

# Chinese Counties' Fiscal Pressure: who is to blame?

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# Chinese counties' fiscal pressure: who is to blame?

- The infamous “revenue-expenditure gap”: blame on central government policy
- The role of intermediary level of government: blame on provincial and city-level government
- Budget mismanagement: blame on county-level government

# The Dominant View: central government policy

- The 1994 tax-sharing reform
  - Excessive revenue centralization
    - Insufficient revenues: little tax autonomy (Tao Yong, 2009), small and unstable tax base (Li Baoming, 1994; Song Tongwen & Qiu Xudong, 2008; Wang Yingchun, 2005), lack of primary local tax source (Mao Hao, 2008; Song Tongwen & Qiu Xudong, 2008)
    - Problematic revenue structure: low ratio of tax revenues (Mao Hao, 2008; Tao Yong, 2009) and direct taxes (Li Yihua, 2008), heavily dependent on tax rebates, intergovernmental transfers and non-tax revenues (Song Tongwen & Qiu Xudong, 2008)
    - Regional disparity in revenue raising capacity: big self funding ratio disparity across regions (Mao Hao, 2008, Tao Yong, 2009; Yan Kun, 2006), intra-provincial disparity also high (Mao Hao, 2008)
  - Excessive expenditure decentralization
    - County-level spending growth too fast growth (Wang Yingchun, 2005; Mao Hao, 2008): unreasonable size of government and structural imbalance; government size not differentiated according to county population size; structural and functional oversupply of government officials; bureaucratic, extravagant and wasteful, and low administrative efficiency; large scale of public institutions resulting in excessive expansion of fiscal dependent population
    - Revenue power and expenditure responsibility mismatch (Mao Hao, 2008; Wang Yingchun, 2005; Yan Kun, 2006); the offside and absence of government function still exists (Mao Hao, 2008); unfunded policy mandates (Song Tongwen & Qiu Xudong, 2008)

# The Dominant View (cont'd)

- The 1994 tax-sharing reform
  - Problematic central transfer system
    - Insufficient, highly discretionary and politically skewed transfer distribution scheme (Chen, 2008; Tao Yong, 2009)
    - Unreasonable structure (Li Baoming, 2005; Mao Hao, 2009; Tao Yong, 2009)
- The resultant “revenue-expenditure gap” was filled by controversial fees and charges, extracted from local residents, or by borrowing, leading to the infamous problem of “peasants burden and the subsequent Rural Tax Reform, and proliferation of local debts (Li & Yang, 2015)
- The dominant explanation given in the literature refers to central government behavior, namely excessive centralization of tax revenue, but it does not tally with the large flows of central subsidies to local coffers in more recent years (Li & Yang, 2015)

## Competing View: the role of intermediaries

- The alternative explanation stresses the working of an intermediary level embedded in the multi-tiered governance structure of a large country
- The defective sub-provincial fiscal relationship (Jia Kang and Bai Jingming, 2002): incentive for the provincial and prefectural governments to centralize revenues, which further worsens revenue decentralization
- The predatory inclination of intermediary government
  - The pressure for performance under tighter fiscal constraints drives local officials to replicate the central government's "self-serving" policy and to desperately attempt to balance their budgets at the cost of subordinates (Chen, 2008)
  - The provincial level has likely centralized more resources from its subordinates than contributed additional provincial resources to them as more central transfers flowed in (Wu & Wang, 2013)
  - Case study of Galung city and Noan District (Li & Yang, 2015): undercutting local revenue base; manipulating tax collection arrangements; siphoning monies "in transit"
- Manipulations of central and provincial subsidies generated immense city-county tension and precipitated the introduction of the "province-managing-counties" reform in some provinces since the early 1990s
- Most empirical studies draw upon analysis of aggregate statistics or single province or county case study

## Competing View: budget mismanagement at the local level

- The co-existence of budgetary and off-budgetary systems makes it hard to monitor spending (Bai Jingming, 2007; Li Baoming, 2005)
- “Shadow” revenues might be associated with corruption or abuse of power, or used by local officials for private purposes (Fan Gang, 1998)
- Information asymmetry and high costs resulting from China’s five-tier governmental structure have largely weakened supervision and control by upper level government despite established laws and regulations (Wang and Ren, 2009)
- Few empirical studies have been undertaken, and evidence is still anecdotal and limited.

# Research Questions

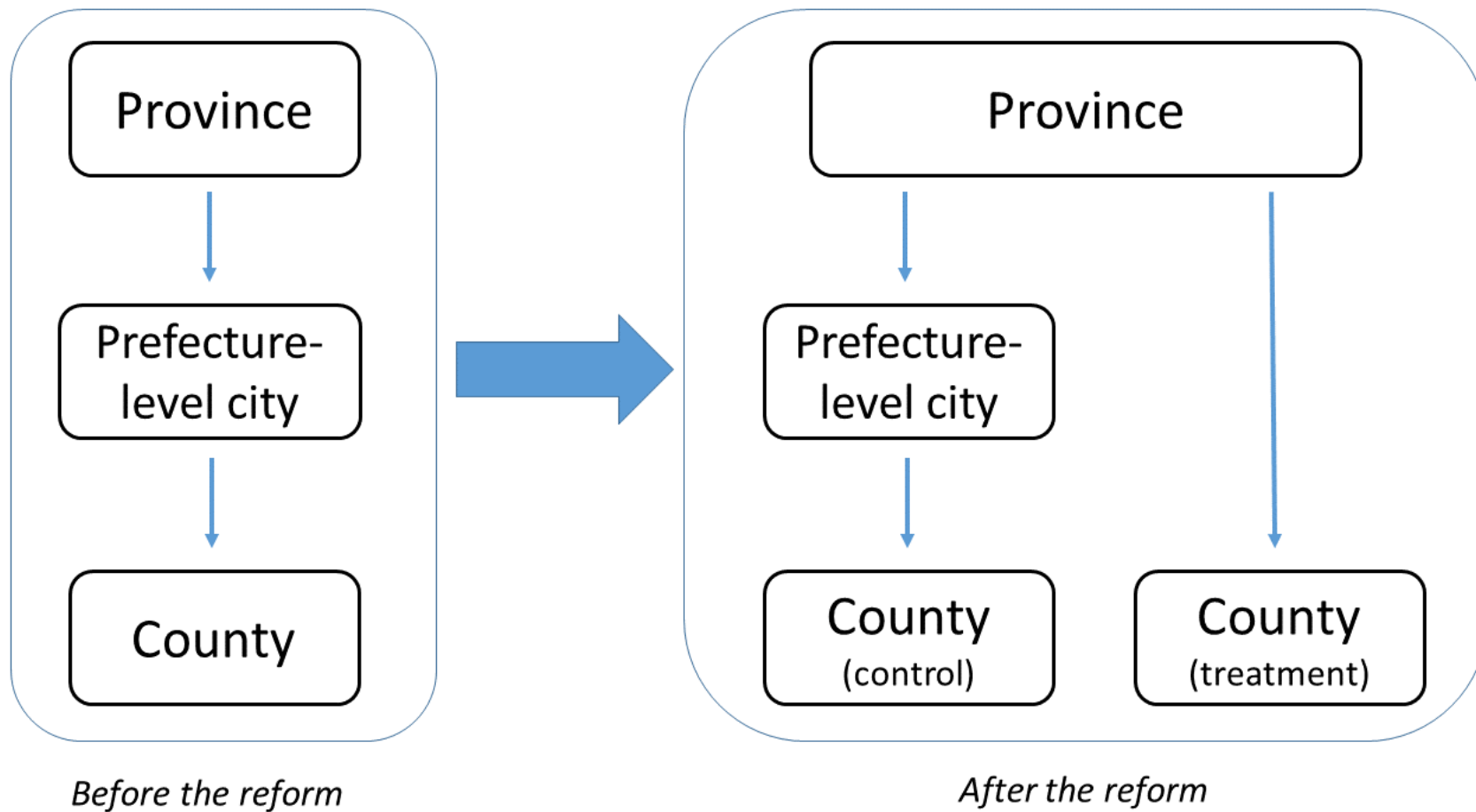
- What causes the local fiscal pressure in China?
  - Fiscal pressure: per capita fiscal deficit (before transfers); budgetary expenditure growth rate
  - Determinants: revenue and expenditure-side
- Who is to blame?
  - The central government
  - The intermediaries: PMC reform effect
  - The counties: budget mismanagement (audited misuse of fund)

# Background

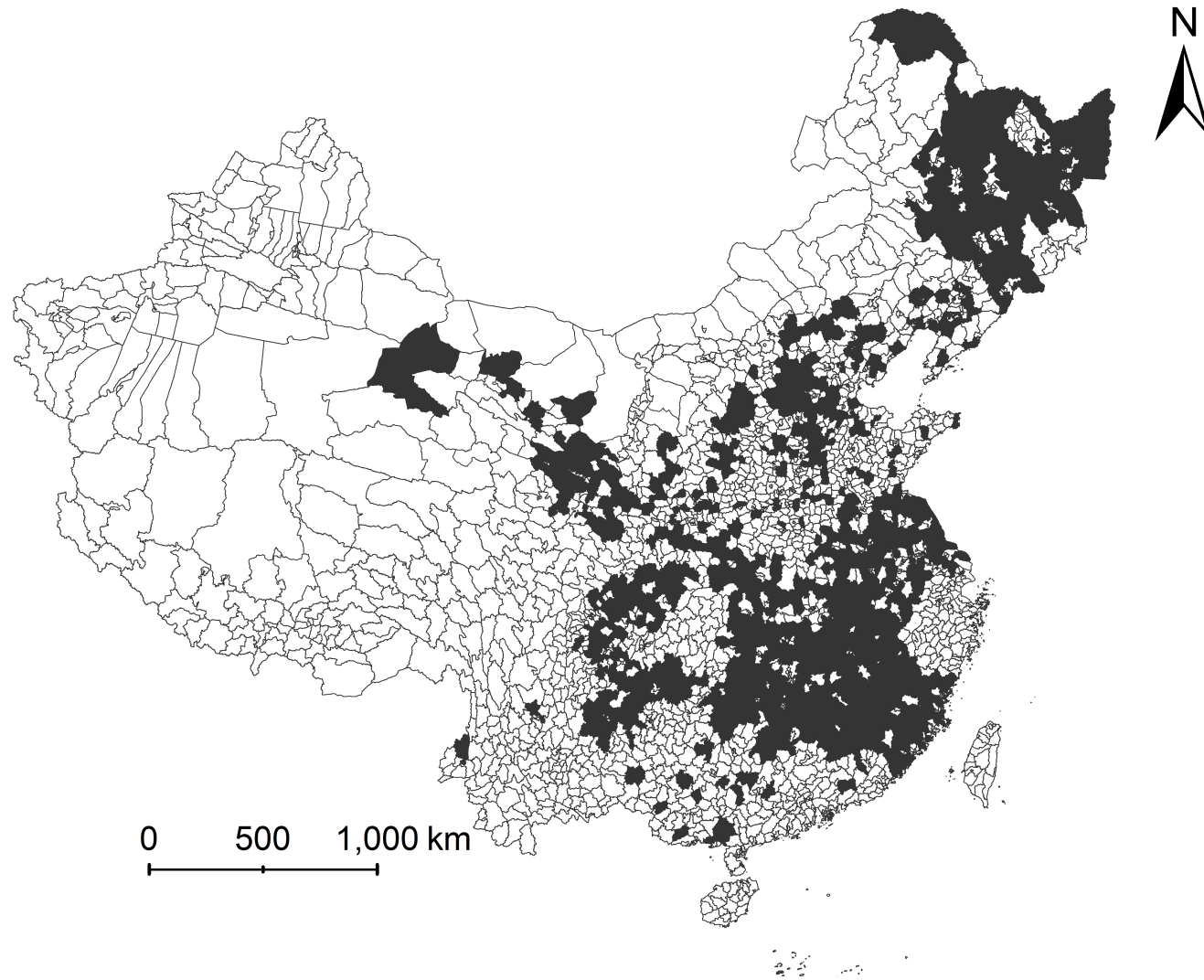
- 5 levels of governments: central, province, prefecture, county and township level
- Prefecture-level governments owned powers on governance of their subordinate counties since 1983 (Bo, 2016)
  - Fiscal, administrative and political
  - By 2003, almost all counties got supervised by prefecture-level cities I  
Major concern: prefecture leaders can exploit revenues from counties
- “Province-managing-county” (PMC) reform since 2003
  - Flatten the governance hierarchy
  - Move the powers to supervise counties to provinces
  - Counties gain more powers to make decisions and less supervision
  - Li et.al (2016): PMC has negative effects on treated counties’ economic performance



# Province-Manage-county Reform since 2003



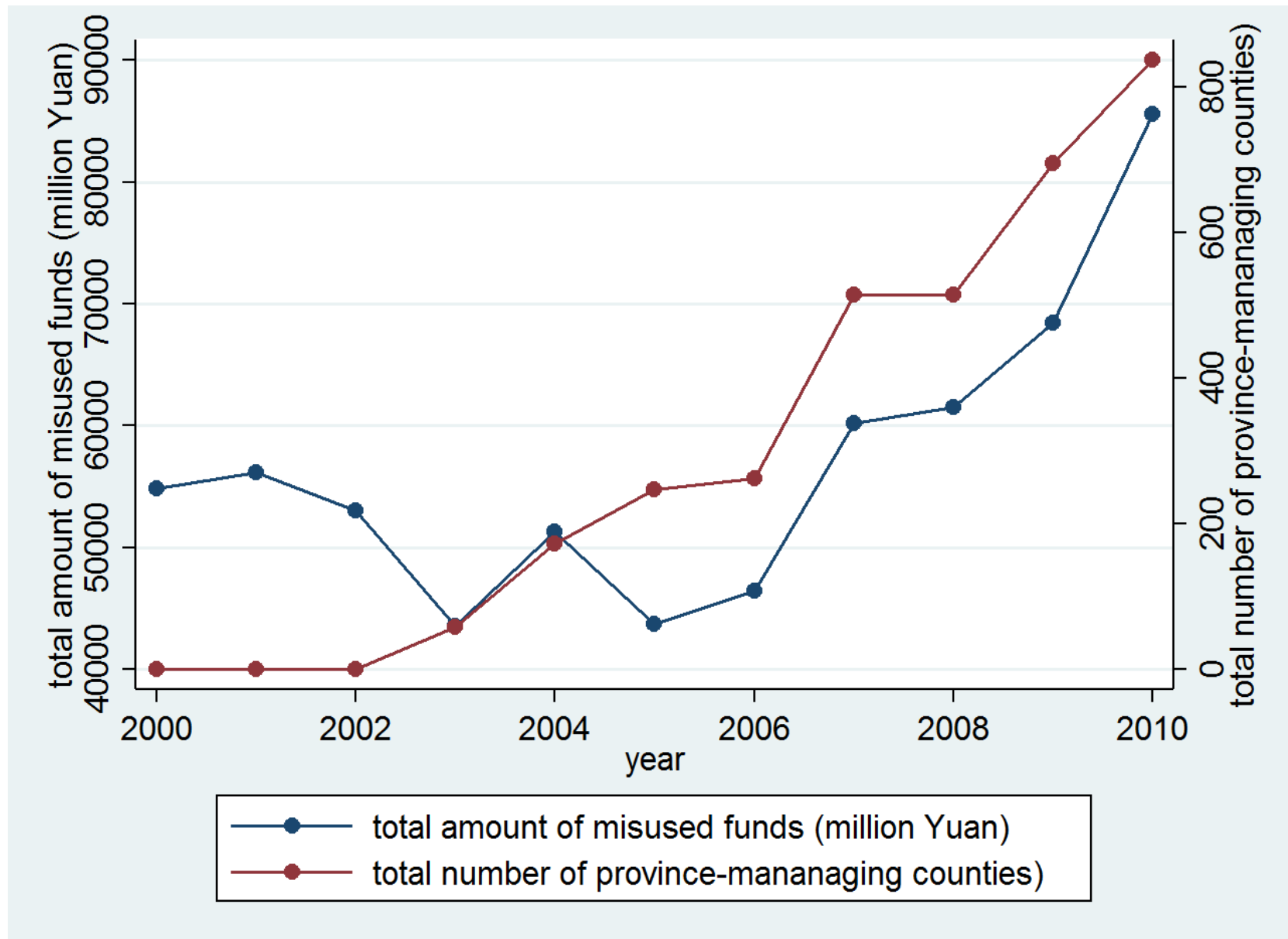
# Spatial Distribution of PMC Counties in 2010



# The Audit System in China

- History
  - The National Audit Office (NAO) was established in 1983
  - The Audit Law of the People's Republic of China was enacted in 1994
  - Related details were added in the Implementation Provisions of the Audit Law in 1997
- Function
  - Empowered to monitor local officials in compliance with laws
  - Check transactions in account books to detect financial anomalies
  - The wrongdoings include: misuse of government funds, fund misappropriation, extravagant spending, excessive collection of sponsoring funds from enterprises, leasing out properties without authorization etc. (Gong 2009)

# Total amount of misused funds and the number of PMCs



# Hypotheses

- Hypothesis 1: PMC reform relieves Chinese counties' fiscal pressure
- Hypothesis 2: Budget mismanagement contributes to Chinese counties' fiscal pressure

# Data and Methods

- **Dependent variables**
  - Fiscal deficit per capita, fiscal expenditure growth
  - County-level data on fiscal revenue and fiscal expenditure, 2000-2011
  - Data sources: annual provincial or prefectural statistical yearbooks
- **Main independent variables**
  - Budget mismanagement: measured as misused fund reported by NAO
  - Province-Managing-County (PMC) reform
- **Control variables**
  - Fixed asset investment
  - Fiscal dependents
  - Ratio of fiscal revenue
  - Transfer payment per capita
  - Other: GDP, Population, GDP per capita
  - Data sources: audit yearbooks, annual provincial or prefectural statistical yearbooks
- **Fixed-effect panel data analysis**

# Variable Description

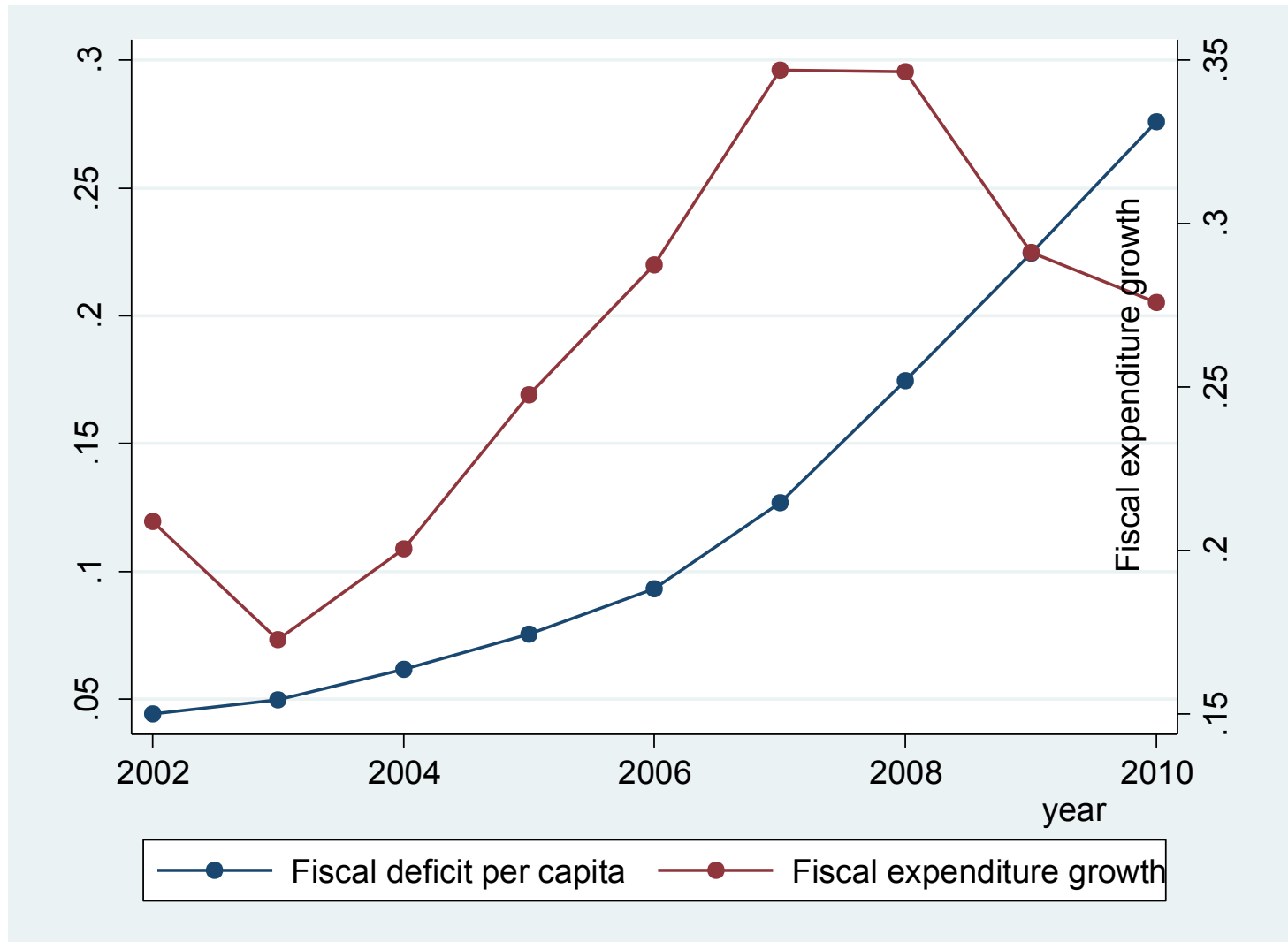
Variable	Description
Fiscal deficit per capita	Fiscal expenditure per capita minus fiscal revenue per capita(ten thousand RMB Yuan)
GDP	Logarithm of gross domestic product
Population	Logarithm of population
GDP per capita	Logarithm of gross domestic product per capita
Fiscal dependents	Ratio of fiscal dependents to total population
Ratio of fiscal revenue	Ratio of fiscal revenue to gross domestic product
Misused fund	Ratio of misused public fund to fiscal expenditure
Transfer payment per capita	Logarithm of transfer payment per capita
Fixed asset investment	Ratio of fixed asset investment to gross domestic product
PMC reform	Dummy, “1” if the county is a “province-managing-county” reformed county, “0” otherwise
Fiscal expenditure growth	Fiscal expenditure annual growth rate

# Descriptive Statistics

Variable	Obs	Mean	Std dev	Min	Max
Fiscal deficit per capita	10174	0.151	0.158	-0.0001	1.1924
GDP	10174	12.702	1.077	9.4758	15.4714
Population	10174	3.593	0.809	0.6931	5.0492
GDP per capita	10174	9.109	0.736	7.4330	11.3379
Fiscal dependents	10174	0.034	0.014	0.0163	0.0999
Ratio of fiscal revenue	10174	0.041	0.023	0.0107	0.1657
Misused fund	10174	0.059	0.087	0.0001	0.5799
Transfer payment per capita	10174	5.310	2.563	0	8.582
Fixed investment	10174	0.395	0.310	0.0276	1.9050
PMC	10174	0.286	0.452	0	1
Fiscal expenditure growth	10175	0.294	0.196	-0.3029	1.2771



# Descriptive Statistics



# Estimation Results

## the determinants of fiscal deficit across counties

Deficit budget per capita	(1)	(2)	(3)	(4)	(5)	(6)
GDP	-0.084 (0.102)	-0.178*** (0.000)	-0.054*** (0.004)	-0.073*** (0.000)	-0.050** (0.021)	-0.051** (0.012)
Population	0.113*** (0.003)	0.278*** (0.000)	0.130*** (0.000)	0.129*** (0.000)	0.089** (0.048)	0.090** (0.044)
GDP per capita	0.112** (0.020)	0.187*** (0.000)	0.067*** (0.000)	0.080*** (0.000)	0.040** (0.049)	0.040** (0.049)
Ratio of fiscal dependents		2.657*** (0.000)	1.961*** (0.000)	1.694*** (0.000)	1.644*** (0.000)	1.680*** (0.000)
Ratio of fiscal revenue		-0.257*** (0.000)	-0.149*** (0.001)	-0.226** (0.046)	-0.282* (0.051)	-0.293* (0.055)
Misused fund			0.028** (0.015)	0.022*** (0.000)	0.005 (0.281)	0.004 (0.361)
Transfer payment per capita				-0.036 (0.214)	-0.044 (0.109)	-0.045 (0.107)
Fixed asset investment					0.032*** (0.000)	0.032*** (0.000)
PMC reform						-0.017*** (0.009)
County	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes
Within R square	0.531	0.513	0.516	0.533	0.531	0.533
Obs	17864	14634	13797	13797	10174	10174

# Summary of Findings

- Revenue-side determinants: GDP (+), ratio of fiscal revenues (-)
- Expenditure-side determinants: population (+), ratio of fiscal dependents (+), fixed asset investment (+)
- PMC reformed counties tend to have smaller fiscal deficits
- Budget mismanagement contributes to fiscal deficit

# Estimation Results

## the determinants of fiscal deficit across counties

Fiscal expenditure growth	(1)	(2)	(3)	(4)	(5)	(6)
GDP	0.004 (0.936)	0.046 (0.285)	-0.0004 (0.991)	0.031 (0.525)	0.098* (0.054)	0.097* (0.059)
Population	-0.267*** (0.001)	-0.238*** (0.000)	-0.204*** (0.000)	-0.221*** (0.000)	-0.293** (0.016)	-0.292** (0.017)
GDP per capita	-0.053 (0.251)	-0.125*** (0.004)	-0.083* (0.074)	-0.109* (0.053)	-0.188*** (0.000)	-0.189*** (0.000)
Ratio of fiscal dependents		0.301 (0.564)	0.639 (0.299)	0.897 (0.227)	1.163* (0.059)	1.177* (0.054)
Ratio of fiscal revenue		-1.335** (0.024)	-1.325** (0.031)	-1.240** (0.050)	-1.206** (0.025)	-1.211** (0.024)
Misused fund			0.163*** (0.000)	0.170*** (0.000)	0.138*** (0.000)	0.138*** (0.000)
Transfer payment per capita				0.045*** (0.006)	0.056*** (0.000)	0.056 (0.000)
Fixed asset investment					0.010 (0.412)	0.010 (0.394)
PMC reform						-0.007* (0.073)
County	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes
Within R square	0.085	0.102	0.113	0.116	0.096	0.096
Obs	17964	14731	13885	13797	10174	10174

# Summary of Findings

- Revenue-side determinants: GDP (-), ratio of fiscal revenues (-)
- Expenditure-side determinants: population (-), ratio of fiscal dependents (+)
- PMC reformed counties tend to have slower fiscal expenditure growth
- Budget mismanagement contributes to fiscal expenditure growth

# Discussion and Conclusion

- Chinese counties' fiscal deficits seem more expenditure-driven
- PMC's negative effect on fiscal deficit per capita and fiscal expenditure growth confirms the predatory behavior of intermediaries
- County government budget mismanagement also contributes to fiscal pressure measured as fiscal deficit
- Success of the PMC reform and local audit program in mediating local fiscal difficulties
- Further reform should continue to focus on the fiscal behavior of both intermediaries and counties and increase their fiscal accountability