

From Profit-Sharing to Residual-Chasing: A Study of Grand Theft in an Era of Economic Slowdown

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Corruption and Economy

- Many scholars have examined how corruption affects economic performance. A large body of literature documents the negative effects of corruption on economic growth ([Gould and Amaro-Reyes 1983](#); [Klitgaard 1988](#); [Shleifer and Vishny 1993](#); [Mauro 1995](#); [Laporta 1999](#); [Mo 2001](#)).
- However, there is another stream of literature arguing in favor of corruption. These authors contend corruption can serve as grease for the wheels of economic growth ([Leff 1964](#); [Huntington 1968](#); [Acemoglu and Verdier 1998](#); [Ahmad et al. 2012](#); [Huang 2015](#)).
- Recently, comparativists started to decompose corruption and examine the effects of different types of corruption. [Ang's \(2020\) Unbundled Corruption Index \(UCI\)](#) serves as a novel example in this regard.
 - Whether corruption involves elites or non-elites
 - Whether corruption involves theft or exchange

A Typology of Corruption Proposed by Ang (2020)

| | Non-elites | Elites |
|-------------------|---|---|
| Involves theft | Petty theft THA Street-level bureaucrats privately pocket illegal fees; extort street vendors for protection money; agencies coerce companies to pay for their services; take group vacations on public funds | Grand theft NGA Top officials illegally siphon public funds into private accounts; create ghost payroll for family members; illegally keep state-subsidized properties for themselves; executives in state-owned companies collude to embezzle funds |
| Involves exchange | Speed money BGD, RUS, IND Citizens pay police bribes to avoid penalties; tips to receive basic medical services; private payments to expedite medical services; small bribes to speed up licensing process; excessive regulations to extract bribes | Access money USA, JPN, KOR Businesses directly pay massive bribes for deals; pay for politician's family expenses for deals; allocate corporate positions to family members of politicians; politicians build clientelist network for indirect bribe-taking; lobbying for favorable regulations; revolving door; loose oversight and bailouts with impunity |

Gaps in the Literature

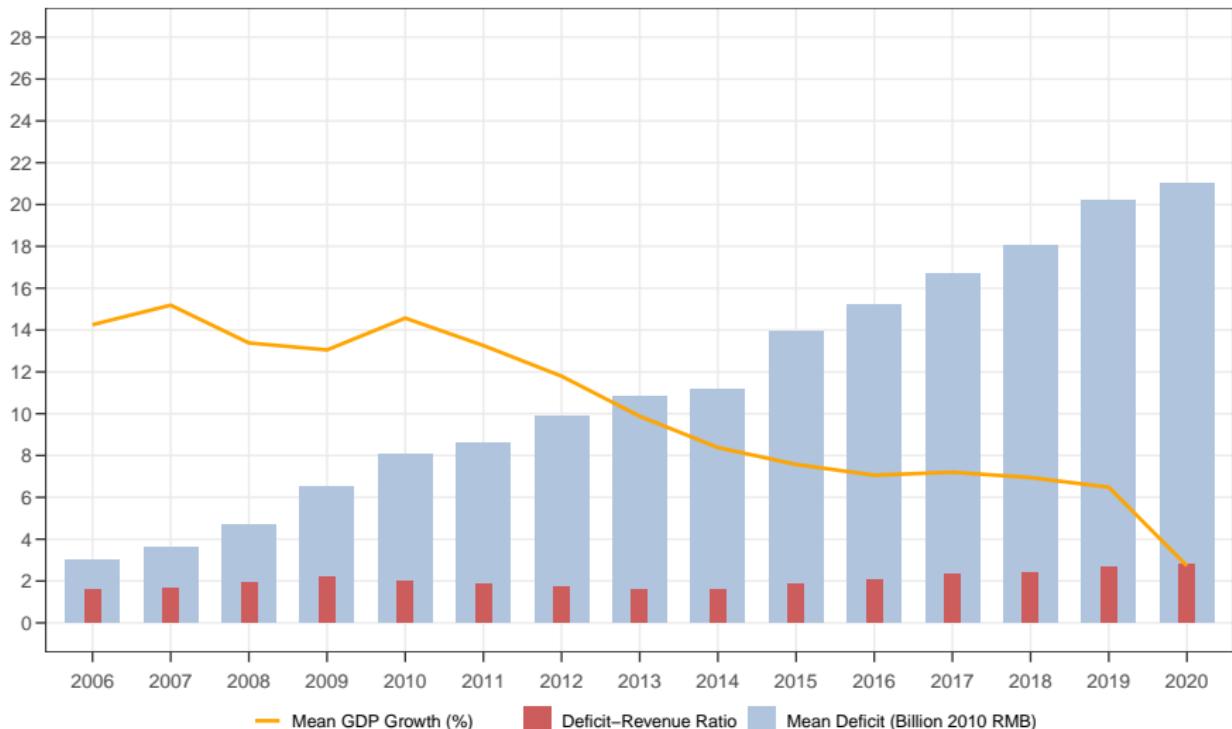
- Most studies revolve around how corruption affects economic growth, with little attention paid to the possibility that economic condition can shape government behavior
- The newly developed framework by Yuen Yuen Ang (2020) is restricted to an analysis of 15 countries based on expert opinions. More objective measures of different forms of corruption are needed.
- A new measure of grand theft
 - Siphoning public funds into private accounts
 - Using public money for group interests
 - Free or low-cost housing for insiders
 - Oversized housing allowances
 - Private use of government-owned vehicles
 - Reimbursement for unreasonable travels
 - Mismanagement of public funds
 - Lending public money to private companies

Looming Fiscal and Social Crisis in China



- China has been experiencing an economic slowdown in the past decade, with the pandemic making the matter even worse.
- Consequently, the finance of local governments deteriorated substantially.
- In some regions, the government had difficulty paying the salary of civil servants.
- In other cases, the government delayed the salary payment to peripheral employees such as those working in the transit system, public schools and hospitals.

A Temporal Perspective of China's Fiscal Deficit



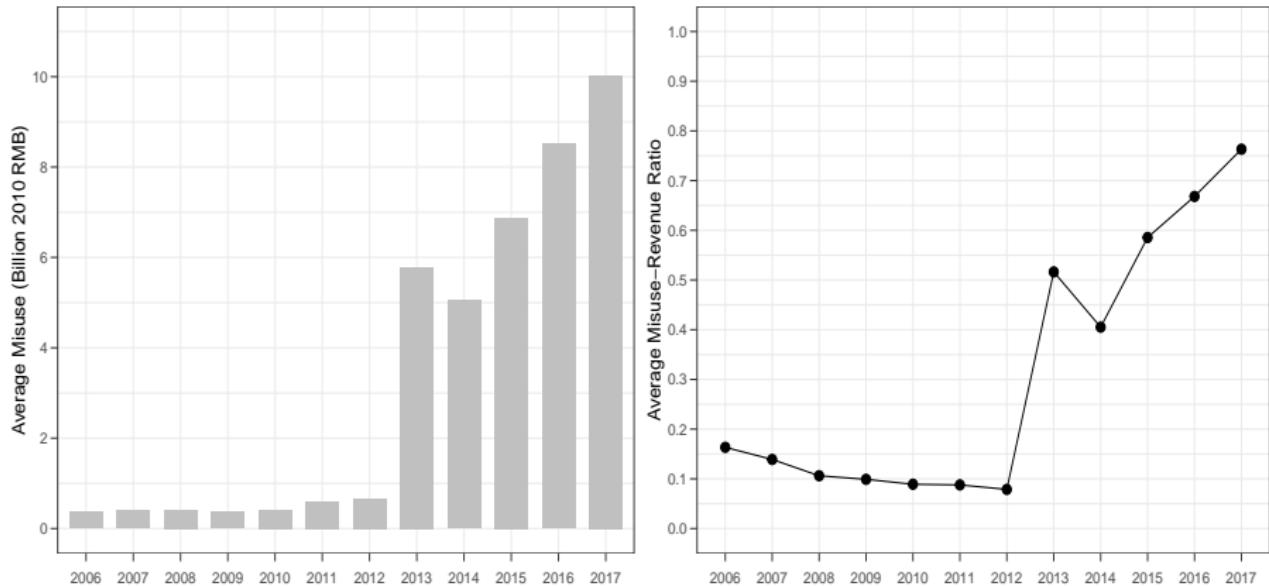
Solutions to Fiscal Pressure

- ① Upper-level government transfer
 - Financial strength of the upper-level government is also weakened as a result of economic slowdown
- ② Land conveyance revenue
 - Not feasible in the context of a grim real estate market resulting from the economic downturn
- ③ Loans
 - Strictly contained by the central government after 2010
- ④ Audit
 - Virtually the only viable method for the local government without cutting spending

Government Audit in China

- Government audit is conducted by the executive branch as opposed to the legislature
 - Falls under the direct administration of city mayors (secondary to Party Secretaries only)
- Audit agencies reveal the amount of public funds used in a questionable manner (referred to as “fiscal misuse” in this paper)
 - Violations of government regulations
 - Loss and squander
 - Mismanagement
- Consequences of government audit
 - Rectifying financial misconducts
 - Subjecting the questionable portion to its original purpose
 - Reducing or suspending the appropriations
 - Withdrawing the remaining funds, in part or in whole
 - Prosecuting the concerned party if dereliction of duty, economic crime or corruption is detected

Increasing Attention to Government Audit



Theoretical Expectations

- ① Fiscal pressure compels city governments to audit fiscal misconduct more rigorously, resulting in a greater size of the misused amount reported by the audit department.
- ② The effect of fiscal audit is moderated by economic situation.
 - During high-growth periods, fiscal pressure may not have a significant effect on the questionable amount of fiscal spending.
 - During hard times, fiscal pressure can have a sizable effect on the questionable amount of fiscal spending.

Economic Slowdown and Fiscal Audit: Suggestive Evidence

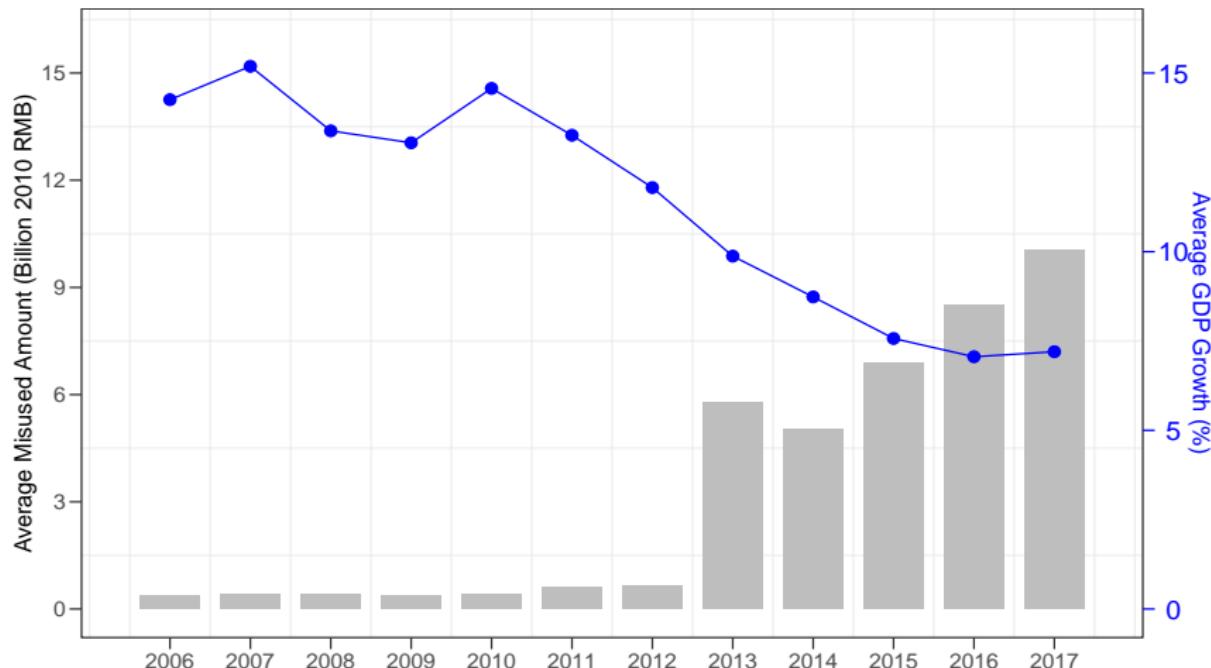


Figure 1: Economic slowdown and fiscal audit in China (2006–2017)

Methods

① Data

- Various statistical yearbooks and government reports
- City-level panel data on 293 Chinese prefectoral cities spanning from 2006 to 2017

② Variables

- Fiscal audit of misused public funds: measured in billion 2010 RMB
- Fiscal deficit (and lagged term): measured in billion 2010 RMB
- GDP growth rate: percentage point
- Log population: the log of city population in million residents
- Log GDP per capita: the log of GDP per capita in 2010 RMB
- Inflation rate: percentage point
- Mayor characteristics: gender, age, education, length of office

③ Models

- Fixed effects models controlling for city heterogeneity
- Interactive terms to account for conditional effects

Empirical Analysis at Chinese City Level

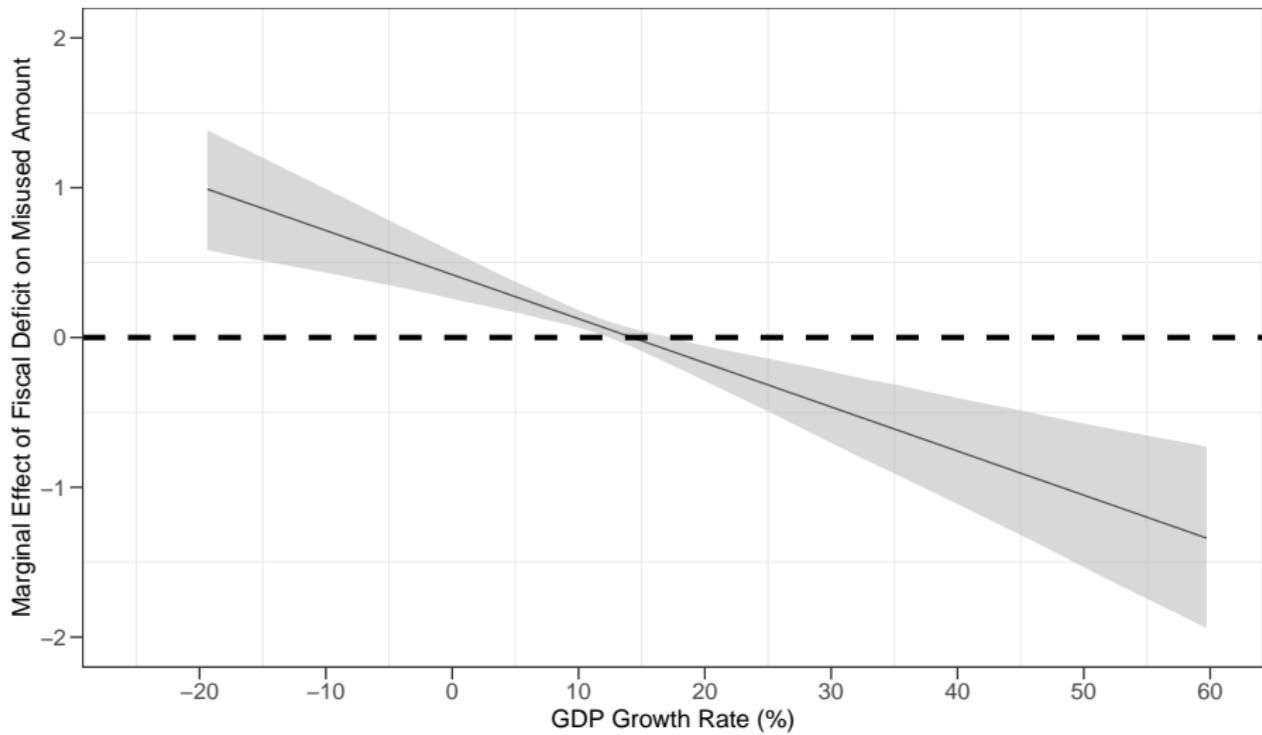
Table 1: Regression analysis based on fixed effects models

| | Dependent Variable: Misused Amount (in Billion 2010 RMB) | | | |
|-----------------------------|--|----------------------|----------------------|----------------------|
| | (1) | (2) | (3) | (4) |
| Fiscal deficit | 0.300*** (0.029) | 0.192*** (0.031) | 0.068*** (0.025) | 0.358*** (0.070) |
| Lagged fiscal deficit | 0.237*** (0.031) | 0.128*** (0.033) | 0.001 (0.026) | -0.025 (0.027) |
| GDP growth | | | | 0.033 (0.055) |
| Fiscal deficit × GDP growth | | | | -0.025*** (0.006) |
| Log population | | 14.568*** (3.748) | 11.173*** (3.542) | 11.578*** (3.514) |
| Log GDP per capita | | 3.644*** (0.594) | 4.519*** (0.553) | 3.992*** (0.565) |
| Inflation rate | | -0.338*** (0.095) | -0.264*** (0.066) | -0.204*** (0.067) |
| Mayor controls | | | ✓ | ✓ |
| City fixed effects | ✓ | ✓ | ✓ | ✓ |
| Observations | 3,062 | 3,049 | 2,487 | 2,484 |
| R ² | 0.104 | 0.132 | 0.118 | 0.136 |
| Adjusted R ² | 0.012 | 0.041 | 0.002 | 0.021 |

Note: * $p<0.1$; ** $p<0.05$; *** $p<0.01$



Interactive Effects



Conclusion

- This paper demonstrates that government corruption is shaped by economy, which stands in stark contrast to the voluminous literature on whether and how corruption affects growth.
- Fiscal strain compels the government to scrutinize financial activities more rigorously. This phenomenon is especially pronounced when the economy slows down or stagnates.
- In the context of the pandemic, China's economic growth dropped to an unprecedentedly low level of 5.2%. China's local governments may enter a new era from profit-sharing to residual-chasing.

Thanks for your attention!
All comments are appreciated!

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Descriptive Statistics

Table 2: Descriptive statistics

| Statistic | N | Mean | St. Dev. | Min | Max |
|--------------------|-------|--------|----------|---------|---------|
| Misused Amount | 3,883 | 3.293 | 9.513 | 0.000 | 165.293 |
| Fiscal deficit | 4,269 | 11.525 | 10.080 | -54.779 | 192.008 |
| GDP Growth Rate | 4,256 | 10 | 10.07 | -20.63 | 32.9 |
| Log population | 3,983 | 1.225 | 0.724 | -7.824 | 2.708 |
| Log GDP per capita | 4,248 | 10.370 | 0.669 | 4.628 | 15.502 |
| Inflation Rate | 4,869 | 2.662 | 1.642 | -0.708 | 5.895 |
| Mayor Age | 2,801 | 49.999 | 3.784 | 29 | 60 |
| Mayor Gender | 2,810 | 0.635 | 0.247 | 0 | 1 |
| Mayor Education | 2,801 | 0.635 | 0.481 | 0 | 1 |
| Mayor Tenure | 2,801 | 1.607 | 1.490 | 0 | 10 |

Regression of Growth on the Grand Theft

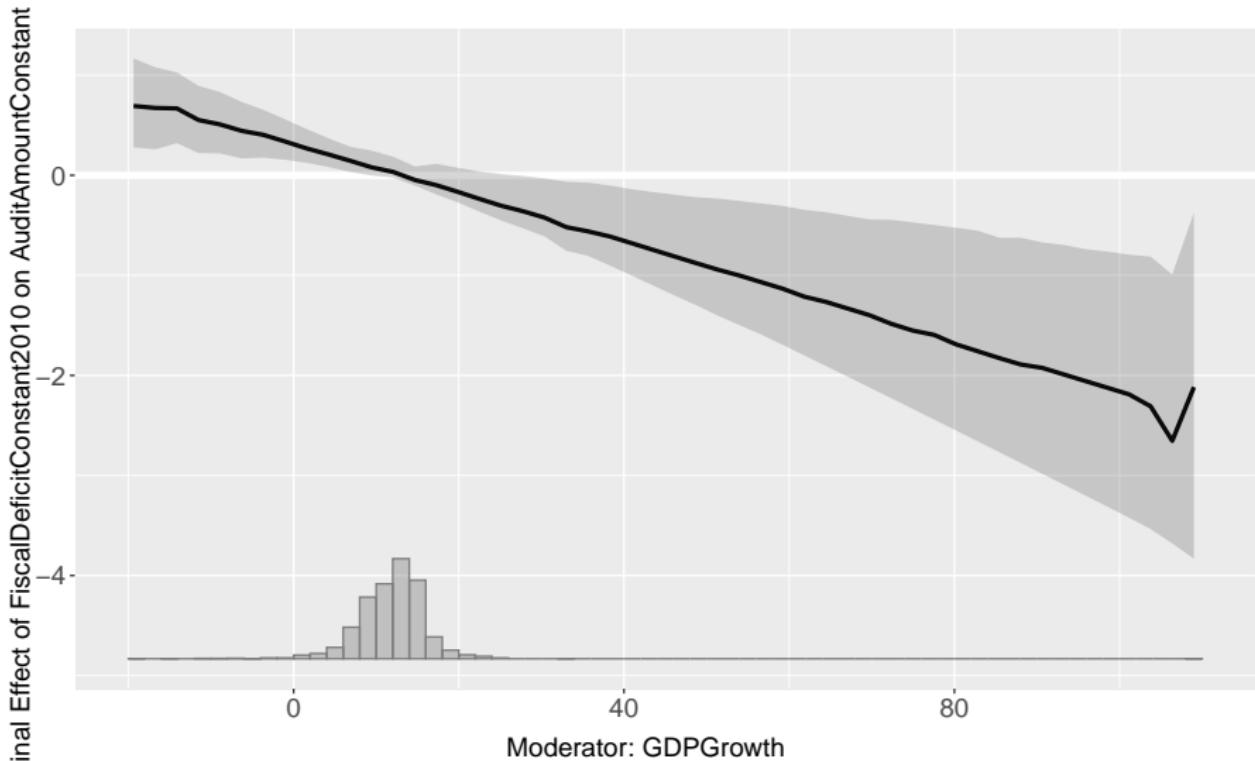
Table 3: Regression analysis of economic growth

| | Dependent Variable: GDP Growth Rate (%) | | | |
|-------------------------|---|----------------------|----------------------|----------------------|
| | (1) | (2) | (3) | (4) |
| Misused Amount | -0.130*** (0.009) | -0.065*** (0.009) | -0.041*** (0.008) | -0.067*** (0.013) |
| Fiscal deficit 2010 | | -0.143*** (0.014) | -0.067*** (0.014) | -0.051*** (0.016) |
| Lagged fiscal deficit | | -0.148*** (0.014) | -0.067*** (0.015) | -0.043** (0.017) |
| Log population | | | 1.533 (1.651) | -0.908 (2.244) |
| Log GDP per capita | | | -3.204*** (0.263) | -3.672*** (0.355) |
| Inflation rate | | | 0.443*** (0.042) | 0.341*** (0.042) |
| Mayor controls | | | ✓ | ✓ |
| City fixed effects | ✓ | ✓ | ✓ | ✓ |
| Observations | 3,341 | 3,052 | 3,044 | 2,484 |
| R ² | 0.071 | 0.182 | 0.269 | 0.219 |
| Adjusted R ² | -0.018 | 0.096 | 0.191 | 0.116 |

Note: * $p<0.1$; ** $p<0.05$; *** $p<0.01$



Robustness Check of Alternative Estimators



Geographical Distribution of Misused Amount in 2017

