Abstract

Drawing on insights from recent economic theories of incomplete contracts and property rights, we develop a theoretical model on authority relationships in the Chinese bureaucracy by conceptualizing the allocation of control rights in goal setting, inspection and incentive provision among the principal, supervisor and agent. Variations in the allocation of control rights give rise to different modes of governance and entail distinct behavioral implications among the parties involved. The proposed model provides a unified framework and a set of analytical concepts to examine different governance structures, varying authority relationships, and behavioral patterns in the Chinese bureaucracy. We illustrate the proposed model in a case study of the authority relationships and the ensuing behavioral patterns in the environmental protection arena over a 5-year policy cycle.

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RESEARCH ISSUES

Over the past three decades, considerable progress has been made in the study of the Chinese bureaucracy, especially regarding the microbehaviors of street-level bureaucrats in local (mostly township or county) governments or in specific functional areas (e.g., environmental protection area). As interactions between governments and research communities in China have become more frequent and extensive in recent years, with more and more researchers participating in policy research and policy formation, considerable access is now available for researchers to observe and study the inner working of the Chinese bureaucracy. As a result, a large number of empirical studies emerged in recent years, especially in the Chinese literature. In many cases, researchers adopted ethnographic methods to conduct participatory observations of the behaviors of local bureaucrats in attending their daily tasks, in responding to directives from the higher authorities, in accommodating multiple pressures, and in pursuit of career advancement in their changing institutional and task environments. It is not exaggerating to say that the black-box of the Chinese bureaucracy is being opened up.

What emerges from these studies are multiple, contradictory images of the Chinese bureaucracy. Let us consider a constant theme in this literature—tensions between policymaking and policy implementation. Many studies have examined various behaviors and strategies by street-level bureaucrats in policy implementation processes. Some studies documented in vivid details how local governments, in the process of implementing state policies, often impose even higher goals and stronger measures upon the subordinate officials, and adopt various strategies or power, legitimate or illegitimate, to ensure that policy targets are met (Zhou 2011; 孙立平、王汉生等 1997; 孙立平、郭于华 2000; 王汉生、王一鸽 2009; 荣敬本 1998). Expressions such as “Pressure-centered government,” (压力型体制) and “downward acceleration of implementation pressures” (层层加码) have entered the lexicon in the literature on the Chinese bureaucracy. At the same time, other studies showed the extensive efforts by the local bureaucrats to cope with pressures in policy implementation through strategies of selective attention, evasion, distortion, sabotage, and collusion (Ai 2011; Edin 2003; O’Brien and Li 1999; Zhou 2010; Zhou, Ai, and Lian 2012). Even the same bureaucracy often exhibits these contradictory behavioral tendencies working on the same task (吴毅 2007; 周雪光、艾云 2010; 欧阳静 2011; 赵树凯 2010). How do we reconcile with these disparate and contradictory images and behavioral patterns in the Chinese bureaucracy?

Indeed, as the black-box is being opened up, researchers often find few theoretical ideas and analytical concepts to help illuminate the empirical ground or to shed light on the processes and
mechanisms that generate these behavioral patterns. This is not to say that there is a shortage of theoretical models on the role of the Chinese states (Montinola, Qian, and Weingast 1995; Oi 1992; Oi 1999; Walder 1995; Yang 2004). But most theoretical arguments are developed at a general level with no direct or empirical relevance to the microbehaviors of street-level bureaucrats. For example, even when the central government adopts the incentive design in the form of tournament competition, as articulated by economist Li-an Zhou (Zhou 2004; Zhou 2007), the empirical implications of tournament competition remain ambiguous for the behaviors of street-level bureaucrats whose careers are affected directly by tournament competition-based incentive design. Due to the lack of substantive ideas and analytical concepts in this area, many observed behavioral patterns are explained on an ad hoc basis, or by evoking some broad concepts, metaphors, or images that have little analytical power. As a result, research on bureaucratic behaviors in China has reached plateau with diminishing returns, with a large number of empirical work piling up but no significant progress in knowledge growth. The lack of substantive theories of the Chinese bureaucracy also hinders our understanding of the role of the Chinese states, both central and local, for it is the behaviors of the Chinese bureaucracy that provides the microfoundation of the Chinese state.

With these challenges in mind, in this study we propose a theoretical model to take a fresh look at authority relationships and modes of governance in the Chinese bureaucracy. We draw on recent organization theories, especially those in the economics of incomplete contract and property rights, to reconceptualize authority relationships in organizations as a function of the allocation of control rights among the principal, supervisor and agent. The proposed model helps pin down specific mechanisms at work and yields rich empirical implications for linking organizational structure, authority relationships, and behavioral patterns. By analyzing the allocation of control rights across levels of the bureaucracy, the proposed model provides a unified theoretical framework, together with a set of analytical concepts and empirical implications, to shed light on a wide range of bureaucratic phenomena in relation to one another, rather than treating them as disparate, individual cases.

The rest of the article is organized in three parts: First, we develop an analytical model based on the allocation of control rights in organizations, which provides a unified theory to explain a variety of modes of governance in the Chinese bureaucracy. Second, we apply the proposed model to analyze and make sense of the bureaucratic practice in an environmental protection arena over a 5-year plan period. Finally, in the conclusion section, we discuss the implications of the proposed model for understanding the microfoundation of the Chinese state.
ALLOCATION OF CONTROL RIGHTS AND MODES OF GOVERNANCE: THEORY

In this section, we develop a theoretical model on authority relationships in the Chinese bureaucracy by focusing on the allocation of control rights among the principal, supervisor and agent. We take three steps to introduce and elaborate the proposed model. After setting up the organizational context to situate our analysis, we first draw on the new economic theory of property rights to introduce key ideas on incomplete contracts, property rights, control rights and authority relationships in organizations; we then illustrate the usefulness of this conceptual framework by analyzing the familiar “subcontracting” model as a common governance practice in China. In our third step, we extend this line of arguments to develop a unified model to account for variations in the allocation of control rights and the resulting modes of governance in the Chinese bureaucracy.

The organizational setting

Authority relationships in an organization refer to the legitimate power in command and responsibility associated with hierarchical positions, which are central to the design of organizational process and practice. To fix ideas, let us consider a three-level bureaucracy involving a principal, a supervisor and an agent. In this model, the principal has the ultimate authority in policymaking and in organization design such as incentive provision and performance evaluation, among others. The agent is responsible to follow the administrative fiats and implement policies from the top. The principal delegates certain aspects of his authority to the supervisor, whose primary responsibility is to supervise the agent’s implementation of directives by the principal.

Even in this simple organizational setup, a variety of design issues emerge in different theoretical lights. Consider authority relationships in the principal-agent model (Jensen and Meckling 1976). Given the presence of information asymmetry and incongruence of goals between the principal and the agent, it is critical to design appropriate incentive mechanisms to align the interests of the agent with those of the principal so as to motivate the agent to take appropriate actions (Gibbons 1998; Kerr 1975). The principal-agent model has stimulated a large literature in organization research, with incentive design as the central theoretical theme.

Research on the role of the Chinese state in the last two decades has been heavily influenced by this line of arguments. Incentive mechanisms feature prominently in Walder’s (1995) explanation of the success of the township-village enterprises; that is, lower-level governments have more incentives to supervise and manage the performance of local firms. Oi (1992; 1999)
argued and showed that, in the reform era, changes in fiscal policies of revenue sharing between the central and local governments provided strong incentives for local governments to pursue economic development in their jurisdictions. Economist Li-an Zhou (2004; 2007; 2008) applied the model of tournament competition to explain the incentive design by the top leaders to induce local officials' pursuit of GDP growth. Others have also adopted a similar line of argument to account for government behavior or misbehavior in terms of the use or abuse of incentive mechanisms (Shirk 1993; Whiting 2000; Zhou 2010).

These theoretical models have shed important lights on the active role of the Chinese governments in the reform era and certain aspects of the observed bureaucratic behaviors. But overall, the theoretical arguments developed in the literature tend to be general, with little empirical relevance to the behaviors of street-level bureaucrats. Consider the model of tournament competition. Even if the local government may benefit from local economic development and chief officials pursue such goals fervently, we still need to specify those mechanisms and processes that motivate bureaucrats in the local government to act in line with the goals of the principal, for tournament competition is relevant to only a small segment of the bureaucrats and under specific conditions. Other, alternative explanations are needed to explain the behaviors of the majority of the officials in the Chinese governments. Moreover, as shown in economic analysis, the principal-agent model focuses on incentive designs and pays little attention to the control rights within or between organizations; therefore, it overlooks important issues in authority relationships in organizations (Hart 1995; Holmstrom and Roberts 1998). The multifaceted, contradictory organizational phenomena outlined at the beginning of the article remain puzzles that await theoretical explanations.

*From Incomplete contracts, property rights, to control rights*

Starting from the premise that it is not feasible to sign complete contracts that specify all contingencies between firms or within a firm (e.g., between the employer and the employee), recent development in the economic theory of organizations (Grossman and Hart 1986; Hart 1995; Hart and Moore 1988) has focused on issues related to the allocation of property rights among economic actors. This line of arguments is predicated on the premise that, when contracts are incomplete and not all uses of an asset can be specified in advance, any contract negotiated in advance must leave some discretion over the use of the assets to the “owner” who has the residual rights of control over the assets. In this conceptualization, a firm is a collection of assets over which the owner has residual rights of control. The new property rights theory develops the
central idea that “asset ownership provides levers that influence bargaining outcomes and hence incentives” (Holmstrom and Roberts 1998, p. 79).

In this incomplete contract framework, then, property rights are not conceptualized as the residual claimant of income streams but as the residual rights of control; as a result, the new property rights approach leads to a focus on the allocation of property rights and on the boundaries of the firm; that is, under what conditions one should integrate an entity/asset or activity within the organization or transact in the marketplace. This question is crystalized in the strategic choice between the “make or buy” (e.g., organization or market) alternatives in economic analysis. Consider two alternative forms of governance: employment relationship versus subcontracting, a favorite contrast used in economic analysis. In the case of employment relationship, the principal retains a firm control over both decisionmaking and implementation through the hierarchical structure. That is, the higher authority retains all the control rights in the organization of production, incentive design and performance evaluation, among others. In the “subcontracting” mode, however, in a particular area (e.g., economic growth) or over a particular policy goal (e.g., the quota in pollution reduction), the principal may subcontract the tasks to an outside subcontractor (or to his supervisor), with specific, contractual stipulations on the targets to be met or services to be delivered, but leave all other control rights—how the tasks is to be carried out, resource allocated, incentive administered—to the subcontractor. That is, in those areas beyond explicit contract stipulation, the subcontractor would have the actual authority—the residual control rights within his jurisdiction.

This line of argument can be applied to the study of authority relationships in the public bureaucracy. In particular, in this framework property rights are reframed in terms of control rights over the use of “assets” (or other activities) beyond those specified in the contract. In the three-layer bureaucracy model, for example, the relationships among the principal, supervisor and agent may vary considerably with different allocation of control rights among them. The principal may “subcontract” policy targets to the supervisor, along with the control rights in actual implementation and incentive provision. In so doing, the authority relationship between the principal and the supervisor undergoes subtle but critical changes. By this logic, Tirole (1994, p. 16) observed, “one can view the government as a distribution of control rights over various kinds of decisions. This division is determined by constitutions, laws and traditions.” For example, in the Chinese context, the central government may set up a policy goal, and actively promote its implementation, as in the earlier phase of the family planning area; in this process, the central government put a firm hand not only on goal setting, inspection, but also on the incentive design.
such as the “one-item veto” system. In this sense, all control rights were held in the hands of the central authority. In other policy arenas, such as public safety and employment opportunities, the central government may promulgate general policies and goals, but the actual implementation and performance evaluation are largely left to the supervising authorities at the provincial or municipal levels. One central issue in light of the property rights approach is the strategic allocation of the residual rights of control among different parts of an organization, which leads to variations in authority relationships as well as in different modes of governance in the organization.

The allocation of control rights can take more subtle forms. Aghion and Tirole (1997) distinguished formal and real authority in organizations in this framework. Formal authority is prescribed by the formal structure of the organization, whereas real authority rests on those who have more information. As the authors argue, given the cost of time and effort, the principal may strategically delegate real authority to the supervisor. To wit, the party that has real authority is the one who has de facto control rights on the use of an asset (or activities) beyond the explicit stipulation of the contract or customary practice in power sharing. The distinction between formal and informal authority has long been recognized in the organization literature (Blau 1963; Crozier 1964), but for a long time they were used mainly as descriptive concepts. The focus on the allocation of control rights makes these distinctive phenomena analyzable. We also speculate that, the allocation of formal and real authority may evolve historically through a trial-and-error learning process. An important implication of the distinction between formal and real authority is that modes of governance can undergo significant changes even without the explicit alternation of formal authority. For example, even if formal authority of the principal is intact, it may become merely symbolic when the actual control rights are shifted to other parties (e.g., the supervisor).

To sharpen its analytical power in our study of the Chinese bureaucracy, we now propose a refined concept of control rights along the following three dimensions:

• **Control right in goal setting.** The control right to set goals/targets for the subordinates within the organization. This is the core of the hierarchical authority relationship. The process of goal setting may take the form of a top-down process or of negotiations among the parties involved, as in contract agreements that are negotiated in the marketplace.

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1 The “one-item veto” system, first put in effect in the family planning arena, refers to the incentive system by which a local government’s failure to meet one key policy target (e.g., the designated fertility rate) will cause the negation of all achievements in its administrative jurisdiction.
• **Control right in inspection.** The control right to inspect, evaluate and appraise the performance of the subordinates on the basis of the goal-setting right. Clearly, the “inspection” right is secondary to the “goal setting” right. It is distinct from the “goal setting” right in that the principal may set up goals but leave the inspection right to another party (e.g., the supervisor). It is important to note that the control right in inspection is distinct from those in incentive provision; see below. That is, the main purpose of inspection is to ensure that goals are accomplished and policy targets are met, but not for the purpose of evaluation of the agent’s performance.

• **Control right in incentive provision.** This refers to the right to design and implement incentive mechanisms to reward or penalize the agent, whose performance is subject to appraisal. The distinct control right in incentive provision implies that there may be a separation of inspection and incentive provision. That is, the “inspection” by the principal may be decoupled from the “incentive provision” administered by, say, the supervisor. Performance evaluation of the supervisor-as-subcontractor is part of the inspection right, which is presumably is covered in the terms of the subcontract. But, the control right in evaluating, and incentive provision for, the agents may be retained in the hand of the principal, or it may be given to the supervisor-as-subcontractor.

By conceptualizing control rights along these dimensions, we put forth a key theoretical proposition; that is, property rights as a bundle of control rights are decomposable, separable, and hence can be allocated, with costs, among the parties in an organization, giving rise to different modes of governance. We submit that such a separation of control rights is not only desirable under certain conditions, but is also imperative and unavoidable for any large-scale organization. To illustrate this point, let us revisit our three-layer bureaucracy involving the central government (the principal), intermediate government (the supervisor) and the local government (the agent). Given both the scope and distance among the three, the separation of these control rights is both necessary and inevitable. Consider a concrete example. In one of many environmental regulatory arenas, that of SO₂ reduction, there are dozens of projects and facilities involved in each county. At a municipal level, hundreds of such items are involved in the SO₂ area; at the provincial level, thousands of them. And, at the national level, this amounts to hundreds of thousands of items in this particular area, which is just one of many areas under environmental regulation. It is mind boggling to imagine the task load for the central government (e.g., the ministry of environmental protection) to exercise the control rights in all three dimensions. For example, the cost is prohibitively high for the central government to exercise the control right in incentive provision for lower-level agents, which requires accurate information about the agent’s efforts, the state of
nature, and other contingencies. Even the exercise of the control right in inspection has to be greatly limited because it is simply too costly to conduct comprehensive inspection of all those items involved.

It is not surprising, then, that the separation and delegation of these rights are commonplace in the Chinese bureaucracy. Indeed, there is a variety of control rights configuration in different arenas and among the Chinese governments. By considering the distinctiveness of these control rights and how they are allocated across levels of the hierarchy, we are able to examine the link between authority relationships and modes of governance with considerable analytical power, as we will see in the example below.

The subcontracting model reconsidered: An illustration and further elaboration

We now illustrate the insights from the “control rights” framework by taking a fresh look at a familiar model—the subcontracting model in the Chinese bureaucracy. Our own conceptual model was inspired by and benefited from Li-an Zhou’s (2008) work on what he called “administrative subcontracting” model (行政发包制度) in the institutional arrangements of the Chinese bureaucracy, where the central government “subcontracts” policy targets to its subordinate, local governments. In a further elaboration, Zhou and Wang (2011) discussed the contrasts between the administrative subcontracting model and the employment model in a case study of the governance of marine customs in the Qing Dynasty. They compared the complementarity of four components—“administrative power allocation, fiscal and budgeting control, monitoring and evaluation, and employees’ incentives” between these two models. Li-an Zhou’s framework covers a wide array of issues and focused especially on incentive designs. But his model does not have much to say on authority relationships and the boundaries of control rights, among the principal, supervisor and agent.

Our proposed “control right” approach can say considerably more, and with considerably more analytical power. In view of the allocation of control rights in our proposed model, the standard subcontracting model has the following elements: (1) the principal exercises the right of goal setting and then subcontracts these expected outcomes to the subcontractor who is responsible for fulfilling the terms of the subcontract. 2 (2) The principal retains the control rights to inspect upon the delivery of “goods;” but (3) the principal leaves in the hand of the subcontractor the control right of incentive provision within in his jurisdiction, together with

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2 Or, in a variant of the model, goals may be negotiated between the principal and the supervisor. An implication of this latter case is that contractual terms negotiated in this way tend to be feasible and hence binding on both sides. See further discussions in our case study below.
other control rights in organizing and enforcing the implementation process. Applying this model to the three-layer Chinese bureaucracy, we can recast the typical policy implementation processes as follows: First, through formal or informal negotiation, the central government (the principal) sets up specific goals or policy targets in an area (e.g., level of pollution reduction, fertility rate, etc.), and then “subcontracts” (through task allocation) to the intermediate government (e.g., a provincial government). The central government then exercises the inspection right to periodically review and evaluate policy outcomes to ensure that the supervisor-as-subcontractor has met policy targets. As we noted before, a critical element of the subcontracting model is that the control right in incentive provision, as well as the actual organization of implementation, among the agents are given to the intermediate government who acts as the subcontractor.

With the clear delineation of control rights along these three dimensions, we can draw rich behavioral implications in light of the proposed model. Let us first consider the behavior of the principal. In this model, the principal only cares about policy outcomes, so he exercises the control right in goal setting, by formulating specific policy targets for the supervisor-as-subcontractor, and he retains the control right in inspection to ensure the quality of the policy outcomes to be delivered. In contrast, the control right in incentive provision is delegated to the supervisor, for good reasons: First, the principal only cares about policy outcomes, not the actual process of implementation, so it is logical to allocate “property rights” to the party that has the most incentive to ensure that the implementation process works. Second, given the size of a large organization, it is simply infeasible or too costly for the principal to acquire accurate information to administer incentive provision for the agents. The supervisor-as-subcontractor works with the agents in policy implementation; hence, he has more accurate information about their efforts and performance.

This model also entails clear behavioral implications for the ways in which the principal would exercise his inspection right. As we noted before, the principal cares about policy outcomes—the contracted “goods” to be delivered by the supervisor-as-subcontractor. But because of the high costs of comprehensive inspection, he adopts a strategy to selectively inspect “patches” of the goods delivered (e.g., inspections of fertility activities in selected villages; onsite inspections of selected environmental protection sites) to ensure the truthfulness of the quality of the policy outcomes claimed by the supervisor-as-subcontractor. Because the principal’s interest is not to administer incentive provision but to ensure the quality of policy outcomes, the inspection process is typically not linked to incentive decisions (i.e., imposing rewards or penalty at local levels). Moreover, because inspection is selective, it is important for the principal to keep
the inspection process unpredictable—sometimes loose and sometimes tight, and selection of different localities—so as to keep the supervisor and the agent on their toes.

Now consider the supervisor’s behavior in this model. The central issue for the supervisor is that, as a subcontractor, he needs to ensure the delivery of the contracted goods the specified policy outcomes—to the satisfaction of the principal. To fulfill this goal, the supervisor takes three types of action. First, to ensure the successful delivery of goods (e.g., meeting policy targets), he has incentive to create and maintain pressures upon the agents to exert efforts and do their job well. This explains the commonly observed phenomenon that the intermediate governments adopted the strategy of “downward acceleration of implementation pressures” (层层加码) by adding higher and higher policy targets for their subordinates to accomplish in order to minimize the risk of falling short in task accomplishment. Second, the supervisor also exercises the control rights in incentive provision so as to induce the right behavior among the agents in his jurisdiction. That is, in this model, it is the supervisor, not the principal, who cares about the appropriate incentive provision to link rewards with efforts. Finally, in the inspection process conducted by the principal, both the supervisor and the agents share the common interests to make sure that the contracted “goods” are accepted by the principal. Therefore, they adopt various strategies to conceal serious or embarrassing defects from the inspectors. In this light, this class of collusive behaviors, as analyzed in Zhou (2010), is most likely to be prevalent in the “inspection” phase of the policy implementation process.

By focusing on the allocation of control rights, the proposed model provides an analytical lens to examine the key features of the governance structure and the rich behavioral implications they entail. The key issue here is the distinctive goals pursued by the principal and the supervisor-as-contractor: The principal cares about the quality of the goods delivered, so the inspection process aims at ensuring the truthfulness of the achievement claimed by local officials (the agents) on behalf of the subcontractor. In contrast, the subcontractor cares about the fulfillment of the tasks specified in the subcontracts, not about the truthfulness of claims as long as they pass the inspection process.³ Simple as this model may, it already calls attention to several important conceptual distinctions.

First, it is important to make a distinction between the “inspection process” conducted by the principal and performance evaluation by the supervisor. These two may coincide in some

³ Other mechanisms are needed to address issues of inconsistent goals among the parties involved and various costs such as monitoring costs and measurement costs, etc., which has implications for the modes of governance to be discussed below.
circumstances, as the supervisor uses the principal’s inspection as the basis of incentive provision; but, more often than not, these are two separate processes. And they should be treated as separate practices conceptually. In the former, findings in the inspection process are typically decoupled from considerations about incentive provision, as the two decisions rights reside with different parts of the organization. This recognition sheds light on familiar, and apparently odd, characteristics of the inspection process. That is, at times the inspection process is very tight and challenging, and other times loose and easy; and when problems are uncovered, they are often explained away at the local level with little consequences. The proposed model helps us make sense of these behaviors, because, for the principal, policy outcomes are evaluated and accepted at the aggregate level. Minor problems at a particular local level, just like a small number of defects discovered in the inspection of selected patches of goods, do not render problematic the quality of the entire pack, as long as such detects are within the permitted range of errors. In this light, it is no longer a puzzle that problems uncovered in the inspection process often have no real consequences in terms of penalty demanded by the principal.

Second, it is important to differentiate types of “deviant” behaviors by the local governments. Specifically, we distinguish three types of implementation behaviors that, at an aggregate level, all deviate from the original policy but have, in light of our proposed model, qualitative differences. In the first class of phenomena, deviations in implementation may merely reflect the supervisor’s exercise of his respective control right within his jurisdiction. As we will see in our case study below, the principal’s action may have inadvertently intruded into the supervisor-as-subcontractor’s realm of authority in incentive provision, as the inspection process may have led to a rank order of performance evaluation based on the information manipulated by the agents. In such cases, the more informed supervisor may ignore the rank order based on the principal’s inspection outcomes. Instead, he may exercise his control rights of incentive provision so as to induce the agents to take appropriate actions. In the second class of cases, the supervisor, together with his agents, may adopt various “bian tong” (变通) strategies, some legitimate and some illegitimate, to meet the targets in the implementation process. In such cases, these behaviors may reflect the flexible implementation of policies. When the supervisor has the residual control rights in policy implementation, such behaviors are not challenges to the principal’s control rights in goal setting and inspection. Indeed, these coping strategies are critical

\[^4\] For example, the policy target of fertility rate (say, at 0.5%) refers to the average rate for the entire province. The discovery of relatively high fertility rate, say at 1.5%, in a village, which may be explained away for various ad hoc reasons, does not necessarily indicates that the overall rate aggregated at the provincial level is invalid.
for the supervisor and agents to fit policy targets to their local circumstances. In the third class of instances, especially salient in the inspection process, the supervisor may collude with the agent in order to cover up defective “goods” to be inspected upon. Therefore, based on our “control rights” model, the three classes of deviations in implementation process have qualitatively different implications. In the first two cases, the supervisor’s behaviors are legitimate in the subcontracting mode of governance, since he has the residual control rights in administering incentive provisions and in fulfilling the subcontract. That is, the first two types of “deviant” behaviors are tolerated or even encouraged by the principal. Only in the third case do we see, from the eye of the principal, the proper case of deviations in policy implementation that violate the terms of the subcontract.

Third, this model also helps us explain two distinct and apparently contradictory types of bureaucratic behaviors by the same supervisor. On the one hand, in the implementation of the subcontract, the supervisor tries hard to exert pressures upon his agents so as to ensure that the goods are delivered to the satisfaction of the principal. In this process, then, we observe the salient downward acceleration of task pressures across the levels of the bureaucracy. On the other hand, in the inspection process, the supervisor adopts various strategies to ensure that the inspection does not uncover problems, especially in those circumstances when the targets are imposed upon unrealistically; hence, we observe the salient phenomenon of collusion between the supervisor and the agent. These two distinct types of behaviors, by the same supervisor, take place in two distinct processes, and under two distinct sets of conditions, that can be carefully analyzed in light of the proposed model.

To enrich our theoretical arguments, we may further add institutional details to the model sketched above. First, unlike a typical subcontract model where the contracts are negotiated between the principal and the subcontractor, in the Chinese bureaucracy, the higher authorities often impose goals and policy targets upon the supervisor-as-contractor; as a result, there is a high probability that the policy targets are unrealistic and they cannot be fulfilled truthfully. Moreover, unlike industrial outputs, policy outcomes are often difficult to measure or evaluate. These institutional details imply the likely tensions as well as intensive bargaining activities in subsequent processes between the inspector and the inspected. Second, in the real world of the Chinese bureaucracy, the higher authorities do not treat the supervisor as a subcontractor and completely delegate to them the residual rights of control in implementation and incentive provision. In other words, the commitment of delegation by the principal is not binding. Instead, the higher authorities always retain the arbitrary power of intervention, which may disrupt the
subcontracting mode and shift it to a different mode of governance. In other words, the subcontracting model is only one of several modes of governance. We now extend our arguments about the allocation of control rights to consider a variety of modes of governance in the Chinese bureaucracy.

Extension: Control rights and modes of governance in the Chinese bureaucracy

In the preceding discussion we illustrated the usefulness of the “control rights” theory to understand the implications of the subcontracting model—a particular mode of governance—for bureaucratic behaviors in goal setting, inspection, and incentive provision. In the aforementioned three-layer bureaucracy, different allocation of control rights among the principal, supervisor, and agent gives rise to a variety of modes of governance. Before we turn to these different modes of governance, we first introduce a pair of concepts developed in organization research to characterize distinct organizing processes: tight-coupling versus loose-coupling. The extent that different elements in an organization are coupled with one another varies greatly. In a tightly coupled system, these elements are coupled through dense, tight linkages such that they are sensitive to and respond to one another. The ideal type of hierarchy is such an example, in which directives from the higher authority are responded to and implemented in a timely manner. In contrast, elements in an organization may be loosely coupled in that different parts of the organization retain their own identities, and responses among them are slow, imprecise, and variable (Weick 1976; Weick 1982). In many aspects, the “tight-coupling” versus “loose-coupling” states are analogous to the “centralization” versus “decentralization” scenarios in organizations. But notions of centralization and decentralization have acquired very different meanings and interpretations in the literature. To avoid unnecessary complications, we chose to use the notions of tight-coupling vs. loose-coupling to describe these two modes of governance. Table 1 summarizes different modes of governance due to the allocation of control rights.

- **The tight-coupling mode.** The principal retains all control rights in goal setting, evaluation and incentive provision, and enforces his directive through supervisors, resulting a mode of tight-coupling, hence highly responsiveness, among the three layers of the bureaucracy. In the Chinese bureaucracy, this is often accompanied by a heightened mobilizational state of policy implementation.
- **The subcontracting mode,** in which the principal sets up goals and targets, then “subcontracts” these tasks to its immediate subordinate (e.g., the supervisor). Or goals may be negotiated and agreed upon by the principal and the subcontractor. The principal holds the control right in inspection to evaluate policy outcomes. But the residual control
right in implementation, enforcement, and incentive design are entirely left in the hand of the supervisor. The supervisor acts as a subcontractor, with his own control rights in organizing activities within his jurisdiction. This is the most prevalent and routine mode of governance in the Chinese bureaucracy.

• **The loose-coupling mode**, in which the principal retains the control right in goal setting; or goals may be negotiated between the principal and agents. Both the right of inspection and that of incentive provision are allocated to the supervisor. In this scenario, the principal becomes a figurehead, his authority formal or symbolic, and the supervisor maintains real authority in both inspection and in incentive provision.

• **The federalism mode**, in which the principal assigns all three control rights to the supervisor in certain areas or functions. In this scenario, then, the supervisor has both formal and real authority. This is akin to the model of federalism discussed by Qian and his colleagues (Qian and Weingast 1997). However, in China’s authoritarian state, such “ownership” assignment is likely to be limited, informal, and temporary; hence it is unstable. We will not discuss this mode of governance below.

The proposed conceptual framework has added considerable analytical power in the study of the Chinese bureaucracy. First, by focusing on specific control rights and the allocation of these rights among the principal, supervisor and agent, we are able to pin down the specific mechanisms that give rise to different modes of governance. Take for example the phenomenon of collusion between the supervisor and the agent, which reflects the strategic alliance between the two in response to fiats and intervention from the principal (Zhou 2010). Table 1 shows that such an organizational phenomenon is most likely to take place in the “subcontracting” mode when the principal exercises “inspection” rights but lacks enough information to carry out such evaluation. In the “tight-coupling” mode, collusion is discouraged because such behaviors are costly—it is more likely to be caught and to be severely published. In the “loose-coupling” mode of governance, there is no need for collusion as the supervisor acts like the principal and exercises the inspection right; hence, there is no incentive for him to engage in collusion with the agent. Clearly, the allocation of control rights has significant implications for incentive mechanisms and behavioral patterns.

Second, different modes of governance in the Chinese bureaucracy can be analyzed in a uniform framework, on the same analytical bases, and in relation to one another, rather than being treated as disparate and isolated cases. For example, the “tight-coupling” mode may generate a
highly responsive bureaucracy across different levels or functional lines, but it is extremely costly to keep the mobilizational state for a sustained period of time. Moreover, there is also the cost in the “loss of initiative” which weakens the effectiveness in problem solving at the local levels (周雪光 2011). Therefore, the “tight-coupling” mode is inherently unstable and is likely to shift to other modes of governance through formal or informal reallocation of control rights across bureaucratic levels. The mode of tight coupling may shift to the subcontracting mode, when the principal relaxes its tight grip and allows the supervisor has real authority in incentive provision. And it may further shift to a “loose-coupling” mode when control rights in inspection and incentive provision are delegated to the supervisor. For example, in the family planning area, in the early years, a tight-coupling mode of governance prevailed. That is, the central authority had a strong hand in goal setting, inspection, as well as incentive designs, which resulted a heightened mobilizational state in this area. Over time, however, the authority relationship evolved toward a “subcontracting” mode of governance, with more and more control rights in incentive provisions delegated to the lower levels. In times of crises or campaigns, the subcontracting mode may be pushed into a tight-coupling mode where the principal effectively, but temporarily, exercises all three control rights, thereby producing a highly effective mobilizational state. The case of the maintenance of social order is such a case in point. The policy goal of maintaining social order had long been managed through a subcontracting or loose-coupling mode, with local authorities in charge in this area. But in recent years the central government’s efforts to take command in this area, wielding control rights in both inspection and incentive provision, has led to a tightly coupled system among the principal, the supervisor, and the agent. Changes in different conditions lead to the reallocation of control rights, sometimes explicitly, other times informally, that induces the shift from one mode of transaction to another.

To sum up, we have drawn insights from the economics of incomplete contracts to motivate our proposed model of authority relationships based on the allocation of distinct control rights in the Chinese bureaucracy. In so doing, we moved away from the earlier ideas of property rights as a bundle of rights to income and resources; instead, we focus on the residual rights of control over the use of assets or activities within the organizational boundary. This approach leads us to the allocation of control rights and issues related to authority relationships and organizational design. The proposed model provides a new theoretical lens as well as a set of analytical tools for us to make sense of different modes of governance in the Chinese bureaucracy.

GOVERNING ENVIRONMENTAL REGULATION: A CASE STUDY
Between 2008 and 2011, we conducted fieldwork in a Municipal Environmental Protection Bureau in northern China. Figure 1 depicts the formal authority relationship in the environmental protection area, with the Ministry of Environmental Protection (MEP) at the top, and Environmental Protection Bureaus at provincial, municipal and county levels. In light of our proposed model, we focus on the Municipal Environmental Protection Bureau (MEPB) as the supervisor, with the Ministry of Environmental Protection (MEP) and the Provincial Environmental Protection Bureau (PEPB) as its principals, and the County Environmental Protection Bureaus (CEPBs) as the agents. For exposition purpose, whenever possible, we will treat both the PEPB and the MEP as if they were the same principal for the MEPB. This simplifying assumption allows us to focus on the key issue of the allocation of control rights between the MEPB on the one hand and the higher authorities on the other.

We tracked the MEPB’s implementation of meeting policy targets for the 5-year plan, from 2006 to 2010. For the first two years of the 5-year plan before our fieldwork began, we gathered information and data retrospectively. Meeting policy targets in the 5-year plan was the central focus of the MEPB among the multiple tasks that it carried out during this period of time. Both the MEP and the PEPB conducted their respective inspection twice a year in the form of semi-annual and annual inspections to ensure satisfactory progress toward meeting the targets. The extensive fieldwork provides us with rare opportunities to observe the allocation of control rights in this area and the corresponding behavioral patterns. In line with our proposed model, we put our analytical focus on the allocation of control rights in goal setting, inspection and incentive provision in the implementation process.

Below, we first provide a brief sketch of the allocation of the three control rights among the MEP (and PEPB), the MEPB and the CEPBs. We then add institutional and behavioral details in the exercise of these control rights.

The allocation of control rights in environmental regulation: A brief sketch

Control right in goal setting. The goals set for the five-year plan were the reduction of pollution levels in two areas: COD and SO2. The MEP set up specific policy targets for each province, in accordance with the national 5-year plan by the central government. Once the province receives its policy targets, the PEPB had the full control right in decomposing these targets among the MEPBs within its jurisdiction, making the PEPB the de facto principal for the MEPBs. For the MEPB of our study, the goals were set as 18% reduction in COD and 9% reduction in SO2 over the five-year period. The MEPBs and CPBs at the municipal level or below were not involved in the goal setting process. It is obvious that the control right in goal setting is firmly in the hand of
MEP and PEPB, the principal. In a similar manner, once the policy targets were subcontracted to the MEPB, the supervisor-as-subcontractor, the control right in the allocation of quotas within its jurisdiction is given to the MEPB. In other words, once the goals are set, the control right in implementation is largely in the hand of the supervisor-as-subcontractor.

The MEPB also sets up its annual targets to ensure the gradual completion of the policy targets in the 5-year plan. These goal-setting practices are largely in accordance with the extent of meeting policy targets in the 5-year plan and the annual goals set by the PEPB. Therefore, the goal setting behaviors are subject to the same kind of analysis we conduct here.

Control right in inspection. In the environmental protection area, the principal (the MEP and the PEPB) exercises its control rights in inspection mainly through the annual inspection procedure, which took the following steps: First, on an annual basis the agents (CEPBs) and their supervisor (MEPB) assembled the documentation of all their efforts and outcomes of pollution reduction in specific areas, projects, and facilities within their jurisdictions; second, the MEP and PEPB sent out inspection teams to review and assess all these documentations at the CPEB level to make decisions, item by item, on acceptance or rejection, and in what proportion, of the claimed accomplishments made by the CEPBs. The officially accepted outcomes of all CEPBs were aggregated at the municipal level as the certified policy outcome for the MEPB—the subcontracted “goods” delivered to and accepted by the principal. The inspection team also conducted selective onsite inspections during the review process. There were also other occasions throughout the year when the MEP sent out special inspection teams to targeted facilities and projects and conduct onsite inspections. There were considerable negotiations in the inspection process over the accuracy of measurement, reliability of evidence, or different interpretations. But the principal had the ultimate authority in deciding when, where, and how the inspection is to be conducted, and in making the final decision in accepting or rejecting, and in what proportion, of a claimed accomplishment.

Control right in incentive provision. Incentive provision within the MEPB jurisdiction is mainly related to performance evaluation of the CEPBs. Although the MEP/PEPB inspection directly scrutinized all claimed achievements by the CEPBs, noticeably the MEP/PEPB has shown no interest in administering incentive provision at the CEPB level at all. Instead, the real authority in performance evaluation of the CEPBs resides with their immediate supervisor, the
MEPB, who spent an enormous amount of time and effort to evaluate the relative performance of the CEPBs in its jurisdiction, as we will detail below.\(^5\)

To summarize, the brief sketch above shows that the allocation of control rights in the environmental protection arena are consistent with the main characteristics of the subcontracting model: the principal (the MEP and the PEPB) holds the control right in goal setting and inspection, but the supervisor-as-subcontractor (the MEPB) holds the control rights in incentive provision. In the typical subcontracting model, the goals are negotiated between the firm and its subcontractor, whereas in the Chinese bureaucracy, goal setting is largely imposed from a top-down process. However, as we will see below, considerable negotiations in the inspection process effectively compromise the principal’s control right in goal setting, making the actual practice close to a subcontracting model. We now turn to the actual implementation process and make sense of the exercise of these control rights among the three layers of the bureaucracy.

*Principal’s authority in action: Control rights in goal setting and in inspection*

From the MEPB’s point of view, the policy targets for the 5-year plan were imposed from the above, with no room for negotiation. This is in stark contrast with the typical subcontracting process between firms, where the goals (i.e., terms of the contract) are set based on mutual agreement; hence, they are feasible and binding. In the Chinese bureaucracy, there are considerable variations in negotiation and manipulation between the principal and the supervisor-as-subcontractor in the inspection process, which may soften or harden the control right in goal setting. Therefore, it is instructive to consider the exercise of control right in goal setting and in inspection jointly to understand the principal’s authority in action.

As we noted before, one key element in the MEP/PEPB inspection process was the inspection team’s review of the records that documented those accomplishments in meeting policy targets, such as the closing of pollution sources, the addition of new water treatment facilities, etc. For each round of inspection, this review process usually took place for several days in which the inspectors audited the documents and demanded explanations and justifications by the MEPB officials on the statistics and calculations made therein. This was the most critical moment for the “subcontractor,” whose year-long efforts depended on the outcome of this inspection process. As a result, on the eve of the inspection process, the MEPB and the CEPBs

\(^5\) One may argue that both the resources and career mobility of the officials at CEPBs depend on their territorial governments (county governments), not the MEPB. However, MEPB’s performance evaluation of a CEPB plays a significant role for chief officials at the CEPB and at times for those in the county government.
worked together and spent an enormous amount of time and effort to prepare and review the documents and conducted their own inspection of the pollution-treatment facilities to ensure that the official inspection goes smoothly.

From the eyes of the MEPB officials, the inspection process was characterized by its high unpredictability, and its outcomes were often surprising even to the seasoned MEPB officials. At times, as in the PEPB inspection in 2008, the inspection team conducted extensive and thorough auditing and stubbornly refused the bargaining efforts from the MEPB. These practices resulted in the rejection of a large proportion of the claimed achievements by the MEPB. According to an estimate by an MEPB official, for some key items of pollution reduction, the inspection team accepted only 10% to 58% of those claimed by the MEPB, causing much complaints and frustration. In other years, the review process went smoothly, with a level of acceptance much higher than MEPB officials had expected. In one episode of the MEP inspection we observed, the MEPB officials engaged extensive preparation for the inspection process. But the inspection went so uneventfully with no demand for serious bargaining or justification such that the MEPB officials felt disappointed that their hard work in preparation was not put in use.

Figure 2 reports the acceptance level by the MEP and PEPB respectively in the last three years of the 5-year plan. The PEPB’s acceptance decision was in part based on the acceptance by the MEP for the entire province. As one can see, the acceptance rate varied greatly across the years, between the MEP and the PEPB, and also between the COD and SO2 areas. As Figure 2 shows, the acceptance levels varied considerably over the years. This is partly due to changes in the criteria used in the inspection process. But at times, these inspection decisions were made because of other factors that had little to do with the actual quality of the “goods” delivered. For example, the very low percent of 17% acceptance rate for SO2 had little to do with the MEPB’s actual performance. On the contrary, this was largely because the MEPB had already met the policy targets for the 5-year plan by that year, so the PEPB deliberately lowered its accomplishment in this area so as to make room for other MEPBs to catch up, according to the MEPB officials involved in the inspection process.

Throughout the inspection process, there were intensive interactions and bargaining activities involved. In fact, the formal process was designed to provide occasions for both sides to explain, interpret, and discuss these findings, thereby providing a legitimate forum for bargaining.

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6 LH “数据调整10”, p. 4.
7 LH “五年计划22”, p. 19.
and for resolving serious problems uncovered in the process (Zhou, Ai, Lian 2012). That is, although the goals were imposed by the principal, inspection on policy outcomes was negotiated between the principal and the supervisor. Negotiation and flexibility in the inspection process compromise the control right in goal setting, rendering in effect a negotiated goal setting process. These variations suggest that the control right in inspection may vary over time or occasions, as are the boundaries of these “organizations.”

How do we make sense of these practices in the exercise of control right in inspection? Our observations suggest that the inspection process was only loosely coupled with the actual outcomes of the implementation efforts. Indeed, a common observation is that the inspectors’ disposition of either “tight” or “loose” inspection was adopted prior to the actual process, regardless of the actual performance by the supervisor-as-subcontractor. One way to interpret these behaviors is that the inspection process was intended to exert pressures ex ante on the subcontractor’s efforts in implementation in the future, but it is only loosely coupled with the actual implementation process ex post. That is, in the larger scheme of things, the principal uses inspection mainly as a deterrent strategy to put pressure on the subcontractor so as to induce their appropriate efforts.

Subcontractor’s authority in action: Control right in incentive provision

As we noted before, the control right in incentive provision was largely in the hands of the supervisor, the MEPB. But there is one complication in the actual practice. The inspections conducted by the MEP/PEPB were based on the documented achievements provided by each CEPB—the agent at the bottom of the administrative hierarchy. In other words, each MEP/PEPB inspection would in effect generate a rank-order of performance evaluation of the CEPBs in the MEPB jurisdiction. If this rank-order were taken seriously as the CEPBs’ performance evaluation, the MEPB’s control right in incentive provision would be largely taken away or seriously compromised. Interestingly, this was never the case. Instead, each year after the completion of the MEP/PEPB inspection and the acceptance of the outcomes known, the MEPB would spend considerable efforts to internally reallocate quotas and accomplishments among the CEPBs. Sometimes adjustments were made in subtle ways. For example, carefully redistributing the newly added pollution volumes (resulting from economic development or population growth) among the counties would increase or decrease a CEPB’s level of accomplishment in that year. At times, the reallocation efforts were made openly. In an episode in 2008, a large water treatment facility was in operation that could contribute significantly to meeting the targets in the
COD area for three CEPBs in the region. Instead of measuring the accurate volume of water being treated among the three CEPBs, the MEPB reallocated more volumes to two CEPBs who lagged behind to help increase their achievement levels in this area. In another episode in 2009, the MEPB deliberately underreported the volume of water treatment by a large facility in an effort to lower the performance level of five counties that benefited most so as to keep a balance of performance levels among the CEPBs. The MEPB had exercised extensive right in reallocation the quota, accomplishments, and tasks among the CEPBs such that the link between inspection outcomes and incentive provision became tenuous.

As a result of these efforts in performance (re)evaluation, the rank order of performance among the CEPBs often departed significantly from that emerged from the MEP/PEPB inspection. Figures 3 and 4 show the CEPBs’ level of accomplishment in COD and SO2, accepted by the PEPB and readjusted by the MEPB in 2008. There were similar patterns in other years as well. As one can see, there are considerable discrepancies between the inspection assessments made by the PEPB and the report card on performance issued by the MEPB. For example, several CPBs were short of meeting the annual target of 6% reduction in the COD based on the PEPB inspection (see Figure 3); but all met the annual target after the MPEB’s readjustment. We observed the same pattern in the SO2 area (see Figure 4). Notice also that these readjustments often altered the original rank order of the CEPBs based on inspection—further evidence of the decoupling between the MPEB’s performance evaluation and the inspection outcome. For example, in the PEPB inspection the CEPB “CN” fell short of meeting the annual target in COD reduction, but it had the best performance after the readjustment made by the MEPB. This was because the MEBP officials tried hard to re-adjust the quota so that this CEPB was able to meet its target for the 5-year plan. Occasionally, the MEPB would file a written petition to the PEPB and formally request the reallocation of task quota or achievement level. But more often or not, such adjustments were made quietly and internally. Indeed, throughout the 5-year plan period, and especially in the last few years, the MEPB, in its own performance evaluation, repeatedly and deliberately made adjustments and reallocation of quotas among the CEPBs.

How do we interpret the MEPB’s readjustment in performance evaluation among the CEPBs? On appearance, they may be interpreted as collusion between the supervisor and the

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9 LH, “数据调整10”, pp. 4-5.
agents in defiance of the principal’s own inspection. However, our proposed model offers a qualitatively different interpretation. That is, these efforts may be those instances in which the subcontractor resists outside inference and exercises his control right in incentive provision on a more informed basis. The enforcement and implementation of environmental regulation involved many parameters; different CEPBs were located in different areas and faced different challenges. The MEPB had much richer information about the CEPBs’ efforts and the challenges they faced so that these adjustments to a large extent reflected informed performance evaluation of their efforts. As we argued elsewhere (Zhou, Lian, Ortolano, and Ye 2011), another important consideration was governed by the logic of political coalitions: the MEPB must work with the CEPBs (and their county governments) to implement these policies, so it is politically critical to help the CEPBs meet the policy targets so as to ensure future cooperation. That is, the main driving force behind these adjustments and reallocation of achievement levels was to ensure that all CEPBs in its jurisdiction were able to meet policy targets, both on an annual basis and eventually meeting the targets in the 5-year plan.

The MEBP officials did care about motivating its agents, as do all good managers in other organizations. Whenever possible, they tried to link performance evaluation and rewards with the efforts, and to some extent the readjustments were based on such principles, especially on those occasions when the political coalition is well protected (i.e., no prospect of failure to meet targets among the CEPBs), And they also used the inspection pressure from the above to motivate the CEPBs. One common strategy is the proportional reduction strategy that kept the rank order in accordance with the acceptance level by the MEP or PEPB such that those CEPBs lagging behind in the rank order felt the pressure to catch up. This strategy resembles the use of debts to impose constraints on the manager in the financial structure of the firm (Hart 1995).

One may wonder why the CEPBs would tolerate such readjustments and reallocation ex post? One important reason is that the CEPBs and the MEPB are interdependent and these readjustments were part of a continuing process of social exchange in “gives and takes” that benefited all of them collectively. Moreover, a CEPB’s accepted outcome in the inspection process may have resulted from artificial manipulation through collusion between the MEPB and the CEPB. So, the CEPBs had to accept the more informed MEPB’s readjustment based on their true performance. Often times, the MEPB also withheld information about inspection outcomes from the CEPBs so as to make room for its readjustment.

11 LH “数据调整10”, pp. 5-6.
In contrast to the MEPB’s extensive efforts and practice in administering performance evaluation, the MEP and PEPB showed little interest in performance evaluation at the CEPB level. Even in those cases where inspections uncovered serious problems (distortion, implementation failure), the principal would demand that the problems be corrected and personnel penalized, but leave decisions on penalty in the hand of the immediate supervisor. In one case in 2008, a special inspection team uncovered serious distortion of data by a CEPB. The PEPB issued stern warning and demanded that the MEPB investigate and penalize those involved. The MEPB complied, notifying the PEPB of steps taken in correcting the problems. But, as far as we are aware, these were largely symbolic gestures, with no real consequence at all.  

These instances indicate that the principal’s main concern is about the quality of the “goods” delivered—meeting the policy targets; thus, they focus on the supervisor-as-subcontractor, and have no interest in the micromanagement within the subcontractor’s jurisdiction. In this light, the real consequence of uncovering problems in the inspection process is the likely tightening of evaluation in this area in the next round, which is consistent with the main purpose of the inspection—to tighten the screw on the subcontractor’s performance in the future.

To sum up, the evidence and our discussion above show that the actual practice of authority relationships in the environmental protection area is consistent with the subcontracting model in which the principal cares only about the overall fulfillment of goals at the MEPB, leaving the MEPB to link rewards/penalty with the actual performance of the agents. However, there are also considerable variations over the 5-year period that shed light on changes in authority relationships in policy implementation processes. These variations were largely caused by the reallocation, often informally, of control rights among the parties involved. Consider the inspection efforts by the principal. For example, in the first year, the lack of experience by the inspection team led to a loose inspection process and the acceptance of a large proportion of claimed achievements. This can be interpreted as surrendering real authority to the supervisor who was better informed. However, in the next year, 2007, the principal exerted tight control in the inspection process and rejected a large proportion of claimed achievements by the MEPB, with serious implications for the performance evaluation of the CEPBs. These actions amounted to shifting the subcontracting mode toward that of tight-coupling. In later years, as policy targets were being met steadily over time, the pressures were considerably relaxed, despite the fact that inspection was still formally conducted and a large proportion of the claimed tasks was not accepted.  

\[\text{12 LH “数据调整10”, pp. 6-7.}\]
\[\text{13 The common practice by the principal is to not allow the full completion of tasks or to change criteria in terms of tournament competition so that there is still incentive for the agent to improve.}\]
implementation shifts to a mode of loose coupling, where control rights in inspection and incentive provision were largely left to the supervisor. Our proposed model provides a framework and analytical concepts to analyze variations and shifts among different modes of governance in the Chinese bureaucracy.

To what extent is our case generalizable to other settings or areas in the Chinese bureaucracy? Needless to say, the specific tasks, inspection processes, and goal setting processes vary enormously across different areas. But we believe the structural context in which control rights are allocated is similar across different functional lines and different regions in the Chinese bureaucracy. For example, even though the territorial governments have considerably more autonomy in their task environment than a functional office such as the MEPB, nevertheless the territorial governments’ performance is evaluated in those specific areas such as the environmental protection arena. In other words, the very practice of performance evaluation and tournament competition is subject to those processes and authority relationships analyzed in our case study. In this sense, the behavioral patterns observed in our fieldwork are likely to be present in other areas and localities as well.

DISCUSSION: FROM METAPHORIAL INSIGHT TO ANALYTICAL THEORY

Drawing on ideas in the economics of incomplete contracts and property rights, in this study we have proposed a “control rights” theory to study authority relationships in the Chinese bureaucracy. In our theory, variations in authority relationships depend on the allocation of those control rights over goal setting, inspection, and incentive provision in an organization. On this basis, we conceptualized a range of modes of governance in accordance with the allocation of control rights among the principal, supervisor and agent. At one extreme, the principal may retain all control rights, in effect activating a “tight-coupling” mode of governance. However, the maintenance of such governance structure is costly, which is typically accompanied by heightened but temporary mobilizational efforts. At the other extreme, the principal may assign all control rights in a specified area to the supervisor, thereby producing a federalism mode of governance. More often, however, we observe the prevalence of the subcontracting mode of governance, where the principal sets up goals, inspects policy outcomes but leaves the control right in incentive provision to the supervisor.

An important indication of the advance of knowledge is the shift of the basis of explanation from metaphor to theory. We hope that our proposed model has contributed to a move from an insightful metaphor to a theory with analytical power. In the earlier literature on modes of
governance, the image of the subcontracting model, among others, was mainly used as a metaphor. Li-an Zhou’s “administrative subcontracting model” has added rich institutional details of the Chinese context. But in its present formation, his model is more a descriptive apparatus than an analytical one. Our “control rights” theory provides significant, analytical strength to this and other related model(s) by conceptualizing different dimensions of control rights in organizations and by putting analytical focus on the allocation of control rights across the three layers of the Chinese bureaucracy. In so doing, the proposed model makes the authority relationships and modes of governance concrete and analyzable, with rich and testable behavioral implications. For example, the proposed model helps us pin down the specific modes of governance, the underlying mechanisms, and the specific conditions under which certain strategies of inspections are deployed, or implementation pressures accelerated, or collusive behaviors become prevalent. More importantly, the proposed model provides a unified analytical framework to account for these apparently disparate cases of organizational phenomena and relationships among them. The proposed “control rights” theory, we hope, opens up a new horizon for research and for us to move beyond the accumulation of stories, narratives, and empirical observations and subject them to rigorous social science analysis.

The proposed model also exposes the limitation of those theoretical models that put incentive design as the center of analysis. For example, the model of tournament competition focuses exclusively on one particular type of control right—that of incentive provision—in the principal-agent relationships. In our model, however, it is the configuration of several control rights jointly that shapes specific forms of authority relationships, and hence modes of governance. For example, whether the control right in inspection is in the hand of the principal or in the hand of supervisor-as-subcontractor entails distinct modes of governance and hence has significant implications for incentive designs. In the three-level bureaucracy, the principal’s exercise of inspection right may induce collusive behaviors between the supervisor and the agent in the inspection process. On the other hand, when the inspection right is given to the supervisor, the supervisor may act as a de facto principal who takes incentive provision seriously. In other words, the implementation and effectiveness of incentive design vary with the allocation of other control rights in the organization.

We call attention to a key dynamic that induces shifts across modes of governance—the arbitrary power of the principal in intervention. Much of the discussion so far focuses on the allocation of control rights that are binding in the sense that the organization design is such that it induces self-enforcing equilibrium behaviors. However, in China’s political system, the state, the
ultimate principal in the Chinese bureaucracy, is endowed with the arbitrary power in intervention and in changing rules of the game. The exercise of such arbitrary power may shock the present mode of governance, pushing the shift from one mode of governance to another. For example, the principal’s unexpected tightening up of evaluation criteria and the adoption of mobilizational mode of enforcement may turn formal authority into real authority, and hence shift the “subcontracting” mode of governance to that of “tight-coupling.” The interaction between the bureaucratic modes of governance and the exercise of arbitrary power remains to be explored.

Finally, the proposed “control rights” model has raised a set of new research agenda toward developing theoretical explanations of the Chinese bureaucracy. In this study we discussed patterns of control rights allocation and their implications for modes of governance, more careful work, both theoretical and empirical, is needed to uncover why and how these control rights are allocated one way or another, their impacts in shaping different modes of governance; in particular, how different modes of governance shift from one to another. For example, the styles and specific forms of inspection may be closely related to the complexity of the tasks involved, the reliability of measurement, and the resources available for enforcement (Taylor and Wiggins 1997). Similarly, the internal pressures in implementation and collusive behaviors are also contingent on how goal setting and inspection processes are specified, i.e., the mode of governance it takes. Although shifts in modes of governance are frequently observed, much less is known about the processes and mechanisms that induce such shifts or perpetuate a steady mode of governance. It is also likely that further conceptualization of other dimensions of control rights may shed new lights on the Chinese bureaucracy. Broadly, the mechanisms that link a particular control right and the actual behavioral patterns still need to be spelled out. For example, does the availability of a particular form of organizing, such as mobilization, facilitate the shift toward a particular mode of governance (e.g., the tight-coupling mode of governance)? Or, do traditions and historical evolution have generated patterns of local problem solving that make it more likely to allocate certain control rights at the local level (e.g., rural governance)? The proposed “control rights” model, we hope, provides a useful theoretical lens for us to take a fresh look at those familiar bureaucratic phenomena and ask better research questions about them.
Table 1. Control rights and modes of governance in the Chinese bureaucracy

<table>
<thead>
<tr>
<th>Control rights</th>
<th>Modes of governance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tight-coupling</td>
</tr>
<tr>
<td>Goal setting</td>
<td>P</td>
</tr>
<tr>
<td>Inspection</td>
<td>P</td>
</tr>
<tr>
<td>Incentive provision</td>
<td>P</td>
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</table>

<table>
<thead>
<tr>
<th>Behavioral consequences</th>
<th>Principal</th>
<th>Supervisor</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mobilization</td>
<td>Loss of initiative</td>
</tr>
<tr>
<td>Principal</td>
<td>Symbolic authority</td>
<td>Absent</td>
</tr>
</tbody>
</table>

Note: “P” and “S” stand for the corresponding control right held by the principal or the supervisor respectively.
Figure 1. Structural location of the Municipal EPB
Figure 2. Proportion of acceptance of the MEPB claims by PEPB and MEP

<table>
<thead>
<tr>
<th>Year</th>
<th>PEPB</th>
<th>MEP</th>
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<tbody>
<tr>
<td>2008</td>
<td>77%</td>
<td>33%</td>
</tr>
<tr>
<td>2009</td>
<td>67%</td>
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<tr>
<td>2010</td>
<td>60%</td>
<td>49%</td>
</tr>
<tr>
<td>2008</td>
<td>76%</td>
<td>44%</td>
</tr>
<tr>
<td>2009</td>
<td>37%</td>
<td>17%</td>
</tr>
<tr>
<td>2010</td>
<td>60%</td>
<td>34%</td>
</tr>
</tbody>
</table>

COD vs. SO2
Reference


