

Article

# The Distortion of Public-Private Partnerships in China: An Institutional Perspective of Central-Local Government Relations

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#### **Abstract**

How to explain the distortion of public–private partnerships (PPPs) is underexplored. Drawing on principal–agent theory, this article proposes an institutional incentive-driven framework. Based on a case study of PPPs in China, this article finds that central–local government relationships play a crucial role in shaping PPP performance. Goal incongruence and information asymmetry lead to two types of distortion. First, PPPs become a political task for local governments to respond to higher-level governments' needs. Second, PPPs serve as financing tools to create political achievements. These opportunistic behaviors violate the goals of the central government's PPP policy and increase government debt risks.

### **Keywords**

distortion, public-private partnerships, central-local government relations, principal-agent problems, debt risks

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### Introduction

As a cooperative institutional arrangement between the public and private sectors, public—private partnerships (PPPs) play a crucial role in public service delivery and infrastructure development (G. A. Hodge & Greve, 2007). PPPs have been widely adopted by many countries over the past four decades. Governments seek to utilize private sector resources to develop infrastructure and relieve fiscal pressure and debt risks (G. Hodge et al., 2018). However, opportunistic behaviors occur in PPPs (Higuera-Molina et al., 2022; Maurya & Srivastava, 2019). Many PPP projects do not realize their expected objectives but increase government fiscal liabilities (Platz, 2016). Why do PPPs fail to achieve their goals? How can we understand the distortion of PPPs? Exploring these questions is significant for improving PPP performance and creating effective intersectoral collaboration.

This article seeks to address these questions by investigating PPP development in China. With the rapid development of PPPs since 2014, China has become one of the largest PPP markets globally (S. Zhang et al., 2016). However, PPPs in China have not achieved the expected goals of reducing local government financial pressure and debt risks. Furthermore, PPPs create a new form of hidden local debt, which threatens fiscal sustainability (Tan & Zhao, 2019).

Compared with the private sector, the public sector plays a dominant role in developing PPPs in China. For instance, the government controls a large amount of resources such as land and can selectively support favored enterprises and provide them with special deals such as increased access to key resources (Bai et al., 2020).

With the mobilization of the government, some private enterprises actively participated in PPPs in recent years. According to the Annual Report of China's PPP Market in 2020 released by Beijing Bridata Technology Co., Ltd (2021) (the first domestic technology enterprise focusing on big data pertaining to PPPs in China), in 2020, private enterprises participated in 527 PPP projects, with a total investment of 246.1 billion yuan. In contrast, the number of local state-owned enterprises (SOEs) participating in PPP projects reached 805, with a total investment of 1,494.1 billion yuan in 2020. Meanwhile, the proportion of private enterprises participating in PPP projects dropped from 43.43% in 2016 to 31.63% in 2020. Therefore, SOEs, especially local SOEs, play a dominant role in the development of PPPs.

Furthermore, central and local SOEs have been regarded as important platforms for central and local governments to promote infrastructure investment and economic development (Tan & Zhao, 2019). Private enterprises participating in PPPs face difficulties in financing, and it is difficult for them to compete with SOEs (M. Zhou & Wang, 2020). Local governments' emphasis

on short-term financing rather than long-term output have led to the distortion of PPPs (Y. Wang et al., 2021).

According to the National PPP Database developed by the Ministry of Finance, the local governments most involved in PPP projects are countyand prefecture-level governments, with few provincial governments. This study selects the case of A City, a county-level city (*xianji shi*) located in northern China, because it has the characteristics of both county- and prefecture-level cities. In terms of infrastructure development and population size, A City is like a county, but it is managed by the provincial government (*sheng zhiguan xianji shi*) and enjoys the same treatment (e.g., economic and social management authority) as prefecture-level cities. Therefore, this case can demonstrate how local governments interact with the central government in PPP development.

Drawing on principal—agent theory, this study proposes an institutional incentive-driven framework to analyze the distortion of PPPs in terms of central—local government relationships. Based on extensive fieldwork in A City, this study finds that under the top-down political promotion system based on performance appraisal, goal incongruence and information asymmetry between the central and local governments lead to the distortion of PPPs in two ways. First, developing PPPs has become a political task (*zhengzhi renwu*) for local governments to satisfy higher-level governments' needs. Second, PPPs are regarded as a financing tool for local governments to create political achievements (*zhengji*) by developing infrastructure at the expense of fiscal sustainability. These local opportunistic behaviors increase local government debt risks.

By providing an institutional explanation from the perspective of central-local government relationships, this article contributes to the study of PPPs, especially in developing countries that are centralized like China. The public sector part of PPPs has often been viewed as a unified and homogeneous entity in previous research. However, this article argues that the public sector includes various levels of government with different incentives. Central-local relationships play a pivotal role in PPP development. Such relationships are shaped by the institutional arrangement: a top-down political promotion system based on performance appraisal. This institution produces two types of principal–agent problems, namely goal incongruence and information asymmetry, which lead to PPP distortion. This article also provides some insights for policymakers on how to tackle these problems in the future.

### Literature Review

Existing studies have discussed factors that influence PPP performance from organizational, management and institutional perspectives. First, in terms of

the organizational perspective, differences between the public and private sectors hinder PPP development. While the public sector follows political logic and pursues common interests for citizens, the private sector, dominated by market logic, seeks to make profits (G. Hodge & Greve, 2019). Unequal relations between the public and private sectors will distort risk allocation by transferring risks to the weaker parties (Chen & Hubbard, 2012). Mutual trust, effective communication, risk allocation and accountability management play a crucial role in solving these problems (Ke et al., 2013; Xiong et al., 2019). Additionally, PPP performance is influenced by PPPs' different organizational forms, such as contractual arrangements (H. Wang et al., 2018). Van Den Hurk and Verhoest (2016) find that standard contracts can encourage competition and lower transaction costs by expanding the number of potential bidders. More tightly formalized forms facilitate PPP development because they can overcome opportunistic behavior and strengthen cooperation by increasing partners' interdependence (Steijn et al., 2011).

The second strand of literature explains PPP performance from the management perspective. For example, Koppenjan (2005) emphasizes process management, including different stages (e.g., bidding, construction and operation) of PPPs. Klijn and Teisman (2000) argue that achieving the expected outcomes of PPPs requires three management strategies: project management, process management and network constitution. In particular, network management strategies (e.g., managerial arrangements for solving problems in multi-partner relationships) are critical to achieve the expected outcomes of PPPs by overcoming limitations such as converting solutions into policy energy (McGuire & Agranoff, 2011). Warsen et al. (2018) indicate that two types of network management strategies contribute to perceived PPP performance. An exploring strategy is used to create new solutions and collect information and different views. The other type is connecting strategy, which seeks to activate actors and link them together. The combination of network management strategies and organizational forms promotes effective PPPs (Kort et al., 2016).

The third strand of literature discusses how institutional perspectives shape PPP performance. For instance, House (2017) finds that PPP performance is contingent on partners' credible commitment to the contract and PPP's adaptive capacity to tackle external challenges. Such commitment and capacity are shaped by rules and regulations. Regulatory regimes are essential for mature PPP market performance (Casady, 2021). H. Wang et al. (2019) argue that the positive relationship between government support and PPPs can be strengthened by good institutional quality. PPP-supporting units, such as specialized governmental agencies, can provide institutionalized support (e.g., policy guidance) to guarantee sustainable PPPs (Jooste & Scott,

2012). Other institutional environment factors, such as political institutions, political stability, accountability, transparency, business environment, financial accessibility and legal traditions, can influence PPP performance and its sustainability (Bertelli, 2019; Casady, 2021; Onyoin & Bovis, 2022; Rosell & Saz-Carranza, 2020; Yang et al., 2013).

Some Chinese literature also analyzes PPPs from these three perspectives and notes that PPPs in China are characterized by the problem of distortion. For example, Chen and Li (2017) find that the government-led PPP development model with the participation of many SOEs regards PPPs as a financing tool, which leads to the distortion of PPPs and hinders private enterprises from participating in PPPs. The government can also take on many market risks to encourage private enterprises to participate in PPPs, leading to increased government debt risks (Li & Wang, 2019).

In order to solve these problems, H. Wang and Chen (2021) emphasize the need to promote the development of PPPs by improving policy implementation capacity and creating a good institutional environment. Xiong et al. (2021) further argue that the governance system of PPPs can be improved by establishing effective formal rules and good informal government-enterprise relationships. Additionally, Tan et al. (2019) find that the government's fiscal and organizational capabilities, and the mayor's education also positively affect the speed of PPP formation.

These three perspectives provide insights into PPP performance. However, most studies treat the public sector as a unified homogeneous organizational entity in PPPs and neglect the fact that the public sector is composed of central and local governments with different incentives. This inconsistency leads to the distortions of PPPs. Additionally, few Chinese works use an in-depth case study method to investigate the distortion of PPPs in terms of central-local relations. The government plays a pivotal role in state—business cooperation; it is significant to study PPPs in terms of central—local relations, especially in centralized developing countries such as China. Based on principal—agent theory, this article proposes an analytical framework to explain how central—local interactions lead to the distortions of PPPs in China.

# **Analytic Framework**

Principal—agent theory has been used to analyze political control of bureaucracy and the relationship between different sectors in public administration. This theory is based on two assumptions. First, principals and agents have different interests because they are assumed to be rational utility maximizers. Second, agents have an information advantage over principals. Goal incongruence and information asymmetry have been two critical problems in

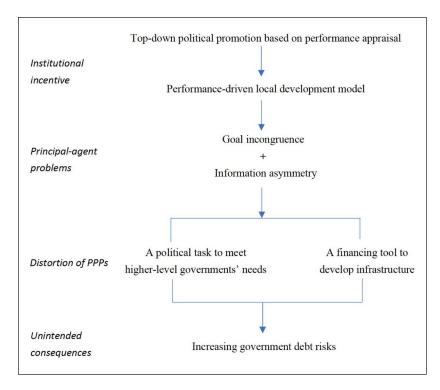


Figure 1. Analytical framework.

principal—agent relationships (Waterman & Meier, 1998), leading to risks of opportunistic behaviors that deviate from goals set by the political principal (Lane, 2008).

Principal—agent problems between the public and private sectors occur at different stages of PPPs. For example, the principal and agent have asymmetric information and different interests and pursue their self-interests. The agent is risk-averse and needs incentives to serve the principal's demands (Smith et al., 2018). How to solve the incentive problem and reduce opportunistic behaviors of the private sector have become a important challenges for governments (H. Wang et al., 2018).

However, how bureaucratic politics, especially central-local government relationships, affect PPP performance is underexplored. Drawing on principal-agent theory, this article proposes an analytical framework to explain the distortions of PPPs in terms of central-local government relations in China (see Figure 1).

The central government, as the principal, seeks to maintain regime stability in China. Local officials as agents can pursue their interests by ignoring or even sabotaging the central government's policy goals (O'Brien & Li, 1999). Moreover, scholars have developed the theory of promotion tournament to explain local officials' political incentives (Y. Zhang, 2020; L. Zhou, 2007). Based on a regime of political centralization and the top-down personnel management system, local officials are motivated to follow centrally dictated policies and mandates because they are appointed by higher-level tiers of government. Local officials face fierce competition for political promotion. The central government can incentivize local leaders to implement central policies through target setting in promotion tournaments. Local cadres will focus on policies and tasks related to their own political promotion.

In this framework, top-down political promotion based on performance appraisal serves as the institutional incentive that shapes local bureaucrats' behaviors and forms a performance-driven local development model in China. To get promoted, local officials try to be the best performers. During this process, principal-agent problems, such as goal incongruence and information asymmetry, arise and lead to the distortion of PPPs. By launching PPPs, the central government seeks to attract business investments in infrastructure development and public service provision to relieve local government debt risks and fiscal pressure. However, local officials focus on promotion by creating political performance through PPPs. They use the information advantage to selectively implement PPP policies and maximize their own interests rather than control debt risks. Due to information asymmetry, it is difficult for the central government to monitor local officials' behaviors. Local officials pursue political achievements, such as large PPP projects, to create highly visible performance even in illegal ways that increase local government debt (F. Wang et al., 2020). Local officials also seek to increase the number of PPP projects (especially projects of nonconcessions that rely on local government payments), which exceeds local fiscal capacity and results in increasing debt risks (Xiong et al., 2022).

Thus, goal incongruence and information asymmetry lead to the distortion of PPPs in two ways. First, PPPs become a political task for local officials to meet higher-level governments' needs because they control the power over personnel management. For instance, provincial governments can issue administrative directives to local officials and exert political pressure on them to adopt PPPs (Y. Zhang, 2015). Second, PPPs become a financing tool to develop infrastructure because infrastructure investment is crucial to economic growth, which is a key indicator in performance appraisal. Local governments rely on cooperation with enterprises, especially SOEs, to conduct PPP projects to promote infrastructure investment and economic growth (Tan

& Zhao, 2019). The distortion of PPPs leads to unintended consequences—increasing government debt risks, because the investment of enterprises in PPP projects needs to be paid back in the future. Local governments bear a large part of the payment responsibility (Zhao et al., 2018). Additionally, central-local government relationships are dynamic, not static. The central government can adjust PPP policies to reduce distortions. However, the existing incentive mechanism is still a key factor in shaping local officials' behaviors and central-local relationships, making it difficult to address the distortions of PPPs (Tan & Zhao, 2019).

Overall, this theoretical framework analyzes how principal-agent problems in the context of Chinese institutional mechanisms lead to distortions of PPPs and increased local government debt risk. The following section describes the intensive case study employed to examine the framework.

### Method and Data

This study selected the case of A City (a county-level city located in B Province in northern China) to examine the analytical framework for the following reasons. First, A City is a typical case for investigating how principal—agent problems lead to PPP distortions. From 2014 to November 2017, A City launched 56 PPP projects, 18 of which were listed on national and provincial PPP project databases. Due to its great achievements in developing PPPs, the central government gave an award to A City in 2017. However, in recent years, due to principal—agent problems, PPP distortions have appeared in A City. For example, the rapid development of PPPs has led to increased financial pressure and debt risks for local governments.

Second, B Province is a leading province in terms of its number of PPP projects and investments. It actively implements the central government policy intended to promote PPPs. PPPs have become an important indicator in local government performance evaluations. As the first county-level city to develop PPPs in B Province, A City provides pertinent evidence to examine how institutional incentives drive PPPs and lead to principal—agent problems.

The author worked in one of the largest PPP consulting firms in China in 2016 and 2017 to provide PPP project consulting services for local governments. This company has provided PPP project consulting services to more than 900 local governments of counties and cities in 30 provinces in China. Based on the company's internal national PPP project database, my experience in providing PPP consulting services to local governments in different cities in southern and northern China, as well as my exchanges and interviews with the company's PPP project consulting managers and analysts in different cities across the country, the risk caused by the principal-agent

problem also exists in other cities in B Province as well as in many cities in other provinces.

Thus, the problem of A City can be generalizable to other cities in B Province as well as cities in other provinces. At the fourth China PPP Financing Forum in November 2018, Jiao (2018), director of the PPP Center of the Ministry of Finance, also pointed out that in the process of PPP development, the problem of PPP distortion appeared in other cities. The Ministry of Finance has comprehensively cleaned up the PPP market to address these problems.

Data were collected from government policy documents, leaders' speeches, news reports, local government financing vehicles' (LGFVs) credit rating reports and 21 semi-structured interviews (see Table 1), which were conducted from 2017 to 2020 in A City each interview lasted from 30 min to 2 hr. I first conducted fieldwork in A City in March 2017 and visited again in August 2019 to collect further data. In 2020, due to the COVID-19 pandemic, the data were supplemented through telephone interviews.

Several consultants and experts in the company where I used to work have provided consulting services for the PPP projects of A City in recent years, and have established good guanxi networks with the local government and enterprises. With the help of these consultants and experts, the author can do extensive field research in A City and conduct in-depth interviews with local officials in charge of managing PPP projects, representatives of enterprises participating in local PPP projects, PPP project consultants and experts, and residents living near local PPP projects. The PPP project-related experience of these interviewees is reliable.

Interviewees were selected to ensure that they were is qualified and unbiased. First, five local officials from the Finance Bureau, Development and Reform Commission and the PPP Centre in A City were selected because these three agencies are the most important government departments that influence the development of local PPPs. The Finance Bureau and the PPP Centre are mainly responsible for PPP financial affordability assessment and PPP project management respectively, and the Development and Reform Commission is responsible for the planning and approval of PPP project construction. The interviewed officials include the director of the PPP Centre in A City, the cadre in charge of PPP project management in the local PPP Centre, the cadre of the Finance Bureau in charge of PPP financial affordability evaluation, the chief of the debt section in charge of local debt risk management in the A City Finance Bureau, and the deputy director responsible for PPP project planning and approval in the A City Development and Reform Commission.

Table 1. List of Interviewees.

| Number | Interviewee   | Date                              |
|--------|---|-----------------------------------|
| _      | The director of the A City PPP Centre   | August 20, 2019                   |
| 2      | The cadre responsible for PPP project management in the A City PPP Centre   | March 5, 2017; August 20, 2019    |
| 3      | The cadre responsible for PPP financial affordability evaluation in the A City Finance Bureau   | August 21, 2019                   |
| 4      | The chief of the debt section responsible for local debt risk management in the A City Finance Bureau                                     | August 21, 2019                   |
| 2      | The deputy director responsible for PPP project planning and approval in the A City Development and Reform Commission                     | August 22, 2019                   |
| 9      | A partner firm (SOE) manager in a PPP project   | March 3, 2017; August 18, 2019    |
| 7      | A private partner firm representative in a PPP project  | August 19, 2019                   |
| 80     | A partner firm (SOE) representative in a PPP project  | August 19, 2019                   |
| 6      | The manager of a local government financing vehicle in the field of city construction   | August 23, 2019                   |
| 01     | The manager of a local government financing vehicle in the field of transportation investment   | August 22, 2019; March 2, 2020    |
| =      | The director of the PPP Project Department of a local government financing vehicle in the field of  | August 22, 2019; March 2, 2020    |
|        | נו מוואסטן נמנוסון ווואסטרוופון כ   |                                   |
| 12     | A PPP project consultant participating in the preparation of the implementation plan and investment promotion plan of a local PPP project | March 10, 2017; August 18, 2019   |
| 13     | A PPP project consultant participating in the preparation of the implementation plan and investment promotion plan of a local PPP project | March 5, 2017;<br>August 15, 2019 |
| 4      | A PPP project engineering technical expert participating in the design of local PPP project construction and operation plans              | August 16, 2019                   |
| 15     | A PPP project financial expert participating in local PPP project financial evaluation  | August 8, 2019; March 3, 2020     |
| 91     | A PPP project financial expert participating in local PPP project financial evaluation  | August 18, 2019                   |
| 17     | A PPP project lawyer participating in the preparation and negotiation of local PPP project contracts                                      | August 15, 2019                   |
| 81     | A resident living near a local PPP project  | August 24, 2019                   |
| 61     | A resident living near a local PPP project  | August 24, 2019                   |
| 20     | A resident living near a local PPP project  | August 25, 2019                   |
| 21     | A resident living near a local PPP project  | August 25, 2019                   |
|        |   |                                   |

Second, this study selected six firm representatives who participated in local PPP projects. These interviewees include two representatives of SOEs from other cities investing in A City, one private enterprise representative, two managers of A City LGFVs in the fields of transportation investment and city construction, and the director of the PPP Project Department of a LGFV in the field of transportation investment. These interviewees were selected because SOEs and LGFVs play a dominant role in local PPPs in A City. Most local PPP projects focus on the field of urban infrastructure construction and investment.

Third, six PPP project consultants and experts who were deeply involved in local PPP development also participated. These experts come from different fields of PPP development such as PPP project construction, operation, finance and legal affairs. The diverse backgrounds and different expertise and experience of these experts can help us gain a more comprehensive and in-depth understanding of local PPP development and alienation problems. In addition I interviewed four residents living near local PPP projects to find their feelings and opinions on local PPP development.

### Institutional Incentive

Based on my field research, this section will examine the analytical framework by suggesting that under the institutional incentive of the top-down performance appraisal-based political promotion mechanism, two types of performance appraisal (satisfying higher-level governments' needs and creating political achievements) jointly drove the A City government to vigorously develop PPPs.

First, local officials satisfy higher-level governments' needs by developing PPPs. Since President Xi came to power in late 2012, bureaucrats' political loyalty and their capacity for policy implementation have become key criteria for promotion. In 2014, the central government started to promote PPPs by encouraging local governments to cooperate with enterprises in infrastructure development and public service provision. The B Province government formulated PPP policy guidelines and ordered local governments to adopt PPPs in November 2014.<sup>3</sup> To satisfy higher-level governments' needs, the leaders of A City quickly implemented directives from the central and provincial governments to promote PPPs. The cadre responsible for PPP project management in the A City PPP Centre stated:

Developing PPPs has become an important political task assigned by higherlevel governments. We must complete it conscientiously to satisfy our superior

leadership and demonstrate our efficient policy implementation capacity. (Interviewee No.2)

Second, creating political achievements, such as economic growth, motivates local officials to adopt PPPs. According to the B Province government, the indicators of economic scale, quality and efficiency (e.g., regional gross domestic product, tax revenue, and total fixed asset investment) account for 56% of the appraisal weight for county-level cities directly administered by the province, such as A City.<sup>4</sup> Thus, local officials have strong incentives to pursue political achievements related to economic development. A City has developed many PPP projects, especially in the field of economic development. According to the National PPP Database, by the end of March 2020, there were 14 PPP projects in A City, including 10 economic development-related projects (e.g., industrial park developments and municipal infrastructure investments), three environmental protection-related projects (e.g., relating to water governance and wetland parks) and one social development project, a science, technology and education park.

Economic development-related projects constituted the largest number because economic growth is the key performance appraisal indicator. Additionally, the central government emphasized environmental protection and established a central ecological and environmental protection inspection team to strengthen control over local governments' implementation of environmental policies. Thus, environmental protection has become another important local performance appraisal indicator, and the A City government has strong incentives to conduct environmental protection-related projects. However, local leaders with limited official terms (usually less than 5 years) have fewer incentives to promote social development (e.g., education) projects because these projects often require long-term investment, and it is difficult for bureaucrats to create highly visible political achievements in the short term (Interviewee No.1). These findings demonstrate the role of institutional incentives in PPP development in the analytical framework.

# Principal-Agent Problems and Distortion of PPPs

Drawing on my intensive fieldwork, this section presents further evidence for the framework by demonstrating how China's institutional incentive structure shapes principal-agent problems (goal incongruence and information asymmetry between the A City government and central government), which lead to the distortion of PPPs in A City.

# Goal Incongruence

While institutional incentives drive local leaders to promote PPPs, their goals are inconsistent with those of the central government. The central government seeks to relieve local government fiscal pressure and debt risks through PPPs. However, under the pressure of performance appraisal, local leaders only focus on types of performance that are, which are closely related to their political promotion. For instance, developing PPPs becomes a political task for local leaders in A City to meet higher-level governments' needs and create political achievement. The cadre responsible for PPP project management in the A City PPP Centre said:

What concerns our leaders most is to quickly increase the number of PPP projects and create mega-scale, highly visible political achievement projects rather than project quality and other problems such as local debt risks. (Interviewee No.2)

Although the central government emphasizes that PPPs cannot be distorted as a new financing vehicle (Ministry of Finance, 2017), PPPs are adopted as a financing tool to create political achievements such as infrastructure development at the expense of fiscal sustainability in A City. Local fiscal revenue cannot meet citizens' increasing demand for city construction, infrastructure investment and public services provision. To solve this problem, A City government proposed the slogan "fiscal revenue guarantees the basic operation of the government, city construction depends on financing" in 2014. PPPs are utilized to supplement infrastructure finance. Moreover, 10 LGFVs in different fields (e.g., city construction, transportation, industrial clusters and cultural tourism) have been established on behalf of the government to cooperate with firms to improve financing capacity. These findings demonstrate goal incongruence in principal-agent problems in my analytical framework.

# Information Asymmetry

In addition to goal incongruence, information asymmetry between the A City government and higher-level governments results in bureaucrats' opportunistic behaviors and distortion of PPPs. To maximize personal interests, local cadres utilize their information advantage and selectively implement PPP policies. They report only their political achievements to the higher-level governments and hide negative information, such as debt risks that threaten their political promotion. The director of the A City PPP Centre said:

Cooperating with firms resolves the financing problem by bringing huge investment into local infrastructure PPP projects. When superior leaders come to inspect, they will be taken to visit various mega-scale political achievement projects (Interviewee No.1).

The benefits of these opportunistic behaviors are quite considerable. By satisfying the needs of higher-level governments and creating political accomplishments soon, local leaders are more likely to be promoted. For example, the deputy director responsible for PPP project planning and approval in the A City Development and Reform Commission stated, "due to the achievements of PPPs in local infrastructure development, our former Party secretary was promoted to be the mayor of a prefecture-level city" (Interviewee No.5).

Due to information asymmetry, local bureaucrats' opportunistic behaviors are unlikely to be discovered. Even when these behaviors are discovered, the punishment is relatively weak. No local officials are punished for opportunistic behaviors in PPP development in A City (Interviewee No.3). In most other cases, higher-level governments only withdraw illegal PPP projects from the National PPP Database and do not allow these projects to operate through PPPs. Bureaucrats who exacerbate the distortion of PPPs are less likely to be punished. The risk of being discovered and published is very low. According to the Ministry of Finance, only a very few officials are punished by warnings, demerits, demotion or dismissal.<sup>6</sup>

Table 2 shows the logic of local officials' behaviors under information asymmetry. They conduct risk-benefit analyses to maximize benefits and minimize risks. The short-term benefit of opportunistic behaviors, such as political achievement creation, is high, but the risk of punishment is low. In contrast, for non-opportunistic behaviors, the short-term benefit is lower. Thus, local officials have strong incentives to engage in opportunism in PPPs.

# **Unintended Consequences**

Due to goal incongruence and information asymmetry, government opportunism distorts PPP policy and leads to increased local government debt risks. First, some local leaders in A City selected firms that have good relationships with them to be partners and provide them with minimum revenue guarantees. In 2018, the central government recognized such illegal guarantees in PPPs as hidden debt that threatens sustainable development (The Central Committee of the Chinese Communist Party and the State Council, 2018). To carry out the project and create political achievements as soon as

|                       |  | Government Behaviors |                 |
|-----------------------|--|----------------------|-----------------|
|                       |  | Opportunism          | Non-opportunism |
| Risk-benefit Analysis | Risk of punishment<br>Short-term benefit | Low<br>High          | None<br>Low     |

Table 2. Logic of Local Officials' Behaviors Under Information Asymmetry.

possible, the local leaders promised partner firms a high return rate to attract their investment. For example, a partner firm manager stated:

To pursue more profits, our firm proposed an internal rate of return that is higher than the average internal rate of return in the market. But the local leaders in A City accepted our demands to create political achievements soon by cooperating with us in infrastructure investment. (Interviewee No.6)

Second, many PPP projects in A City depend on government payments and subsidies, which intensify local financial pressure and debt risks. The projects that are most suitable for PPPs are those with good business performance that can generate revenue and reduce the government's financial burden. However, to make political achievements quickly, the government launched many government-paid PPP projects in A City. Most of these projects cannot generate sufficient revenue via user charges (*shiyongzhe fufei*). Of the 14 A City PPP projects listed in the National PPP Database, 12 projects use government payment, including subsidies (e.g. viability gap funding), for partner firms. It will be a debt risk for the government if local fiscal revenue cannot support government payments in the long run.

In 2015, the Ministry of Finance (2015) issued the Guidelines for Financial Affordability Analysis of PPP Projects and required local governments to conduct PPP financial affordability evaluation, that is, to scientifically measure the financial expenditures on PPP projects, assess the impact of project implementation on current and future annual financial expenditures, and effectively prevent financial risks. The PPP Financial Affordability Evaluation Report prepared by the A City Finance Bureau in 2018 showed that the government payments for 11 approved PPP projects had increased significantly since 2016 because the PPP projects had started operating. The proportion of government payments for all the PPP projects in the general public budget expenditure increased from 7.5% in 2016 to 9.3% in 2019 (see Table 3). According to the Ministry of Finance (2015), this proportion should be less than 10%. However, to satisfy the local leaders' demands for more PPP projects as their political achievements, one consultant working for a local PPP project said:

| Year             | Government payment | General public<br>budget expenditure<br>(assuming an annual<br>growth rate of 10%) | Government<br>payment/general<br>public budget<br>expenditure |
|------------------|--------------------|--|---|
| 2016             | 37,129.56          | 497,336  | 7.466%  |
| 2017             | 51,721.58          | 601,333  | 8.601%  |
| 2018 (estimated) | 58,692.90          | 661,466.3  | 8.873%  |
| 2019 (estimated) | 67,873.17          | 727,612.93   | 9.328%  |

Table 3. Government Payment for A City PPP Projects (10,000 yuan).

Source. Public data from the 2018 A City PPP Financial Affordability Evaluation Report (prepared by the A City Finance Bureau) listed on the National PPP Project Database developed by the Ministry of Finance.

Local officials asked us to adjust the financial calculation data to lower the proportion so as not to exceed 10%. For example, the estimation of the annual growth rate of the general public budget expenditure in the future can be adjusted upward. (Interviewee No.13)

According to the 2018 A City PPP Financial Affordability Evaluation Report, the annual growth rate was overestimated as 10%. However, the actual general public budget expenditure in 2018 was 6.2 billion yuan, an increase of 3.2%. That is, the proportion of government payments for PPP projects in general public budget expenditure reached 9.5% rather than 8.9%. Thus, government payments for PPP projects approached the 10% "red line" in 2018.

The chief of the debt section responsible for local debt risk management in the A City Finance Bureau admitted:

In the past few years, by developing many PPP projects, local leaders have borrowed heavily to engage in urban construction regardless of potential debt risks. Due to these political achievements, our former Party secretary was promoted at the end of 2017. After he left, some projects had completed construction and entered operation, and the government was under great pressure to pay for these projects. The successors are busy solving the debt problems left by their predecessors and are unable to develop new PPP projects. This has posed a significant challenge to local sustainable development. (Interviewee No.4)

Due to fiscal and debt pressure, it is difficult for the government to pay partner firms. A manager of a partner firm in a PPP project said:

We have completed PPP project construction and are ready for project operation. However, the government cannot pay the relevant expenses in time, which shows the local financial pressure and debt risks. (Interviewee No.7)

Additionally, the A City government has established 10 LGFVs to cooperate with firms in developing PPP projects. These LGFVs play a pivotal role in government financing. However, the increasing number of LGFVs has led to local debt risks. For instance, D Company is the first and largest LGFV in A City, established through asset transfer and the injection of funds. It participates in PPP projects as a government representative in cooperation with partner firms to establish the project companies (xiangmu gongsi) used to conduct projects. The tracking credit rating reports of D Company's corporate bonds show that the firm is facing high funding pressures and debt risks. By the end of 2017, the interest-bearing debt was 11.808 billion yuan, with a year-on-year increase of 41.18%. By the end of 2018, the interest-bearing debt stood at 14.98 billion yuan, with a year-onyear increase of 26.86%. Moreover, the interest-bearing debt due in 2019 was as high as 6.434 billion yuan. Thus, D Company is under significant pressure in terms of debt repayments.8 Another example is A City Transportation Investment Development Co., Ltd. Since 2018, this firm has been involved in a total of more than 80 million yuan in debt defaults, including debts to six financial leasing companies and one bank. Several financial leasing companies have initiated formal litigation against it.<sup>9</sup>

In 2018, the LGFVs' interest-bearing debt was 12.758 billion yuan, and the broad government debt ratio (broad local government debt balance/local comprehensive financial resources)<sup>10</sup> reached 327.90% in A City,<sup>11</sup> which far exceeded the 100% warning line of local government debt ratio determined by the central government.<sup>12</sup> However, in 2018, the government debt balance, including only local government bonds, was 2.163 billion yuan, and the government debt ratio was 50.38%.<sup>13</sup> Thus, the main challenge for A City is not its explicit debt (*xianxing zhaiwu*), such as local government bond repayments, but the hidden debt caused by PPP distortion and other such problems.

In summary, the distortion of PPPs in A City demonstrates that within a top-down performance appraisal-based political promotion system, principal—agent problems lead to increasing local fiscal pressures and debt risks because promoting PPPs is regarded as a political task to satisfy higher-level government demands and as a financing tool to develop infrastructure at the expense of local fiscal sustainability. In addition to A City, many local governments are facing similar problems in China. The increasing hidden debt

now threatens ongoing local economic and sustainable development (Ministry of Finance, 2019).

### **Discussion and Conclusion**

Institutional arrangement is an important factor affecting PPP performance. Based on an extensive case study of PPPs in A City, this article explains how principal—agent problems driven by institutional incentives lead to the distortion of PPPs from the perspective of central—local government relationships. The article makes two contributions to the PPP literature.

First, it contributes to research on PPP performance in developing countries that are centralized. Recent research has shown that PPP development in developing countries is influenced by the institutional environment and capacities, such as favorable market environment, rule of law, transparent government regulations, and pressure from higher-level governments (Trebilcock & Rosenstock, 2015; Urio, 2010; Yang et al., 2013; Y. Zhang, 2015). This study further reveals that in centralized developing countries, the central-local government relationship in the institutional environment is a key factor affecting the development of PPPs. By proposing an analytical framework that includes institutional incentives and principal-agent problems, this article shows that the top-down political promotion system based on performance appraisal provides an important institutional incentive that drives the rapid development of PPPs in China.

Although China has a unique institutional incentive mechanism, and China's PPPs are different from those of many other countries, this theoretically informed case study seeks to expand and generalize theories and achieve analytic generalization rather than statistical generalization. We can use analytic generalization instead of the sample-to-population logic to generalize the findings from a case study (Yin, 2013). This study indicates how goal incongruence and information asymmetry lead to the distortion of PPPs. PPP performance is embedded in the institutional structure. The nature of PPPs is not only about utilitarian benefits, such as project delivery and efficiency, but also about politics (G. A. Hodge & Greve, 2017). The theory, based on the interplay among institutional incentives, goal incongruence, and information asymmetry, can provide a general analytical framework and valuable insights for deepening research on cross-sectoral collaboration in other countries with different institutional settings.

Second, this study deepens our understanding of PPP distortion. Previous scholarship has often regarded the public sector as a unified and homogeneous entity in PPPs. However, from the institutional perspective of an

central—local government relationships, this article finds that, rather than a homogeneous entity, the public sector is composed of various levels of governments with different incentives. Goal incongruence and information asymmetry arise from the principal—agent relationship between the central and local authorities. These principal—agent problems lead to the distortion of PPPs. Local governments regard developing PPPs as a political task to meet the needs of higher-level governments. PPPs play a financing role for local governments in promoting infrastructure development and creating political achievements by attracting enterprises' investment. However, local governments ignore fiscal sustainability. Many enterprises' investments need to be paid back with higher financial costs by local governments (Zhao et al., 2018). PPP policy goals (e.g., relieving local government financial pressure and debt risks) set by the central government are not fully realized. In contrast, such problems increase local financial pressure and debt risks.

This study has significant implications for policymakers developing PPPs. The interaction between the central and local governments is dynamic in my framework. With the rapid development of the nationwide PPP movement starting in 2014 in China, the central government recognized the risks in late 2017 and decided to strengthen the management of PPPs by regulating various opportunistic behaviors of local governments to prevent PPP distortion. According to the Ministry of Finance (2019), the annual government payment for all local PPP projects cannot exceed 10% of the local general public budget expenditure for that year; government payments should be linked to strict performance appraisals for PPP projects; the government shall not promise any fixed returns or guarantee minimum returns to partner firms; information on all PPP projects must be disclosed in time in the National PPP Database. Local officials who violate the regulations will be punished, and some local violation cases have been announced by the Ministry of Finance. In 2019, the Ministry of Finance further renamed its local ombudsman's office the local supervision bureau to strengthen control of local government debt risks (National Business Daily, 2019).

However, the effectiveness of these measures remains questionable. Such measures have not reformed the institutional incentive of central–local government relationships and cannot effectively solve the problems of goal incongruence and information asymmetry. Lower-level governments often have evading strategies to respond to policies from higher-level governments (*shangyou zhengce, xiayou duice*). For instance, some local governments form alliances with enterprises and consulting companies to package illegal PPP projects or to conduct projects illegally. Thus, it is difficult to alleviate local debt risks through PPPs (Tan & Zhao, 2019). PPPs have become a new hidden way for local governments to borrow money rather than an efficient way to reduce local governments' reliance on debt financing (Zhao et al., 2018).

Moreover, these strict regulatory measures have also produced negative effects, such as hindering PPP development. Many private enterprises that actively participated in PPPs in the early years have encountered challenges such as financing difficulties of PPP projects. With the deterioration of the external environment, such as the Sino-US trade war and the COVID-19 epidemic, downward pressures on the domestic economy are increasing. Local governments depend on infrastructure investment to maintain economic growth. Under the current institutional arrangement of central-local government relationships, the gap between local governments' urgent needs for development and insufficient financial resources becomes increasingly prominent. PPP distortion is a major challenge to sustainable economic social development. The question of how to design institutional incentives based on central-local government relationships more reasonably through effective institutional reform and reduce the local opportunistic behaviors and PPP distortion caused by principal-agent problems is an important issue that needs further research in the future.

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#### Notes

- See Ministry of Finance's National PPP Database. https://www.cpppc.org:8082/ inforpublic/homepage.html#/searchresult
- According to the speech of A City Party secretary in a PPP project promotion conference in November 2017.
- B Province government's Guiding Opinions of the B Provincial Government on Promoting the PPP Model. November 2014.
- B Province government's Measures for the Evaluation of the Economic and Social Development of the Counties (Cities) Directly Managed by B Province. May 2017.
- See A City government's internal research report on local government financing vehicles. April 2014.

- See the Ministry of Finance's investigation and punishment for local governments' illegal borrowing. http://yss.mof.gov.cn/zhuantilanmu/dfzgl/ccwz/index.htm
- See the Tracking Credit Rating Report of A City D Company 2016 Corporate Bond. May 2018.
- See the Tracking Credit Rating Report of A City D Company 2015 Corporate Bond. June 2019.
- 9. According to an internal government document of A City.
- 10. Broad local government debt includes not only local government bonds, but also LGFVs' debt and payment for PPP projects etc. Local comprehensive financial resources include local general public budget revenue, government fund budget revenue, tax refund and transfer payment etc.
- According to a research report from a famous securities company in December 2019.
- 12. According to the former Minister of Finance Lou Jiwei's report (An explanation on the proposal for deliberation and approval of the 2015 local government debt limit-at the 16th meeting of the standing committee of the 12th National People's Congress on August 24, 2015), the level of debt ratio not exceeding 100% was set as the overall risk warning line for local government debt in China.
- According to a research report from a famous securities company in December 2019.

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