Nevertheless, despite our efforts to include extensive controls and implement the IV design, residual endogeneity may persist. We therefore interpret the estimates primarily as associations, and evaluate their consistency with our theoretical expectations while probing rival explanations. As shown in the ensuing analysis, the empirical patterns align most closely with our core claim that female regents bolster the political survival of minor emperors.

4 Female Regency and the Political Stability under a Minor Emperor: Empirical Evidence

This section provides empirical evidence in support of our hypothesis that a minor emperor with a female regent is less likely to be deposed and more likely to assume personal rule. We begin with OLS regressions in Section 4.1, where we obtain strong results consistent with our theoretical expectations. However, these correlations remain susceptible to concerns about the endogeneity of female regents, despite our efforts to control for a wide range of observable covariates. In Section 4.2, we present results from an instrumental variable approach designed to mitigate the endogeneity concern. Finally, Section 4.3

³²See Table 2 for balance test.

³³Our small sample size renders dynasty fixed effects infeasible. We largely follow the conventional periodization for Chinese history to divide imperial China into three eras: early imperial, medieval, and late imperial (see Appendix Table A1). Results are robust to alternative classifications (Appendix Table B1).

summarizes auxiliary results (detailed in the Appendix), demonstrating that our findings, both from the OLS and the instrumental variable approach, remain robust across various additional checks.

4.1 Baseline Results

Table 4 presents the baseline estimates of the association between female regency and the likelihood of the minor emperor's deposition. The first column presents a simple regression without any control variables. The coefficient shows that minor emperors with a female regent are 31.1 percentage points less likely to be deposed compared to those without a female regent. However, this relationship may suffer from omitted variable bias. Columns (2) through (4) sequentially introduce the following three groups of control variables: characteristics of the minor emperor, dynasty-specific traits, and fixed effects for the historical era. The variables used in each category are reported in the table notes. Across all specifications, the coefficient on FemaleRegent remains negative and statistically significant at the 1% level.

In column (5), we include five additional categories of regents—civilian officials, generals, royal family members, eunuchs and retired emperors. This allows us to account for the possibility that female regency is associated with the appointment of other regents. It also provides a clearer interpretation of the coefficient on the FemaleRegent dummy by isolating its unique impact. The results show that none of the other regent categories is significantly associated with a reduced probability of the minor emperor's deposition. This finding aligns with our theoretical argument that the two-sided commitment problem complicates the relationship between the young emperor and male regents. In contrast, the presence of a female regent remains strongly associated with a decrease in the likelihood of the minor emperor's deposition.

Nevertheless, the negative relationship between female regency and the likelihood of deposition captures only one aspect of political survival. Monarchs who managed to

Table 4. Female Regency and the Deposition of Minor Emperors (OLS)

	The deposition of minor emperor				
	(1)	(2)	(3)	(4)	(5)
Female Regent	-0.311*** (0.090)	-0.500*** (0.103)	-0.437*** (0.115)	-0.435*** (0.115)	-0.381*** (0.125)
Number of Male Regents		-0.022 (0.020)	-0.027 (0.019)	-0.025 (0.021)	-0.057** (0.027)
Age		-0.010 (0.010)	-0.009 (0.010)	-0.010 (0.010)	-0.009 (0.010)
Crown Prince		0.027 (0.086)	0.008 (0.086)	0.007 (0.087)	0.035 (0.091)
Start Reign with Personal Rule		-0.285** (0.132)	-0.261** (0.132)	-0.253* (0.138)	-0.158 (0.152)
Ethnic Minority			0.068 (0.098)	0.061 (0.105)	0.048 (0.112)
Unified Dynasty			-0.164* (0.098)	-0.108 (0.132)	-0.047 (0.134)
Civilian Regent					0.100 (0.108)
Military Regent					0.165 (0.110)
Royal Regent					0.272 (0.169)
Eunuch Regent					-0.050 (0.234)
Retired Emperor					-0.035 (0.197)
Era fixed effects	No	No	No	Yes	Yes
Observations	115	115	115	115	115

Notes: The table demonstrates a negative association between female regency and the deposition of minor emperors. The models in columns (2) to (5) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, an indicator for beginning the reign under personal rule, and a dummy of whether the emperor was the crown prince. Additionally, models (3) to (5) include dynasty-level controls: namely, two indicators for whether the royal family was Han Chinese or ethnic minority and whether the dynasty governed a unified China. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

remain on the throne for extended periods often did so under the influence of dominant ministers, reducing them to little more than figureheads. Such outcomes, while ensuring stability, were not necessarily beneficial for state governance in general. Consequently,

the role of female regents would hold less significance if their influence were limited to preserving the young monarch's title without also strengthening his ability to exercise real power.

Accordingly, Table 5 shifts the analysis to examine whether female regents are associated with the young emperors' attainment of personal rule in practice. The control variables are introduced in the same fashion as in Table 4, with one key distinction: the sample is restricted to 81 minor emperors who did not initially wield personal rule upon succession. Despite the smaller sample, the results consistently show a strong, positive relationship between the presence of female regents and the establishment of personal rule by young emperors. In contrast, no similar positive correlation exists for other types of regents.

4.2 Instrumental Variable Estimation

Despite our efforts to control for various confounders, the OLS regressions reported in Section 4.1 still fall prey to the classical selection biases. To mitigate this concern, we implement a two-stage least squares (2SLS) strategy, using *female candidate* as an instrumental variable. This variable equals one if, at the time of the young emperor's ascension, there was at least one living empress dowager, and zero if otherwise. As discussed in Section 2, only empress dowagers—the legal wives of preceding emperors—were eligible to serve as regent. The instrument relies on plausibly exogenous variations in the timing of empress dowagers' death, which were largely unrelated to political conditions before the regency was established (for which we show suggestive evidence below). By comparing young emperors with female regents to otherwise similar emperors whose potential female regents were no longer alive at the time of ascension, this strategy isolates the causal effect of female regency on both the likelihood of deposition and the establishment of personal rule.

Before presenting the results from the instrumental variable (IV) analysis, we first

Table 5. Female Regency and Transition to Personal Rule (OLS)

	Personal Rule by the Emperor				
	(1)	(2)	(3)	(4)	(5)
Female Regent	0.321*** (0.105)	0.423*** (0.101)	0.485*** (0.112)	0.481*** (0.111)	0.533*** (0.128)
Number of Male Regents		0.031 (0.026)	0.026 (0.026)	0.010 (0.026)	0.038 (0.037)
Age		0.025** (0.011)	0.027** (0.010)	0.033*** (0.010)	0.034*** (0.011)
Crown Prince		0.156 (0.110)	0.147 (0.109)	0.160 (0.105)	0.153 (0.120)
Ethnic Minority			0.025 (0.115)	-0.093 (0.123)	-0.125 (0.128)
Unified Dynasty			-0.128 (0.110)	-0.160 (0.132)	-0.164 (0.120)
Civilian Regent					0.038 (0.115)
Military Regent					-0.046 (0.134)
Royal Regent					-0.289 (0.192)
Eunuch Regent					-0.752*** (0.224)
Retired Emperor					0.397 (0.279)
Era fixed effects	No	No	No	Yes	Yes
Observations	81	81	81	81	81

Notes: The table demonstrates a positive association between female regency and the transition to the emperor's personal rule. The models in columns (2) to (5) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, and a dummy of whether the emperor was the crown prince. Additionally, models (3) to (5) include dynasty-level controls: namely, two indicators for whether the royal family was Han Chinese or ethnic minority and whether the dynasty governed a unified China. The analysis is restricted to emperors who began their reign without personal rule. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

perform two tests to examine the validity of the IV design. The first test, summarized in Appendix Table C1, investigates the relationship between female regency and four

outcomes for the preceding emperor. A key concern is that appointing a female regent may be endogenous to the political environment under the previous ruler—often the minor emperor’s father—thereby violating the exclusion restriction. However, the results indicate that female regency is not significantly associated with these predecessor variables, alleviating concerns that the instrument is influenced by previous political dynamics. The second test, reported in Appendix Table C3, shows the first-stage regression results. The availability of a female candidate for regency is strongly correlated with the actual appointment of a female regent, with F statistics above 24. Together, these tests bolster our confidence in the instrument’s validity and support its use in the IV analysis.

In the interest of space, we report the results from the two-stage least squared (2SLS) estimation in Appendix Table C2. Columns (1)–(4) report estimates for the risk of deposition, whereas columns (5)–(8) present estimates for personal rule. Across specifications, the coefficient on female regency remains statistically significant and qualitatively similar to the OLS estimates.

4.3 Robustness Checks

To establish the robustness of our results, we perform several supplementary analyses (see Appendix for full details). These additional tests confirm that our main results are robust to nonlinear models, different measurements of the explanatory variable, alternative samples and alternative outcome variables.

Nonlinear Models. Given that our two outcome variables are binary indicators, it is crucial to test whether the findings also hold under nonlinear models suited to binary outcomes. Appendix Table B2 and B3 present estimation results from Probit models and survival analysis for deposition, which closely align with those reported in Tables 4 and 5. Additionally, Appendix Tables C4 and C5 confirm that the instrumental variable results remain robust under the Probit model.

Alternative Measures for Female Regency. In the baseline regressions, we employed a broad definition of female regency that includes both *de jure* female regents, who were formally granted the title of regent, and *de facto* female regents, who exerted significant influence over the young emperor without holding an official title. To demonstrate robustness to the classification of female regents, we conduct additional analyses excluding *de facto* regents from the sample or recoding them as non-regents (see Appendix Tables B2 and B3). These alternative definitions yield consistent findings.

Sample Choices. We perform additional checks by omitting certain outlier cases. First, we exclude the last emperors of each dynasty and emperors deposed by foreign invaders (see Appendix Tables D1 and D2). Then, we exclude periods when the ruling dynasty had unique institutional arrangements that could affect regime stability and the likelihood of female regency, including the late Tang Dynasty (after the An Lushan Rebellion), when eunuchs could influence the choice of crown prince and the Northern Wei Dynasty, which routinely killed the biological mothers of crown princes (see Appendix Table D3). Finally, we assess the sensitivity of our findings to the definition of a minor emperor by re-estimating our models under alternative age thresholds (see Appendix Tables D4). The results stay qualitatively unchanged.

Exploring Other Outcome Variables. We also consider alternative indicators of political stability beyond deposition and personal rule. First, Appendix Table D5 shows that female regency is associated with 7 to 9 additional years of reign for the minor emperor. Second, Appendix Table D5 indicates that female regency is negatively associated with the likelihood of unnatural death for minor emperors, although the estimate is not statistically significant at conventional levels. Finally, we distinguish between peaceful and violent transitions to personal rule, and find that female regency is significantly associated with a higher likelihood of a peaceful transition of power (Appendix Table D6).

5 How Do Female Regents Promote Political Stability under a Minor Emperor?

Having presented evidence that female regents stabilize a minor emperor's rule, this section delves into the underlying mechanisms by investigating four issues. Section 5.1 provides suggestive evidence that Confucian cultural norms play a central role in this stabilization, whereas Section 5.2 shows that our baseline result is not driven by blood ties between the female regent and the young emperor. Section 5.3 further reveals that female regents with a stronger political family background are more effective in safeguarding the emperor's position. Lastly, Section 5.4 offers evidence that the stabilizing influence of female regents is most pronounced in the short term, particularly in their ability to thwart coups initiated by other regents.

5.1 Confucian Norms Matter

A key condition for our theory is that Confucian ideology traditionally discouraged women from holding formal governing titles in China. This suggests that our findings should be more pronounced in settings with stronger Confucian norms. To test this implication, we examine whether the observed effects are sharper in Han Chinese dynasties than in those led by ethnic minorities, who showed less adherence to Confucian principles. Appendix Table E1 reports the results. Consistent with our expectations, we find significant negative correlations between female regency and deposition, and significant positive correlations for the establishment of personal rule only in Han Chinese dynasties. In contrast, these estimates are insignificant for ethnic minority dynasties.

5.2 Stabilizing Role of Female Regents Is Independent of Blood Ties and Age

Since the female regent is often the minor emperor's mother or grandmother, one may suspect that our findings are driven by blood ties. However, while this is a natural assumption, our theory does not rely on the female regent being the young emperor's biological mother or grandmother. Instead, the key factor in our theoretical framework is incentive alignment between the minor emperor and the female regent, which is frequently shaped by *institutional* arrangements rather than biological connections.

A notable example is Empress Dowager Liu of Northern Song. Although she served as regent and effectively governed during the first 12 years of Emperor Renzong's reign (1022–1033), she was not his biological mother. Nonetheless, she is widely regarded as a successful regent, as indicated by the quote at the beginning.

Moving beyond anecdotes, we show that both biological mother regents and other female regents are significantly linked to a lower likelihood of deposition and a greater chance of emperor assuming personal rule (see Appendix Table E2). While the coefficient for biological mother regents is slightly larger than that for other female regents, this difference is not statistically significant at conventional levels. These findings suggest that the observed patterns are not solely driven by biological family ties.

Another alternative explanation concerns age. Female regents may, on average, be older than male regents and therefore face weaker incentives to challenge the minor emperor or seize the throne. Unfortunately, the age of many regents, especially women, are missing from historical record, which precludes a direct test of this hypothesis. As an indirect probe, we examine whether grandmother regents—presumably older than other female regents—exert a stronger protective effect. Appendix Table E3 reports the results of this test. We find no evidence that grandmothers have a larger stabilizing effect.

5.3 Family Background Provides the Capacity

While many female regents may have the motivation to support and protect the emperor, their ability to do so likely depends on their own capacity and resources. A key factor influencing a female regent's capacity is her family background. There are two plausible ways in which a strong family background might enhance a female regent's ability to govern.

First, female regents from political families are often better prepared for leadership and statecraft. For example, regents such as Empress Dowager Deng of Eastern Han³⁴ and Empress Dowager Cao of the Northern Song Dynasty³⁵ were involved in governmental affairs even before they formally assumed power. As the (former) emperor's concubines, they were often trusted by the ruler to draft official decrees, a responsibility made possible by the education and political exposure they received through their elite family connections. In addition, women from political families likely had greater insight into governmental operations through their close observation of male relatives actively engaged in politics. Supporting this argument, Appendix Table E4 demonstrates that female regents hailing from politically elite families are more strongly associated with safeguarding the minor emperor than their counterparts from non-elite backgrounds.

Moreover, female regents may also depend on the support of their family members to maintain their authority. For example, Empress Dowager Dou of the Eastern Han wielded considerable influence in part through the simultaneous elevation of her natal kin.³⁶ Building on this observation, Appendix Table E5 demonstrates that female regents

³⁴According to *the Book of the Later Han*, Empress Dowager Deng “possessed a manly disposition and involved herself in affairs of the government” (去年冬，邓皇后立，有丈夫之性，与知外事。《后汉书·志·五行六》)

³⁵According to the *Song History*, Empress Dowager Cao was invited to govern the country when Emperor Yingzong was temporarily ill (帝感疾，请权同处分军国事，御内东门小殿听政。《宋史·卷二百四十二·列传第一》)。

³⁶According to the *Book of the Later Han*: Upon Emperor He's accession, the Empress Dowager assumed the regency. As Palace Attendant, Dou Xian handled confidential matters within the palace and proclaimed imperial edicts to the outside. By his final edict, Emperor Suzong appointed Dou Du as Commandant of the Tiger Guards; Dou Du's younger brothers, Dou Jing and Dou Gui, both served as Regular Attendants. Thus the brothers all held posts of intimate access and importance. (和帝即位，太后临朝，宪以侍中，内干机

are more likely to secure a minor emperor's survival if at least one of their (male) family members also holds a regent position. This evidence suggests that male regents are not inherently hostile to a minor emperor's survival. Rather, as emphasized in Section 2, the central issue lies in the commitment problem that strains the relationship between a male regent and the minor emperor.

5.4 When Do Female Regents Matter?

Finally, we briefly investigate when female regents are most effective at safeguarding the minor emperor. We begin by presenting evidence that female regents were particularly effective at preventing coup attempts by other (male) regents, thereby bolstering the minor emperor's survival. In Appendix Table E6, we show that female regency is significantly associated with a lower likelihood of deposition by other regents, but this association does not extend to depositions driven by external threats. This suggests that female regents primarily acted as internal guardians, thwarting the ambitions of high-ranking officials who might otherwise attempt to seize power.

Additionally, Appendix Table E7 examines the temporal scope of female regency's influence, comparing emperors who were deposed before reaching adulthood to those deposed afterwards. The findings indicate that female regency not only reduces the risk of deposition during the emperor's youth but also significantly lowers it well into adulthood, suggesting a long-lasting effect. This sustained influence may stem from the unique role that female regents often assumed. Acting as guardians during the emperor's formative years, they were positioned to guide his political and personal development, instilling discipline and fostering his leadership skills. For instance, historical accounts highlight how certain female regents, like Empress Dowager Liu of Northern Song,³⁷ imposed

密，出宣诰命。肃宗遗诏以笃为虎贲中郎将，笃弟景、瑰并中常侍，于是兄弟皆在亲要之地。《后汉书·窦融列传》)

³⁷This anecdote is drawn from Sima Guang's *Anecdotes from the Sushui* (Volume 8): "The young emperor ascended the throne at an early age. Empress Dowager Zhangxian was known for her strict temperament, always disciplining him with rules and propriety, never showing him favoritism. (上幼冲即位，章献性严，

rigorous educational standards on the emperor. As a result, young emperors benefited not only from the direct protection female regents provided but also from their formative guidance, which likely contributed to the emperor's stability and effectiveness as a ruler into adulthood.

6 Discussion: Cases and Implications

We hope that preceding sections have demonstrated that female regency can promote political stability under the reign of minor emperors in historical China. Despite the strengths of our large-N analysis, Section 6.1 further reconciles our theory with select “difficult cases” that may initially seem to contradict our arguments. Moving beyond internal validity, Section 6.2 explores the broader implications of our findings for understanding political succession in contemporary settings.

6.1 Applicability of Our Theory to Selective Special Cases

While most Chinese female regents preserved the authority of minor emperors and some were celebrated for their governance (e.g., Empress Dowager Liu of Northern Song, referenced in the opening quote), not all of them enjoyed a good reputation. Two notable examples of so-called “bad-type female regents” are Empress Dowagers Lü of Western Han and Wu Zetian of Tang. We argue, however, that both women ultimately conform to our theoretical framework, even if some of their actions may initially seem to deviate.

Empress Wu. Wu Zetian was the only woman in Chinese history to formally declare herself emperor. While Section 2 explains how her decision to return political authority to her son aligns with our framework, this section highlights how Confucianist principles significantly raised her political cost of seizing power. Wu Zetian's rise to political prominence began in 660 CE when she was temporarily entrusted with regency during

动以礼法禁约之，未尝假以颜色。《涑水记闻卷八》)”

the illness of Emperor Gaozong, her husband. Her second opportunity to assume regency in 675 CE as Emperor Gaozong's condition worsened, however, was blocked by the Prime Minister, Hao Chujun, on the basis of Confucianist norms.³⁸

Following Emperor Gaozong's death, Wu Zetian replaced the new emperor and her son (Li Xian) with his brother (Li Dan) who was more amenable to her control. She continued to govern as the *de facto* ruler for seven years before declaring herself emperor in 690 CE, when she ruled as a "Buddhist matriarch" (von Glahn 2016: 185). Confronted with the enduring influence of Confucianism strictures against female rulers, she sought alternative sources of legitimacy in rival ideologies (Guisso 1978). She actively promoted Buddhism and Daoism and constructed a "pantheon of female divinities drawn from [these] ideological persuasions" to legitimize her rule (Rothschild 2015: 2).³⁹ She also undertook efforts to weaken Confucianism by undermining Confucian classics in the civil service exams and elevating the importance of literary arts and Daoist texts (Wu 1999).

Importantly, Wu Zetian eventually named as her successor the same sons that she took the throne from, rather than her nephews who bore the Wu family name. This act was intended to elevate her posthumous status, as cultural norms dictated that only a son could honor his mother in the royal ancestral temple after her passing.⁴⁰ Thus, the exceptional case of Empress Wu Zhao ultimately supports our argument that cultural norms in imperial China aligned the empress dowager's incentives more closely with those

³⁸*Comprehensive Mirror in Aid of Governance* (Volume 202): Hao Chujun said, "The Emperor governs external affairs, while the Empress oversees internal matters—this is the Way of Heaven... How, then, can Your Majesty entrust the realm established by Emperor Gaozu and Emperor Taizong, a realm not meant to be passed down to their descendants, to the Empress? (郝处俊曰：天子理外，后理内，天之道也。.....陛下奈何以高祖、太宗之天下不传之子孙，而委之天后乎？《资治通鉴·卷202》)"

³⁹Justification for female rule was found in the *Great Cloud Sutra*, a Buddhist scripture, which "prophesied the incarnation in female form of the Buddhist deity Maitreya, who would rule the world." A new commentary to the sutra asserted that Wu was the reincarnation of that deity (McMahon 2013: 191).

⁴⁰According to the *Comprehensive Mirror in Aid of Governance* (Volume 260), Wu Zhao chose to appoint her son, Li Xian, as crown prince following the advice of Prime Minister Di Renjie. He reasoned, "Who is closer: an aunt and nephew or a mother and son? If Your Majesty designates your son as heir, then a thousand years from now, you will still be honored in the ancestral temple, maintaining an unbroken legacy. In contrast, there is no precedent for a nephew becoming emperor and his aunt being enshrined in the ancestral temple. (且姑侄之与母子孰亲？陛下立子，则千秋万岁后，配食太庙，承继无穷；立侄，则未闻侄为天子而姑于庙者也。《资治通鉴·卷第二百六》)"

of the ruler.

Empress Lü. Recent research shows that Empress Lü of Western Han bolstered the regime's legitimacy and authority, challenging the convention view that she was “bad-type” regent who undermined the throne (Guo 2024). Under her rule, the Liu family solidified its position as China's ruling dynasty, as she effectively suppressed multiple elite uprisings that threatened the throne.⁴¹ Moreover, Guo (2024) disputes the claim that Empress Lü's nephews, who were promoted to high offices shortly before her death, for attempting to overthrow Emperor Shaodi. In fact, Emperor Shaodi was deposed by a group of elites who ousted the Lü family in a coup.

6.2 Exploring External Validity

Despite the protective role of female regents, our findings extend beyond gender per se. We contend that the crucial factor that drives our results is the unique ability of the female regent to credibly signal her eventual return of authority to the young emperor, which is institutionalized through cultural norms. To the extent that such conditions may not apply elsewhere, one should not expect, for example, that a female regent in Russia could protect a young tsar solely because of her gender.

It is also important to highlight that our inquiry focuses on the commitment problems among powerful elites. Building on the seminal work of North and Weingast (1989), previous studies have documented how autocratic rulers employ institutions—such as legislatures (Boix and Svolik 2013), elections (Magaloni 2008), and constitutional courts (Moustafa 2007)—to constrain their discretionary power and signal credible policy commitments. By contrast, our analysis examines the commitment problem that arises, at least in part, from other political elites who share power with the young ruler.

⁴¹*Records of the Grand Historian*, Volume 9: “Empress Lü was resolute and steadfast by nature. She assisted Emperor Gaozu in consolidating his rule over the empire, and many of the senior officials who were eliminated were removed through her efforts. (吕后为人刚毅，佐高祖定天下，所诛大臣多吕后力。《史记·卷九·吕太后本纪》)”

Beyond Ruler-Regency. Hence, the two-sided commitment problem is not limited to the relationship between a minor emperor and his regent. We argue that our framework has broader applicability to political dynamics following an authoritarian succession, where entrenched elites cannot credibly commit to not undermining the new leader, and the leader, in turn, cannot credibly commit to not neutralizing those elites. A contemporary illustration of the latter dynamic can be found in the relationship between Kim Jong-un and his uncle, Jang Song-thaek, who was North Korea's second most powerful figure from 2011 to 2013. Initially viewed as a top official positioned by Kim Jong-il to support Kim Jong-un's leadership after his death, Jang's influence was swiftly curtailed by Kim Jong-un, who ultimately had him executed in 2013 ([Choe and Sanger 2013](#)).

Conversely, political elites cannot credibly commit to not undermining—or even eliminating—the new leader. One example is 20th-century Tibet. Reting Rinpoche (热振活佛), who served as regent from 1934 to 1941, was forced to temporarily relinquish his post due to pressure from rival factions within the government ([Goldstein and Rimpoché 1989](#)). He subsequently invited his teacher, Dazha Rinpoche, to assume the regency for a three-year period on the understanding that Reting Rinpoche would later return to power. However, Dazha Rinpoche failed to honor this commitment and, in 1944, executed Reting Rinpoche after the latter's unsuccessful attempt to assassinate him.

A key factor underlying these failed cases is the lack of credible mechanisms to align the interests of the leader and entrenched elites. Unlike female regents in historical China, both Dazha Rinpoche and Jang Song-thaek lacked institutional safeguards or cultural norms to guarantee that their power would not ultimately threaten the leader's position, and to guarantee their personal security against leaders' retribution once the leaders consolidate their position.

Cardinal Ministers in Europe. In cases where specific cultural norms and institutional arrangements foster aligned incentives and mutual trust—thereby resolving the two-sided commitment problem—alternative forms of regency may also contribute to regime sta-

bility, much like female regency in China. For example, in Valois and Bourbon France, high-ranking nobles posed a significant threat when the king was a minor or incapacitated. While they did not always seek to depose the monarch, they frequently advanced factional interests at the crown's expense, as seen in the rivalry between the Armagnac and Burgundian parties during the Hundred Years' War. In contrast, cardinal ministers, such as Mazarin—who served as the prime minister during King Louis XIV's childhood—proved to be a more effective guardian for a weak minor monarch. Mazarin successfully suppressed the noble rebellion during the *Fronde*, securing the young king's position and laying the groundwork for the era of absolutism that marked the Bourbon dynasty's zenith (Sturdy 2017).

The effectiveness of cardinal ministers in safeguarding the monarch may stem from their unique position, which circumvented two-sided commitment problems. Unlike secular nobles, whose power derived from independent aristocratic bases, cardinal ministers owed their courtly influence entirely to royal favor. This dependence incentivized them to strengthen the monarch rather than challenge it. At the same time, their ecclesiastical status meant that they cannot seize the throne from the king, and meanwhile provided a degree of security beyond the king's reach, making them less vulnerable to political retribution than secular elites. As a result, their interests were more closely aligned with those of the monarch, thereby reducing the probability of instability or conflict.

7 Conclusion

The early years of a new authoritarian ruler's reign are often marked by instability and significant challenges. Many first-time autocrats struggle to survive even their first year in office (Bueno de Mesquita et al. 2003). In the case of historical China, our original data reveal that nearly half of young emperors were ultimately deposed, often by their own regents, who were supposed to protect and assist them. As we have discussed throughout

this article, the root cause of this instability lies in a two-sided commitment problem, which creates mutual distrust between the young emperor and his regents.

Contrary to the views of prominent political figures such as Emperor Wudi of the Western Han Dynasty, our analysis provides original evidence showing that female regents are associated with greater political stability during the early reign of a young emperor. Using a novel dataset covering all minor emperors, we find that the presence of female regents is strongly associated with a lower probability of young emperor's deposition and a significantly higher likelihood of the young emperor consolidating personal rule. These stable and robust correlations hold even after a series of additional checks, including an instrumental variable design aimed at addressing potential endogeneity surrounding the presence of female regents.

These findings underscore the importance of institutional mechanisms—akin to Confucianism in historical China—that can align the interests of rulers and regents. While we do not endorse cultural norms that exclude women from governance, we find that such informal institutions have historically helped reduce mistrust between female regents and minor emperors.

As cultural norms barring female political participation become less prevalent, a promising avenue for future research is to examine other institutional mechanisms that allow power-holders to credibly signal their commitment to the leader. This is especially relevant in diverse regional and contemporary contexts where regents are still needed during periods of temporary leadership vacuums caused by illness, scandals, or legal requirements. As gender is no longer a viable commitment device, what alternative mechanisms do regents use to reassure leaders that they will relinquish power once the leader returns to full capacity? Exploring these questions could significantly advance our understanding of power transitions and political stability in both historical and contemporary settings.

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Appendices

A	Additional Data Description	A-1
B	Additional Results for the Baseline Model	A-5
C	Instrumental Variable Design	A-8
D	Robustness Checks	A-13
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A Additional Data Description

Table A1. Classification of Historical Eras

Era (Broad)	Era (Detailed)	Dynasty
Early Imperial	Han	Western Han, Eastern Han
Medieval	The Three Kingdoms and Jin	Wei, Shu (Han), Wu, Western Jin, Eastern Jin
Medieval	The Southern Dynasties	Song (Southern Dynasty), Southern Qi, Southern Liang
Medieval	The Sixteen Kingdoms	Cheng Han, Later Zhao, Former Liang, Former Yan, Former Qin, Later Yan
Medieval	The Northern Dynasties	Northern Wei, Eastern Wei, Western Wei, Northern Qi, Northern Zhou
Medieval	Sui and Tang	Sui, Tang
Medieval	Five Dynasties and Ten Kingdoms	Later Liang, Later Tang, Later Jin, Later Han, Later Zhou, Southern Wu, Former Shu, Later Shu, Southern Han, Wu Yue, Min
Medieval	Song	Northern Song, Southern Song
Medieval	Liao, Jin, and Xia	Liao, Jin, Western Xia, Yuan
Late Imperial	Ming, and Qing	Yuan, Ming, Qing

Figure A1. Distribution of Female Regents Over Time

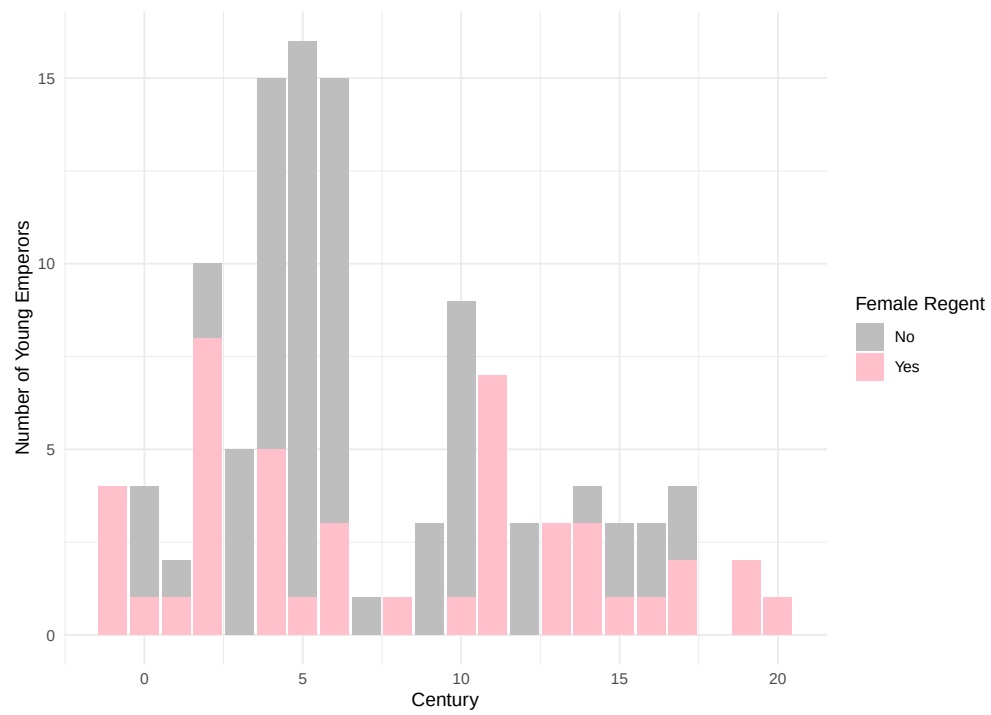


Table A2. Probability of Deposition and Establishing Personal Rule, by Mode of Succession

Succession Mode:	By Empress Dowager		Not by Empress Dowager		Comparison	
	Mean	SD	Mean	SD	Difference	P-value
Deposed	0.42	0.50	0.49	0.50	-0.08	(0.50)
Personal Rule	0.46	0.51	0.65	0.48	-0.19	(0.11)
Observations	24		91			
Succession Mode:	By Ministers		Not by Ministers		Comparison	
	Mean	SD	Mean	SD	Difference	P-value
Deposed	0.54	0.51	0.45	0.50	0.09	(0.36)
Personal Rule	0.43	0.50	0.69	0.46	-0.26**	(0.01)
Observations	37		78			
Succession Mode:	Normal Succession		Irregular Succession		Comparison	
	Mean	SD	Mean	SD	Difference	P-value
Deposed	0.42	0.50	0.52	0.50	-0.10	(0.28)
Personal Rule	0.68	0.47	0.55	0.50	0.13	(0.17)
Observations	50		65			

Notes: The table reports the probabilities of emperors being deposed or successfully establishing personal rule, comparing across different modes of accession: whether the emperor was crowned by the empress dowager, by ministers, or through the regular procedure (appointment by the former emperor or succession as the crown prince). Statistical significance is denoted as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A3. Heir Availability and Succession by Minor Emperors

	Succeeded by Minor Emperors				
	(1)	(2)	(3)	(4)	(5)
Living Son	0.255*** (0.057)	0.221*** (0.065)	0.223*** (0.065)	0.229*** (0.064)	0.198** (0.077)
Living Adult Son	-0.346*** (0.054)	-0.357*** (0.067)	-0.372*** (0.067)	-0.369*** (0.067)	-0.351*** (0.076)
Age of Death		-0.006*** (0.002)	-0.005*** (0.002)	-0.005*** (0.002)	-0.003** (0.002)
Personal Rule		0.065 (0.066)	0.078 (0.064)	0.074 (0.063)	0.093 (0.088)
Deposition		-0.301*** (0.077)	-0.302*** (0.073)	-0.291*** (0.073)	-0.352*** (0.093)
Unnatural Death		0.047 (0.078)	0.081 (0.077)	0.082 (0.078)	0.113 (0.097)
Unified Dynasty			0.119** (0.053)	0.043 (0.066)	
Ethnic Minority			0.011 (0.052)	0.003 (0.053)	
Era fixed effects	No	No	No	Yes	No
Dynasty fixed effects	No	No	No	No	Yes
Observations	347	297	297	297	297

Notes: The table reports the association between the availability of direct heirs and the probability that an emperor was succeeded by a minor emperor. Column (1) shows the baseline relationship between having a living son or a living adult son at the time of the emperor's death or deposition and the likelihood of succession by a minor. Columns (2)–(5) sequentially add controls. Column (2) includes emperor-level characteristics: age at death, whether the emperor ruled personally, whether he was deposed, and whether he died unnaturally. Columns (3) and (4) further add dynasty-level variables: indicators for whether the dynasty was Han Chinese or an ethnic minority and whether it governed a unified China. Column (4) also includes era fixed effects, while Column (5) replaces these with dynasty fixed effects. Robust standard errors are reported in parentheses. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

B Additional Results for the Baseline Model

Table B1. Main Results with more Detailed Era Fixed Effects

Model:	Whether Deposed		Personal Rule by Emperor	
	OLS	Probit	OLS	Probit
	(1)	(2)	(3)	(4)
Female Regent	-0.341** (0.150)	-0.997** (0.461)	0.344** (0.137)	1.553** (0.603)
Number of Male Regents	-0.042** (0.021)	-0.153** (0.073)	0.040 (0.027)	0.155 (0.119)
Age	-0.010 (0.011)	-0.034 (0.031)	0.038*** (0.010)	0.192*** (0.046)
Crown Prince	-0.003 (0.083)	0.056 (0.269)	0.167 (0.114)	1.026* (0.545)
Start Reign with Personal Rule	-0.344** (0.169)	-1.027** (0.483)	0.000 (.)	0.000 (.)
Ethnic Minority	0.357 (0.246)	1.011 (0.788)	-0.498*** (0.153)	-3.406** (1.350)
Unified Dynasty	-0.003 (0.392)	-0.041 (1.025)	0.365* (0.191)	4.595*** (0.713)
Era FEs (detailed)	Yes	Yes	Yes	Yes
Observations	115	113	81	64

Notes: The table demonstrates the association between female regency and the risk of deposition (first two columns) or the probability of the minor emperor establishing personal rule (last two columns). All columns incorporate emperor-level dynasty-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, a dummy of whether the emperor was the crown prince, and two indicators for whether the royal family was Han Chinese or ethnic minority and whether the dynasty governed a unified China. In columns (1) and (2), we also control whether the emperor started his reign with the personal rule while in columns (3) to (4) we only include emperors who began their reign without personal rule in the sample. Seventeen observations are dropped because of perfect prediction in the last column. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B2. Female Regency and the Deposition of Minor Emperors (Other Definitions and Models)

Definition of Female Regency: Model:	The Deposition of Minor Emperor					
	Original		Narrow		Drop Ambiguous Cases	
	Probit	Survival	OLS	Probit	OLS	Probit
	(1)	(2)	(3)	(4)	(5)	(6)
Female Regent	-1.231*** (0.349)	0.511 (0.499)	-0.386*** (0.112)	-1.093*** (0.322)	-0.501*** (0.108)	-1.451*** (0.345)
Number of Male Regents	-0.081 (0.061)	0.085 (0.080)	-0.027 (0.021)	-0.090 (0.063)	-0.022 (0.021)	-0.074 (0.063)
Age	-0.032 (0.030)	0.038 (0.040)	-0.009 (0.010)	-0.028 (0.029)	-0.011 (0.010)	-0.036 (0.031)
Crown Prince	0.042 (0.259)	-0.321 (0.286)	-0.004 (0.089)	0.008 (0.260)	-0.025 (0.089)	-0.061 (0.268)
Start Reign with Personal Rule	-0.697* (0.372)	-0.644 (0.434)	-0.224* (0.129)	-0.642* (0.344)	-0.299** (0.138)	-0.842** (0.375)
Ethnic Minority	0.186 (0.303)	0.116 (0.279)	0.027 (0.106)	0.083 (0.294)	0.066 (0.107)	0.203 (0.315)
Unified Dynasty	-0.309 (0.362)	0.591 (0.415)	-0.124 (0.134)	-0.354 (0.361)	-0.077 (0.132)	-0.217 (0.372)
Emperor controls (or strata)	Yes	Yes	Yes	Yes	Yes	Yes
Observations	115	115	115	115	109	109

Notes: The table evaluates the effect of female regency on the likelihood of deposition among minor emperors under alternative definitions of female regency. Columns (1)–(6) present estimates from probit, survival, and OLS models. : the original definition in our main analysis, a narrower definition which only counts those with a formal regent title as female regent, and one that excludes *de facto* female regents who did not have a title from the sample. All models control for emperor-level characteristics, including age at accession, whether the emperor was the designated heir, the number of male regents, and an indicator for starting the reign under self-rule. Dynasty-level controls include a dummy for whether the dynasty was unified and whether the ruling family belonged to an ethnic minority. Robust standard errors are reported in parentheses. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B3. Female Regency and Transition to Personal Rule (Other Definitions and Models)

Definition of Female Regency: Model:	Personal Rule by the Emperor				
	Original	Narrow		Drop Ambiguous Cases	
	Probit	OLS	Probit	OLS	Probit
	(1)	(2)	(3)	(4)	(5)
Female Regent	1.443*** (0.396)	0.290** (0.129)	0.785** (0.350)	0.465*** (0.113)	1.432*** (0.406)
Number of Male Regents	0.071 (0.075)	0.029 (0.028)	0.079 (0.077)	0.019 (0.029)	0.048 (0.079)
Age	0.081** (0.032)	0.020* (0.012)	0.055* (0.032)	0.028*** (0.011)	0.088*** (0.033)
Crown Prince	0.425 (0.321)	0.157 (0.117)	0.428 (0.312)	0.146 (0.116)	0.422 (0.340)
Ethnic Minority	0.086 (0.334)	0.064 (0.121)	0.198 (0.323)	-0.002 (0.120)	-0.003 (0.350)
Unified Dynasty	-0.409 (0.358)	-0.000 (0.125)	0.023 (0.335)	-0.194* (0.111)	-0.646* (0.378)
Era fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	81	81	81	76	76

Notes: The table evaluates the effect of female regency on the likelihood of minor emperors establishing personal rule, under alternative definitions of female regency. Columns (1)–(6) present estimates from probit and OLS models using three specifications: the original definition in our main analysis, a narrower definition which only counts those with a formal regent title as female regent, and one that excludes *de facto* female regents who did not have a title from the sample. All models control for emperor-level characteristics, including age at accession, whether the emperor was the designated heir, the number of male regents, and an indicator for starting the reign under self-rule. Dynasty-level controls include a dummy for whether the dynasty was unified and whether the ruling family belonged to an ethnic minority. Robust standard errors are reported in parentheses. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

C Instrumental Variable Design

Table C1. Test for Exclusion Restriction (Female Candidate as Instrument)

DVs for Former Emperors	Natural Death	Wether Deposed	Death Age	Length of Reign
	(1)	(2)	(3)	(4)
Female Candidate	0.120 (0.098)	-0.180* (0.102)	-1.843 (3.662)	2.382 (2.836)
Era fixed effects	Yes	Yes	Yes	Yes
Observations	113	113	109	113

Notes: The table demonstrates the association between the existence of female candidate for regency and some characteristics of the former emperor. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C2. Female Regency and the Political Stability under a Minor Emperor (2SLS)

	Whether Deposed				Personal Rule by the Emperor			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Regent	-0.535*** (0.182)	-0.949*** (0.287)	-0.986*** (0.338)	-0.951*** (0.336)	0.385** (0.174)	0.568*** (0.190)	0.665*** (0.234)	0.654*** (0.240)
Number of Male Regents		-0.028 (0.022)	-0.030 (0.021)	-0.027 (0.023)		0.035 (0.025)	0.029 (0.025)	0.013 (0.024)
Age		-0.024* (0.014)	-0.024* (0.014)	-0.025* (0.014)		0.030** (0.012)	0.033*** (0.012)	0.039*** (0.012)
Crown Prince		0.036 (0.089)	0.036 (0.093)	0.032 (0.092)		0.155 (0.108)	0.138 (0.104)	0.152 (0.100)
Start Reign with Personal Rule		-0.426*** (0.164)	-0.431** (0.174)	-0.402** (0.174)				
Ethnic Minority			0.157 (0.111)	0.157 (0.119)			0.001 (0.109)	-0.116 (0.114)
Unified Dynasty			0.018 (0.154)	0.052 (0.167)			-0.212 (0.144)	-0.237 (0.162)
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	115	115	115	115	81	81	81	81

Notes: The table demonstrates the effects of female regency on the risk of deposition (first four columns) and the probability of the minor emperor establishing personal rule (last four columns), identified through a 2SLS approach with the existence of female candidate for regency as the instrument. Columns (2) to (4) and columns (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, and a dummy of whether the emperor was the crown prince. In columns (2) to (4), we also control whether the emperor started his reign with the personal rule while in columns (5) to (8) we only include emperors who began their reign without personal rule in the sample. Additionally, models (3), (4), (7), and (8) include dynasty-level controls: namely, two indicators for whether the royal family was Han Chinese or ethnic minority and whether the dynasty governed a unified China. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C3. Test for Weak Instrument (Female Candidate as Instrument)

Sample:	Regency by Female							
	All Emperors				Did not Start with Self-rule			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Candidate	0.542*** (0.055)	0.383*** (0.064)	0.334*** (0.063)	0.344*** (0.067)	0.688*** (0.058)	0.612*** (0.080)	0.503*** (0.088)	0.504*** (0.088)
Number of Male Regents		0.000 (0.014)	0.005 (0.012)	0.009 (0.013)		-0.014 (0.024)	-0.004 (0.020)	-0.005 (0.021)
Age		-0.022*** (0.008)	-0.019*** (0.007)	-0.021*** (0.008)		-0.017** (0.008)	-0.018** (0.008)	-0.017** (0.009)
Crown Prince		0.014 (0.071)	0.042 (0.065)	0.039 (0.064)		-0.051 (0.101)	-0.010 (0.089)	-0.007 (0.089)
Start Reign with Personal Rule		-0.295*** (0.077)	-0.293*** (0.074)	-0.264*** (0.076)				
Ethnic Minority			0.135* (0.073)	0.152** (0.076)			0.117 (0.090)	0.123 (0.103)
Unified Dynasty			0.295*** (0.069)	0.328*** (0.099)			0.380*** (0.088)	0.346** (0.146)
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	115	115	115	115	81	81	81	81
F statistic	96.58	34.08	26.67	24.53	137.32	55.11	29.93	29.48

Notes: The table demonstrates the first-stage regression results for the 2SLS estimation with female candidate as instrument. Columns (2) to (4) and columns (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, and a dummy of whether the emperor was the crown prince. In columns (2) to (4), we also control whether the emperor started his reign with the personal rule while in columns (5) to (8) we only include emperors who began their reign without personal rule in the sample. Additionally, models (3), (4), (7), and (8) include dynasty-level controls: namely, two indicators for whether the royal family was Han Chinese or ethnic minority and whether the dynasty governed a unified China. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C4. Effects of Female Regency (IV Probit with the Existence of Female Candidates as Instrument)

	Whether Deposed				Personal Rule by the Emperor			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Regent	-1.332*** (0.402)	-2.320*** (0.510)	-2.436*** (0.536)	-2.388*** (0.573)	1.034** (0.513)	1.630*** (0.566)	1.933*** (0.709)	2.116*** (0.752)
Number of Male Regents		-0.071 (0.055)	-0.078 (0.057)	-0.072 (0.060)		0.097 (0.072)	0.076 (0.072)	0.029 (0.078)
Age		-0.061* (0.031)	-0.062** (0.030)	-0.064** (0.031)		0.086** (0.036)	0.096*** (0.035)	0.130*** (0.037)
Crown Prince		0.085 (0.231)	0.081 (0.236)	0.075 (0.239)		0.437 (0.318)	0.384 (0.315)	0.462 (0.339)
Start Reign with Personal Rule		-1.018*** (0.379)	-1.054*** (0.378)	-0.998** (0.393)				
Ethnic Minority			0.405 (0.271)	0.412 (0.296)			0.005 (0.324)	-0.432 (0.390)
Unified Dynasty			0.039 (0.372)	0.128 (0.397)			-0.644 (0.451)	-0.918* (0.552)
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	115	115	115	115	81	81	81	81

Notes: The table demonstrates the effects of female regency on the risk of deposition (first four columns) and the probability of the minor emperor establishing personal rule (last four columns), identified through a 2SLS approach with the existence of female candidate for regency as the instrument. Columns (2) to (4) and columns (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, and a dummy of whether the emperor was the crown prince. In columns (2) to (4), we also control whether the emperor started his reign with the personal rule while in columns (5) to (8) we only include emperors who began their reign without personal rule in the sample. Additionally, models (3), (4), (7), and (8) include dynasty-level controls: namely, two indicators for whether the royal family was Han Chinese or ethnic minority and whether the dynasty governed a unified China. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table C5. Effects of Female Regency (IV Provit with the Natural Death of the Empress Instrument)

	Whether Deposed				Personal Rule by the Emperor			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Regent	-1.478*** (0.472)	-2.727*** (0.351)	-2.938*** (0.307)	-2.949*** (0.305)	1.229* (0.665)	1.934*** (0.659)	2.421*** (0.785)	2.721*** (0.617)
Number of Male Regents		-0.066 (0.049)	-0.057 (0.048)	-0.050 (0.050)		0.104 (0.069)	0.079 (0.068)	0.038 (0.071)
Age		-0.077*** (0.027)	-0.079*** (0.025)	-0.082*** (0.025)		0.096*** (0.034)	0.109*** (0.031)	0.140*** (0.032)
Crown Prince		0.091 (0.214)	0.132 (0.207)	0.126 (0.207)		0.403 (0.307)	0.309 (0.307)	0.339 (0.330)
Start Reign with Personal Rule		-1.081*** (0.328)	-1.098*** (0.314)	-1.043*** (0.325)				
Ethnic Minority			0.482** (0.230)	0.528** (0.247)			-0.081 (0.341)	-0.498 (0.384)
Unified Dynasty			0.482 (0.407)	0.530 (0.400)			-0.888* (0.503)	-1.182** (0.475)
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	115	115	115	115	81	81	81	81

Notes: The table demonstrates the effects of female regency on the risk of deposition (first four columns) and the probability of the minor emperor establishing personal rule (last four columns), identified through a 2SLS approach with the natural death of empress as the instrument. Columns (2) to (4) and columns (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, and a dummy of whether the emperor was the crown prince. In columns (2) to (4), we also control whether the emperor started his reign with the personal rule while in columns (5) to (8) we only include emperors who began their reign without personal rule in the sample. Additionally, models (3), (4), (7), and (8) include dynasty-level controls: namely, two indicators for whether the royal family was Han Chinese or ethnic minority and whether the dynasty governed a unified China. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

D Robustness Checks

Table D1. Female Regency and the Deposition of Minor Emperors (OLS, Exclude Last Emperors and Emperors Deposed by Foreign Invaders)

Sample:	Whether the Emperor was Deposed							
	Exclude Emperors Deposed by Invaders				Exclude Last Emperors			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Regent	-0.294*** (0.094)	-0.499*** (0.112)	-0.465*** (0.121)	-0.457*** (0.122)	-0.260*** (0.097)	-0.457*** (0.129)	-0.428*** (0.136)	-0.425*** (0.136)
Number of Male Regents		-0.028 (0.020)	-0.032* (0.019)	-0.030 (0.021)		-0.031 (0.019)	-0.035* (0.019)	-0.032 (0.021)
Age		-0.008 (0.010)	-0.008 (0.010)	-0.008 (0.010)		-0.005 (0.011)	-0.004 (0.011)	-0.005 (0.011)
Crown Prince		-0.023 (0.088)	-0.037 (0.089)	-0.041 (0.089)		0.006 (0.094)	-0.003 (0.094)	-0.008 (0.095)
Start Reign with Personal Rule		-0.348** (0.139)	-0.337** (0.140)	-0.337** (0.149)		-0.329** (0.151)	-0.317** (0.152)	-0.312* (0.162)
Ethnic Minority			0.119 (0.100)	0.103 (0.107)			0.135 (0.106)	0.124 (0.115)
Unified Dynasty			-0.106 (0.097)	-0.030 (0.141)			-0.086 (0.101)	-0.012 (0.153)
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	96	96	96	96	84	84	84	84

Notes: The table demonstrates the negative association between female regency and the deposition of minor emperors. The first four columns exclude emperors deposed by invaders and the last four columns exclude last emperors of each dynasty. Columns (2) to (4) and columns (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, an indicator for beginning the reign under personal rule, and a dummy of whether the emperor was the crown prince. Additionally, models (3), (4), (7), and (8) include dynasty-level controls: namely, two indicators for whether the royal family was Han Chinese or ethnic minority and whether the dynasty governed a unified China. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D2. Female Regency and Transition to Personal Rule (OLS, Exclude Last Emperors and Emperors Deposed by Foreign Invaders)

Sample:	Personal Rule by the Emperor							
	Exclude Emperors Deposed by Invaders				Exclude Last Emperors			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Regent	0.343*** (0.108)	0.433*** (0.106)	0.526*** (0.111)	0.514*** (0.114)	0.298** (0.122)	0.409*** (0.120)	0.544*** (0.118)	0.527*** (0.119)
Number of Male Regents		0.034 (0.026)	0.029 (0.027)	0.010 (0.026)		0.034 (0.027)	0.027 (0.027)	0.004 (0.027)
Age		0.021* (0.012)	0.023** (0.011)	0.030*** (0.011)		0.019 (0.013)	0.024** (0.012)	0.030** (0.011)
Crown Prince		0.157 (0.114)	0.145 (0.111)	0.164 (0.107)		0.138 (0.124)	0.143 (0.119)	0.148 (0.114)
Ethnic Minority			0.038 (0.117)	-0.079 (0.125)			0.108 (0.126)	-0.018 (0.136)
Unified Dynasty			-0.190* (0.109)	-0.263* (0.136)			-0.252** (0.116)	-0.348** (0.156)
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	75	75	75	75	65	65	65	65

Notes: The table demonstrates the positive association between female regency and the transition to the emperor's personal rule of minor emperors. The first four columns exclude emperors deposed by invaders and the last four columns exclude last emperors of each dynasty. Columns (2) to (4) and columns (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, and a dummy of whether the emperor was the crown prince. Additionally, models (3), (4), (7), and (8) include dynasty-level controls: namely, two indicators for whether the royal family was Han Chinese or ethnic minority and whether the dynasty governed a unified China. The analysis is restricted to emperors who began their reign without personal rule. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D3. Female Regency and Political Stability (OLS, Exclude Certain Periods)

Sample:	Exclude Post-An Lushan Tang				Exclude Post-An Lushan Tang and Northern Wei			
	Deposition		Personal Rule		Deposition		Personal Rule	
Model:	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Regent	-0.438*** (0.117)	-1.061*** (0.379)	0.476*** (0.114)	0.658** (0.273)	-0.442*** (0.118)	-1.150*** (0.390)	0.521*** (0.116)	0.668** (0.274)
Number of Male Regents	-0.023 (0.021)	-0.024 (0.024)	0.011 (0.026)	0.013 (0.024)	-0.019 (0.022)	-0.021 (0.026)	0.017 (0.026)	0.019 (0.023)
Age	-0.012 (0.010)	-0.030* (0.016)	0.033*** (0.010)	0.039*** (0.012)	-0.013 (0.011)	-0.030* (0.015)	0.032*** (0.011)	0.036*** (0.012)
Crown Prince	-0.007 (0.088)	0.009 (0.094)	0.158 (0.106)	0.152 (0.100)	0.019 (0.091)	0.041 (0.101)	0.100 (0.108)	0.095 (0.102)
Start Reign with Personal Rule	-0.210 (0.143)	-0.379** (0.190)			-0.184 (0.153)	-0.390* (0.205)		
Ethnic Minority	0.055 (0.106)	0.159 (0.123)	-0.096 (0.125)	-0.116 (0.115)	0.124 (0.119)	0.258* (0.147)	-0.129 (0.139)	-0.141 (0.131)
Unified Dynasty	-0.065 (0.147)	0.174 (0.205)	-0.148 (0.146)	-0.241 (0.199)	-0.083 (0.149)	0.180 (0.210)	-0.149 (0.153)	-0.224 (0.206)
Era fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	112	112	80	80	103	103	74	74
F statistic		20.59		24.63		18.99		25.74

Notes: This table reports the results from OLS and two-stage least squares (2SLS) models that estimate the effects of female regency on the likelihood of deposition and the establishment of personal rule. Columns (1)–(4) exclude emperors who reigned after the An Lushan rebellion during the Tang dynasty, while columns (5)–(8) additionally exclude emperors from the Northern Wei dynasty. Across specifications, the models control for emperor-level characteristics, including age at accession, whether the emperor was the designated heir, the number of male regents, and an indicator for beginning the reign under personal rule. Dynasty-level controls include whether the dynasty was unified and whether the ruling family belonged to an ethnic minority. All models also include era fixed effects. Robust standard errors are reported in parentheses. The significance levels are denoted as: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D4. Female Regency and Political Stability (with Different Age Cutoffs)

	Whether Deposed				Personal Rule by the Emperor			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Regent	-0.491*** (0.122)	-0.479*** (0.129)	-0.446*** (0.134)	-0.465*** (0.132)	0.536*** (0.112)	0.539*** (0.121)	0.520*** (0.128)	0.520*** (0.131)
Number of Male Regents	-0.024 (0.022)	-0.032 (0.021)	-0.032 (0.021)	-0.054** (0.022)	0.005 (0.026)	0.005 (0.026)	0.003 (0.026)	0.004 (0.026)
Age	-0.014 (0.010)	-0.011 (0.011)	-0.012 (0.012)	0.000 (0.013)	0.034*** (0.010)	0.035*** (0.011)	0.036*** (0.013)	0.030** (0.014)
Crown Prince	0.006 (0.086)	0.014 (0.089)	0.012 (0.091)	0.063 (0.090)	0.180* (0.106)	0.179* (0.107)	0.171 (0.108)	0.199* (0.109)
Start Reign with Personal Rule	-0.311** (0.152)	-0.301* (0.160)	-0.262 (0.164)	-0.292* (0.171)				
Ethnic Minority	0.006 (0.104)	0.019 (0.108)	-0.005 (0.112)	0.025 (0.114)	-0.096 (0.123)	-0.097 (0.125)	-0.071 (0.130)	-0.079 (0.137)
Unified Dynasty	-0.077 (0.132)	-0.098 (0.137)	-0.063 (0.144)	-0.096 (0.142)	-0.157 (0.129)	-0.160 (0.132)	-0.181 (0.140)	-0.163 (0.146)
Age group	Under 20	Under 19	Under 18	Under 17	Under 20	Under 19	Under 18	Under 17
Era fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	103	98	94	85	75	74	71	67

Notes: This table examines the relationship between female regency and two outcomes: the probability of an emperor being deposed (columns 1–4) and the likelihood of establishing personal rule (columns 5–8). The models vary the age cutoff for defining a “minor emperor,” ranging from under 20 years old (columns 1 and 5) to under 17 years old (columns 4 and 8). All specifications include emperor-level controls (age at accession, whether the emperor was the designated heir, the number of male regents, and an indicator for beginning the reign under personal rule) as well as dynasty-level controls (ethnic minority status of the ruling family and whether the dynasty governed a unified China). Era fixed effects are included throughout. Robust standard errors are reported in parentheses. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D5. Female Regency and Other Measures of Political Stability

Model:	Reign Duration		Unnatural Death
	OLS	PPML	OLS
	(1)	(2)	(3)
Female Regent	9.853*** (3.601)	0.708*** (0.236)	-0.053 (0.101)
Number of Male Regents	-0.714 (0.489)	-0.045 (0.032)	0.011 (0.020)
Age	0.577* (0.320)	0.041** (0.019)	0.007 (0.009)
Crown Prince	0.755 (2.752)	0.015 (0.174)	-0.005 (0.081)
Start Reign with Personal Rule	-2.307 (3.551)	-0.121 (0.266)	-0.131 (0.113)
Ethnic Minority	-3.307 (2.929)	-0.220 (0.189)	0.105 (0.099)
Unified Dynasty	-3.586 (3.600)	-0.293 (0.259)	-0.057 (0.118)
Era fixed effects	Yes	Yes	Yes
Observations	115	115	115

Notes: This table reports estimates of the association between female regency and two outcomes: the duration of an emperor's reign (columns 1–2) and the probability of an unnatural death of the emperor (column 3). Columns (1) and (2) use OLS and Poisson Pseudo Maximum Likelihood (PPML) models respectively, while column (3) estimates a OLS model. All specifications include emperor-level controls (age at accession, whether the emperor was the designated heir, the number of male regents, and an indicator for beginning the reign under personal rule) as well as dynasty-level controls (ethnic minority status of the ruling family and whether the dynasty governed a unified China). Era fixed effects are included throughout. Robust standard errors are reported in parentheses. Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table D6. Female Regency and the Path to Personal Rule (OLS)

	Peaceful Transition				Violent Transition			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Regent	0.265*** (0.100)	0.350*** (0.102)	0.365*** (0.118)	0.362*** (0.117)	0.055 (0.069)	0.073 (0.066)	0.120 (0.075)	0.120 (0.077)
Number of Male Regents		0.025 (0.027)	0.025 (0.028)	0.011 (0.028)		0.005 (0.022)	0.001 (0.023)	-0.001 (0.025)
Age		0.021** (0.010)	0.021** (0.010)	0.027** (0.010)		0.004 (0.008)	0.006 (0.008)	0.007 (0.008)
Crown Prince		0.165 (0.110)	0.162 (0.111)	0.174 (0.108)		-0.009 (0.084)	-0.015 (0.082)	-0.014 (0.085)
Ethnic Minority			-0.020 (0.113)	-0.122 (0.120)			0.045 (0.086)	0.029 (0.088)
Unified Dynasty			-0.026 (0.111)	-0.060 (0.131)			-0.102 (0.091)	-0.101 (0.113)
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	81	81	81	81	81	81	81	81

Notes: The table demonstrates the association between female regency and the probability of peaceful (first four columns) or violent (last four columns) transition to the emperor's personal rule. The models in columns (2) to (4) and (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, and a dummy of whether the emperor was the crown prince. Additionally, models (3) to (5) include dynasty-level controls: namely, two indicators for whether the royal family was ethnic minority and whether the dynasty governed a unified China. The analysis is restricted to emperors who began their reign without personal rule. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

E Results for the Mechanism Analysis

Table E1. Heterogeneous Analysis: Han-Chinese and Ethnic Minority Dynasties (OLS)

	Whether Deposed			Personal Rule by the Emperor		
	(1)	(2)	(3)	(4)	(5)	(6)
Female Regent	-0.285 (0.246)	-0.526*** (0.129)		0.217 (0.232)	0.627*** (0.118)	
Female Regent (Minority)			-0.245 (0.194)			0.220 (0.207)
Female Regent (Han)			-0.529*** (0.128)			0.596*** (0.120)
Number of Male Regents	-0.026 (0.045)	-0.030 (0.025)	-0.029 (0.022)	-0.007 (0.044)	0.023 (0.033)	0.019 (0.025)
Age	-0.015 (0.023)	-0.006 (0.012)	-0.009 (0.010)	0.048** (0.018)	0.031** (0.013)	0.032*** (0.011)
Crown Prince	0.001 (0.196)	0.029 (0.102)	0.013 (0.088)	0.322 (0.223)	0.115 (0.131)	0.140 (0.106)
Start Reign with Self-rule	-0.174 (0.296)	-0.276* (0.160)	-0.255* (0.135)			
Ethnic Minority			-0.054 (0.132)			0.103 (0.169)
Unified Dynasty	-0.141 (0.266)	-0.096 (0.156)	-0.120 (0.132)	-0.093 (0.250)	-0.182 (0.166)	-0.144 (0.134)
Sample	Ethnic Minority	Han Chinese	All	Ethnic Minority	Han Chinese	All
Era fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	35	80	115	26	55	81

Notes: The table illustrates the relationship between female regency and two outcomes of interest: the risk of deposition (first three columns) and the probability of the minor emperor establishing personal rule (last three columns) in dynasties ruled by Han Chinese or ethnic minorities. All columns incorporate emperor-level and dynasty-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, a dummy of whether the emperor was the crown prince, and whether the dynasty governed a unified China. In columns (2) and (3), we also control whether the emperor started his reign with the personal rule while in columns (4) to (6) we only include emperors who began their reign without personal rule in the sample. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table E2. Heterogeneous Analysis: Mother and Non-mother Female Regents (OLS)

	Whether Deposed				Personal Rule by the Emperor			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mother Regent	-0.400*** (0.120)	-0.593*** (0.146)	-0.579*** (0.151)	-0.572*** (0.155)	0.396*** (0.145)	0.470** (0.179)	0.490*** (0.177)	0.465*** (0.168)
Other Female Regent	-0.267** (0.105)	-0.459*** (0.116)	-0.350*** (0.132)	-0.348** (0.136)	0.281** (0.120)	0.398*** (0.108)	0.480*** (0.116)	0.495*** (0.113)
Number of Male Regents		-0.018 (0.021)	-0.021 (0.020)	-0.021 (0.021)		0.027 (0.028)	0.026 (0.028)	0.012 (0.027)
Age		-0.011 (0.010)	-0.011 (0.010)	-0.011 (0.010)		0.026** (0.011)	0.027** (0.011)	0.033*** (0.011)
Crown Prince		0.033 (0.087)	0.014 (0.086)	0.014 (0.087)		0.154 (0.111)	0.147 (0.109)	0.161 (0.105)
Start Reign with Self-rule		-0.285** (0.131)	-0.256* (0.130)	-0.254* (0.135)				
Ethnic Minority			0.068 (0.097)	0.058 (0.103)			0.025 (0.116)	-0.093 (0.124)
Unified Dynasty			-0.203** (0.100)	-0.159 (0.141)			-0.125 (0.111)	-0.170 (0.126)
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	115	115	115	115	81	81	81	81
mother - non-mother	-0.133	-0.134	-0.229	-0.224	0.115	0.072	0.011	-0.030
P-value for diff	0.330	0.387	0.174	0.214	0.463	0.706	0.956	0.864

Notes: The table illustrates the relationship between mother- and non-mother-born female regents and two outcomes of interest: the risk of deposition (first four columns) and the probability of the minor emperor establishing personal rule (last four columns). Columns (2) to (4) and columns (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, and a dummy of whether the emperor was the crown prince. In columns (2) to (4), we also control whether the emperor started his reign with the personal rule while in columns (5) to (8) we only include emperors who began their reign without personal rule in the sample. Additionally, models (3), (4), (7), and (8) include dynasty-level controls: namely, two indicators for whether the royal family was Han Chinese or ethnic minority and whether the dynasty governed a unified China. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table E3. Heterogeneous Analysis: Grandmother and Young Female Regents (OLS)

	Whether Deposed				Personal Rule by the Emperor			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Grandmother Regent	-0.145 (0.163)	-0.327* (0.186)	-0.245 (0.189)	-0.240 (0.192)	0.330* (0.175)	0.436*** (0.159)	0.519*** (0.171)	0.488*** (0.158)
Young Female Regent	-0.365*** (0.095)	-0.560*** (0.102)	-0.498*** (0.110)	-0.496*** (0.111)	0.318*** (0.114)	0.419*** (0.112)	0.477*** (0.121)	0.480*** (0.118)
Number of Male Regents		-0.019 (0.020)	-0.023 (0.020)	-0.021 (0.021)		0.031 (0.027)	0.028 (0.027)	0.011 (0.027)
Age		-0.010 (0.010)	-0.009 (0.010)	-0.010 (0.010)		0.025** (0.011)	0.027** (0.011)	0.033*** (0.010)
Crown Prince		0.009 (0.086)	-0.012 (0.085)	-0.014 (0.085)		0.154 (0.115)	0.142 (0.114)	0.159 (0.110)
Start Reign with Personal Rule		-0.293** (0.129)	-0.269** (0.129)	-0.260* (0.134)				
Ethnic Minority			0.066 (0.099)	0.058 (0.105)			0.025 (0.115)	-0.093 (0.123)
Unified Dynasty			-0.174* (0.096)	-0.113 (0.136)			-0.131 (0.111)	-0.161 (0.133)
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	115	115	115	115	81	81	81	81
Grandmother - Young Female	0.219	0.233	0.253	0.257	0.012	0.017	0.042	0.008
P-value for diff	0.197	0.208	0.168	0.168	0.948	0.921	0.810	0.959

Notes: The table illustrates the relationship between grandmother- and younger female regents and two outcomes of interest: the risk of deposition (first four columns) and the probability of the minor emperor establishing personal rule (last four columns). Columns (2) to (4) and columns (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, and a dummy of whether the emperor was the crown prince. In columns (2) to (4), we also control whether the emperor started his reign with the personal rule while in columns (5) to (8) we only include emperors who began their reign without personal rule in the sample. Additionally, models (3), (4), (7), and (8) include dynasty-level controls: namely, two indicators for whether the royal family was Han Chinese or ethnic minority and whether the dynasty governed a unified China. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table E4. Heterogeneous Analysis: Female Regents from Elite and Non-elite Families (OLS)

	Whether Deposed				Personal Rule by the Emperor			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Regent, Elite Family	-0.379*** (0.097)	-0.593*** (0.118)	-0.557*** (0.121)	-0.555*** (0.122)	0.373*** (0.119)	0.569*** (0.100)	0.624*** (0.100)	0.638*** (0.100)
Female Regent, Non-Elite Family	-0.086 (0.140)	-0.258* (0.148)	-0.172 (0.164)	-0.174 (0.165)	0.230 (0.148)	0.269* (0.159)	0.319* (0.173)	0.293* (0.166)
Number of Male Regents		-0.016 (0.020)	-0.022 (0.019)	-0.020 (0.021)		0.022 (0.025)	0.019 (0.026)	0.001 (0.025)
Age		-0.016 (0.011)	-0.017 (0.011)	-0.018 (0.011)		0.034*** (0.012)	0.035*** (0.011)	0.043*** (0.012)
Crown Prince		0.002 (0.089)	-0.024 (0.088)	-0.025 (0.089)		0.199* (0.109)	0.191* (0.110)	0.210* (0.109)
Start Reign with Self-rule		-0.227* (0.135)	-0.199 (0.136)	-0.191 (0.143)				
Ethnic Minority			0.111 (0.098)	0.106 (0.106)			-0.035 (0.109)	-0.166 (0.114)
Unified Dynasty			-0.199** (0.100)	-0.147 (0.134)			-0.104 (0.111)	-0.139 (0.123)
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	115	115	115	115	81	81	81	81
noble - non-noble	-0.293	-0.334	-0.384	-0.380	0.143	0.300	0.305	0.346
P-value for diff	0.050	0.038	0.017	0.021	0.367	0.101	0.092	0.044

Notes: The table illustrates the relationship between elite- and non-elite-born female regents and two outcomes of interest: the risk of deposition (first four columns) and the probability of the minor emperor establishing personal rule (last four columns). Columns (2) to (4) and columns (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, and a dummy of whether the emperor was the crown prince. In columns (2) to (4), we also control whether the emperor started his reign with the personal rule while in columns (5) to (8) we only include emperors who began their reign without personal rule in the sample. Additionally, models (3), (4), (7), and (8) include dynasty-level controls: namely, two indicators for whether the royal family was Han Chinese or ethnic minority and whether the dynasty governed a unified China. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table E5. Heterogeneous Analysis: Female Regents with or without Relatives in the Regency (OLS)

	Whether Deposed				Personal Rule by the Emperor			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Regent without Same-family Regent	-0.200* (0.108)	-0.391*** (0.117)	-0.311** (0.132)	-0.296** (0.132)	0.350*** (0.118)	0.422*** (0.114)	0.477*** (0.125)	0.374*** (0.128)
Female Regent with Same-family Regent	-0.533*** (0.088)	-0.765*** (0.114)	-0.686*** (0.129)	-0.752*** (0.143)	0.263* (0.151)	0.425*** (0.151)	0.499*** (0.166)	0.689*** (0.164)
Number of Male Regents		-0.019 (0.020)	-0.023 (0.019)	-0.017 (0.021)		0.030 (0.026)	0.026 (0.026)	-0.002 (0.026)
Age		-0.014 (0.010)	-0.013 (0.010)	-0.017 (0.011)		0.025** (0.011)	0.027** (0.011)	0.039*** (0.011)
Crown Prince		-0.016 (0.085)	-0.035 (0.084)	-0.047 (0.085)		0.156 (0.111)	0.151 (0.111)	0.219** (0.106)
Start Reign with Self-rule		-0.269** (0.131)	-0.244* (0.130)	-0.204 (0.141)				
Ethnic Minority			-0.010 (0.102)	0.006 (0.105)			0.031 (0.124)	-0.057 (0.124)
Unified Dynasty			-0.180* (0.096)	-0.155 (0.136)			-0.127 (0.110)	-0.122 (0.131)
With Family - Without	-0.333	-0.374	-0.376	-0.456	-0.087	0.003	0.022	0.316
P-value for diff	0.003	0.003	0.007	0.004	0.587	0.987	0.901	0.098
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	115	115	115	115	81	81	81	81

Notes: The table illustrates the relationship between female regents and two outcomes of interest: the risk of deposition (first four columns) and the probability of the minor emperor establishing personal rule (last four columns). Models distinguish female regents who had a relative serving as co-regent from those who did not. Columns (2) to (4) and columns (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, and a dummy of whether the emperor was the crown prince. In columns (2) to (4), we also control whether the emperor started his reign with the personal rule while in columns (5) to (8) we only include emperors who began their reign without personal rule in the sample. Additionally, models (3), (4), (7), and (8) include dynasty-level controls: namely, two indicators for whether the royal family was Han Chinese or ethnic minority and whether the dynasty governed a unified China. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table E6. Female Regency and Different Causes of Deposition (OLS)

	Deposed by Other Regent(s)				Deposed by Outsider(s)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Regent	-0.249*** (0.058)	-0.339*** (0.104)	-0.283** (0.111)	-0.281** (0.111)	-0.062 (0.087)	-0.161 (0.106)	-0.154 (0.113)	-0.154 (0.114)
Number of Male Regents		0.000 (0.011)	-0.002 (0.011)	-0.002 (0.011)		-0.022 (0.017)	-0.025 (0.017)	-0.023 (0.018)
Age		0.009 (0.007)	0.009 (0.007)	0.009 (0.007)		-0.018* (0.010)	-0.018* (0.010)	-0.019* (0.010)
Crown Prince		-0.089 (0.066)	-0.102 (0.066)	-0.102 (0.067)		0.116 (0.084)	0.110 (0.086)	0.109 (0.086)
Start Reign with Personal Rule		-0.295** (0.115)	-0.278** (0.116)	-0.279** (0.122)		0.010 (0.107)	0.017 (0.109)	0.026 (0.115)
Ethnic Minority			-0.034 (0.070)	-0.040 (0.078)			0.102 (0.099)	0.100 (0.104)
Unified Dynasty			-0.118* (0.067)	-0.104 (0.091)			-0.046 (0.091)	-0.004 (0.134)
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	115	115	115	115	115	115	115	115

Notes: The table illustrates the relationship between female regency and the probability of deposition by other regents (first four columns) or outsiders (last four columns). Columns (2) to (4) and columns (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, whether the emperor started his reign with the personal rule, and a dummy of whether the emperor was the crown prince. Additionally, models (3), (4), (7), and (8) include dynasty-level controls: namely, two indicators for whether the royal family was ethnic minority and whether the dynasty governed a unified China. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table E7. Female Regency and the Timing of Deposition (OLS)

Sample:	Early Deposition				Deposition during Adulthood			
	Full Sample				Emperors Reached Adulthood			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Regent	-0.202** (0.079)	-0.404*** (0.115)	-0.367*** (0.132)	-0.356*** (0.128)	-0.220** (0.095)	-0.364** (0.140)	-0.313** (0.145)	-0.302** (0.147)
Number of Male Regents		-0.004 (0.014)	-0.006 (0.014)	-0.003 (0.015)		-0.024 (0.018)	-0.028 (0.018)	-0.028 (0.020)
Age		-0.010 (0.009)	-0.009 (0.009)	-0.011 (0.009)		-0.005 (0.010)	-0.005 (0.010)	-0.004 (0.010)
Crown Prince		-0.108 (0.076)	-0.116 (0.079)	-0.118 (0.077)		0.103 (0.096)	0.081 (0.097)	0.077 (0.097)
Start Reign with Personal Rule		-0.319** (0.123)	-0.308** (0.126)	-0.299** (0.130)		-0.170 (0.153)	-0.149 (0.155)	-0.152 (0.167)
Ethnic Minority			-0.014 (0.086)	-0.046 (0.092)			0.096 (0.113)	0.118 (0.119)
Unified Dynasty			-0.081 (0.094)	0.065 (0.134)			-0.129 (0.095)	-0.226* (0.132)
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	115	115	115	115	83	83	83	83

Notes: The table illustrates the association between female regency and the risk of deposition during childhood (first four columns) or adulthood (last four columns). Columns (2) to (4) and columns (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, whether the emperor started his reign with the personal rule, and a dummy of whether the emperor was the crown prince. Additionally, models (3), (4), (7), and (8) include dynasty-level controls: namely, two indicators for whether the royal family was ethnic minority and whether the dynasty governed a unified China. In the last four columns, only emperors who survived to adulthood are included in the sample. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table E8. Female Regency and Political Stability (OLS, Control Succession mode)

	Whether Deposed				Personal Rule by the Emperor			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Regent	-0.307*** (0.090)	-0.497*** (0.104)	-0.437*** (0.115)	-0.432*** (0.115)	0.322*** (0.103)	0.427*** (0.100)	0.489*** (0.111)	0.485*** (0.109)
Normal Succession	-0.088 (0.090)	-0.155 (0.123)	-0.191 (0.129)	-0.200 (0.131)	0.228** (0.104)	0.243 (0.165)	0.240 (0.172)	0.219 (0.173)
Number of Male Regents		-0.009 (0.022)	-0.011 (0.021)	-0.009 (0.023)		0.020 (0.027)	0.017 (0.028)	0.001 (0.028)
Age		-0.011 (0.010)	-0.011 (0.010)	-0.011 (0.010)		0.027** (0.011)	0.029*** (0.011)	0.035*** (0.011)
Crown Prince		0.110 (0.118)	0.110 (0.123)	0.114 (0.124)		-0.011 (0.159)	-0.019 (0.162)	0.011 (0.156)
Start Reign with Personal Rule		-0.306** (0.136)	-0.288** (0.135)	-0.284** (0.142)				
Ethnic Minority			0.095 (0.098)	0.083 (0.104)			-0.025 (0.119)	-0.129 (0.119)
Unified Dynasty			-0.166* (0.096)	-0.101 (0.123)			-0.119 (0.111)	-0.177 (0.130)
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	115	115	115	115	81	81	81	81

Notes: The table illustrates the association between female regency and deposition or personal rule while controlling the succession mode. Columns (2) to (4) and columns (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, whether the emperor started his reign with the personal rule, and a dummy of whether the emperor was the crown prince. Additionally, models (3), (4), (7), and (8) include dynasty-level controls: namely, two indicators for whether the royal family was ethnic minority and whether the dynasty governed a unified China. In the last four columns, only emperors who survived to adulthood are included in the sample. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table E9. Female Regency and Political Stability (OLS, Control the Length of Former Emperors' Reign)

	Whether Deposed				Personal Rule by the Emperor			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female Regent	-0.278*** (0.092)	-0.464*** (0.103)	-0.403*** (0.112)	-0.397*** (0.112)	0.290** (0.110)	0.397*** (0.106)	0.460*** (0.117)	0.460*** (0.115)
Length of Former Emperors' Reign	-0.007* (0.004)	-0.008 (0.005)	-0.008 (0.005)	-0.007 (0.005)	0.004 (0.005)	0.003 (0.005)	0.003 (0.004)	0.002 (0.004)
Number of Male Regents		-0.026 (0.019)	-0.031 (0.019)	-0.030 (0.020)		0.031 (0.026)	0.027 (0.026)	0.010 (0.026)
Age		-0.010 (0.010)	-0.009 (0.010)	-0.010 (0.010)		0.026** (0.011)	0.028** (0.011)	0.034*** (0.011)
Crown Prince		0.064 (0.092)	0.043 (0.093)	0.040 (0.093)		0.147 (0.116)	0.135 (0.114)	0.152 (0.112)
Start Reign with Personal Rule		-0.267** (0.132)	-0.247* (0.133)	-0.241* (0.138)				
Ethnic Minority			0.055 (0.101)	0.044 (0.106)			0.034 (0.119)	-0.075 (0.127)
Unified Dynasty			-0.162* (0.095)	-0.105 (0.130)			-0.138 (0.113)	-0.192 (0.143)
Era fixed effects	No	No	No	Yes	No	No	No	Yes
Observations	115	115	115	115	81	81	81	81

Notes: The table illustrates the association between female regency and deposition or personal rule while controlling the length of former emperors' reign. Columns (2) to (4) and columns (6) to (8) incorporate emperor-level controls, including the emperor's age at accession, the number of male regents present at the start of the reign, whether the emperor started his reign with the personal rule, and a dummy of whether the emperor was the crown prince. Additionally, models (3), (4), (7), and (8) include dynasty-level controls: namely, two indicators for whether the royal family was ethnic minority and whether the dynasty governed a unified China. In the last four columns, only emperors who survived to adulthood are included in the sample. Robust standard errors are presented in parentheses. The significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.