Measuring the Fiscal Health of Cities: An International Perspective

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“Arguably, planners have more impact on the fiscal health of cities and regions than any other civil servant or elected official”

Jack R. Huddleston
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University of Wisconsin-Madison
Four Questions

• What is urban fiscal health?
• Why is the fiscal health of cities important?
• How can fiscal health be measured?
• Why should city planners care about urban fiscal health?
Why Is the Fiscal Health of Cities Important?

• Urban areas play a key role in driving regional and national economic growth
  – 55% of the world’s population now lives in urban areas
  – 2/3rd of world population will live in urban areas by 2050

• Density of economic activity promotes *agglomeration economies*

• Metropolitan areas are the “engines of growth” in most developing countries
  – This is certainly true in China
Why Is the Fiscal Health of Cities Important? (cont.)

• The provision of high-quality public services, such as education, health care, urban transportation, public safety, and sanitation are a necessary condition for the economic prosperity of urban areas.

• Empirical evidence that metropolitan areas with central cities in poor fiscal health grow more slowly than areas with central cities that are fiscally strong – Haughwout-Inman (2000).

• The social and economic well-being of city residents depends on having access to a set of core public services.
Why Is the Fiscal Health of Cities Important? (cont.)

- Evidence that cities are places where innovation tends to occur
  - City governments are taking the lead on:
    - Developing alternative energy sources
    - Addressing the challenges of climate change (especially cities on or near coastlines)
The Multi-Dimensional Definition of Urban Fiscal Health

- As with physical health, there are many ways to define fiscal health

- For example—
  - **Cash flow solvency**
  - Manageable *debt burdens* (for infrastructure, for pensions and other employee retirement benefits)
  - Ability to borrow money to fulfill long-run infrastructure needs
  - The ability of provide quality public services to residents at reasonable rates of local taxation
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Municipal Government Expenditures by Type of Spending
Zhejiang Province, 2013

Average Per Capita Municipal Expenditure in 2013 = RMB 6,950

- General Public Services, 31.5%
- Education, 20.2%
- Medical/Health Care, 7.2%
- Community Affairs & Housing, 10.2%
- Agriculture, Forestry & Water, 9.9%
- Social Security & Employment, 8.3%
- Public Order & Safety, 7.4%
- Transportation, 5.4%
The Fiscal Gap as a Measure of Fiscal Health

• The fiscal (or need-capacity) gap is the difference between the expenditure need and the revenue-raising capacity of local governments.

• The expenditure need of each local government is the minimum amount of money it needs in order to deliver a set of basic or standard public services.
  - Expenditure needs may be either higher or lower than actual spending by local governments.

• Revenue-raising capacity is the amount of revenue a government is capable of raising while placing a “standard” or average burden on its residents.
Why Do Expenditure Needs Differ Among Local Governments?

• Differences in service responsibilities
  – Differences in physical characteristics of community
    • E.g. More kilometers of local roads to maintain

• Differences in the costs of providing services
  – Cost differences for exogenous reasons (outside local government control)
Costs of Transportation and Fire Protection are Higher in Dense Cities
More Elderly and More Children from Poor Families Raise the Costs of Education and of Health Care
International Examples of the Use of Fiscal Gap Measures in the Allocation of Transfers

- **United States** – Frequently used to allocate state government education aid to local school districts

- **Australia** – System of central government grants to states based on an estimate of each state’s expenditure needs and the revenue raised from own sources if each state makes the same effort to raise revenues

- **United Kingdom** – Transfer formula includes measures of the “work load” of local governments

- **Sweden** – Revenue equalizing grants to local governments include a cost-equalizing component

- **Japan** – Grants to municipalities are a function of “basic fiscal need”
The Measurement of Municipal Gov’t Costs
Two Approaches in Wide Use

• Use multivariate statistical methods (regression analysis) to identify which factors influence per capita spending, after “controlling” for difference in resources (fiscal capacity)

• Base cost estimates on “professional judgement” of a team of experts

• In Australia and the United Kingdom, role of cost factors determined by combination of statistical analysis and the “professional judgement” of experts
Cost Factors Used in Other Countries

Japan

- Municipal government transfers allocations based on “basic fiscal needs”
- Transfer formulas cost adjustments include:
  - Economies of scale
  - Population density
  - Especially cold climates
  - Area cost of living
Cost Factors Used in Other Countries
Texas (USA)

- Formula allocating state aid to local school districts includes cost adjustments for:
  - % of students from poor families
  - % of students with learning or physical disabilities
  - % of students receiving bilingual education
  - Low density (sparsity) and small size (few students)
  - Local cost of living
Calculating Revenue-Raising Capacity

- Any measure of fiscal health should include revenue capacity, not actual revenue
  - If actual revenue used, local governments have an incentive to keep revenues low, thereby raising the value of their fiscal gap, and qualifying for larger grants
  - However, in China, where local governments have little if any control over their tax revenue (neither tax base or tax rate), actual revenue may substitute for revenue capacity
Calculation of Need-Capacity Gaps

• Gap = expenditure need – revenue-raising capacity – transfers
• Relative gap = gap – average gap
• Municipalities with larger gaps are in weaker fiscal health
Relative Fiscal (Need-Capacity) Gaps
Zhejiang’s 67 Municipal Governments, 2013

**Summary Statistics**

- **Average**: 0
- **Standard Deviation**: 2,846
- **Minimum**: -14,048
- **Maximum**: 3,409

**Relative Gap Quintiles**

- **Weakest fiscal condition (14)**: 2,602
- **2nd gap quintile (13)**: 1,457
- **3rd gap quintile (13)**: 458
- **4th gap quintile (13)**: -541
- **Strongest fiscal condition (14)**: -3,878
Per Capita Fiscal Gaps
County-Level Municipalities, Zhejiang
The Impact of Planning on City Fiscal Health
Will the Implementation of Plans Lead to Improved Fiscal Health?

- Will new developments (businesses, housing, transportation, parks) result in additional city government revenue?
  - Do appropriate revenue-instruments exist?
  - Does development lead to increased economic activity?
Will the Implementation of Plans Lead to Improved Fiscal Health?

- Will new developments (businesses, housing, transportation, parks) increase expenditure needs?
  - Will development increase or decrease costs and expenditure needs?
  - Will new developments increase the need for additional infrastructure investment?
City Planning and Fiscal Health
International Examples

• Amsterdam—OECD team-3 days of discussions with city planners, but almost no discussion of the fiscal impacts of plans
  – Most land owned by city and leased to public
  – Proposals to further delink tax payments from land values

• In the U.S.—the problem of overlying jurisdictions and metropolitan area fragmentation
  – Fiscal impact of city plans may fall on other governments
  – E.g. the negative impact of tax increment financing (TIFs) on public school districts
Land Leases as a Source of Local Tax Revenue

“The two reasons for municipal land leasing—planning and financial—can influence each other. If the planning reasons produce obvious benefits for the citizen, the public will be more ready to accept the price they must pay for the ground leases. And if the income to the municipality is used to ensure better maintenance of the urban infrastructure and better redevelopment schemes, …then once again, the citizens will be more ready to pay the price.”

Barrie Needham in Hong and Bourassa (2003)
Planners and Locally-Raised City Revenue

• In China, one strategy for improving fiscal health is providing local governments with the authority to raise their own revenues.

• Planners can play an important role in educating local officials and the public on the link between local taxes and the local public services.

• This is likely to be a lengthy process, given that China places very little reliance on direct taxes.
China: General Government Revenues
(in percent of 2013 total revenues)

- Nontax revenues, 14.5
- VAT and consumption tax, 28.7
- Other tax, 10.7
- Corporate income tax, 17.4
- Personal income tax (PIT), 5.1
- Business tax, 13.3
- VAT and consumption tax for imports, 10.8

Source: CEIC.
Conclusions

• Having fiscally healthy cities is important
• Whether they are aware of it or not, city planners play a big role in determining the fiscal health of cities
• Active cooperation between city planners and public finance experts has the potential to improve the fiscal health of cities
Questions?

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