

Fiscal Transparency Ranking and Corruption: Theory and New Evidence from China

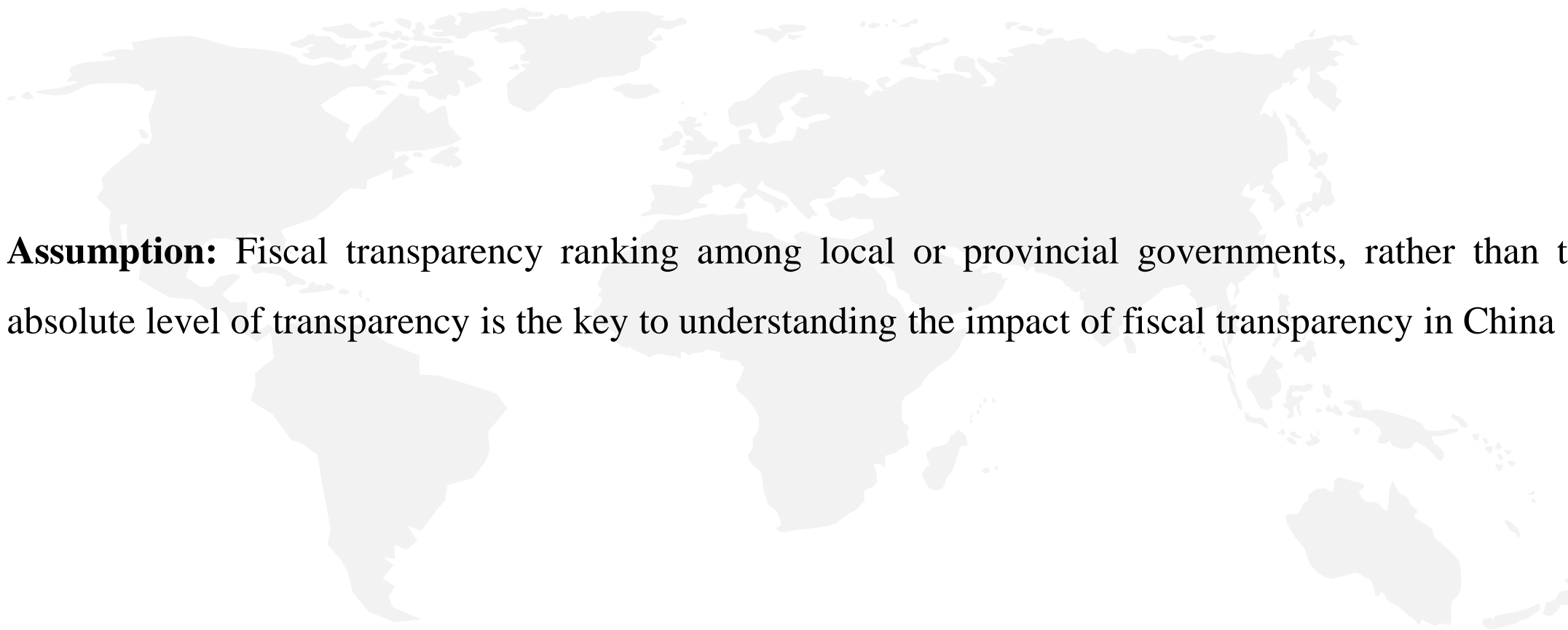
이제경

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- To explore the impact within a nation
To explore the impact in a developing
country

Theoretical Framework: Key idea

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- ❖ **Assumption:** Fiscal transparency ranking among local or provincial governments, rather than the absolute level of transparency is the key to understanding the impact of fiscal transparency in China

Theoretical Framework: Corruption

- ❖ **Corruption** can be considered “a consequence of the existence of rents and monitoring failures” characterizing transactions within the government (Lederman et al., 2005).
- ❖ In the transactions within the government, information asymmetry may exist -> institutional problem
- ❖ Principal-agent model: corruption arises when an agent only pursues his or her self-interest that is not identical to the principal's interest.
- ❖ Collective action theory: Since rationality is believed to be limited, the payoff for corruption should be highly dependent on the proportion of other corrupt people in the same community (Lui, 1986; Acemoglu, 1995; Mishra, 2006)
- ❖ Economic determinants such as economic expansion, economic hardship, and inflation (Getz & Volkema, 2001); Political factors – the amount of democracy (Kotera et al. (2012). Stronger and more visible law enforcement (Elahnasawy and Revier, 2012); Free expression (Ahrend, 2002; Chowdhury, 2004), public involvement (Elahnasawy & Revier, 2012), and transparency (Islam, 2006; Chen & Neshkova, 2018)

Theoretical Framework: Fiscal transparency

- ❖ Transparency comprises the legal, political, and institutional structures that make information about the government's and society's internal characteristics available to actors inside and outside the domestic political system (Premchand, 1993; Mitchell, 1998; Carolyn, 2009)
- ❖ **Fiscal transparency** is defined as openness toward the public at large about government structure and functions, fiscal policy intentions, public sector accounts, and projections (Kopits & Craig, 1998).
 - Ready access to reliable, comprehensive, timely, understandable, and internationally comparable information
 - Accurately assess governments' financial positions and the true costs and benefits

Theoretical Framework: Fiscal transparency and corruption

- ❖ Fiscal transparency may promote fiscal accountability of governments by allowing the public and financial markets to monitor and evaluate government activities (Akitoby et al., 2000).
- ❖ By disciplining governments and enabling citizens to be better informed, fiscal transparency facilitates uncovering rent-seeking behaviors, and raises the cost of rent-seeking policies and behaviors, while decreasing the price of holding politicians accountable.

Theoretical Framework: Ranking

- ❖ **Ranking:** by “naming and shaming” through the media those countries with bad governance, it could give governments an incentive to pursue reforms and start a dialogue to improve the government’s reputation (Arndt, 2008).
- ❖ According to the social comparison theory, individuals are intrinsically motivated to assess themselves by comparing themselves to others (Festinger, 1954).
- ❖ The promotion tournament theory posits that local economic growth stems from economic rewards and hopes of winning the political game and being promoted in China (Zhou, 2007; Zhou & Zhang, 2008).
- ❖ China seeks to grant higher promotion opportunities to high-performing officials but prefers the comparison among the provinces rather than just looking at specific numbers (Huang, 1997; Edin, 2003).
- ❖ The scores of the provinces are generally not high, and the absolute value often does not reflect the gap between the provinces. Fiscal transparency ranking in China is considered as one kind of performance rather than transparency itself, implying the rankings' importance.

Theoretical Framework: Contexts

Democratic context

Fiscal Transparency

Promote fiscal accountability of governments (Akitoby et al., 2000)

Decrease the level of corruption

Corruption

Chinese context

Fiscal Transparency

Promote fiscal accountability of governments (Akitoby et al., 2000)



More helpful tool for enhancing fiscal transparency's effectiveness

Ranking

More effective at attracting public interest and exerting pressure on the government.

Decrease the level of corruption

Corruption

Data: Variables

Dependent variable

Corruption index =

(the total number of corruption cases) / (the total number of public officials)

(*China Procuratorate Yearbook* from 2006 to 2018)

Independent variables

1. **Fiscal transparency:** the fiscal transparency scores of all provincial governments from 2006 to 2018. (*the Public Policy Studies Center at SUFE*)

2. **Ranking:** rank provinces annually based on their fiscal transparency scores

Control variables

GDP of each province; population of each province; budget deficit of each province; FDI of each provinces; and openness of each province

Data: Summarize

Table 1 Summarize all variables

Name of variable	Definition	Mean	Std. Dev.	Min	Max	Obs.
Corruption	In (Cases of corruption, bribery and dereliction of duty / the total number of public officials)	3.08	0.45	0.59	4.42	403
Fiscal Transparency	In (Fiscal Transparency Assessment Score) (data from Center for Public Policy Studies in Shanghai University of Finance and Economics)	3.49	0.45	2.44	4.44	403
Fiscal transparency ranking	Ranking of provinces and cities based on their fiscal transparency scores in the current year	16	8.96	1	31	403
Different between rankings	Fiscal transparency rankings – lag (fiscal transparency rankings)	0.06	10.47	-29	27	402
Control variables						
GDP	Gross Domestic Product, Data from China Statistical Yearbook from 2006 to 2018.	18436.48	16703.56	605.83	97277.77	398
FDI	Foreign Direct Investment, Data from China Statistical Yearbook from 2006 to 2018.	1603.81	8681.75	4	170968	403
Population	Data from Annual Statistical Book of each province	4306.80	2788.68	281	12348	403
Openness	Data from Annual Statistical Book of each province	0.06	0.12	0.008	1.91	398
Fiscal Deficit	Fiscal deficit equals fiscal revenue minus fiscal expenditure. Data from China Statistical Yearbook from 2006 to 2018.	1.38	1.33	0	9.67	396

Hypotheses



**Internal
mechanism**

- **H1: Higher Fiscal transparency leads to lower corruption levels.**



**External
mechanism**

- **H2: If the rank improves from one year to the next, this will reduce corruption, and if the rank falls, this will lead to increased corruption.**



**Chinese
context**

- **H3: Fiscal transparency rankings make more influence on corruption than scores in the Chinese context.**

Method

Table 2 Breusch-Pagan / Cook -Weisberg Test for Heteroskedasticity

H0: Constant variance

Variables: fitted values of log(corruption)

Chi2(1) = 83.57

Prob > chi2 = 0.0000



We can reject the null hypothesis and conclude that heteroscedasticity is present in the data. In other words, **the output table of the pooled OLS is unreliable.**



**The systematic
generalized estimation
of moments (GMM)**

$$\ln (Corruption_{it}) = \alpha + \beta_1 * Transparency_{it} + \beta_2 * Transparency_{it-1} + \beta_3 * Transparency_{rankings_{it-1}} + \beta_5 * \ln (Corruption_{it-1}) + \sum X_{it} + \varepsilon_{it},$$

- Reflect the dynamic panel data
- Address potential endogeneity issues

Empirical Results: GMM results

	Model 1	Model 2	Model 3
Dependent variable: ln(corruption)			
ln(transparency)	-1.203** (0.438)		-0.419 (0.273)
L. ln(transparency)	0.516** (0.238)		0.173 (0.130)
Difference in Rankings		-0.003* (0.001)	
L. Transparency rankings			0.008** (0.003)
N	394	394	363
Province FE	YES	YES	YES
Year FE	YES	YES	YES
AR (1)	0.002	0.003	0.001
AR (2)	0.493	0.162	0.255
Sargan test	0.130	0.000	0.000

In Model 1, we intend to determine if the current internal system is effective in China. As a result, it suggests that a 1% improvement in fiscal transparency will reduce corruption by 1.203%.

Model 2 tests the second hypothesis. As a result, the ranking difference between one year and the next is statistically significant and negative.

Model 3 indicates that provinces with higher fiscal transparency rankings in the previous year would have less corruption in the following year.

*Empirical Results: Robustness check

Robust Check Results [Changing the sample size]

	Model 4	Model 5	Model 6
ln (transparency)	-0.933* (0.507)		-0.200 (0.271)
L. ln(transparency)	0.056 (0.074)		0.153 (0.095)
L. rankings		0.000 (0.001)	
Difference in rankings		-0.002 (0.002)	-0.007*** (0.002)
Transparency rankings			0.009 (0.005)
N	336	336	310
Year FE	Yes	Yes	Yes
Province FE	Yes	Yes	Yes
AR (1)	0.008	0.004	0.006
AR (2)	0.998	0.338	0.234
Sargan test	0.043	0.000	0.004

Standard errors in parentheses

* p < 0.1, ** p < 0.05, *** p < 0.01

After excluding the samples from five ethnic autonomous regions to prevent minority-specific policies that may have influenced the results, Table on the left side displays the final results.

Model 4 suggests that fiscal transparency has a detrimental impact on corruption. However, once the rankings are incorporated into the model, only ranking differences are significant (Model 6), indicating that rankings play a crucial role in the relationship between fiscal transparency and corruption in the Chinese context.

Discussion

Our findings proved that **the ranking mechanism is essential for guaranteeing the effectiveness of fiscal transparency in China's anti-corruption efforts.**

Why does this ranking mechanism work properly?

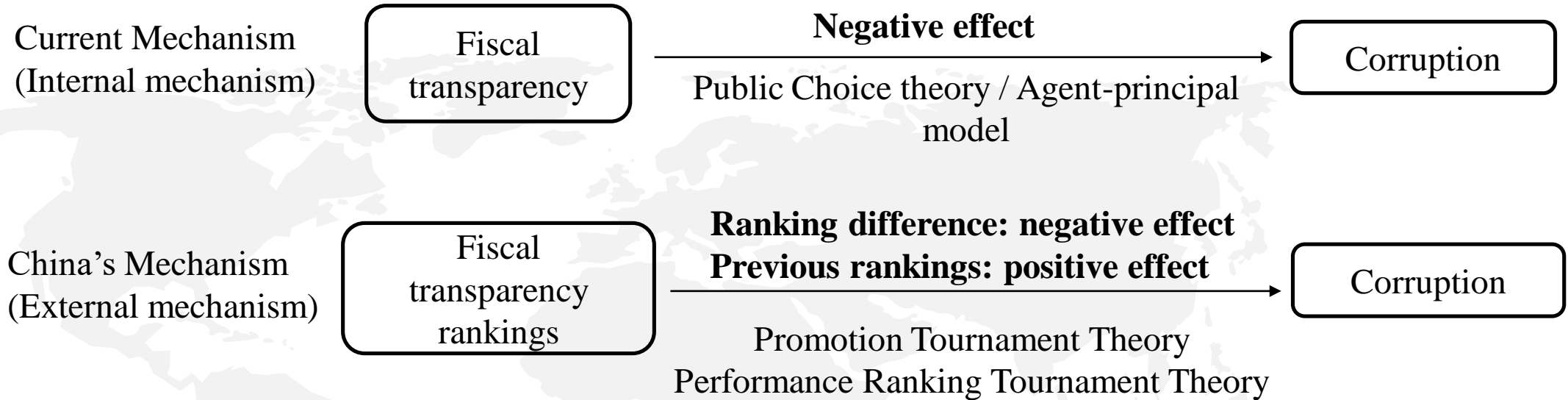
-- The ranking mechanism offers each province's relative performance so that provincial leaders can swiftly and plainly identify their relative advantages (Lazear & Rosen, 1981).

Why the ranking mechanism functions in the Chinese context?

-- This ranking mechanism is a public evaluation that can be rapidly disseminated and interpreted by the public. Consequently, it is closely associated with the reputation of these provincial leaders in China. In other words, the mechanism for ranking these provincial leaders has a strong connection with their merit and reputation (Zhu & Du, 2023).

-- A meritocratic government should recruit and reward candidates who perform well in actual professional practice and represent society's interests (Jankowski et al., 2020; Jiang et al., 2022).

Conclusion



Two Mechanisms between fiscal transparency and corruption

- Without rankings, fiscal transparency affects corruption negatively.
- In the Chinese context, another external method is more appropriate. -> Performance feedback from performance rankings and the competition brought by fiscal transparency rankings play a crucial role in motivating provincial governments to reduce corruption.



감사합니다.

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*Multicollinearity Test

Variable	VIF	1/VIF
FDI	4.23	0.236131
Openness	4.20	0.238205
GDP	3.58	0.279615
Population	2.99	0.334028
L. ln (Transparency)	2.31	0.433467
L2. ln (Corruption)	2.03	0.491547
L. ln (Corruption)	2.01	0.496424
ln (Transparency)	1.91	0.524014
L2. ln (Transparency)	1.68	0.595933
Transparency ranking	1.65	0.604646
Fiscal deficit	1.63	0.611894
Difference in rankings	1.59	0.628643
Mean VIF	2.49	

All Variables' VIF is less than 10 (strictly less than 5), which means that the model has no multicollinearity issues, and the model is well built.