Interest articulation, social stability and public governance

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Abstract

Purpose – The stability maintenance system has played an essential role in maintaining social stability although it also has brought about social problems worthy of attention. Admittedly compensation-based stability maintenance policy can address the appeals of citizens whose rights are infringed and the dissolving effect in the provision of compensation can save the cost of stability maintenance but such stability maintenance system lacks equilibrium.

Design/methodology/approach – The establishment of a strict assessment system for stability maintenance performance can encourage the stability maintenance authorities to eliminate the "fuse effect" as much as possible and ensure the effective implementation of the stability maintenance system. However, the rigorous stability maintenance performance assessment also provides the possibility for profit-driven petitions.

Findings – Due to the continuous accumulation of social dissatisfaction and the lack of stability maintenance equilibrium in the implementation of the compensation-based stability maintenance policy, public governance will fall into a stability maintenance paradox of "greater instability resulting from stability maintenance".

Originality/value – The provision of sufficient means for the people to protect their interest by implementing measures such as strengthening the rule of law mechanisms is the key to achieve long-term social stability.

Keywords Stability maintenance, Petition, Rule of law

Paper type Research paper

1. Introduction

In recent years, mass incidents have been increasing year by year [1]. To maintain social stability, the government has introduced policies to maintain stability. The implementation of the stability maintenance policies has successfully curbed many social disturbances and prevented them from escalating into organized protests across classes, regions and issues

(Zhang and Li, 2012). However, to handle the increasing social contradictions and conflicts, the government has appropriated huge amounts of funds [2], spent massive human, material and financial resources, and spared no costs in stability maintenance (Research Group of Tsinghua University, 2010). Under the assessment pressure of "Zero index" and "One-vote veto" [3], some grassroots governments even resorted to such means as petition interception, case deregistration, detention, etc., causing the increasingly prominent conflicts between public servants and the people and the aggravation of social instability (Jin and Zhao, 2012). Grassroots governments struggled to maintain stability, resulting in wasted administrative resources and reduced governance performance (Tian, 2012). The empirical analysis also suggests that farmers' trust in the government even weakened after their petitions (Li, 2008). In a pressure-based stability maintenance system, profit-driven petitions [4] emerged and had been on the rise. A group of professional petitioners and even an "industry of petition" had appeared (Tian, 2010, 2011). The generalization of stability maintenance work resulted in a situation where all social problems ultimately need to be undertaken and addressed by the government, which has adverse impact on a society in transition (Rong and Chen, 2011). Hence, while acknowledging the positive role of the stability maintenance system, we should also study and pay attention to the social problems thus incurred to reduce its negative effect and achieve the purpose of further improving the performance of public governance.

The central government has always attached great importance to the social stability and governance issues. General Secretary Xi Jinping pointed out at the Central Conference on Political and Legal Work held on 22 January 2016 that the judicial agencies nationwide should improve their ability to maintain national security and social stability, enhance the people's sense of security, comprehensively deepen the reform of the judicial system and improve judicial credibility. The Decision of the CPC Central Committee on Some Major Issues Concerning Comprehensively Deepening the Reform (2013) proposed to advance the modernization of the national governance system and capacity, innovate social governance, improve the standard of social governance, prevent and resolve social contradictions innovatively and effectively, and promote the construction of a safe China.

Wen et al. (2011) believe due to the urgent need of local governments for "land finance" and the backwardness of related system construction, land expropriation had become one of the leading causes of rural conflicts. Zhang et al. (2015) conducted field investigations by interview and found that amongst the petitions of land-lost farmers due to land expropriation in Xinjiang, the conflicts focussed mainly on low compensation standards, lack of social security for land-lost farmers and the imperfection in the mechanism for them to defend their interests, etc. Tian (2010, 2011) believes that citizens' growing awareness of rights protection, responsiveness of the discourse for rights protection and the masses' fighting for policies benefiting the masses with more and more government investment resulted in increased number of petitions.

However, the pressure-based stability maintenance is facing multiple challenges such as intensified conflict of interest, deviation from stability maintenance policies, development of information technology and growing awareness of rights protection. Under the pressure from their superiors at all levels and the "One-vote veto" quantitative index assessment, most lower-level governments will strive to safeguard the rights and interests of the masses. Yet, some will utilize all means possible to reduce the number of petitions through letters, visits to Beijing, and repeated petitions at all cost, which entails petition interception, restriction of personal freedom, etc., thus further intensifying social conflicts. The dissimilation tendency of system operation has presented the governance of the society with a "paradox of stability maintenance", i.e. "greater instability resulting from stability maintenance and greater need for stability maintenance resulting from such instability" (Wen et al., 2011; Jing, 2011; Yang et al., 2010).

Regarding the emergence of profit-driven petitions, Luo and Shuang (2014) believe that the impact on traditional ethics and morals in modern times, imperfect market economy and rule of law, incomplete new public management reforms and the destruction of national public ethics and moral guidance by corruption are the root causes and nature of the social moral crisis in contemporary China. Tian (2010, 2011), along with Jin and Zhao (2012), believe that the pressure-based stability maintenance system resulted in the dominant position of a bureaucratic logic, which prioritises a superficial stability and believe now news reported is good news, in the operation of grassroots governments, thereby weakening the governance capacity of grassroots governments. "Buying stability" and "resolving internal contradictions among the people with RMB" are common solutions to problems arising from petition attempts, which, however, will mislead the masses: To solve a problem, you need to start with something that threatens stability. Such stability maintenance model has even given rise to a group of profit-driven "professional petitioners".

The earlier explanation for the formation mechanism of these mass incidents characterized by collective action came from social psychology. Le Bon (2004) concludes that being in a crowd will made individuals lose the sense of reason and responsibility and act impulsively and aggressively due to effects of anonymity, imitation, sympathy, suggestion and obedience. Anger venting, antagonisation, desire to show off, hero syndrome, conformity and diffusion of responsibility can all be important factors for the cause and development of mass incidents. In the field of economic studies, Edmond (2013) established a global games model to describe the importance of information to collective action. However, in these descriptions, citizens made action choices simultaneously in a one-shot manner after observing the information, while the interactions of behaviour choices amongst individuals were not explained in the model. In this paper, we expect to describe the interaction between individual behaviours by a dynamic game model. The theoretical research studies similar to this paper are concerned with the interaction games (Ellison, 1993; Young, 1993; Kandori et al., 1993; Morris, 2000). In this type of literature, the assumption of bounded rationality is often introduced, and it is assumed that there are random factors such as genetic variation or error probability in individual decisions to examine how individuals coordinate behavioural strategies dynamically. Such studies focus on whether the dynamic adjustment process of individuals can converge to equilibrium over time.

This paper attempts to establish a game model to characterize the micro-mechanism of the citizens' appeal action for interests, describe the mechanism through which compensation-based stability maintenance system seeks resolve appeals, and explain the instability of the stability maintenance equilibrium. The basic logic is that if the local government's implementation of a project harms the citizens' interests, it will cause the citizens to petition. However, their petition can be resolved by the compensation-based stability maintenance strategy, and the "dissolving effect" of the "divide and rule" compensation strategy can be used to save compensation costs. The establishment of a rigorous stability maintenance assessment system based on "one-vote veto" can prevent citizens who have been appeased by the compensation strategy from choosing to petition again upon invitation of new petitioners, resulting in the failure of the "fuse effect". Hence, the stability of the maintenance equilibrium can be guaranteed. However, some people may take advantage of the fact that grassroots governments are facing the pressure-based stability maintenance assessment and make profit-driven petitions.

This paper provides some new perspectives for understanding the stability maintenance issue: (1) Although the implementation of stability maintenance policies has silenced the citizens whose interests are infringed, as the compensation income fails to cover all of their loses, these citizens are still "angry". The accumulation of such "silent anger" is the essential reason why society falls into a more unstable state; (2) The instability of maintenance equilibrium brought about by the stability maintenance policy can be easily broken because

other citizens' petitioning behaviour will provoke those citizens in "silent anger" to rejoin the ranks of new petitioners, thereby plunging social stability deeper into the "paradox of stability maintenance"; (3) A rigorous assessment system for stability maintenance can ensure the stability of maintenance equilibrium. However, this kind of pressure-based stability maintenance often involves grassroots governments "accommodating" the citizens threatening to petition, thus providing room for the emergence of "profit-driven petitions".

The contents below are arranged as follows: in Section 2, a basic model is established to describe the behaviour choices of local governments and the citizens and the micro-operation mechanism of the compensation-based stability maintenance strategy; Section 3 discusses how the stability maintenance policy induces profit-driven petitions; Section 4 explores how the rule of law, as an important way of interest articulation, restricts local government behaviour; the last section is a brief summary of this paper.

2. Model analysis

According to research in the Blue Book of China's Society: Society of China Analysis and Forecast in recent years [5], the causes of mass incidents mainly include land expropriation and house demolition conflicts, environmental pollution conflicts and labour disputes [6]. All mass incidents caused by land expropriation, house demolition and environmental pollution are related to unreasonable public decisions of local governments, such as insufficient compensation for house demolition, forced relocation and projects launched by some local governments that ignore the local residents' environmental demands [7]. This paper mainly studies this type of mass incidents, where the interests of local governments and the people are not always consistent; when there is a conflict of interest between them, the choice of the people's interest articulation behaviour may cause mass incidents.

For simplicity, it is assumed that the local government can choose the project scale p, where $p \in [0, 1]$. The local government's gain from implementing the project is p, which, in the meanwhile, will cause interest loss p to each citizen in the jurisdiction [8]; the total number of citizens in the jurisdiction is defined as 1. Citizens whose interests are infringed can choose to appeal (cry) or give up petition (silence) for their interests [9]. The petition herein refers to citizens' behaviour of articulating their interest through petition by letters, assemblies, even collective blockades or intrusion into the relevant administrative departments. Silence means that a citizen does not articulate any interest appeals. The petition cost of citizen i is σ_i [10]. Citizens are atomic individuals without negotiation or communication with each other [11]. Each individual only knows that the petition costs of other citizens are evenly distributed on $[0, \theta]$, where the constant is $\theta \in (0, 1)$. A citizen with petition cost of σ_i is numbered $i \equiv \frac{\sigma_i}{\theta}$, which mean the higher the petition cost one has, the larger the number they are assigned. To handle the petitions from the citizens, local governments can adopt the stability maintenance strategy, which mainly refers to a full set of institutional arrangements such as the compensation-based policy characterized by "buying stability" and stability maintenance assessment system.

The order of actions in the game is as follows: (1) local government's choice of the project scale p; (2) implementation of the stability maintenance policy [12]; (3) the citizens' choices between petition and silence strategies; (4) the realization of gains of each party.

In the next section, we will use backward induction to solve the model. Firstly, the citizens' strategic choices in the absence of stability maintenance policy arrangements are analysed. Subsequently, the mechanism of compensation-based stability maintenance and the strategic choices of the citizens and local governments in this case are analysed.

2.1 The citizens' strategic choices

When there is no stability maintenance policy, how do citizens whose interests are infringed due to the implementation of projects by local governments choose their strategies? The gain

of citizen i from choosing silence [13] is $u_{is} = -p$, while that from choosing petition is $u_{ic} = I \cdot 0 - (1-I)p - \sigma_i = -(1-I)p - \sigma_i$, where I is the expected number of citizens who participates in the petition, the size of which also indicates the probability of a successful petition. Simply put, the more petitioners there are, the more likely the petition will succeed.

Next, the citizens' choices between petition and silence strategies are analysed. The difference of gain between citizen i's choice of petition and silence strategies is $\Delta_{cs} \equiv u_{ic} - u_{is} = Ip - \sigma_i$, where $I \equiv \frac{\sigma_{cs}}{\theta}$, and σ_{cs} is the petition cost of the citizens without gain difference between the petition and silence strategies. It can be found that citizens who has no gain difference between the two strategies are distributed within [14] $\sigma_{cs} = \begin{cases} \theta, & p \geq \theta \\ 0, & p < \theta \end{cases}$, and therefore citizens whose petition costs fall within $[0, \sigma_{cs}]$ are likely to choose petition, while those falling within $[\sigma_{cs}, \theta]$ will prefer silence; thus $I = \begin{cases} 1, & p \geq \theta \\ 0, & p < \theta \end{cases}$, i.e. the choice of the citizens herein is a corner solution [15].

2.2 Decisions of local governments

In reality, the stability maintenance strategies adopted by stability maintenance departments are relatively abundant, such as the "relational repression" strategy (Deng and O'Brien, 2013), where social networks are used to resolve appeals, and, of course, stability maintenance by violence. However, violent strategies are relatively risky to use and more costly than the other approach [16]. Hence, stability maintenance departments normally give priority to compensation strategies; "buying stability" is the most commonly used strategy for maintaining stability (Zhang and Li, 2012; Tian, 2010, 2011). Zhang Yonghong and Li Jingjun states that "Grassroots governments maintain stability by 'buying stability'—distributing monetary compensation through bargaining with workers, farmers, and owners who fight to protect their rights. Only when money is not working are such routine and normal practice replaced by violence. Hence, this paper focuses on analysing the most common stability maintenance strategy—stability maintenance policy of "buying stability".

If the compensation cost is paid by financial treasury [17], it will reduce the project implementation cost of local governments. In reality, the compensation cost is generally paid by financial treasury, which will reduce the project implementation cost of local governments (reducing the compensation cost coefficient α). However, excessively high compensation costs will also affect local governments negatively, such as damaging their political reputation and performance, hence $\alpha > 0$ [18].

How are petitions resolved at the minimum cost through compensation? Citizens' choice of participation in a petition has a positive externality for those already involved in the petition, i.e. an increase in probability of a successful petition for those already involved; conversely, citizen's choice of quitting a petition has a negative externality for those already involved in the petition, i.e. a decrease in probability of a successful petition for the those already involved. Due to the presence of such externalities, a "divide and rule" compensation strategy can be adopted; to minimize the compensation cost paid, the government can first compensate those who are most likely to accept compensation in the petitioner group, which will reduce the compensation cost in the next step; step 2, compensate the members of the remaining petitioners who are most likely to accept compensation. The process continues until all petitioners have accepted compensation. The reason why this compensation approach has the lowest cost is that the reduced probability of a successful petition by compensating any petitioner is the same. Hence, it is the best choice to compensate those with the lowest compensation cost first.

(1) When the project scale selected by local governments is $p \geq \theta$, as analysed previously, the number of petitioners is $I = 1$. The policy goal of resolving the petition for appeal and silencing the citizens is achieved at the minimal compensation cost.

The compensation process is as follows: the petitioners are firstly divided into n parts based on the petition costs [19] and then compensated accordingly in descending order. If there is no response to the compensation contract from the citizens at some stage, the compensation is terminated, and the game ends.

To make the petitioners with the petition costs in $\left[\frac{n-1}{n}\theta,\ \theta\right]$ give up petition, the compensation amount should be no lower than their gain from giving up petition [20]. The petition gain of the citizens with the petition cost of $\frac{n-1}{n}\theta$ is $\Delta_{cs}^n = \frac{n}{n}\cdot p - \frac{n-1}{n}\theta$, and the gain of the other citizens in this interval will not exceed the value of this gain. If compensation Δ_{cs}^n is offered to everyone in this interval, they will all accept the compensation. When the petitioners with the petition costs in the interval $\left[\frac{n-1}{n}\theta,\ \theta\right]$ accept compensation and quit the petition, those in the interval $\left[\frac{n-2}{n}\theta,\ \frac{n-1}{n}\theta\right]$ can be further compensated with the amount of $\Delta_{cs}^{n-1} = \frac{n-1}{n}\cdot p - \frac{n-2}{n}\theta$ (the petition gain of petitioners with the petition cost of $\frac{n-2}{n}\theta$), and this continues until the petitioners with the petition costs in $\left[0,\ \frac{1}{n}\theta\right]$ are compensated with $\Delta_{cs}^1 = \frac{1}{n}p - 0$ (the petition gain of petitioners with a petition cost of 0) [21].

The total compensation cost is $t_c = \frac{1}{n}\sum_{l=1}^{n}\Delta_{cs}^l = \frac{1}{n}\left[\frac{p}{n}\frac{n(n+1)}{2} - \frac{\theta}{n}\frac{n(n-1)}{2}\right] = \frac{n+1}{2n}p - \frac{n-1}{2n}\theta$. Hence, the local government's gain after implementing the compensation strategy is $u_g = p - \alpha\cdot tc = \left(1 - \frac{\alpha(n+1)}{2n}\right)p + \frac{\alpha\theta(n-1)}{2n}$. Let $n\to\infty$ to approximate [22] the solution of compensation cost. When $n\to\infty$, the total amount of compensation $t_c = \frac{p-\theta}{2}$ and local government gain $u_g = \left(1 - \frac{\alpha}{2}\right)p + \frac{\alpha\theta}{2}$ can be obtained. Hence, when $\alpha \geq 2$, the optimal project scale is $p^* = \theta$, and local government gain is $u_g = \theta$; when $\alpha < 2$, the optimal project scale is $p^* = 1$, and local government gain is $u_g = 1 - \frac{(1-\theta)\alpha}{2}$.

(2) When the government chooses a project scale $p < \theta$, as analysed previously, the number of petitioners is $I = 0$. The local government gain is $u_g = p$, the optimal project scale is $p^* = \theta$, hence the gain $u_g = \theta$. Summarizing above analysis results we can obtain the following propositions:

P1. The solution of the game is the subgame perfect Nash equilibrium as follows: (1) When $\alpha < 2$, the optimal project scale selected by the local government is $p^* = 1$. The citizens remain silent after receiving compensation, the total compensation amount is $t_c = \frac{1-\theta}{2}$, and local government gain is $u_g = 1 - \frac{(1-\theta)\alpha}{2}$; (2) When $\alpha \geq 2$, the optimal project scale selected by the local government is $p^* = \theta$. All citizens choose to remain silent, the total compensation amount is $t_c = 0$, and local government gain is $u_g = \theta$.

Proposition 1 shows a lower weight α of stability compensation costs in local government gain leads to lower project implementation cost, larger project scale and greater damage to the people; while a higher weight of compensation costs in local government gain leads to higher project implementation cost, and therefore smaller project scale selected by the local government. In addition, a lower petition cost for citizens results in higher total compensation cost, smaller project scale selected by the local government and lower project implementation gain, which conforms to intuition.

If the entire petitioner group were to be compensated simultaneously instead of adoption of the "divide and rule" gradual compensation strategy, the total compensation is

$t_c^{'} = \int_0^\theta (p-\sigma)d\sigma = p - \frac{\theta}{2} > t_c$ when $p > \theta$. This indicates that through "isolating" the remaining petitioners and thereby gradually reducing their petition success rate with the compensation strategy will reduce the compensation costs of local governments. Conflicts of interest are like solid minerals, difficult to break with a hammer but dissolvable with a solution. The "divide and rule" compensation strategy functions as a solution: a solution that dissolves and strips the difficult-to-dissolve minerals layer by layer until their very core is dissolved. This effect of the compensation strategy can therefore be referred to as a "dissolving effect", and the state of social stability acquired by the above stability maintenance approach as stability maintenance equilibrium.

In reality, compensation strategies with "dissolving effect" based on "divide and rule" concept are extensively used. Wu (2007) observed that in the stability maintenance process, the government often targeted the "activists" who "took the lead" only, looking to either appease and cozy up to them or punish and monitor them. Wen *et al.* (2011) observed that government departments attached great importance to "rural local governments" and "rights protection leaders" and tried to include them in the system and monitor them through various "stability control" measures [23].

Stability maintenance compensation policy can efficiently keep citizens who suffered from the damage of the project silent. However, the citizens are still harbouring discontent (known as "Abstract anger") instead of manifesting them in specific appeal slogans or actions. These citizens demonstrate superficial rule-following behaviour but harbours inner anger and discontent with unreasonable and unfair rules cannot be ignored, because these anger is like a powder keg whose explosion cannot be predicted accurately and may erupt at any time. The main goal of participants in these mass events is to vent their emotional discontent and express their global, holistic dissatisfaction with such issues as judicial injustice, corruption and abuse of public power (Research Group of Tsinghua University, 2010). Behind this phenomenon are often long-term accumulated dissatisfaction and resentment. In the context of this paper, the "abstract anger" of the citizens can be referred to as "silent anger" as citizens who have not received any compensation but remain silent will undoubtedly have "silent anger" when a stability maintenance policy is implemented; on the other hand, those who remain silent after receiving compensation will still have "silent anger", as the compensation

is merely no less than the gain from participating in the petition $\left(\Delta_{cs}^i = \frac{i}{n} \cdot p - \frac{i-1}{n}\theta\right)$ to suffice

the need to made them give up the petition and remain silent but still less than their total loss (p) [24]. This means the "silent anger" can be measured by the total amount of damage those citizens have suffered due to government projects without the corresponding compensation. Specifically, when $\alpha \geq 2$, "silent anger" is $si = p^* - t_c = \theta$; when $\alpha < 2$, "silent anger" is $si = p^* - t_c = \frac{1+\theta}{2}$. Apparently, $\frac{dsi}{d\theta} > 0$ and $\frac{dsi}{d\alpha} \leq 0$ can be obtained. Hence, the following proposition can be established:

P2. Reducing the petition cost of the citizens and restricting the inappropriate use of fiscal funds can reduce the "silent anger" (*si*).

This is because the compensation cost can be increased, and the incentive for local governments to implement projects can be reduced by lowering the petition cost of the citizens, thereby reducing the silent anger. The general and long-term anger due to the continuous accumulation of such silent anger is one of the major factors behind the outbreak of many mass incidents. Many participants do not have the most direct connection with the incidents but are involuntarily involved in the mass movement because they need to vent their resentment and anger.

However, the development of a dynamic system does not end there. External disturbance factors will make it highly difficult to keep the above "stability maintenance equilibrium"

achieved by "buying stability". For example, assuming that in addition to the above citizens harbouring grievance against the project in question, there are other citizens A whose number is $\frac{1}{n}$ that suffered from other governmental projects (whose scale is p); their petition costs are also evenly distributed in $[0,\ \theta]$. If these citizens choose to petition in this case, it is most likely to motivate those with the petition cost in $\left[0,\frac{1}{n}\theta\right]$ who have been compensated based on the aforementioned compensation strategy to choose petition again, and then those with the petition cost in $\left[\frac{1}{n}\theta,\frac{2}{n}\theta\right]$, and so forth, until all the citizens are motivated to petition. These citizens are willing to rejoin the petition because those with the petition cost in $\left[\frac{m-1}{n}\theta,\ \frac{m}{n}\theta\right]$ $(m < n)$ can obtain an additional gain of $\Delta_m = \left(\frac{m+1}{n}p - \frac{m-1}{n}\theta\right) - \left(\frac{m}{n}p - \frac{m-1}{n}\theta\right) = \frac{p}{n} > 0$ by choosing to petition again, where $\left(\frac{m+1}{n}p - \frac{m-1}{n}\theta\right)$ is the total gain that the citizens in this interval can obtain by rejoining the petitioner rank, and $\left(\frac{m}{n}p - \frac{m-1}{n}\theta\right)$ is the compensation their compensation in the earlier stage. As a result, all the citizens will be motivated to participate in the petition again, and to them choose to remain silent again, the government will have to pay additional $\Delta_m = n \cdot \frac{1}{n} \cdot \frac{p}{n} = \frac{p}{n} > 0$. That is, the "stability maintenance equilibrium" obtained by "buying stability" is in fact unstable; Zhang and Li (2012) refer to this dilemma as "fragile consent".

In fact, at least two strategies can prevent the citizens who have been successfully compensated based on the compensation strategy from rejoining the petition team: (1) Upon the implementation of the compensation strategy, offer higher compensation for those with the lowest petition cost, making it unprofitable for them to rejoin the petition team, thus avoiding the chain reaction caused by the fuse effect. More specifically, when the compensation strategy is implemented for the first time, if a higher stability maintenance payment $\Delta_{cs}^{1s} = \frac{p}{n} + \Delta_{cs}^{1} > \Delta_{cs}^{1}$ is made to those with the petition cost within $\left[0,\frac{1}{n}\theta\right]$, it will be unprofitable for those in this interval to rejoin the petition with new petitioners. Hence, those with low petition costs will not rejoin the petition, and the stability maintenance equilibrium is maintained as this process continues. It is worthwhile to pay additional compensation fund $\frac{1}{n}\frac{p}{n} < \Delta_m$ for such compensation. (2) Implement the compensation strategy for the citizens who act as the "fuse" to prevent those who have been successfully compensated based on the compensation strategy from rejoining the petition team as motivated by the petition behaviour of A. The question is which approach can achieve the goal at a lower cost? Apparently, based on the former approach, where the petitioners with the lowest petition cost are compensated, the compensation cost will be higher than that based on the latter approach. This is because the amount of compensation to be paid to citizen j in the compensation for citizens A is $\frac{p}{n} - \sigma_j$, which is less than the incremental compensation $\frac{p}{n}$ paid to each citizen whose petition cost fall within $\left[0,\ \frac{1}{n}\theta\right]$. Hence, it is rational to choose to compensate citizens A to prevent the failure of the stability maintenance equilibrium. In other words, to keep the "stability maintenance equilibrium" while minimizing the cost, A that acts as the "fuse" should be selected when paying compensation.

Due to the presence of a compensated citizen group that has suffered damage from government projects, the petition behaviour of A will cause a chain of petitions from this compensated citizen group, i.e. a minor petition behaviour will arouse the petitions of a large group, resulting in the failure of the stability maintenance compensation policy. It is

preferable to implement "zero petition rate" policy to avoid this chain of petitions; severe assessment measures such as "one-vote veto" [25] will provide sufficient incentives to achieve this goal. The response of stability maintenance departments to the rigorous assessment system arrangements such as "one-vote veto" ensures that the "zero petition rate" can be achieved to the greatest extent.

If the group of citizens who have been compensated but still have "silent anger" is a "powder keg", then A is the "fuse" on the powder keg. To prevent the powder keg from being ignited, we must first prevent the fuse from catching fire. This effect of A is known as the "fuse effect" [26], which corresponds to the "dissolving effect" in the compensation process mentioned previously. In the context of this paper, we may define the "powder keg" brought about by such government projects and stability maintenance compensation of "buying stability" as "stability maintenance-induced powder keg". The presence of "stability maintenance powder keg" and "fuse effect" makes it easy to break the stability maintenance equilibrium, i.e. the stability maintenance equilibrium is not stable. Hence, local governments have to work harder to maintain stability. This can be summarized is as follows:

P3. During the implementation of compensation-based stability maintenance policies, the citizens with infringed interests and not fully compensated are likely to be motivated by other petitions and choose to petition again, which entraps the stability maintenance into a "paradox of stability maintenance".

3. Profit-driven petition

In fact, the Central Commission for the Comprehensive Management of Public Security implemented the "one-vote veto system" in the comprehensive stability maintenance work in 1992 (China, 1992). As mentioned earlier, the rigorous stability assessment system has provided an institutional guarantee to eliminate the "fuse effect" in the compensation-based stability maintenance. However, the designers of the rigorous stability maintenance assessment system did not expect that after the implementation of the system for over a decade, the pressure-based stability maintenance system caused even more social problems. Among them, the problems of profit-driven petitions were increasing, and even a petitioning industry emerged (Tian, 2010). The so-called profit-driven petition is relative to petition for rights protection: petition for rights protection is a petition behaviour of citizens when their own rights or public interests are infringed. The specific content includes the petition behaviour caused by the increased burden on farmers, cadre infringement and economic work style issues. On the other hand, the profit-driven petition is an active petition behaviour fighting for extra benefits, which is different from that for rights protection after rights and interests are infringed. The specific content includes interest requirements such as life care (Tian, 2010). We believe the gradual emergence and growth in the scale of profit-driven petitions is closely related to the strict pressure-based stability maintenance assessment system.

Let us assume that two parties, namely, Parties B and C, are transacting a business and a (transactional) dispute occurs between them. When B actually has no responsibility in this transaction, which is a fact known to C. However, other than both parties to the dispute, no third party knows who is responsible for the dispute, which requires judicial confirmation [27]. C can choose to petition to higher authorities or appeal to the court [28]. However, considering that if the judicial department can identify the responsibility of the dispute, C has nothing to gain; if it cannot, according to the principle of presumption of innocence [29], C still has nothing to gain. Hence, C will not choose to appeal to the court.

Assuming that the number of C is $\frac{1}{n}$, and its petition costs are also evenly distributed in $[0, \theta]$. C plays the same role as A, and its petition behaviour will break the previous stability maintenance equilibrium. In the "one-vote veto" system, lower-level officials have incentives to take measures and make C give up the petition; in practical operation, to achieve

comprehensive governance assessment standard, units at all levels will pile pressure upon B and force B to compensate C. In some cases, the government is even willing to share the payment of compensation with B [30], as long as it is not excessively high (less than $\frac{b}{n}$). This will not only cause "unjust, false and erroneous cases" but also encourage some citizens in a similar position of C to petition for profit, which will erode the moral standards of the entire society.

The logic of "profit-driven petition" immoral social behaviour can be summarized as follows: (1) Fundamentally, the reason why C can pull off the immoral behaviour is the presence of a compensated citizen group that has suffered damage of some project implemented by power. The petition behaviour of C will cause a chain petition response of the compensated citizen group, i.e. a minor petition behaviour will stir up the petition behaviours of a large group; (2) The best option to avoid the chain of petitions is to eliminate any source (such as the role of A described above) that may cause this chain of petitions and achieve a "zero petition rate"; (3) Strict assessment measures such as "one-vote veto" [31] will provide sufficient incentives for grassroots governments to achieve the goal of "zero petition rate" seriously; (4) Under the rigorous stability maintenance assessment system such as "one-vote veto", a pressure-based stability maintenance system, grassroots stability maintenance departments often give in to the noisy behaviour of "profit-driven petitions", leading to widespread profit-driven petitions. Since it is unknown who has a profit motive, profit-driven petitions are highly difficult to control. Once the control is inappropriate or the compensation fails, the profit-driven petitioner C will play the role of a fuse, and the stability maintenance equilibrium will be broken.

> *P4.* The emergence of profit-driven petitions will further reduce the stability of stability maintenance equilibrium.

The rural field survey by Tian (2011) also verified our inference; as it is difficult to identify the legitimacy of some farmers' petitions, grassroots authorities have to obfuscate them. Such obfuscation may temporarily alleviate the problem, but it also provides opportunities for those profit seekers. When the petition becomes a lucrative means, it will motivate more people to take the path of petitioning. More and more profit-driven petitioners will appear, thereby forming a vicious circle of "Those who petition shall profit and gain more". The rigorous stability maintenance assessment forces grassroots governments to give in to petitioners again and again, while petitioners are pressing harder and harder. Grassroots officials have to continue appeasing the petitioners by all means, including bending the rules against regulations, offering small favours, etc. "Buying stability" and "Resolving internal contradictions among the people with RMB" become widespread practices. The core members of petitioners can be handled by treating them to meals, buying them stuffs so that they will not take the lead.

"Powder keg" comes from projects implemented by power and abuse, and "fuse" comes from those who seek profit. In this sense, the profit-driven petition is derived from projects implemented by power and abuse; in the context of dissimilation of stability maintenance policies, they also have a symbiotic relationship (Lee and Zhang, 2013).

4. Rule of law
Where conflicts of interest between the government and the people are present and not properly resolved, they will lead to attempted appeals of the people for their interest, thus bringing about factors that nurture social instability. The stability maintenance system can eliminate the factors of social instability, but it may in turn induce profit-driven petitions. From this perspective, standardizing government behaviour and restricting the operation of power is a fundamental approach to maintenance of long-term social stability. Amongst

them, strengthening the construction of the rule of law, reducing the people's cost of appeals through judicial channels, and increasing local governments' power abuse cost is a crucial governance approach [32].

In a basic model, the citizens choose either to petition or be silent; in real life, citizens can also choose court appeal to solve the problem of interest infringement [33]. In the next section, the situations where people may also choose to solve the problem by judicial means are discussed.

Citizen i's gain by choosing to appeal [34] is $u_{ij} = kq \cdot 0 - (1 - kq)p - \sigma_i = -(1 - kq)p - \sigma_i$, where $q \in [0, 1]$ is the probability that the local government's improper project implementation is identified by the court, and its value indicates judicial efficiency. The smaller the coefficient $k \in [0, 1]$, the smaller the court's independent ruling capacity. The following proposition can therefore be deduced:

P5. When $k = 1$, the solution of the game is the subgame perfect Nash equilibrium as follows: (1) When $\theta - q^2\delta < 0$, the optimal choice of local governments is not to implement the project, i.e. $p^* = 0$, and its gain is $u_g = 0$; there will be no appeal; (2) When $0 < \theta - q^2\delta < 2\theta q^2$, the optimal project scale selected by local governments is $p^* = \frac{\theta - q^2\delta}{2q^2}$, and its gain is $u_g = \frac{(\theta - q^2\delta)^2}{4\theta q^2}$; the citizens with the appeal cost in $\left[0, \frac{\theta - q^2\delta}{2q}\right]$ will choose to appeal, while those in $\left[\frac{\theta - q^2\delta}{2q}, \theta\right]$ will choose to remain silent. (3) When $\theta - q^2\delta \geq 2\theta q^2$, the optimal project scale choice of local governments is $p^* = \theta$, and its gain is $u_g = \theta - q^2\delta\theta - q^2\delta^2$; the citizens with the appeal cost in $[0, q\theta]$ will choose to appeal, while those in $[q\theta, \theta]$ will choose to remain silent.

Proof: See Appendix.

δ in the proposition (where $\delta > 0$) is the punishment for local officials if the court rules against the local government [35]. When the court has the strongest independent ruling capacity [36] ($k = 1$), the local government will not choose a project scale that may cause the petition of the people. The reason is that it takes a very high project scale $p > \theta$ to make the people expect that petition is more favourable than appeal, thus preventing them from choosing to appeal, since high project scale can motivate more people to petition. However, increasing the project scale has both advantages and disadvantages for local government; larger project scale increases the government's project benefit, but it will motivate more people to participate in petitions, thereby reducing project benefit. When the project scale is small, the former effect is stronger than the latter. Hence, increasing the project scale at this point will increase the project benefit of the local government. However, project scale of $p > \theta$ will arouse large-scale petitions, and the loss in benefit due to the increased petitions of the people caused by the enlarged project scale will exceed the benefit from increasing the project scale, suggesting the constraint of appeals on the local government's project choice.

The higher the appeal efficiency q, the greater the punishment δ for improperly implemented projects by the government, the higher the cost of project implementation and the lower the incentive to implement the project. Especially when $1 - q^2\delta < 0$, the best choice of the local government is not to implement the project. The following can be deduced,

I1. When $k = 1$ and the compensation-based stability maintenance is not implemented, (1) $\frac{dp^*}{dq} \leq 0, \frac{dp^*}{d\delta} \leq 0, \frac{dp^*}{d\theta} \geq 0$; (2) $\frac{du_g}{dq} \leq 0, \frac{du_g}{d\delta} \leq 0, \frac{du_g}{d\theta} \geq 0$.

This is because, at a lower petition cost, the implementation of a project with even small damage to the citizens' interest will arouse massive petitions. Hence, the lower the upper limit θ of the people's petition cost is, the smaller the project scale selected by local governments

will be. If local governments do not wish to see large-scale petitions and choose to allow the people to appeal, they should also choose a project with a relatively small scale, and their gain from implementing the project will be reduced accordingly.

Comparison of Proposition 1 and Proposition 5 suggests that when $k = 1$ and compensation-based stability maintenance is not allowed, the project gains of local governments are no higher than θ; when $k = 0$ and compensation-based stability maintenance is allowed, the project gains of local governments are no lower than θ. Apparently, stability maintenance policy and weak independent ruling capacity of the court are more beneficial to local governments, which also explains to some extent why the stability maintenance policy can be kept for a long time in reality. The reason is that it can reduce judicial restrictions on projects, along with the divide-and-rule compensation strategies, which can reduce the project implementation cost of local governments.

> I2. Enhancing the court's independent ruling capacity and restricting compensation-based stability maintenance can reduce the project scale and gain of local governments.

In reality, when the people's interests are infringed by power, they would rather choose to petition instead of court appeal because they feel that case appeal will be interfered with, the probability of success is low, and the cost of litigation is high (Wang and Ying, 2010; Wen et al., 2011). Increasing the ways and channels for the people's interest articulation and reducing the cost can effectively restrict the abuse of power by local governments and protect the interests of the people, where the rule of law plays an important role.

Strengthening the rule of law allows citizens with infringed interests more likely to choose appeal channels to solve the problem, thereby reducing the number of people who articulate their appeal through petitions. As the "powder keg" becomes smaller or even disappears, the probability of C's success in making profit by choosing noisy petitions will be reduced; moreover, the increased efficiency of appeals makes it easier to identify some profit motives, which will weaken the incentives of profit-driven petitions in some people.

5. Conclusion
The analysis shows that stability maintenance policies can make use of the "dissolving effect" in collective petition actions when compensating the petitioners and maintaining social stability. However, the stability maintenance equilibrium thus obtained can be easily broken by the "fuse effect". To eliminate the "fuse effect", the government needs to implement a rigorous stability assessment system, which, in turn will lead to profit-driven petitions. Although the current stability maintenance policy has played a certain role in maintaining social stability, it fails to address the root cause and guarantee social stability fundamentally. The stability maintenance policy transforms the people's explicit dissatisfaction into an implicit one. The constant build-up of the latter will turn into "silent anger", a powder keg attached with a fuse that poses threat to long-term social stability. The continuous build-up of "silent anger" and the instability of stability maintenance equilibrium in implementing the stability maintenance policy are essential reasons for the stability maintenance paradox of "greater instability resulting from stability maintenance". Ultimately, we have to restrict and regulate the operation of power in order to root out social instability.

There is a trend of diversification in interest subjects and demands in our society nowadays, which is normal in the social development process. However, improper handling of these contradictions and problems will lead to social instability. Studies have shown that only an inclusive system can promote the long-term stability and development of a country (Acemoglu, 2012). Channels and means are required to accommodate and place the interest

demands of the people. The interest articulation should be institutionalized to preserve the lasting stability of the country (Research Group of Tsinghua University, 2010). Amongst them, the construction of rule by law plays an important role, because improving the rule of law can provide more channels for the people to appeal and articulate their interests, thereby regulating the operation of power and reducing social instability caused by the abuse of power. The Decision of the CCP Central Committee on Several Major Issues Concerning Comprehensively Advancing Governance According to Law (China, 2014) states the emphasis on the necessity to strengthen restrictions on internal power of the government, the key of which is defined as strengthening the restriction on administrative power, while governance of the country according to law is defined as a prerequisite for the modernization of the national governance system and capacity as it the long-term stability of the party and the country.

The implementation of the stability maintenance policy may bring other vital issues. To maintain social stability, the government has to tilt the national policy towards the protection of people's interests. However, the bias and dissimilation of the stability maintenance path adopted may make society more unstable. The government may further strengthen centralization to govern the grassroots, which makes the policy more biased and distorted. As a result, the transitional society will fall into a fluctuation state between repeated centralization and decentralization. If the government addresses problems mostly by money, the policy will foster profit-seeking groups, and local governance will greater difficulty. This problem will become especially tricky when the economic development momentum slows down and the state and local finances tighten, leaving the government significantly less manoeuvrability to resolve social conflicts (Zhao, 2010a, b). All these issues are risks to be prevented for a country in transition. It is worthy of further discussion and research by scholars to provide adequate intellectual support for the lasting stability of the country and society.

Notes

1. According to incomplete statistics of the Blue Book of China's Society released by the Chinese Academy of Social Sciences, the number of mass incidents increased from 8,700 in 1993 to over 90,000 in 2006, and to 180,000 in 2010. The Blue Book of China's Society 2013 (Lu *et al.*, 2012) pointed out that in recent years, there were tens or even more than 100,000 mass incidents incurred by various social contradictions each year.

2. It was estimated that Guangzhou's social security expenditure in 2007 was up to CNY4.4*bn*, far exceeding the social security employment funds (CNY3.52*bn*) that year. The situation in some other places was similar or even worse. Various inputs for stability maintenance have become a regular expenditure of local government accounting for a substantial proportion. According to statistics, China's budget for internal security in 2010 amounted to CNY514*bn*. Based on a 16% increase over public security expenditure last year, the increase this year will be 8.9%, higher than military expenditure. The actual amount is almost the same as the defence expenditure. For the data source, please refer to the Research Group of Tsinghua University (2010).

3. Regarding the issues included in the assessment standards, government departments have formulated detailed assessment standards. These standards are similar, and the evaluation scheme for the comprehensive management work objective of social security in a certain province is used as a reference: http://www.jxfazhi.gov.cn/ztzl/zzxc/201108/t20110817_931816.htm.

4. Profit-driven petitions are petition behaviours for unreasonable (illegal) additional benefits, which are different from petitions for rights protection after rights and interests have been infringed.

5. The characteristics of mass incidents in recent years are as follows: about half of the mass incidents were caused by land expropriation and house demolition, about 30% by environmental pollution and labour disputes, and about 20% by other social conflicts (Lu *et al.*, 2012). Mass incidents due to

environmental issues were rising rapidly (Li *et al.*, 2013). Since 2014, social contradictions have shown rebound, and large-scale mass incidents occurred from time to time. Issues of land expropriation in rural areas, labour relations, environment and urban management law enforcement continued to be the leading causes of frequent social conflicts (Li *et al.*, 2014). Mass incidents due to contradictions of land expropriation, house demolition and environmental pollution were still frequent; in 2015, the cases of "civilian suing government officials" increased significantly (Li *et al.*, 2015).

6. Mass incidents due to labour disputes were increasing year by year. However, as shown in the research results of Zhang and Li (2012), Lee and Zhang (2013), the government ended up cleaning up the mess of many civil conflicts. Amongst them, there were many cases of profit-driven petitions. See the profit-driven petition section of this paper. According to the logic of this paper, government finance has to pay for civil labour disputes ultimately. It is the logical result, not the cause, of stability maintenance described in this paper. That is, the improper use of public rights leads to social instability, which requires a stability maintenance policy. The pressure-based stability maintenance policy provides opportunities for profit-driven petitions. Objectively, it leads to the fact that the government has to pay for civil labour disputes in the end, which is the result of the pan-politicization of social problems caused by stability maintenance.

7. For example, Xiamen PX project incident in 2007, Qidong incident in 2012 and Lianyungang nuclear waste treatment plant incident in 2016 were all large-scale environmental mass incidents.

8. This means a larger project scale lead to higher the local government's gain, but it also results in greater loss to the people. For example, regarding the issue of demolition and land sale by the government, local governments expect to obtain more financial income through demolition and land sale. If the compensation for relocated households is excessively high, it means that fiscal revenue will decrease. In reality, local governments often acquire land at a lower relocation cost (including low demolition compensation to the relocated households), and then sell the land at a higher price to obtain financial income from the difference. This type of project is a zero-sum game. From the perspective of maximizing social welfare, it is not necessary to implement the project. However, local governments may choose to implement it from self-interests.

9. In the subsequent discussion of the rule of law, we will consider the case where the public can choose a judicial appeal.

10. Regarding the identity characteristics of rural petitioners, Wang *et al.* (2010) suggested through empirical analysis that amongst rural petitioners, the identity of village cadres of farmers, social endowment insurance coverage, satisfaction with monetary compensation, adaptation to current work and awareness level of relevant policies and regulations have a significant influence on their tendency to appeal.

11. As described by Zhang and Li (2012), "These 'movements' are not mobilized in a continuous and organized manner, but rather in the form of sporadic local, brief, countless fragmented collective protests." In addition, citizens may "see how others act before determining their own actions" when they make strategic choices, given that such "coordination" means will not affect the model results.

12. In this paper, we put the implementation of the stability maintenance system after the project implementation and before the appeal, because we assume that the stability maintenance department knows the petition cost of citizens. Hence, it can make compensation before the appeal occurs. For example, after the demolition project is established, the demolition office will be set up, which is conducive to preventing the citizens' appeal in advance. Certainly, in reality, many stability maintenance measures are introduced after the appeal occurs, which is the assumption in the earlier version of this paper. It should be noted that such assumption choice will not affect the basic conclusions of this paper.

13. For petitions, the stability maintenance department usually take the measures of "major solution to those making a big scene, minor solution to those making a small scene, no solution to those making no scene". If the citizens' who suffered from damage do not resort to petition, they will gain nothing.

14. For the sake of simplicity, we assume that when $p = \theta$, none of the citizens choose to petition.

15. In reality, it is more common for citizens to choose an interior solution. Given that the primary purpose of this paper is to describe the "dissolving effect" and "fuse effect" in petitions clearly, this "conclusion" can be regarded as a technical assumption.

16. In reality, once "relation-based suppression" and stability maintenance by violence are exposed by the media, stability maintenance officials will be under great pressure or even subject to severe punishment. For the case of "relation-based suppression" in demolition, such as the case of Li Shuisheng, a retired cadre at the county level in Yongfeng County, Jiangxi Province, see Chen L.Q., *What Measures Were Taken in Yongfeng to Remove the "Pain in the Ass" at the County Level*, Xiaoxiang Morning Herald, 25 August 2014.

17. For example, both the Regulations on Comprehensive Management of Social Public Security in Province J (2003 revision, Article 37) and the Regulations on Comprehensive Management of Social Public Security in Province H (2007, Article 27) stipulate: The required funds shall be included in the fiscal budget by the people's governments at all levels. Special funds are allocated and used for special purposes, and the investment shall be gradually increased with the development of the economy. We only point out the compensation cost during the stability maintenance, but the actual stability maintenance cost is much higher. Zhao (2010a,b) believed that the expenditures for maintaining stability included: (1) Human resource expenditure for maintaining stability; (2) Facilities, equipment and other material expenditure for maintaining stability and (3) Expenditure for handling cases.

18. If full discussion and approval by taxpayers or their representatives are required before the stability maintenance cost can be paid via fiscal expenditure, the cost of improper use of financial resources is relatively high (increased by α), which will reduce the possibility of using public resources to "pay" for abuse of power.

19. As it is assumed that the stability maintenance department is aware of the petition cost of individual citizens, it can provide compensation for each citizen. Here we assume that the stability maintenance department divides the petitioning citizens into n equal parts based on the petition cost to obtain the total compensation by approaching the continuous situation in a discrete way. That is, when $n \to \infty$, it is equivalent to the compensation offered by the stability maintenance department to each citizen based on the petition cost. The subsequent footnotes will also explain that the result obtained by the continuous method is consistent with that by the discrete method, while it looks more intuitive by the discrete method. Hence, the discrete method is used herein to describe the compensation process.

20. During the stability maintenance, the stability maintenance department does not even need to know the type of each specific person. It just needs to report to the citizens the amount of compensation, while different types of citizens determine whether they will accept the compensation. This is similar to the mechanism of the information screening contract.

21. Is it optimal to suspend the compensation policy when compensation has been made to a certain interval $\left[\frac{i-1}{n}\theta, \frac{i}{n}\theta\right]$? Apparently, when the compensation is suspended, the expected gain of the local government is lower than that when the implementation of the compensation policy is continued. This is because if the compensation is not continued, the loss caused by the uncompensated citizens to the local government is $\frac{i}{n} \cdot p$, higher than the cost $\frac{i}{n} \cdot p - \frac{i-1}{n}\theta$ paid to each petitioning citizen when the compensation strategy of divide-and-rule is further implemented.

22. In fact, we can also use the continuous method to calculate the total compensation cost, i.e. $t_c = \int_0^\theta \left(\frac{\sigma}{\theta}p - \sigma\right)d\sigma = \frac{p-\theta}{2}$; the result obtained by the continuous and discrete algorithms are the same. In this paper, mainly the discrete expressions are used, because discrete expressions are more intuitive and easier to discuss.

23. In this paper, it is assumed that the contribution of every person to the success of a petition is homogeneous, and no ability heterogeneity assumption is made. But this will not affect the main conclusions of this paper: (1) Both the "restricting the bellwether" and the "dissolving" compensation strategies described above adhere to the spirit of obtaining the maximum benefit with the minimum cost; (2) Both resolve the petition behaviour through "divide and rule" and

restrict some people's motivation to continue to participate in the petition by compensating and restricting others. There is a "dissolving effect" in both, but the implementation forms are slightly different.

24. As Zhang and Li (2012) said: Citizens claim their legal rights but realize that their best bargaining chip is the expedient monetary return. The government's pressure to perform a sweep and clean up any social instability signs has forced a just claim to resort to forced mediation and discounted compensation. Any citizen who has signed an "inequality treaty" with the government will feel deeply deprived of their rights and is dissatisfied.

25. Officials who fail to maintain stability will be severely punished, or even lose their political career prospect, which will motivate them to dedicate enough energy to stability maintenance. As recently reported by Sha (2016), some citizens in Xiantao City, Hubei Province, objected to the construction of a waste incineration power generation project. Recently, Hubei Provincial Commission for Discipline Inspection issued an accountability bulletin on this incident. Due to the adverse effect caused by poor leadership and dereliction of duty in the incident, Hubei Provincial Party Committee decided to relieve Feng Yunqiao (deputy department director) from the post of Secretary of Xiantao Municipal Party Committee and terminate his promotion and appointment process.

26. A recent case was the incident where the police shot and killed Xu Chunhe on 2 May 2015. After the incident occurred, Deputy County Director Dong Guosheng was reported for age fraud, academic credential fabrication and freeloader wife, and other crimes; the county party secretary was also reported. On May 12, private school teachers Sun Guangxu and Chen Chuanming reported many officials in Qing'an County suspected of buying/selling 300 staffing quotas for teachers; the Prosecutor General of the County Procuratorate was reported for corruption and violation of discipline; the Deputy Director of the County Public Security Bureau was reported for the crime of bending the law to serve his personal considerations for favouritism, abuse of his authority, etc. That is, the Xu Chunhe incident triggered a series of chain reports. Hence, some commented that "With a shot, the officialdom in Qing'an totally collapsed." In addition to the factors that the reporting cost was reduced g after the incident attracted national attention, the "fuse effect" has also played an important role.

27. In the case of "profit-driven petitions", C refers to petitioners, and B refers to the government. In the case of "medical disputes", C refers to the patient, and B refers to the medical institution.

28. The petition of B is not considered herein.

29. The principle of presumption of innocence generally requires compliance with the following verdict requirements: If the evidence is insufficient and thus the defendant cannot be found guilty, he shall be pronounced innocent accordingly on account of the fact that the evidence is insufficient and the accusation unfounded.

30. Zhang and Li (2012), Lee and Zhang (2013) surveyed one city in North and South China each and found many fresh cases where the government ultimately paid for many civil disputes: (1) In a city in South China, due to the prevalent labour disputes, the municipal government has set up a "Wage Arrears Protection Fund" since 1997, requiring sub-district offices and business owners to jointly bear the economic responsibility for compensating workers who are in arrears of wage. In 2008, a total of 43m yuan was allocated from the Wage Arrears Protection Fund of the city to pay the wages of 13,300 workers. In a dispute over the quality of affordable housing in T Street, South China, the Municipal Construction Bureau directly paid 20m yuan to exempt all residential owners of the property management fee for 3 years; (2) The annual budget for the "stability maintenance fee" of each district government of a certain city in North China ranges from 2m to 100m yuan. In addition to direct payment to settle those who threaten to take direct actions, if the object of the dispute is service and utilities, the form of "buying stability" becomes the grassroots government paying for emergency service and utility fees. For example, to prevent emotional owners from marching on the street, the M Sub-district Office in North China paid the water pipe repair fee for the owners. In another community, the property management company cut off the owners' water supply temporarily due to the management fee in arrears, and the sub-district office delivered buckets of water to the owners.

31. In practice, the government achieves this goal through a series of "comprehensive governance assessment" system arrangements, closely linking comprehensive governance assessment to the annual appraisal of the units, the promotion of unit managers and the implementation of the "one-vote veto" and "zero petition rate" assessment system, imposing the corresponding administrative sanctions on the persons who are responsible for the units that fail to meet the standards. In the operation of the bureaucratic system, accountability is implemented through the power operation of superiors to subordinates. In case of a fault made by a subordinate, he/she will be subject to punishments such as warnings, dismissal from posts and expulsion from the Party. Layers of stress and accountability jointly shape a bureaucratic system full of risks. Such a high-risk political ecosystem has forced many officials to be extremely cautious and timid in their daily work. As a result, "being strictly on guard and defending to the last", "crushing in the egg", "building a moat project", etc. have become common and frequently used terms in the stability maintenance.

32. In an earlier version of this paper, in addition to the decentralization of the ruling by law, we also considered fiscal, social and other forms of decentralized governance to restrict the local government behaviour. Due to limited space, we focus on the mechanism for regulating the operation of power through the rule of law herein.

33. The appeal herein refers to citizens' realization of their interests through legal proceedings.

34. Here we assume that the petition and appeal costs of citizen i are the same to facilitate the influence of other factors on the citizens' choice of strategy.

35. When the citizens' petition is successful, in addition to returning the gain from the corresponding project to the citizens, the relevant officials may also be subject to the Party and political discipline punishment, or even transferred to the judiciary.

36. Given the importance of the judiciary restriction and supervision of administrative power, the central document particularly emphasized the importance of judicial construction. The Decision of the Central Committee of the Communist Party of China on Some Major Issues Concerning Comprehensively Deepening the Reform (China, 2013) stated that it was necessary to ensure the independent and impartial exercise of the judicial and prosecutorial power according to law; reform the judicial management system, promote the unified management of human, financial and material resources in local courts and procuratorates below the provincial level, explore the establishment of a judicial system that is appropriately separated from administrative divisions, and ensure the unified and correct implementation of national laws. The Decision of the CCP Central Committee on Several Major Issues Concerning Comprehensively Advancing Governance According to Law (China, 2014) improved the system to ensure the independent and fair exercise of judicial and prosecutorial power according to law. Party and government organs and cadres at all levels must support the courts and procuratorates to exercise their functions independently and fairly according to law. The record, notification and accountability system shall be established for cadres who interfere with judicial activities and intervene in the handling of specific cases. No Party or government organ or cadre may allow the judicial organs to conduct anything that violates statutory duties and impedes judicial justice, and no judicial organ may implement the requirements of Party and government organs and cadres for illegal interference in judicial activities. Any party that interferes with the handling of a case by a judicial organ shall be given disciplinary and administrative sanctions; where an unjust, false or wrongful case or other serious consequences are thus caused, it shall be investigated for criminal responsibility according to law.

37. The preference of each citizen to the three strategies meets transitivity, and it is assumed that the order of strategy choices will not influence the final choice.

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Appendix

Proof for Proposition 5: The people's choice between petition strategy and silence has been discussed in the basic model. In the next section, their choices in the case of other combined strategies are analysed.

(1) The choice between petition to higher authority and appeal to court: The difference between the gains of citizens' choice of petition and appeal strategies is $\Delta_{cj} \equiv u_{ic} - u_{ij} = (I - kq)p$. Hence, when $I < kq$, the citizens will choose to appeal to court; when $I \geq kq$, they will choose to petition to higher authority; (2) The choice between appeal and silence: The difference between the gains of people's choice of appeal and silence strategies is $\Delta_{js} \equiv u_{ij} - u_{is} = kqp - \sigma_i$. From $\Delta_{js} = 0$, the range of citizen appeal cost where there is no difference between the two strategies can be obtained as $\sigma_{js} = kqp$. It is easy to know that when $\sigma_{js} \leq \theta$, citizens with the appeal cost of $[0, \sigma_{js}]$ will choose to appeal, while those in $[\sigma_{js}, \theta]$ will prefer to remain silent; when $\sigma_{js} > \theta$, all the people chose to appeal.

Let us assume that the order of citizens' strategy choices is as follows: The citizens first compare the petition and silence strategies to determine the winning strategy in the relevant parameter space; then they compare the winning strategy and the appeal strategy in the first round to see which one is superior in the corresponding parameter space [37]. Combined with the conclusion regarding their choice between the petition and silence strategies in the basic model, the citizens' best choice amongst the three strategies can be described as follows: (1) When $p \geq \theta$ all citizens will choose the petition strategy between the petition and silence strategies, i.e. $I = 1$. Thus, the probability of success that the citizens choose to petition is 1, which is no lower than the success rate kq obtained when they choose to appeal, and hence all the citizens will choose the petition strategy; (2) When $p < \theta$, if choosing between the petition and silence strategies, all citizens will choose the silence strategy, i.e. $I = 0$; if choosing between the appeal and silence strategies, as mentioned above, when $\sigma_{js} \leq \theta$, the citizens with the appeal cost of $[0, \sigma_{js}]$ will choose to appeal, while those in $[\sigma_{js}, \theta]$ will prefer to remain silent; when $\sigma_{js} > \theta$, all citizens will choose to appeal.

In the analysis of the basic model, the citizens only have two strategies to choose from: petition and silence, which is actually equivalent to $k = 0$, i.e. a scenario where the court's independent ruling capacity is the weakest. Next, we might as well investigate the choices of the citizens and local governments in the case where the court's independent ruling capacity is the strongest ($k = 1$) and the use compensation-based stability maintenance strategy with the appealing citizens is not allowed.

As mentioned above, when $p \geq \theta$, all the citizens will choose to petition, and $I = 1$. In this case, the gain of the local government is $u_{gc} = p - I \cdot Ip = 0$, where the first item is the total gain from the project, and the second is the gain from implementing the project that the local government has to return to the citizens when the petition succeeds. When the local government does not use the power to implement the project, i.e. $p^* = 0$, the gain is $u_g = 0$. As there is no difference in the local government's gain from choosing either project scale, it is not necessary for the local government to choose a project scale that motivates the citizens to petition.

When $p < \theta$, since $\sigma_{js} = qp < q\theta < \theta$, the citizens with the appeal cost of $[0, \sigma_{js}]$ will choose to appeal, while those in $[\sigma_{js}, \theta]$ will choose to remain silent. The gain of the local government is $u_{gj} = p - \frac{qp}{\theta} \cdot q(p + \delta)$, where the second item indicates that the citizens in the number of $\frac{\sigma_{js}}{\theta} = \frac{qp}{\theta}$ participate in the appeal with a probability of winning the case being q. In this case, the local government not only has to return the infringed interest p to these citizens but is also subject to additional punishment $\delta > 0$. Since $\frac{du_{gj}}{dp} = \frac{\theta - q^2\delta - 2q^2p}{\theta}$, Proposition 5 can be established through simple calculations.

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