Modes of Governance in the Chinese Bureaucracy: A "Control Rights" Theory

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ABSTRACT

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

Over the past four decades, considerable progress has been made in the study of the Chinese bureaucracy, especially regarding the microbehavior of street-level bureaucrats in local governments or in specific areas (e.g., environmental protection). Researchers have adopted ethnographic methods to conduct participatory observations of how local officials behave in attending to their daily tasks, in responding to directives from higher authorities, in accommodating multiple pressures, and in pursuit of career advancement in changing institutional and task environments. It is not an exaggeration to say that the black box of the Chinese bureaucracy is being opened up.

RESEARCH ISSUES

What emerges from these studies are multiple, contradictory images of the Chinese bureaucracy. Let us consider a recurrent theme in this literature—tensions

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between policy making and policy implementation. Some studies have documented in vivid detail how local governments, in the process of implementing state policies, often impose even higher goals and stronger measures upon subordinate officials, adopt various legitimate or illegitimate strategies, and exercise their power to ensure that policy targets are met.¹ Expressions such as "pressurecentered system" (yalixing tizhi 压力型体制) and "downward acceleration of implementation pressures level by level" (cengceng jiama 层层加码) have entered the lexicon in the Chinese-language literature on the Chinese bureaucracy. Other research shows extensive efforts by local bureaucrats to cope with these pressures through strategies of selective attention, evasion, distortion, sabotage, and collusion.² The same bureaucracy often exhibits these contradictory behavioral tendencies when working on the same task.

Take, for example, principal-agent relationships in the Chinese bureaucracy. Central to this line of argument is the recognition of information asymmetry and incongruence of goals between the principal and the agent, which calls for incentive provisions to motivate the agent to take appropriate actions. Some studies show rational organizational designs to address principal-agent relationships and incentive provisions,³ and effective cadre management as well as implementation in the Chinese bureaucracy.⁴ Others have uncovered serious problems in the provision

^{1.} Yanhua Deng and Kevin O'Brien, "Relational Repression in China: Using Social Ties to Demobilize Protesters," *China Quarterly*, no. 215 (September 2013): 533–52; Rong Jingben et al., *From the Pressure System to Institutions of Democratic Cooperation: Reform of Political Institutions at County and Township Levels* (Beijing: Central Compilation & Translation Press, 1998); Hansheng Wang and Yige Wang, "The Responsibility System of Policy Target Management: The Logic of Practice in Rural Governance," *Shehuixue Yanjiu* 2 (2009): 61–92.

^{2.} Yongshun Cai and Xiulin Sun, "Rural Cadres and Governance in China: Incentive, Institution and Accountability," *China Journal*, no. 62 (July 2009): 61–77; Jae Ho Chung, "China's Local Governance in Perspective: Instruments of Central Government Control," *China Journal*, no. 75 (2015): 38–60; Kevin J. O'Brien and Lianjiang Li, "Selective Policy Implementation in Rural China," *Comparative Polites* 31 (1999): 167–86.

^{3.} Jean C. Oi, "Fiscal Reform and the Economic Foundations of Local State Corporatism in China," World Politics 45 (October 1992): 99–126; Jean C. Oi, Rural China Takes Off: Institutional Foundations of Economic Reform (Berkeley: University of California Press, 1999); Andrew G. Walder. "Local Governments as Industrial Firms: An Organizational Analysis of China's Transitional Economy," American Journal of Sociology 101 (1995): 263–301; Susan H. Whiting, Power and Wealth in Rural China: The Policial Economy of Institutional Change (New York: Cambridge University Press, 2000); Li-an Zhou, "Governing China's Local Officials: An Analysis of a Promotion Tournament Model" [in Chinese], Jingji Yanjiu 7 (2007): 36–50.

^{4.} Thomas Heberer and Gunter Schubert, "County and Township Cadres in China as a Strategic Group: A New Approach to Analyzing the Behavior of Local Actors," *Journal of Chinese Political Science* 17 (2012): 221–49; Thomas Heberer and Rene Trappel, "Evaluation Processes, Local Cadres' Behavior and Local Development Processes," *Journal of Contemporary China* 22 (2013): 1048–66; Baoqing Pang, Shu Keng and Lingna Zhong, "Sprinting with Small Steps: China's Cadre Management and Authoritarian Resilience," *China Journal*, no. 80 (2018): 68–93; Anna L. Ahlers and Gunter Schubert, "Effective Policy Implementation in China's Local State," *Modern China* 41 (2015): 372–405; Christian Gobel, "Uneven Policy Implementation in Rural China," *China Journal*, no. 65 (2011): 53–76; Maria Edin, "State Capacity and Local Agent Control in China: CCP Cadre Management from a Township Perspective," *China Quarterly*, no. 173 (March 2003): 35–52.

of incentives, coordination, and political manipulation. In some cases, the provision of incentives played a minor role in the face of multiple policy goals.⁵ Some other studies found that policy intention and implementation are loosely coupled or that central-local government relationships, in certain areas and at times, resemble de facto federalism.6

How do we reconcile these disparate and contradictory images and behavioral patterns in the Chinese bureaucracy? The key issue, we submit, is that principal-agent relationships and the ensuing agency problems vary in different organizational settings. In the literature, theoretical models abound on the general patterns of Chinese bureaucracy, such as fragmented authoritarianism, experimentalism, and more recently a political steering model in the era of "toplevel design." However, there is a need to move down to the concrete level and specify the kind of game being played before we can understand the specific principal-agent problems involved and, on this basis, identify and analyze the ensuing agency problems. For example, as Andrew Walder pointed out in 1995, the "financial contracting" reform in the 1980s gave strong financial incentives for local governments to supervise publicly owned township and village enterprises (TVEs).8 But subsequently, major changes in the "tax sharing" system in the mid-1990s significantly changed the relationship between local governments and local firms in their jurisdictions. As a result, local governments shifted from the role of supporting TVEs to pushing for their privatization. In short, we need to locate principal-agent relationships in specific time-bound organizational settings before we can interpret and analyze them meaningfully.

This recognition motivates a fresh look at authority relationships in the Chinese bureaucracy. We aim to explicate different modes of governance—tight coupling, loose coupling, subcontracting, and federalism—and the ensuing principal-supervisor-agent relationships and their behavioral implications. We

^{5.} Sarah Eaton and Genia Kostka, "Authoritarian Environmentalism Undermined? Local Leaders' Time Horizons and Environmental Policy Implementation in China," China Quarterly, no. 218 (June 2014): 359-80; Xin Sun, "Selective Enforcement of Land Regulations: Why Large-Scale Violators Succeed," China Journal, no. 74 (2015): 66-90; Xiaowei Zang, "How Cohesive Is the Chinese Bureaucracy? A Case Study of Street-Level Bureacrats in China," Public Administration and Development 37 (2017): 217-26; Xueguang Zhou, Hong Lian, Leonard Ortolano and Yinyu Ye, "A Behavioral Model of Muddling through in the Chinese Bureaucracy," China Journal, no. 70 (July 2013): 120-47.

^{6.} Yingyi Qian and Barry R. Weingast, "Federalism as a Commitment to Preserving Market Incentives," Journal of Economic Perspectives 11 (1997): 83-92; Yongnian Zheng, De Facto Federalism in China: Reforms and Dynamics of Central-Local Relations (Singapore: World Scientific, 2007).

^{7.} Kenneth Lieberthal and David M. Lampton, eds., Bureaucracy, Politics and Decision Making in Post-Mao China (Berkeley: University of California Press, 1992); Sebastian Heilmann, "Policy Experimentation in China's Economic Rise," Studies in Comparative International Development 43 (2008): 1-26; Gunter Schubert and Bjorn Alpermann, "Studying the Chinese Policy Process in the Era of 'Top-Level Design': The Contribution of 'Political Steering' Theory," Journal of Chinese Political Science 24 (2019): 199-224.

^{8.} Walder, "Local Governments as Industrial Firms."

draw on recent theoretical ideas in the economics of incomplete contract to conceptualize authority relationships and behavioral patterns in organizations as a function of the allocation of control rights across levels of the bureaucracy. We will explicate a unified theoretical framework, together with a set of analytical concepts and empirical implications, to shed light on a wide range of interrelated bureaucratic phenomena, rather than treating them as disparate, individual cases. In particular, we will focus on the allocation of control rights among the principal, the supervisor, and agents. We will apply the proposed model to make sense of bureaucratic practices regarding environmental protection over the course of a five-year-plan period. In the conclusion, we will discuss the implications of the model for understanding the microfoundations of the Chinese state.

A THEORY ON THE ALLOCATION OF CONTROL RIGHTS AND MODES OF GOVERNANCE

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 organizational design. The term "mode of governance" refers to the specific way in which an authority relationship is specified and distributed. In an organizational setting, principal-agent relationships and the ensuing agency problems are mostly associated with the formal authority relationships.

Let us consider a three-level bureaucracy involving a principal, a supervisor, and an agent (see fig. 1). In this model, the principal has the ultimate authority in policy making and in organizational design, such as setting the incentives and performance evaluations of lower-level officials who serve as agents. The agent is responsible to follow the administrative fiats and to implement top-down policies. The principal delegates certain aspects of his authority to a supervisory level, whose primary responsibility is to supervise the agent's implementation of the principal's directives. To anticipate our case study in the second half of this article, we may consider the metropolitan-level government as a supervisor, with the central government and provincial government as its principal, and county-level governments as the agents.

Even in this simple organizational setup, a variety of issues emerge in different organizational designs. For example, in a strictly hierarchical structure, the intermediate government (e.g., the government of a metropolis $[\vec{\pi}shi]$) plays a "supervisor" role to ensure the implementation of national government policies at the lower levels. But, as we know, the intermediate government simultaneously acts as a principal in setting its own goals. These roles may also vary on different occasions over time. For example, in the early days, environmental protection

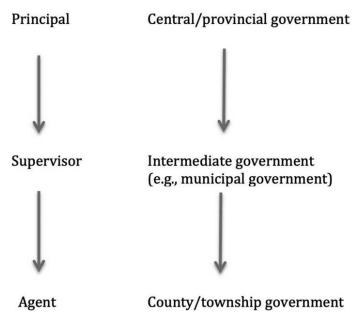


Figure 1. Three-layer principal-supervisor-agent model

was largely delegated to the local level, but in the last half decade there has been a trend to recentralize policy.9

From Incomplete Contracts 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 an employee), the economic theory of incomplete contract has focused on issues related to the allocation of control rights over assets (physical or human capital) among economic actors. 10 This line of argument 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 stakeholder(s) who hold the residual

^{9.} Genia Kostka and Jonas Nahm, "Central-Local Relations: Recentralization and Environmental Governance in China," China Quarterly, no. 231 (September 2017): 567-82; Tao-chiu Lam and Carlos Wing-Hung Lo, "Local State-Building and Bureaucratization of China's Public-Sector Service Organizations: A Case Study of the Environmental Protection System in Guangzhou," China Journal, no. 81 (January 2019):

^{10.} Sanford Grossman and Oliver Hart, "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Ownership," Journal of Political Economy 94 (1986): 481-510; Oliver Hart and John Moore, "Incomplete Contracts and Renegotiation," Econometrica 56 (1986): 755-85; Oliver Hart, Firms, Contracts and Financial Structure (New York: Oxford University Press, 1995).

rights of control over the assets. Different allocations of the control rights give rise to different incentives and power for the different parties involved.

In the context of industrial organizations, this incomplete contract framework leads to a focus on the allocation of the control rights: that is, under what conditions should one integrate an entity/asset or activity within the organization or leave it to a contractor. Consider two alternative forms of governance: an employment relationship versus subcontracting—a favorite contrast in economic analysis. In the case of an employment relationship, through the organization's hierarchical structure the principal retains firm control over the employee in the organization of production, incentive design, and performance evaluation, among others. In the subcontracting mode, however, in a particular area or over a particular policy goal (e.g., the target in pollution reduction), the principal may subcontract the tasks, with specific stipulations about the targets to be met or services to be delivered. In those areas beyond the explicit stipulations, the subcontractor would have the real authority—the residual control rights within his jurisdiction over how the tasks are to be carried out and resources allocated, and so on. Note that principal-agent problems are involved in both employment relationship and subcontracting modes, but the specifics of these problems vary with the ways the control rights are allocated.

This line of argument can be applied to the study of authority relationships in the public bureaucracy. In particular, in this framework control rights refer to the authority over the use of "assets" (or activities related to a task or project) beyond those specified in the "contract" (in the specific policy stipulation). While we use the conventional principal-supervisor-agent labels to characterize the hierarchy, the roles of the three may vary significantly in different organizational settings, as do their relationships and behavioral patterns. In the employment relationship mode, the principal (e.g., the central government) stipulates policies, and the supervisor (e.g., the metropolitan government) does no more than "supervise" county governments to carry out policy implementation. In the subcontracting mode, however, the principal delegates policy targets to the supervisor, along with part or all of the control rights in the implementation process, including decision rights related to actual implementation and provision of incentives. In so doing, the authority relationship between the principal and the supervisor undergoes subtle but critical changes. That is, the supervisor acts as a "subcontractor" and gains a significant type of control rights over how to carry out the delegated tasks or projects, as well as the control rights over incentives within its own jurisdiction.

The central issue in the incomplete contract approach is the strategic allocation of residual rights of control among different parts of an organization, which leads to variations in authority relationships as well as different types of principal-agent problems. The same logic can be applied to government organizations as well; as Jean Tirole put it, "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."11

The allocation of control rights may also take more subtle forms. Drawing on Max Weber, Aghion and Tirole distinguished between formal and real authority in organizations. 12 Formal authority is prescribed by the formal structure of the organization, whereas real authority rests with 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 who holds such information about local situations. The distinction between formal and informal authority has long been recognized in organization literature, ¹³ and focusing on the allocation of control rights makes these distinctive phenomena analyzable. An important implication of this distinction between formal and real authority is that modes of governance can undergo significant changes even without the explicit alteration of formal authority. For example, even if the formal authority of the principal (the central government) is intact, it may become vague and symbolic when the actual control rights are shifted to other parties (e.g., the intermediate government).

To sharpen its analytical power in our study of the Chinese bureaucracy, we will further differentiate control rights along the following three dimensions:

- Control rights over goal setting 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 top-down dictates or negotiations among the parties involved, as in contract agreements that are negotiated in the marketplace.
- Control rights over inspection and evaluation of the performance of the agents on the basis of the goal-setting right. Clearly, the "inspection" right is secondary to the "goal setting" right. It is separable 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 that policy targets are met but not necessarily to evaluate the agent's performance.
- Control rights over providing incentives. 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 providing incentives

^{11.} Jean Tirole, "The Internal Organization of Government," Oxford Economic Papers, n.s., 46 (1994): 16.

^{12.} Philippe Aghion and Jean Tirole, "Formal and Real Authority in Organizations," Journal of Political Economy 105 (1997): 1-29.

^{13.} Peter M. Blau, The Dynamics of Bureaucracy: A Study of Interpersonal Relations in Two Government Agencies (Chicago: University of Chicago Press, 1963); Michel Crozier, The Bureaucratic Phenomenon (Chicago: University of Chicago Press, 1964).

to agents implies that there may be a separation of inspection and incentive provision. Control rights in incentive provisions, including performance evaluation, may be allocated to the supervisor; or, alternatively, they may be retained in the hands of the principal.

By differentiating and conceptualizing control rights along these dimensions, we put forth a key theoretical proposition: decision rights as a bundle of control rights are decomposable and separable and, hence, can be allocated, with costs, among different levels and localities in an organization, thereby 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 unavoidable for any large-scale organization. To illustrate this point, let us revisit our three-level 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 regulated by the Ministry of Environmental Protection, that of sulfur dioxide (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 arena and, at each provincial level, thousands of them. At the national level, this amounts to hundreds of thousands of projects that relate wholly or partially to SO₂ reduction, which is just one of many arenas under environmental regulation. It is mind boggling to imagine the task load for the central government's Ministry of Environmental Protection, along with other relevant ministries, to exercise 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 agents' efforts and circumstances 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 inspections directly from Beijing.

It is not surprising, then, that the separation and delegation of these rights are commonplace and that there are a variety of control rights configurations in different arenas and among different levels of Chinese governments. By considering these distinct dimensions of control rights and how they are allocated across the levels of the hierarchy, we are able to discern and examine distinctive modes of governance.

These modes include a pair that have been discussed in organization research to characterize distinct organizing processes: tight coupling versus loose coupling. The extent to which 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 that are sensitive in response to one another. In this ideal type, directives from the higher authority are responded to and

Control Rights	Modes of Governance			
	Tight Coupling	Subcontracting	Loose Coupling	Federalism
Goal setting	Principal	Principal/negotiated	Principal/negotiated	Supervisor
Inspection	Principal	Principal	Supervisor	Supervisor
Provision of incentives	Principal	Supervisor	Supervisor	Supervisor
Behavioral consequences:				
Principal	Mobilization	Strategies of inspection	Symbolic authority; loss of control	Absent
Supervisor	Loss of local initiative	Acceleration of implementation pressures; collusion	Acting as principal	Acting as principal

Table 1. Control Rights and Modes of Governance

implemented by lower levels in an efficient 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. ¹⁴ In many aspects, the tight-coupling versus loose-coupling modes are analogous to the "centralization" versus "decentralization" scenarios in organizations.

Table 1 summarizes different modes of governance due to the allocation of control rights along the three dimensions we proposed before:

- The tight-coupling mode. The principal retains all three control rights of goal setting, evaluation, and provision of incentives and enforces top-down directives through supervisors, often resulting in a higher degree of responsiveness among the lower layers of the bureaucracy. In the Chinese bureaucracy, this is often accompanied by a heightened mobilizational state of policy implementation.
- The subcontracting mode. The principal sets goals and targets but delegates these tasks to the supervisor, sometimes in a negotiated fashion with the supervisor. The principal holds the control right of inspection to evaluate policy outcomes. But the control right in implementation, enforcement, and incentive design is left entirely in the hands of the supervisor. In this case, the supervisor acts as a subcontractor, with his own control rights in organizing activities and in incentive provision within his jurisdiction. ¹⁵

^{14.} Karl E. Weick, "Educational Organizations as Loosely Coupled Systems," *Administrative Science Quarterly* 21 (1976): 1–19, and "Management of Organizational Change among Loosely Coupled Elements," in *Change in Organizations*, ed. P. S. Goodman et al. (San Francisco: Jossey-Bass, 1982).

^{15.} This resembles the scenario in Li-an Zhou, "The Administrative Subcontracting Model," *Shehui* 34 (2014): 1–38.

- The loose-coupling mode. The principal retains the control right in goal setting, or goals may be negotiated between the principal and agents, but both the right of inspection and that of providing incentives are allocated to the supervisor. In this scenario, the principal becomes a figurehead in this program, with only formal or symbolic authority, and the supervisor maintains real authority in both inspection and in incentives provision.
- The federalism mode. The principal delegates all three control rights, including goal setting, to the supervisor in specified areas or functions. In this scenario, the supervisor holds both formal and real authority. However, in China's authoritarian state, such a broad assignment is likely to be limited, informal, and temporary; hence it is unstable.

By focusing on specific control rights and the allocation of these rights among the principal, supervisor, and agent, we are able to be more analytical in pinpointing the specific relationships between the principal and the supervisor and the implications for behavioral patterns. For example, the principal-supervisor relationship in the tight-coupling mode is akin to the conventional "employment relationship" discussed earlier, whereas the nature of this relationship changes significantly in the subcontracting mode, as the intermediate government takes on the supervisor-as-subcontractor role.

Moreover, we are able to discuss the behavioral implications in a more specific and meaningful way and pin down the specific mechanisms that give rise to these. 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.¹⁷ 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 an evaluation. Collusive behavior is unlikely to occur in other modes of governance, for the following reasons. In the tight-coupling mode, collusion is highly costly—it is more likely to be caught and to be severely penalized in the heightened mobilizational state such as China's political campaigns. And in the loosecoupling mode of governance, the supervisor acts as the principal and exercises the inspection right, so there is no incentive for the supervisor to engage in collusion. Clearly, by focusing on the allocation of control rights, we can be much more specific and analytical in discussing the relationship between incentive mechanisms and behavioral patterns among the different parties involved.

^{16.} This is akin to the model of federalism discussed in Qian and Weingast, "Federalism as a Commitment to Preserving Market Incentives."

^{17.} Xueguang Zhou, "The Institutional Logic of Collusion among Local Governments in China," *Modern China* 36 (2010): 47–78.

Control Rights and Modes of Governance in the Chinese Bureaucracy

These different modes of governance in the Chinese bureaucracy can be analyzed in a uniform framework, and in relation to one another, rather than be 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 a cost in "loss of local initiative" by lower governments which weakens the effectiveness in problem-solving at local levels. Therefore, the tightcoupling mode is inherently unstable and is likely to shift to other modes of governance through formal or informal reallocations 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 to have real authority in incentive provision; and may further shift to a loose-coupling mode when control rights in inspection and incentives provision are also delegated to the supervisor.

For example, in China's family-planning arena, a tight-coupling mode of governance prevailed in the early years: that is, the central authority had a strong hand in goal setting, inspection, and incentive designs, which resulted in a heightened mobilizational state. Over time, however, the authority relationship evolved toward a subcontracting mode of governance, with more and more incentive provisions delegated to the lower levels. In times of crises or campaigns, the subcontracting mode may be pushed back into a tight-coupling mode where the principal temporarily exercises all three control rights, thereby producing a highly effective mobilizational state. The maintenance of social stability (weiwen) is such a case in point. The policy goal of maintaining social order had long been managed through a subcontracting or, at times, a loose-coupling mode, with local officials having the real authority. But in recent years the central government's efforts to take command of social stability, wielding control rights in both inspection and incentives provision, has led to a tightly coupled system among the principal, the supervisor, and the agent. Changes in conditions or in the paramount leader's predisposition (as with Mao Zedong and Xi Jinping) can lead to the reallocation of control rights—sometimes explicitly, other times informally—that induces the shift from one mode of governance to another.

In reality, these shifts normally occur among more than three levels of government. For instance, in a particular national program the central government had set the goals, and each provincial government allocated quota targets to each of the province's regional metropolises, while the metropolitan government, as the supervisor, held discretion in allocating and inspecting quota target fulfillments by county governments as its agents. The county in turn supervised the program's implementation, which was overseen by rural township governments as its own agents, and which in turn supervised grass-roots implementation by village governments at the bottom. So a real-life program often entails several levels of agents-as-supervisors. But for analytical purposes, any three adjoining levels of government can be selected in order to explicate the various modes of governance involving our three-level model of principal/supervisor/agents.

Thus, while we have empirically examined relations between environmental protection bureaucracies at provincial, metropolitan, and county levels (see below), the model of the three-level bureaucracy outlined above may apply to other analogous settings in the Chinese bureaucracy, such as the exercise of authority between the county, township, and village levels, or across the ministry/bureau/department (*ke*) levels, and so on. Indeed, the major contribution of our proposed organizational model is that the same logic can be applied to a variety of settings with different jurisdictional scopes, therefore uncovering the interrelatedness and underlying mechanisms among apparently disparate phenomena.

To sum up, we have sought to draw insights from the economics of incomplete contracts to develop a proposed three-level model of authority relationships in the Chinese bureaucracy based on the allocation of control rights. We will apply this model to make sense of the local governments' behavior and the changing modes of governance in the area of environmental regulation.

GOVERNING ENVIRONMENTAL REGULATION: A CASE STUDY

Between 2008 and 2011, our research team conducted fieldwork in a metropolitan Environmental Protection Bureau in northern China. Figure 2 depicts the formal authority relationship in administering environmental protection. In terms of the three-level hierarchy, we can treat both the national Ministry of Environmental Protection (MEP, 国家环保部) at the top and the Environmental Protection Bureau at provincial level (PEPB, 省环保厅) as the principals, the Metropolitan Environmental Protection Bureau (MEPB, 市环保局) as the supervisor, and the County Environmental Protection Bureaus (CEPBs, 县环保局) are the agents. Whenever possible, we adopt the simplifying assumption of combining the MEP and the PEPB as one principal, which allows us to focus on the key issue about 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 policy targets for the five-year plan duration from 2006 to 2010. We gathered information and data retrospectively for the first two years of the five-year plan, before our fieldwork began. Meeting policy targets in the five-year plan was the central focus of the MEPB among the multiple tasks it carried out during this period of time. Both the MEP and the

^{18.} Our researcher conducted participatory fieldwork in the MEPB for several months each year between 2008 and 2011. All of the information pertaining to this case study is based on (1) our participatory observations and (2) the archival documentary data collected in our fieldwork.

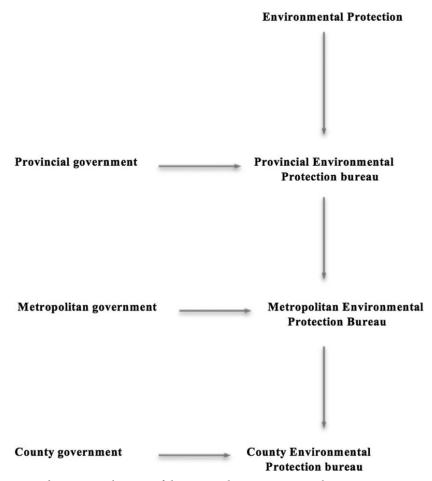


Figure 2. Administrative location of the Metropolitan Environmental Protection Bureau

PEPB conducted their respective inspections twice a year to ensure satisfactory progress toward meeting the targets. Our extensive fieldwork provides us with rare opportunities to observe the allocation of control rights and the corresponding behavioral patterns over time.

The Allocation of Control Rights in Environmental Regulation

1. Control Rights in Goal Setting

The policy goals set for the five-year plan focused largely on reducing pollution levels in two arenas: chemical oxygen demand (COD, related to water pollution treatment) and sulfur dioxide (SO₂, related to air pollution treatment). The ministry set up specific policy targets for each province in accordance with the national five-year plan. Once the province received its policy targets, the PEPB had full control rights in allotting targets among the MEPBs within its jurisdiction, as their de facto principal. For the metropolitan bureau of our study, the goals were set as an 18 percent reduction in COD and a 9 percent reduction in SO₂ over the five-year period. Neither the metropolitan bureau nor the county bureaus were involved in the goal-setting process. It is obvious that the control right in goal setting was firmly in the hands of the principal—that is, the ministry and provincial bureau. In a similar manner, the MEPB set its annual targets to ensure the incremental completion of the policy targets in the five-year plan. These goal-setting practices were set in accordance with the progress thus far achieved in meeting policy targets in the five-year plan and the annual goals set by the PEPB. In other words, once the policy targets are subcontracted to the metropolitan bureau, the supervisor acts as a subcontractor and holds the control right in the allocation of quotas within its jurisdiction and in organizing implementation.

2. Control Right in Inspections

On an annual basis, the agents (county bureaus, CEPBs) and their supervisor (the metropolitan bureau, MEPB) assembled the documentation on all their efforts and on the outcomes of pollution reduction in specific areas, projects, and facilities within the county; then the MEP and PEPB sent out inspection teams to review and assess this documentation at the county level to make decisions, item by item, on acceptance, rejection, or partial rejection of each of the CEPBs' claimed accomplishments. The officially accepted outcomes for all CEPBs were aggregated at the metropolitan level as the certified policy outcome for the MEPB—the subcontracted "policy outcome" delivered to and accepted by the principal. The inspection teams conducted selective onsite inspections during the review process to ensure the "quality" of the policy outcome delivered. There were also other occasions throughout the year when the MEP/PEPB sent out special inspection teams to targeted facilities and projects and conducted 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 inspections were conducted and in making final decisions on accepting or rejecting, and to what degree, a claimed policy outcome.

3. Control Right in Providing Incentives

This mainly relates to performance evaluation of the CEPBs. Although the MEP/PEPB inspections directly scrutinized all claimed achievements by the CEPBs, it is interesting to note that the ministry and provincial bureau showed no interest in providing incentives to the county bureaus. Instead, the real authority in performance evaluation of the CEPBs resides with their immediate

supervisor, the MEPB, which spent an enormous amount of time and effort in organizing implementation to meet policy targets. In so doing, the MEPB gained rich information in evaluating the relative performance of the CEPBs within its jurisdiction, as we will detail below.

To summarize, this brief sketch shows that the allocation of control rights in environmental protection in our case study fits the main characteristics of the subcontracting model: the principal (the MEP and the PEPB) holds the control rights in goal setting and inspection, but the supervisor-as-subcontractor (the MEPB) holds the control rights in incentive provision. We now turn to the actual implementation process to show how the allocation of control rights in this subcontracting model affected the behavior of the principals and of the supervisoras-subcontractor.

The 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 five-year plan were imposed from above, with no room for negotiation. This is in stark contrast with the typical subcontracting process between firms in the marketplace, where the terms of the contract are set based on mutual agreement; and, hence, are feasible and binding. But in the Chinese bureaucracy, there are considerable variations in negotiation and manipulation between the principal and the supervisor-assubcontractor in the inspection process, which may soften or harden the control rights in goal setting. It is instructive to consider the exercise of control rights in goal setting and inspection jointly to understand the specific principal-agent problems involved and the principal's authority in action.

One key element in the MEP/PEPB inspection process was the inspection team's review of the records that documented accomplishments in meeting policy targets such as the closing of sources of pollution, the addition of new water treatment facilities, and so on. For each round of inspection, this review usually took several days, during which time the inspectors audited the documents and statistics and demanded explanations and justifications. This was the most critical moment for the supervisor-as-subcontractor, whose yearlong efforts depended on the outcome of this process. As a result, on the eve of the inspection process, the metropolitan and county bureaus worked together and spent an enormous amount of time and effort to prepare the documents and to conduct their own inspection of the pollution-treatment facilities to ensure that the principal's inspection would go smoothly.

The inspection process was characterized by its high unpredictability, and its outcomes were often surprising even to the seasoned metropolitan officials. At times, as in 2008, the provincial inspection team conducted extensive and thorough auditing, stubbornly refused the bargaining efforts of the MEPB and rejected a large proportion of the claimed achievements. According to an estimate by an MEPB official, the inspection team accepted only 10 percent to 58 percent of the key items of pollution reduction claimed by the MEPB, causing much frustration. In other years, the review process went smoothly, with a level of acceptance much higher than MEPB officials had expected. In one episode that we observed, the MEPB officials engaged in extensive preparation for the ministry's inspection. But the inspection went through so uneventfully, with no need for serious bargaining or justification, that the MEPB officials felt disappointed that their hard preparatory work was not put to use.

Figure 3 reports the rates of acceptance by the MEP and PEPB aggregated across all 13 counties in this MEPB's jurisdiction in the last three years of the five-year plan. The MEP and the PEPB conducted each of their inspections separately, and both assessed the same pile of records prepared by the local CEPBs and coordinated by the MEPB. For the CEPBs, the sequence of inspections by their supervising offices (MEP, PEPB, or MEPB) varied. Sometimes the PEPB (or MEPB) conducted its own inspection before an even higher authority did in order to ensure the policy outcomes were prepared in the finest detail. Sometimes the PEPB conducted its inspection later in order to adjust the rate at which policy outcomes would be accepted based on the outcome of an inspection from above. For example, the PEPB's acceptance decision was in part based on the ministry's acceptance of the entire province's results. As figure 3 shows, the acceptance rates by the ministry and provincial bureau of COD and SO₂ reductions varied greatly, and it did so across the years. This was partly due to changes

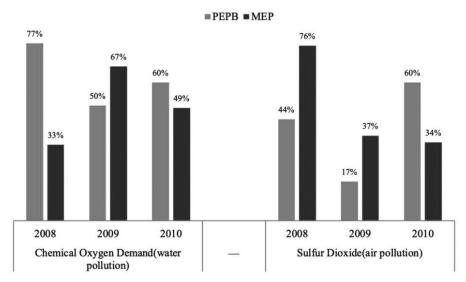


Figure 3. Proportion of acceptance of the municipal bureau's claims by the provincial bureau and the ministry

in the criteria used in the inspection process. But at times, these inspection decisions had little to do with the actual quality of the policy outcome delivered. For example, the very low 17 percent acceptance rate for SO₂ resulted largely because the metropolitan bureau had already met the policy targets for the five-year plan by that year, so the PEPB deliberately lowered its latest accomplishment in this arena so as to make room for other MEPBs to catch up, according to the MEPB officials involved in the inspection process.

Throughout the inspections, there were intensive interactions and bargaining activities. In fact, the formal process was designed to provide occasions for both sides to explain, interpret, and discuss the findings, thereby providing a legitimate forum for bargaining and for resolving any serious problems uncovered in the process.¹⁹ That is, although the goals were imposed by the principal, policy outcomes were negotiated between the principal and the supervisor-as-subcontractor during the inspections. This flexibility in the inspection process compromised the control rights in goal setting, rendering in effect a negotiated goal setting. In addition, these observations suggest that the control right in inspection may also vary over time or occasions, leading to different modes of governance. For example, loose inspection by the principal in effect delegates inspection rights to the supervisor-as-subcontractor, transiting to the loose-coupling mode (cf. table 1).

Our observations suggest that the inspection process was only loosely coupled with the actual outcomes. Indeed, a common observation was that the inspectors' disposition to conduct either a "tight" or "loose" inspection was adopted prior to the actual process and regardless of the actual performance. One way to interpret this is that the inspection process was intended to exert pressures ex ante on the subcontractor's future efforts, but it was only loosely coupled with the actual implementation process ex post. But the subcontractor always has to prepare for a "tight" inspection, lest he suffer serious consequences. In the larger scheme of things, then, it appears that the principal uses an inspection mainly as a deterrent strategy to put pressure on the subcontractors so as to induce their appropriate efforts in the implementation process rather than to evaluate the extent of the policy outcome delivered.

The Supervisor-as-Subcontractor's Authority in Action: Control Rights in Providing Incentives

Although the control right in providing incentives was largely in the hands of the supervisor, namely, the MEPB, there was one complication in actual practice. The inspections conducted by the MEP/PEPB were based on documented

^{19.} Xueguang Zhou, Yun Ai, and Hong Lian, "The Limit of Bureaucratic Power: The Case of the Chinese Bureaucracy," Research in the Sociology of Organizations 34 (2012): 81-111.

achievements provided by each county bureau—the agent at the bottom of the administrative hierarchy. In other words, each MEP/PEPB inspection in effect generates a ranking order of performance scores, from low to high, for all of the CEPBs in the MEPB's jurisdiction. If this rank order was 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 inspections and the acceptance of the outcomes became 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 allowed pollution volumes (resulting from adjustments of economic development or population growth) among the counties would increase or decrease a CEPB's level of accomplishment in that year. At times, the reallocations were made openly. In 2008, a large water treatment facility was in operation that could contribute significantly to meeting the targets in COD for three CEPBs. Instead of measuring the accurate volume of water being treated among the three CEPBs, the MEPB reallocated more volume to two of the CEPBs that lagged behind to help increase their achievements. 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 the five counties that benefited most so as to keep a balance in the performance levels among the CEPBs. The MEPB had exercised extensive rights in reallocating the quotas, tasks, and policy outcomes among the CEPBs such that the link between inspection outcomes and incentives became tenuous.

As a result of these (re)evaluations, the rank order of performance among the CEPBs often departed significantly from what emerged from the MEP/PEPB inspections. Figures 4 and 5 show the CEPBs' accomplishments in reducing COD and SO₂, accepted by the PEPB first and readjusted by the MEPB later in 2008. There were similar patterns in other years as well, in which there were considerable discrepancies between the inspection assessments made by the PEPB and the report card on performance issued by the MEPB. For example, several CEPBs were short of meeting the annual target of 6 percent reduction in COD based on the PEPB inspection (see fig. 4); but all met the annual target after the MEPB's readjustment. The same pattern is evident with SO₂ (see fig. 5). It can be seen that these readjustments often significantly altered the rank order of the CEPBs based on inspections—further evidence of the decoupling between the MPEB's performance evaluation and the inspection outcome. For example, in the PEPB inspection the county bureau that is titled "CN" fell short of meeting its annual target in COD reduction, but it had the best performance after the readjustment made by the MEPB. This was because the MEPB officials readjusted the quota to enable CN to meet its target for the five-year plan, in recognition of the particular challenges that CN encountered in meeting the quota. Occasionally, the MEPB would

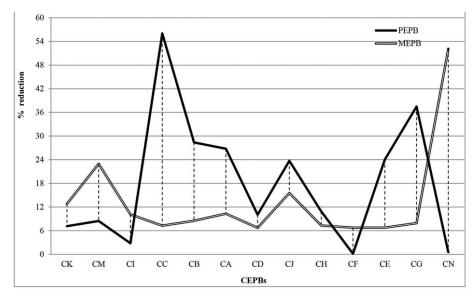


Figure 4. Chemical oxygen reduction level accepted by the Provincial Environmental Protection Bureau and readusted by the Metropolitan Environmental Protection Bureau for each county, 2008

file a written petition to the PEPB and formally request the reallocation of a task quota or achievement level. But more often or not, such adjustments were made quietly and internally; and the principal never cared. Indeed, throughout the five-year plan period, and especially in the last few years, the MEPB, in its performance

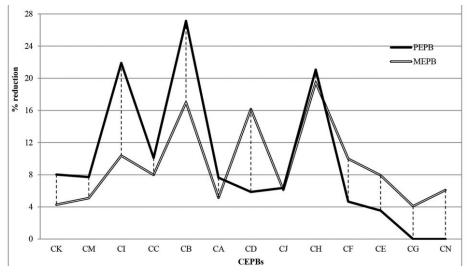


Figure 5. SO₂ reduction level accepted by the Provincial Environmental Protection Bureau and readusted by the Metropolitan Environmental Protection Bureau for each county, 2008

evaluation, repeatedly and deliberately made adjustments and reallocations of quotas among the CEPBs.

How should we interpret the MEPB's behavior? Is it collusion between the supervisor and the agents in defiance of the principal's own inspections? Our model offers a different interpretation, in which the supervisor in fact acts as a subcontractor and exercises control rights in providing incentives on a more informed basis. The enforcement and implementation of environmental regulation involved many parameters; different CEPBs were located in different localities and faced different challenges. The MEPB had much richer information about the CEPBs' efforts and the challenges they faced so these adjustments to a large extent reflected an informed performance evaluation of their efforts. As we showed in a separate study of this episode, 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 to ensure future cooperation.²⁰ That is, the main goal behind these adjustments and reallocation of achievement levels was to ensure that all the CEPBs in its jurisdiction were able to meet policy targets, both on an annual basis and eventually meeting the targets in the five-year plan.

The MEBP cares about motivating its agents, as do all good managers in other organizations. Whenever possible, it tried to link performance evaluation and rewards with the agents' efforts, and to some extent the readjustments were based on such principles, especially on those occasions when the political coalition was well protected (i.e., no CEPBs would fail to meet targets), and they also used the inspection pressure to motivate the CEPBs, so that the CEPBs lagging behind in the rank order would feel pressure to catch up. This strategy resembles the use of debts in the financial structure of the firm to impose constraints on the manager in the incomplete contract framework.²¹

One may wonder why the CEPBs would tolerate such readjustments and reallocations *ex post*? The main reason is that the CEPBs had to accept the more informed MEPB's readjustment based on their true performance. At times, the MEPB also withheld information about inspection outcomes from the CEPBs so as to make room for readjustments. Another important reason is that the CEPBs and the MEPB are interdependent in their work environment, and these readjustments were part of a continuing process of social exchange in "gives and takes" that benefited all of them collectively.

In contrast to the MEPB's extensive efforts in performance evaluation, the MEP and PEPB showed little interest in this at the county level. Even where inspections uncovered serious problems (distortions and failures in implementation),

^{20.} Zhou et al., "A Behavioral Model of Muddling Through in the Chinese Bureaucracy."

^{21.} Hart, Firms, Contracts and Financial Structure.

the principal would demand that the problems be corrected and personnel penalized but leave decisions on penalties in the hands of the immediate supervisor. In one case in 2008, a special inspection team uncovered serious distortions of data by a county environmental bureau. The PEPB issued a stern warning and demanded that the MEPB investigate and penalize those involved. The MEPB complied, notifying the PEPB of the steps taken in correcting the problems, but as far as we are aware, these were largely symbolic gestures with no real consequences at all. These instances indicate that the principal's main concern is about meeting the policy targets; thus, it focuses on the supervisor-as-subcontractor and has no interest in micromanagement within the subcontractor's jurisdiction. In this light, the real consequence of uncovering problems in the inspection process is that evaluations in this area may well be tightened in the next round, which is consistent with the main purpose of the inspection—to tighten the screw on the subcontractor's future performance. This can be an effective strategy given the fact that, unlike subcontracting in business, neither side can exit from this "contractual" relationship in the future.

The preceding discussions show that the actual practice in our case study is consistent with the subcontracting model. However, it is worth noting that there were considerable variations over the five-year period that shed light on changes in authority relationships. These variations were largely caused by the reallocation, often informally, of control rights among the parties involved. Consider the inspection efforts by the principal. In the first year, the lack of experience by its inspection team led to a loose inspection process and the acceptance of a large proportion of claimed achievements. This can be interpreted as delegating 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 the MEPB's claimed achievements, 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 met steadily over time, the pressures were considerably relaxed, even though the inspection was still formally conducted and a large proportion of the claimed tasks were not accepted.²² In this sense, policy implementation shifted to a mode of loose coupling, where control rights in inspections and incentive provision were largely left to the supervisor.

To what extent is our case generalizable to other settings in the Chinese bureaucracy? Needless to say, 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. For example, in the area of public goods provision

^{22.} The common practice by the principal is to not certify the full completion of tasks or to develop moving targets in performance evaluation, so that there is still an incentive for the agent to improve.

such as road construction and small loans for women, we observed similar instances of allocation of control rights along the three dimensions, and these could be analyzed using the model proposed here.²³ We believe that the issues and behavioral patterns observed in our fieldwork are likely to be present in other arenas and localities as well.

DISCUSSION AND CONCLUSION

Drawing on the economic theory of incomplete contracts, we developed a theoretical model to account for the allocation of control rights by Chinese governments. Our case study of environmental regulation situated our analysis in a subcontracting organizational setting where the allocation of control rights has the following elements: (1) the principal exercises the right of goal setting and then subcontracts the implementation of these policy goals to the subcontractor; (2) the principal retains the control right to inspect the policy outcomes; and (3) the principal leaves in the hands of the subcontractor the control rights to organize and enforce implementation and to provide incentives to the agents within the subcontractor's territory. Clearly, this subcontracting model specifies a principal-agent relationship different from the conventional employment relationship in the bureaucracy.

With the clear delineation of control rights along these three dimensions, we can interpret the observed behaviors in specific, meaningful ways. 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 retains the control right in inspection to ensure the quality of the policy outcomes. The control rights in incentive provision are delegated to the supervisor-as-subcontractor for good reasons. First, since the supervisor has the responsibility to oversee implementation, it is logical that this is 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 incentives to the agents. The supervisor-as-subcontractor works with the agents in policy implementation and hence has more accurate information about their efforts and performance and can better provide rewards and penalties as incentives.

This model also entails clear behavioral implications for the ways in which the principal exercises the inspection right. Because of the high costs of comprehensive inspection, the principal adopts a strategy to selectively inspect "patches" of the policy outcomes delivered (e.g., onsite inspections of selected environmental

^{23.} Xueguang Zhou, "Earmarked Government Projects: A Control Rights Interpretation," *Kaifan Shidai*, no. 2 (2015): 82–102.

protection sites) to ensure the truthfulness of the quality claimed by the supervisoras-subcontractor. Moreover, because inspection is selective, it is important for the principal to keep the inspection process unpredictable—sometimes loose and sometimes tight, and the randomness in selecting localities—so as to keep the supervisor-as-subcontractor and the agents on their toes. Moreover, because the principal's interest is not to administer incentives but to ensure the quality of policy outcomes, the inspection process is typically not linked to decisions about incentives. This is consistent with our fieldwork observations.

Now consider the observed MEPB behavior in light of its role as a supervisoras-subcontractor. The main goal for the MEPB is to ensure the delivery of the contracted policy outcome to the satisfaction of the principal. To accomplish this goal, the supervisor-as-subcontractor takes three types of action. First, to ensure the successful delivery of policy outcome, the supervisor has an incentive to create and maintain pressures upon the agents to exert efforts to do their job well. This explains the commonly observed phenomenon that the intermediate governments adopts a strategy of "downward acceleration of implementation pressures level by level"—that is, more stringent policy targets for subordinates—in order to minimize the risk of falling short in task accomplishment. We found such evidence in our case study. Second, the supervisor-as-subcontractor exercises control rights in incentive provision so as to induce the right behavior among the agents. That is, as predicted in this model, it is the supervisoras-subcontractor, 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-as-subcontractor and the agent share common interests to make sure that the contracted policy outcomes are acceptable to the principal. Collusive behavior to achieve this is most prevalent in the inspection phase of policy implementation, consistent with the predictions derived from our proposed model.

The key issue here is the distinctive goals pursued by the principal and the supervisor-as-subcontractor. The principal cares about the quality of the policy outcomes delivered, so the inspection process aims at ensuring the truthfulness of the outcomes 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. Simple as this model may be, it calls attention to several important conceptual distinctions.

First, it is important to make a distinction between the inspection process conducted by the principal and the performance evaluation by the supervisoras-subcontractor. These two may coincide in some circumstances: that is, the supervisor-as-subcontractor may use the principal's inspection as the basis for providing rewards and penalties to the agents. But more often than not, these are two separate processes in reality and 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 control rights reside with different parties. This recognition sheds light on the familiar, and apparently odd, characteristics of the inspection process: at times very tight and challenging, and other times loose and easy and, when problems are uncovered, often explained away at the local level with few penalties. The proposed model helps us make sense of these behaviors. This is because, for the principal, policy outcomes are evaluated and accepted at the aggregate level.²⁴ Certain off-target problems at a particular local level, like a small number of defects found in the inspection of selected batches of goods, do not render problematic the quality of the entire pack, as long as such defects are within some permitted range of errors. Variations in the tightness of the inspection process reflect the principal's strategizing in selecting a random sample and in creating a highly uncertain environment to pressure the local agents to exert efforts as best they can.

Second, it is important to differentiate types of "deviant" behaviors by the local governments. Deviations in implementation and in incentive provisions may merely reflect the supervisor-as-subcontractor's exercise of his control rights within his jurisdiction. As we have seen in our case study, the principal's action in ranking the performance of county bureaus inadvertently intruded into the supervisor-as-subcontractor's realm of authority in incentive provision. In such cases, the more informed supervisor-as-subcontractor ignored the rank order based on the principal's inspection and exercised his own control rights of incentive provision by developing his own rank order of the CEPBs' performance. In addition, the supervisor, together with his agents, may adopt various flexible implementation strategies, such as reallocating tasks or accomplishments among the CEPBs, to meet the targets. In the context of the subcontracting model, the supervisor has the residual control rights to do so. These coping strategies are critical for the supervisor and agents, so as to fit the policy targets to their local circumstances. These behaviors are legitimate in the subcontracting mode of governance. It is not surprising, then, that they are tolerated or even encouraged by the principal.

Third, this model helps to explain two distinct and apparently contradictory types of bureaucratic behavior by the same supervisor. On the one hand, in implementing the subcontract, the supervisor-as-contractor tries hard to exert pressures upon the subordinate bureaus that are his agents so as to ensure that the tasks are accomplished to the satisfaction of the principal. In this process, we have observed a downward acceleration of implementation pressures across the

^{24.} For example, a provincial policy-target fertility rate (say, at 0.5 percent) refers to the average rate for the entire province. The discovery in a village of a high fertility rate, say at 1.0 percent, may be explained away for various ad hoc reasons and does not necessarily indicate that the overall rate aggregated at the provincial level falls short.

levels of the bureaucracy. On the other hand, the supervisor adopts various strategies to ensure that the principal's inspections do not uncover problems, especially when targets have been imposed unrealistically; hence, we observed collusion between the supervisor and agents. These two distinct types of behavior by the same supervisor take place in two distinct regimes (one in implementation, one in inspection) and under two distinct sets of conditions, which can be logically analyzed in light of the control-rights model.

To sum up, we have proposed studying authority relationships in the Chinese bureaucracy by way of the allocation of control rights over goal setting, inspections, and incentives in an organization. Our model provides a unified framework that highlights the interrelatedness of a variety of government behaviors, the underlying mechanisms, and the analytical tools to pin down the specific agency problems associated with different modes of governance in the Chinese bureaucracy. We hope the model can help the field move beyond the general claims about principal-agent relationships and agency problems, and that it will be applied by researchers to observed administrative patterns in China in a more specific, meaningful, and logical manner.

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