



The Impact of State Government Fiscal Crises on Vertical Fiscal Competition Between States and Local Governments

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Background

- State governments are facing extraordinarily large budget gaps
- Even with federal stimulus funds, some states have reduced grants to local governments
- Large cuts in state aid are anticipated in next couple fiscal years
- To prevent large cuts in public services, cities will need to replace state aid with own-source revenues
- Many local governments are also facing shrinking property tax bases as market values have plummeted



Fiscal Health of Cities

- 1/5 of U.S. population lives in the 98 largest central cities (2007 pop. > 200,000)
- Economic prosperity of cities is essential for the prosperity of nation
- Maintaining the fiscal health of cities is key to the economic prosperity of cities
- In this paper, we focus on revenue-raising capacity of cities



Policy Questions

- What fiscal arrangements are most likely to promote fiscal/economic health of cities?
- What fiscal arrangements best prepare cities to cope with economic downturns?
 - Local revenue diversification
 - Among 98 largest cities, property tax ranges from 0 to 67 percent of own-source revenue
 - City government expenditure responsibilities
 - Comprehensive, or shifted to overlapping county, school district, or special districts
 - The role of state aid
 - Among 98 largest cities (minus DC), state aid ranges from 1 to 63 percent of general revenue



State Influences on City Finance

- Tax-enabling authority
- Assignment of expenditure responsibilities
- Intergovernmental aid
- Tax and expenditure limitations
- Yinger-Ladd (1989) find systematic tradeoff between state aid, and taxing authority and expenditure responsibilities
 - e.g. more taxing authority to cities implies less state aid



Vertical Tax Competition

- Link between state and local taxation
- Competition if state and local gov'ts share same tax base – (sales, excise, income)
- VERTICAL externality → Cumulative rate may reduce shared tax base
- Competition between local and state--can be substitutive or complementary
 - Substitution
 - Higher state rate associated with lower local rate
 - Complement
 - Higher state rate associated with higher local rate



Literature Review

- U.S./Canada: typically find complementarity between the federal governments and state/provincial governments for income taxation and excise taxation
- But higher federal corporate income tax displaces provincial rate
 - Higher provincial rate in Ontario rate displaces federal rate
 - In U.S., Chernick-Tennant – higher federal income tax rate on rich leads to lower state rate on rich
- Little research on vertical tax competition between state and local governments



Vertical Competition Model Applied to State-Local Relationship

- Cities are legal creatures of state
- Hence, less fiscal autonomy
- We expect more substitution between state and local tax rates for shared taxes



Fiscal Data for Large Cities

- All 98 cities with 2007 populations over 200,000 (minus Baton Rouge and New Orleans)
- Fiscal data from individual unit of government files, 2002 and 2007 Census of Governments
- Comparative analysis of central city finance complicated because service responsibilities of city (municipal) governments vary tremendously
 - Independent school districts provide education in most cities
 - School district boundaries often not coterminous with city boundaries
 - Some cities have no over-lying counties (cities provide normal county government functions)
 - In some cities, county governments provide a wide range of public services



Creating “Constructed Governments”

- To deal with variation in service responsibilities across city governments,
 - We allocated a portion of county government revenues and expenditures to “constructed” governments (based on the spatial distribution of population)
 - We allocated independent school district fiscal data to “constructed” city governments (based primarily on the spatial distribution of enrollment)

General Revenue of "Constructed" City Governments by Type of Revenue, 2007

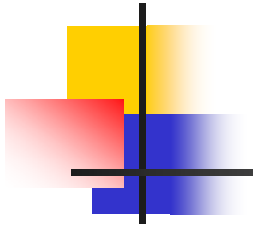
Type of Revenue	Largest City Governments		All Other Local Governments	
	Amount	Percentage	Amount	Percentage
	(in mil.\$)	of Total Revenue	(in mil.\$)	of Total Revenue
Intergovernmental Rev.	126,527	39.2%	367,369	40.3%
Federal aid	23,392	7.3%	13,022	1.4%
State aid	97,879	30.4%	336,994	37.0%
Local gov't transfers	5,256	1.6%	17,353	1.9%
Own-source revenue	195,853	60.8%	543,719	59.7%
Tax revenue	129,703	40.2%	364,762	40.0%
User fees & charges	41,611	12.9%	115,256	12.7%
Misc. general rev.	24,539	7.6%	63,701	7.0%
Total general revenue	322,385	100.0%	911,083	100.0%



Tax Revenue of "Constructed" City Governments by Type of Tax, 2007

Type of Tax	Largest City Governments		All Other Local Governments	
	Amount (in mil.\$)	Percentage of Total Taxes	Amount (in mil.\$)	Percentage of Total Taxes
Property	71,058	54.8%	282,896	77.6%
General sales	16,303	12.6%	38,676	10.6%
Selective sales	10,123	7.8%	15,113	4.1%
Individual income	13,568	10.5%	9,988	2.7%
Corporate income	7,562	5.8%	116	0.0%
Motor vehicle license	488	0.4%	1,062	0.3%
Other taxes	10,601	8.2%	16,912	4.6%
Total taxes	129,703	100.0%	364,762	100.0%

Number of “Constructed” City Governments by Share
of Tax Revenue from Each of the Major Taxes
96 Largest U.S. Cities, 2007



Share of Tax Revenue from Each Tax

Type of Tax	Zero revenue	Less than 1/10	1/10 to 1/3	1/3 to 2/3	More than 2/3
Property	0	0	3	42	51
General sales	13	29	41	13	0
Selective sales (excise)	2	68	26	0	0
Individual income	78	3	11	4	0
Corporate income	90	5	1	0	0
Other taxes and licenses	0	77	18	1	0



The Impact of Revenue Diversification on "Constructed" City General Revenue

Pooled Regression, 2002 and 2007, 95 cities

Dependent Variable: "Constructed" City Government General Revenue Per Capita

Explanatory Variable	Coefficient	t-statistic
Prop Tax as % Own Source Revenue	-22.774***	-4.03
State Aid (Per Capita)	1.0369***	8.66
Poverty Rate (2005)	36.963**	2.58
Employment / Population (2000 or 2005)	47.489***	3.21
Constant	988.48	0.97

***p < .01, **p < .05, *p < .10

Note: Regression includes region and year dummies

Adjusted R-square = 0.5910

Vertical Tax Competition Between State and Local Governments

Pooled Regression, 2002 and 2007, 82 cities with sales tax revenue greater than \$10 per capita

Dependent Variable: "Constructed" City Sales Tax Revenue Per Capita

Explanatory Variable	Coefficient	t-statistic
State Sales Tax Rate	-89.49***	-6.36
State Aid (Per Capita)	-0.1331***	-5.05
Property Tax (Per Capita)	0.0082	0.19
Constant	998.59***	9.75

***p < .01, **p<.05, *p<.10

Note: Regression includes region and year dummies

Adjusted R-square = 0.3667



The Impact of Fiscal Structure on the % Change in "Constructed" City General Revenue, 2002 to 2007

Dependent Variable: Percentage Change in Per Capita "Constructed"
Government General Revenue 2002 to 2007

Explanatory Variable	Coefficient	t-statistic
Prop Tax as % Own Source Revenue, 2002	-0.0351	-0.40
% Chg. State Aid (Per Capita), 2002-07	0.2166***	5.47
% Chg. (Employment / Population), 2000-05	0.6013***	2.72
Constant	22.075***	6.07

***p < .01, **p<.05, *p<.10

Adjusted R-square = 0.2755



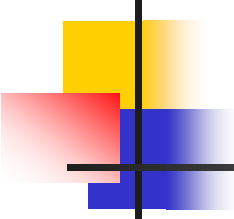
Implication of our Results for the Current Fiscal Crisis

- In long run, cities with diversified revenue will be in stronger fiscal position
 - Declining housing values will be reflected in smaller property tax bases impacting most cities relying heavily on the property tax
- In short run, own-source revenue has declined more in cities with diversified tax bases



Implication of our Results for the Current Fiscal Crisis (cont.)

- State aid (to “constructed” cities) is highly stimulative, thus cuts in state aid are unlikely to be replaced by increases in own-source revenues
- Increases in state sales tax rates will make it more difficult for cities to increase sales tax rates and revenue



Implication of our Results for the Current Fiscal Crisis (cont.)

- National employment-population ratio fell by 4.1 from April 2007 to April 2010
- Our regression suggest that this decline will reduce per capita general revenue by about \$200
- Combination of declines in own-source and intergovernmental revenue will force significant public service reductions for large central cities