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# Fiscal Underpinnings for Sustainable Development in China

Rebalancing in Guangdong

 Springer

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## KEY POLICY OBJECTIVES IN LIGHT OF THE 19<sup>TH</sup> CONGRESS

- Maintain drive towards clean cities, and sustainable growth
- Address both spatial and interpersonal inequalities; as well as the special needs of the poor and vulnerable
- Move to address the incipient risks in multilevel finance, and buildup of liabilities
- Generate a more sustainable basis for sub-national taxation and financing arrangements, compatible with China's governance model
  - This also provides a basis for addressing the incentive structure facing local officials and prevents rent-seeking behaviour and corruption

## KEY FEATURES OF THE VOLUME

- Addresses all the issues above that have also been highlighted in the 19<sup>th</sup> Congress
- How to achieve green growth, including the possibility of creating new sustainable hubs or clean cities and restructured metropolitan areas?
  - Key issues related to financing public investments and service delivery, and strengthened governance
  - generate the incentives for appropriate structural change, while minimizing risk
- Papers written by leading Chinese experts and others with deep knowledge of the operation of the Chinese system of governance
- All China focus, supplemented with detailed assessments for Guangdong, in the forefront of the reform process initiated by Deng Xiaoping in the late 1970s

# FISCAL POLICIES AND SUSTAINABLE GROWTH IN CHINA

Building Structural Change and the Chinese Governance Model

# CHINESE GOVERNANCE MODEL AND PUBLIC POLICY OPTIONS (AHMAD)

- Chinese model of administrative progression differs in many ways from the political competition models underpinning the US, with major diversions in policy prescriptions, although some lessons are useful
- “Finance follows function” recommended by Western Experts was ignored in 1993/4, as the Chinese government sought to consolidate public finances with incomplete instruments, e.g., P-VAT
- Firms, households and local governments respond to signals, and completion of the VAT (incorporation of the business tax) was important to reduce cost of doing business and maintain competitiveness
  - Was expected to lose money, but overall increase in revenues—likely due to fewer opportunities to cheat with the full value chain
- Importance of completion of the national tax agenda—
  - improving the PIT with information from the VAT, needed to address the personal inequality issue and to stop corrupt practices
  - Carbon tax to reduce emissions—simple addition to the carbon trading scheme
  - New tax handles for the provinces—piggy backs on PIT and carbon tax—do not require local tax administrations, rather setting of rates within a band determined by the NPC, given China’s unitary constitution
  - US-type property tax based on ownership and valuation unlikely to work in China—need simpler alternative based on occupancy and financing local services
  - Access to own-source revenues, rather than revenue-shares or transfers—critical to providing a base for the local bond market and reducing local risks

## ROLE OF GOVERNANCE INSTITUTIONS AND INFORMATION (AHMAD, CONTINUED)

- More information is needed in the Chinese model on the public finances than in the political competition models
- Acceptability of the Chinese governance model can only be assured by preventing corrupt practices, and ensuring minimum living standards
  - Emphasis by President Xi is correct
  - Requires full information both to SAT on the revenue side, and to the MOF/Treasury on who spends what and where
  - Important to build on the GFSM2001/14 framework initiated in 2001—but need to create full balance sheets at local level (see Ahmad and Zhang., this volume)
- Management of local risks thus, depends on new local own-tax instruments and improved information flows

# LAND SALES IN CHINA (WEN, WU AND YE)

- Land sale revenue was a mainstay for local finances and investments in the absence of own-source revenues
  - Generated stable tenure regimes for households and enterprises
  - Main source of own-finance for local governments
- But, has encouraged urban sprawl and rapid loss of agricultural land around metropolitan areas
  - Not much land left to sell in the major metropolitan areas
  - Largely off-budget operations encourage corrupt and predatory behaviour
  - Limited land based assets left exacerbate risks associated with local liabilities, and could also increase social risks (see Liu and Li)

# MANAGING RISKS (LIU AND LI)

- Important paper by President and Director of CAFS, recognizing clearly the analytical framework for risks at the local level
- Interactions between public risk, public services, public revenues and fiscal risks in the Chinese context is an important contribution
  - Interdependence is critical
  - Full information is also essential in managing overall risks, as seen the the Eurozone crisis since 2008
- This paper provides a basis for understanding the local finance imbalances, and the explosion of local government debt, often not seen as a constraining factor at the local level, but with the potential to generate macroeconomic risk
- Also, more importantly, fiscal and revenue-constraints feed back into service delivery risks
  - And as seen in the papers by Färber and Zhang, and Xiao (below), this may affect both rich and poor provinces and be telescoped to the lowest levels of administration
  - Thus, President Xi's focus on managing risk and providing for the poorest is very relevant but
    - the solutions go beyond providing cash support to individuals as might be the case in the US and typically recommended by international agencies

## BALANCE SHEET IN COUNTY-K (JIANGSU) AHMAD AND ZHANG

- The issue of risks is amplified when there is incomplete information, and few incentives for local governments to provide the information
- We examined the balance sheet for County-K (under a PBC project that Zhang was conducting)
- Jiangsu is one of the most advanced provinces in China, and County-K is among the most developed
- Yet, the balance sheet was full of “holes” and missing information, as well incompatibilities with the GFSM2014 standards adopted at the Central level
- Especially worrying were the gaps in liabilities of SOEs, public utilities and arrears

## MORE ON MANAGING LOCAL RISKS

- With the absence of full information on liabilities, and lack of incentive for the local government to take responsibility (e.g., absence of own-source revenues and effective absence of hard-budget constraints (HBCs))
- The papers by Ahmad; Li and Liu; and Ahmad and Zhang, taken together suggest that
  - Standard US-type solutions may not work at all well
  - PPPs, and local government bond issues may not help in creating HBCs and could be manifest in pressures on the NPLs of the banking system or additional calls on the resources of the central government
  - These local failing were also important in exacerbating the effects of the 2008 Eurocrisis (see Ahmad, Bordignon and Brosio, 2016)—
    - these points were emphasized at the inception seminar in SYSU in 2015

## CHINESE CONTRASTS WITH GERMANY (FÄRBER AND ZHANG)

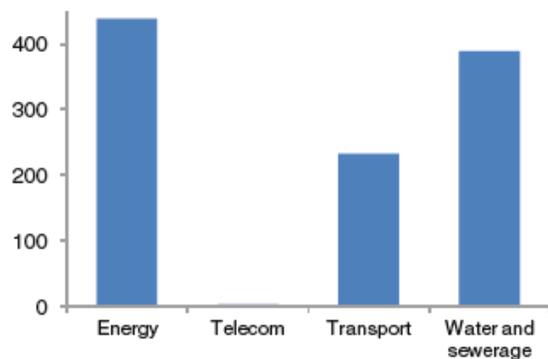
- Local liabilities are problematic in both Germany and China
- Problems with the structure of intergovernmental fiscal relations in Germany and generation of information on liabilities cannot be addressed through a fiscal rule: the debt break due to come into effect in 2019
  - Absence of own-tax revenues at the Länder level mean that liabilities will be shifted down to municipalities, investment will suffer and the debt rule will likely fail
  - Absence of full information on PPP liabilities is already causing problems (Milbradt 2016)
- In China, high debt levels for both poor and rich provinces, with a telescoping of responsibilities downwards
  - PPPs could be seen as “kicking the fiscal can down the road”

## PUBLIC INVESTMENT--INVOLVING THE PRIVATE SECTOR (AHMAD, BHATTACHARYA, VINELLA AND XIAO)

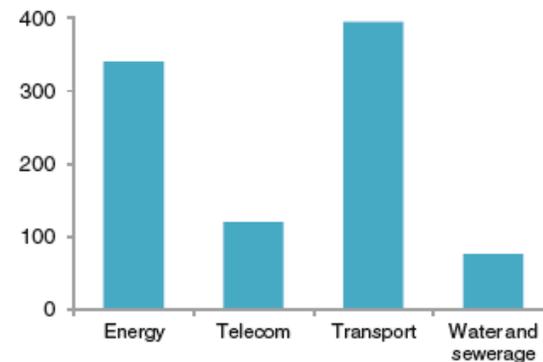
- Useful to involve the private sector, given the magnitude of investment needs, in Emerging Market and OECD countries, as in China
  - This is to use more efficient management
  - Eases the burden on the public finances and
  - Permits risk-sharing mechanisms
- But asymmetric information can lead to incentives to hide liabilities and engage in game play with the public partner, and between levels of government
  - Consequently, liabilities must be registered in the balance sheets of the relevant government

# PPPS IN CHINA

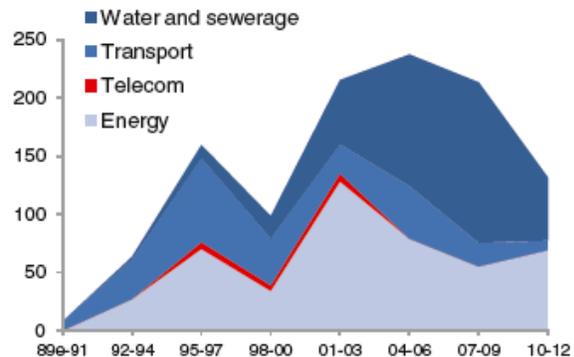
**Total number of PPPs**  
(1990 to 2012)



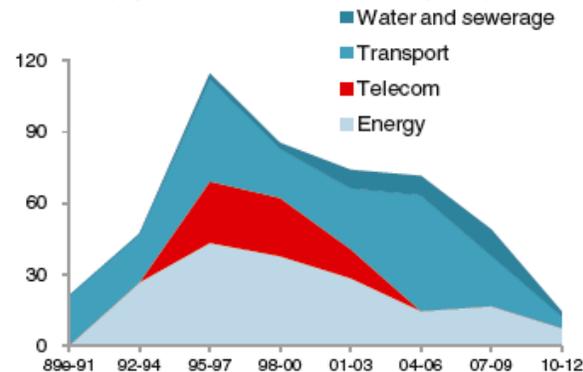
**Total investment in PPPs**  
(1990 to 2012, CNY billion, current prices)



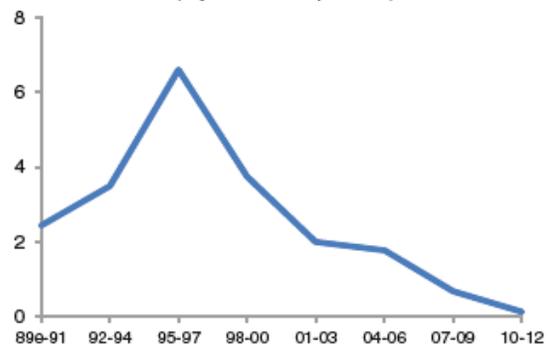
**Number of PPPs**  
(3 year totals)



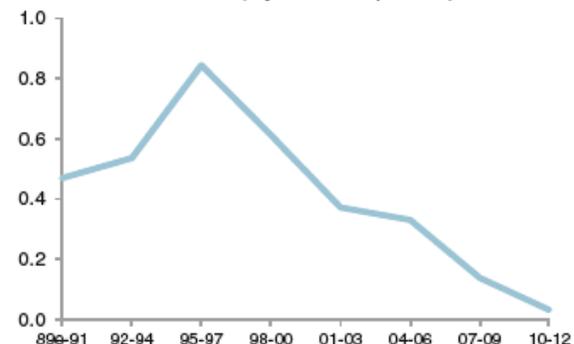
**Investment in PPPs**  
(3-year totals, CNY billion, 90-91 prices)



**Ratio of investment in PPPs to government expenditure**  
(3 year totals, percent)



**Ratio of investment in PPPs to gross domestic product**  
(3 year totals, percent)



## PPPS (CONTINUED)

- Many examples of PPP failure—including in OECD countries
- Given the game play, PPPs have tended to dry up in the advent of the global economic crisis
- Leading some people (Bhattacharya et al, 2016 Brookings) to argue for segmenting the risky stages and when there is a steady revenue stream
  - But this could result in the risks being borne entirely by the state, while profits accrue to the private sector
  - Also loss of efficiency if the stages of a project are complementary
  - For climate change, uncertainty and greenfield investments may require unbundling of contracts (Ahmad, Vinella and Xiao 2017 and forthcoming); but major increase in PPPs in road building and IT in recent years in Asia and Latin America
- New challenges arise as PPPs are considered a critical component of implementing Belt and Road projects
- Working with SOEs, as seen in Ahmad and Zhang, do not necessarily lead to less incentives for “game play”, despite the theoretical literature

# REBALANCING IN GUANGDONG

# OVERALL NEED FOR REBALANCING

- Guangdong was at the forefront of Deng Xiaoping's reforms in the late 1970s and 1980s re fiscal responsibility system
- The Guangzhou-Shenzhen hub has been a powerhouse of the success that China has had in relation to exports, innovations and growth
- But has come at the cost of two adjacent mega-metropolises: Guangzhou and Shenzhen—now the world's largest conurbation
- Issues of congestion, and pollution and constraints on infrastructure with the increasing sprawl lead to increasing costs and need to rebalance activities
- Inequality (Gini) within Guangdong is similar to that for China, with a similar imperative to rebalance within the province as an example for China
- VAT for Business reforms improved the business climate, but had negative impacts on Guangdong on revenues and incentives, and pressures were amplified by the land-sales constraints (Xiao, this volume)
- ***Highlights the need to develop own-source revenues at the provincial and county/municipal levels***

# MANAGING SUBNATIONAL LIABILITIES IN GUANGDONG (XIAO)

- Detailed analysis shows the effects of the telescoping pressures towards the lowest levels within Guangdong
- A lot of spending pressures have been pushed down to the township and county level, including unfunded mandates
- Revenue-shares tend to stick at higher levels within the province, as there are insufficient resources at all levels
- The absence of own-source tax handles is a serious constraint, and has resulted in the buildup of liabilities,
  - those especially at the lowest level, affect the ability to provide public services, highlighting the circuit identified by Li and Liu (with the greater pressure at the lower levels)
- The management of liabilities and the possibilities for expanding local investment and public services to generate new “clean hubs” in the interior of the province require additional work:
  - on measurement, and balance sheets
  - restructuring of spending responsibilities and identifying own-source tax handles, and more efficient management of access to credit to ensure continued sustainable growth

**Table 7.1** *Local Liability at Village Level across Municipalities in Guangdong Province with Year 2011 Data*

Municipality	Debt dependency	Repayment rate	Burden rate	Debt guarantee rate
Huizhou	33.084	0.412	36.394	5.284
Zhuhai	11.321	0.332	4.855	1.162
Zhaoqing	10.722	0.859	8.21	1.28
Dongguan	1.802	0.526	0.843	0.461
Zhongshan	1.642	0.467	1.131	0.519
Qingyuan	1.557	0.323	1.42	1.742
Yangjiang	1.341	0.605	1.208	0.441
Shanwei	1.042	0.012	0.198	0.136
Foshan	0.488	0.2	0.257	0.645
Meizhou	0.4	0.133	0.257	1.09
Maoming	0.363	0.005	0.32	0.675
Chaozhou	0.362	0.206	0.332	1.312
Shantou	0.351	0.218	0.346	0.959
Heyuan	0.298	0.345	0.28	0.243
Jieyang	0.278	0.178	0.267	2.33
Shaoguan	0.183	0.167	0.138	1.092
Yunfu	0.146	0.231	0.132	2.126
Guangzhou	0.14	0.639	0.871	1.491
Jiangmen	0.065	0.473	0.063	1.289
Zhanjiang	0.0004	0.186	0.00007	2.077

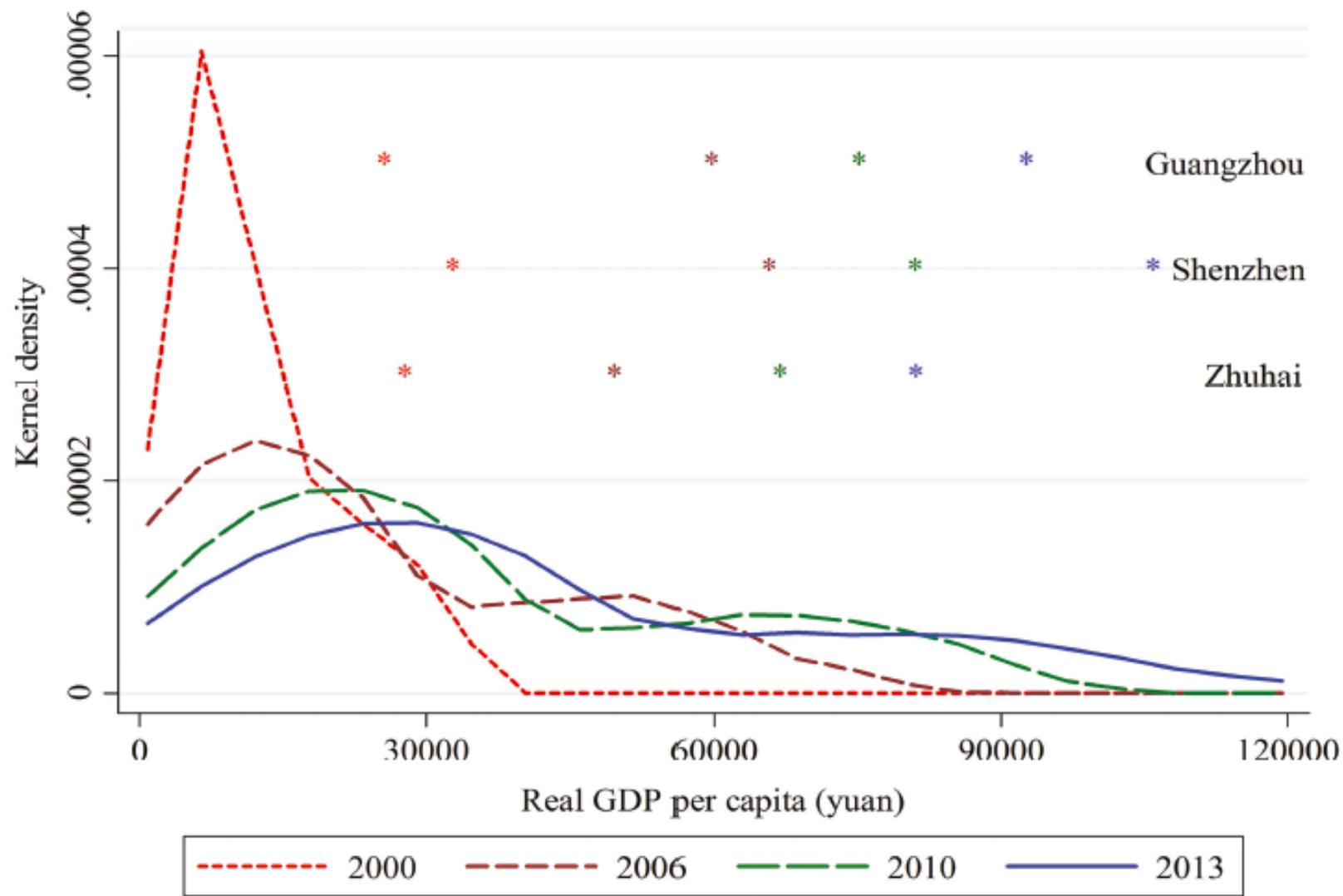
*Source* RAC report, Guangdong Finance Yearbook, (2013)

*Note* Definition of key variables from the text: (a) debt dependency, defined as the ratio of current village debt over current revenue; (b) repayment rate, defined as the ratio of principal and interest paid at given year over current revenue; (c) burden rate, defined as the ratio of remaining debt over village GDP and (d) debt guarantee rate, defined as the ratio of cash balance over remaining debts. The unit of analysis is at village level. The measures in the tables are averages of all villages within jurisdiction

Note: appalling levels of debt in Huizhou, Zhuhai and Zhaoqing

## DYNAMICS OF NEW HUBS (LUO AND ZHU)

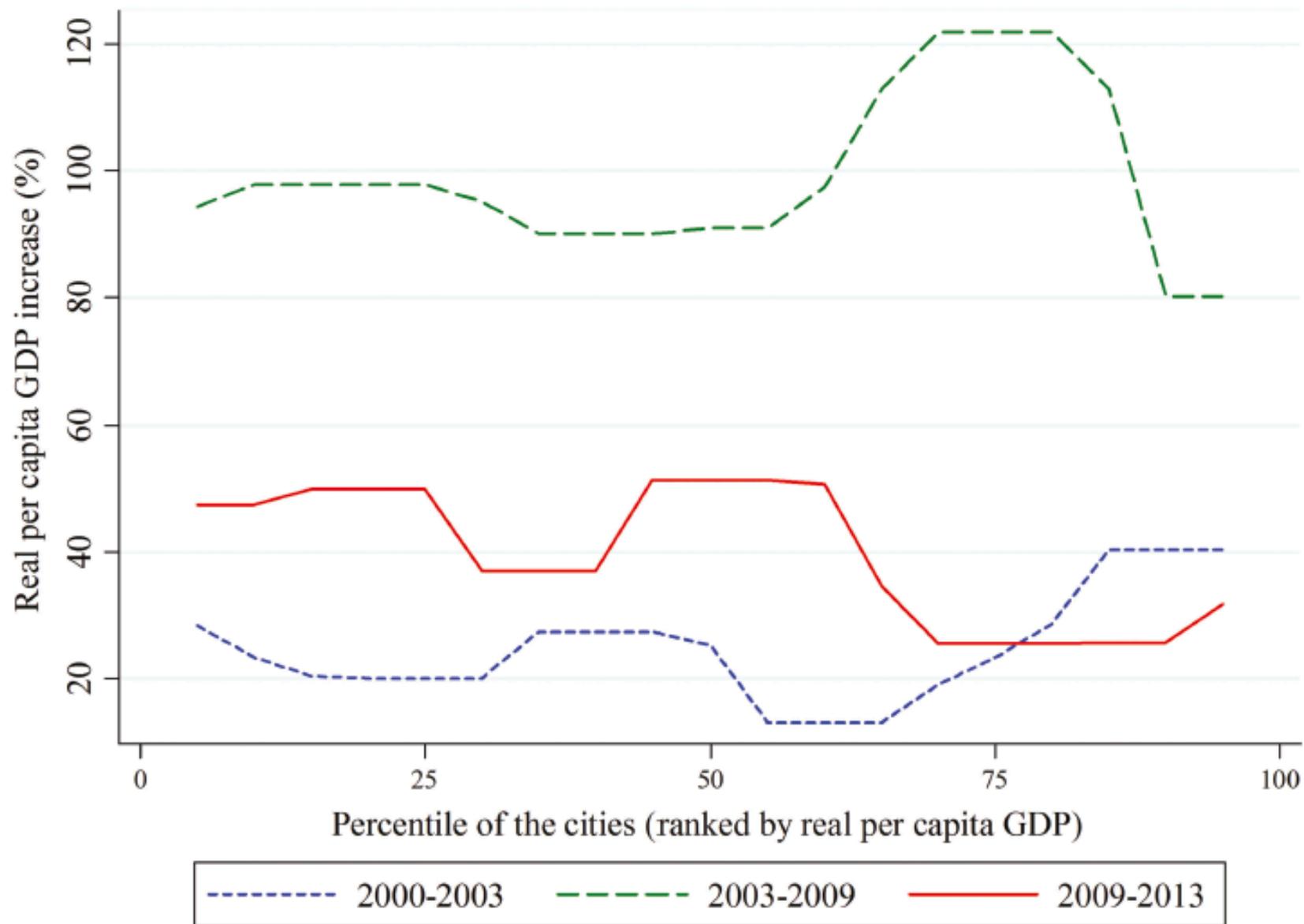
- The development of Guangzhou-Shenzhen as production and export hubs due to locational advantages, labour force dynamics and public investments
- The dynamics of new hubs will turn on relative costs, labour force dynamics and skills, as well as local service delivery and measures to protect the poor



**Fig. 8.1** Distribution of real GDP per capita of prefecture-level cities in Guangdong (2000–2013). *Data source* Guangdong Bureau of Statistics, Guangdong Statistical Yearbooks (several editions), China Statistical Publishing House, Beijing. *Note* The three rows of stars show the levels of real GDP per capita of Guangzhou, Shenzhen, and Zhuhai respectively, from top to bottom, with the color indicating the years of 2000 (red), 2006 (brown), 2010 (green) and 2013 (blue)



**Fig. 8.2** Gini index of real GDP per capita of prefecture-level cities in Guangdong (2000–2013).  
*Data source* Guangdong Bureau of Statistics (2014)



**Fig. 8.3** Growth incidence curve. *Data source* Guangdong Bureau of Statistics (2014). *Note* The growth incidence curves are created with “smooth” function for readability

## MAKING THE CHINESE GOVERNANCE SYSTEM WORK BETTER: BRT AND INVESTMENT FADS (YUAN)

- Chinese governance model often criticized for lack of public feedback on preferences, or discipline imposed by electoral competition
  - Yet many advanced country systems, with “yardstick competition” fail due to lack of full information
- BRTs considered an environmentally friendly solution for congestion and pollution
  - Guangzhou (GZBRT) model recommended by international agencies to other countries
- Yuan’s insightful paper shows how local preferences and feedback can influence the design of public investments, including the rejection of the GZBRT extension

# GUANGZHOU BRT

- “Social audit” was used to evaluate the GZ BRT, and the expansion was stopped despite the international fame of the project
  - Secondary congestion on cross-road, and terminuses
  - Dissatisfaction by users, indeterminate effects on the environment
  - Relatively high cost in relation to simpler dedicated bus lanes and electric buses
  - Probably not cost effective relative to light rail
- Argue for proper social cost-benefit analysis of projects and a social audit evaluation to look at results and outcomes
- Shows how feedback mechanisms/social audits on user responses can be used to further strengthen the Chinese administrative model

## SOME BRT LESSONS

- Social audit can not only focus local attention, it can keep and sustain the involvement of citizens in public services and local projects in the Chinese model
- Requires a dedicated and motivated staff
- Involves and generates transparency of bureaucratic functions
- The reduced cost of information flows can facilitate much more rapid reactions than in the past

## PPPS: MANAGING RISKS LESSONS FROM GARBAGE COLLECTION PROJECT IN GUANGZHOU (NIU)

- Datianshan project to collect and process garbage should be an obvious PPP with environmental benefits, but shows what can go wrong:
  - Lax contracting with asymmetric information and poor monitoring of outcomes
  - Pressures to renegotiate contract to extract a greater profit
  - While garbage collection helps some neighborhoods, and their officials, dumping untreated waste elsewhere can generate major ecological and health risks
- Environmentally friendly projects can backfire if the benefits to one locality are not evaluated with the costs imposed elsewhere and the metropolitan area as a whole

## SOME PPP LESSONS

- Assistance in designing and monitoring contracts could be provided by specialized agencies at the national or provincial level
- The liabilities associated with the PPP need to be recorded in the local government balance-sheet, and monitored by the MOF
- Incentives for local governments not to renegotiate contracts depend on a hard budget constraint, which again depends on the existence of “own-source” revenues

# ADDITIONAL DIRECTIONS FOR POLICY-BASED RESEARCH

## POLICY IMPLICATIONS FOR THE CHINESE ADMINISTRATIVE MODEL

- Not all the experience in the US or European electoral competition systems are relevant for China, although it is important to know what is tried elsewhere and why it works or does not
- China's focus on a cleaner environment and risk management are appropriate (even if the US no longer holds this position)
  - This involves the restructuring of activities and transport within the mega metropolitan areas, like Guangzhou-Shenzhen
  - Also creation of new hubs in the interior, given the spatial interactions of supplies and demands, costs and connectivity, innovations and labour market constraints

# POLICY IMPLICATIONS

- Why incentive structures are different in China and the US?
  - Problems with asymmetric information, SOEs and PPPs, and potential “game play” by local governments much greater in China
  - Indeed, greater information is needed in China, on
    - Who spends what and where, and what are the results? And where does the money flow? Needed to keep the appointed officials honest, as emphasized in the 19<sup>th</sup> Congress
    - Requires balance sheet information on assets and liabilities at all levels—so that Central Government resource are not used to justify local government liabilities, which could generate negative incentives—indeed done quite often
- But in both countries, own-source revenues are needed for local risk management, and revenue-shares are not adequate in this regard

# POLICY IMPLICATIONS

- Overall evaluation and feedback mechanisms are critical, including
  - Tracking all liabilities with PPPs
  - Social audit, and more precise measurement of outcomes, to provide a feedback on PPPs as well as other environmentally designed programs
- Evaluating quality of service delivery needs to be in relation to cost-effectiveness, and liability generation.
  - Simple performance budgeting techniques from OECD countries that assume hard budget constraints may be misleading

## WHAT NEXT?

- Many of the building blocks needed are in place, even if not fully developed or implementing, including
  - GFSM 2001/14 framework at the national level—needs to be implemented for operating purposes and creation of balance sheets at all levels
  - TSA, needs to be extended to all levels to track where the cash flows
  - Equalization system at national level, needs to be made operational at provincial level, with sub-provincial own-source revenues
- Restructuring of spending responsibilities remains a priority (e.g., pensions to the central government level)

# PILOTING POLICY OPTIONS

- Guangdong and Zhejiang have been in the forefront of economic reforms
  - Pilot own-source revenues at the county/municipal level
    - Especially alternatives to the US-style property tax that is likely not relevant for China as the experiments in Shanghai and Chongqing indicate
  - Experiment with alternative provincial own-source revenues?
- Will require a formulation of a provincial equalization system that can be used to modify the national equalization framework to also include own-source revenues.