

LONG-TERM FISCAL SUSTAINABILITY OF STATE AND LOCAL GOVERNMENTS

Bo Zhao and David Coyne
New England Public Policy Center
Federal Reserve Bank of Boston

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Note: This project is in preliminary stages. Suggestions and comments are welcome and encouraged.

Motivation



- Long-term demographic changes, such as an aging population, and disproportionate growth in costs of health care are posing a big challenge for state and local governments.
- The “Great Recession” has put state and local governments under tremendous fiscal stress, further accentuating concerns about fiscal sustainability.
- There is a great need to quantify and understand the long-term consequences of short-term fiscal choices on state and local fiscal sustainability.

Research Goals



- Clarify what long-term fiscal sustainability of state and local government means

- Quantitatively assess long-term fiscal sustainability of state and local governments
 - ▣ Nation as a whole
 - ▣ Individual states

- Conduct simulations
 - ▣ Under different assumptions about economic and demographic trends
 - ▣ Under alternative policy scenarios

What does “fiscal sustainability” mean?



- Long-term fiscal sustainability has been a buzz word in the field of state and local public finance in recent years
- But researchers, practitioners, and policymakers have often used this term loosely (Ward and Dadayan 2009).

Existing Definitions of Fiscal Sustainability

- “At a minimum, revenue should keep pace with the combined growth of inflation and population . . . so that the real (inflation-adjusted) per capita level of services can be maintained. If revenue grows slightly faster than inflation and population, then some improvements in services can also be provided.” (Ulbrich 1997)
- “The states must continue to deal with a large disparity between the expenditures required to provide the different services that different citizens seek and the revenues that their current tax structures produce.” (Behn and Keating 2004)
- “At the state and local level, fiscal sustainability is the long-run capability of a government to consistently meet its financial responsibilities. It reflects the adequacy of available revenues to ensure the continued provision of the service and capital levels that the public demands.” (Chapman 2008)

Our Interpretation of Fiscal Sustainability

- Ward and Dadayan (2009) define fiscal sustainability as a government's ability to balance revenues and expenditures over a long-term period
 - ▣ Focus on continued budgetary balance
 - ▣ Omit the prerequisite of continuation of current policies

- Our interpretation:
 - ▣ Because it reflects a government's ability, fiscal sustainability should be determined by underlying factors like economic and demographic characteristics.
 - ▣ Because it is about long term, it should be about trend in revenue and expenditure, not short-term cyclical movement.

Existing Studies



- GAO (2008) studies the whole state and local government sector
 - Use national aggregate data
 - Develop two measures of “fiscal balance”
 - Net borrowing or lending: the balance of all receipts and expenditures during a given time frame
 - Operation balance net of funds for capital expenditures
 - GAO finds that “the overall operating balance for states and localities will fall below historical averages within a decade, indicating “increasing fiscal stress.””

Existing Studies on Individual States



- Ulbrich (1997) on South Carolina
 - ▣ Focus on general funds (mostly state government)
 - ▣ Estimates are based on simple assumptions about personal income growth, inflation, and population growth

- Dye, Hudspeth, and Merriman (2011) on Illinois
 - ▣ Focus only on state government
 - ▣ Use “consolidated funds” beyond general funds
 - ▣ Use data from FY 1997-2009
 - ▣ Estimate growth of revenues and expenditures based mostly on growth in personal income or population

A Common Measurement Problem



- The fiscal balance/gap measures for the past years are based purely on actual revenue and expenditure.
 - ▣ No attempt to separate long-term trend from short-term cyclical movement

- The projections for future years are calculated by applying an estimated long-term growth rate to actual revenue and expenditure of a particular year (starting point of the simulation).

- The projections heavily rely on the starting year: could overestimate the gap if start with a recession year

Data and Method for Our Analysis



- Data source: Census Bureau's Annual Survey of State and Local Government Finance
 - ▣ Use combined state and local finances
 - ▣ Comparable across states and time consistent

- Time period: FY 1990-2008

- Explores long-term relationship between revenues or expenditures and economic and demographic factors
 - ▣ Not short-term forecasting
 - ▣ Estimate long-term fiscal gap based on the statistical model

A Revenue Example

	log(per capita tax revenue)
log(per capita personal income)	1.1535***
Percent of population with less than a high school degree	-0.0046***
Percent of population with at least a college degree	-0.0011
State Fixed Effects	Yes
Year Fixed Effects	Yes
R-Squared	0.9337

Note: *** $p < 0.01$, ** $p < 0.05$;
Standard errors are clustered at state level.

An Expenditure Example

	log(per capita social services and income maintenance spending)
Unemployment rate	0.0143**
Percent of population 65+	0.0186
Percent of population less than 18	-0.0272**
Percent of population with less than a high school degree	-0.0048**
Percent of population with at least a college degree	-0.0024
Medical care CPI	0.0055***
State Fixed Effects	Yes
Year Fixed Effects	Yes
R-Squared	0.9069

Note: *** $p < 0.01$, ** $p < 0.05$;
Standard errors are clustered at state level.

Construct the long-term fiscal gap



- Use the regression models to estimate long-term revenue trends and expenditure trends
 - ▣ Based on economic and demographic characteristics and state fixed effects
 - ▣ Hold unemployment rates to state means: “full employment”
 - ▣ Tease out cyclical component from personal income

- Long-term fiscal gap = long-term expenditure trend – long-term revenue trend
 - ▣ Not actual budget gap

Forecasting



- Extend the long-term trends to the future
 - ▣ Extend to next 5-10 years
 - ▣ Assume full employment
- We do this for each of the 50 states, and for the nation as a whole.

Planned Future Work



- Add these to the analysis:
 - Unfunded public pension liabilities
 - Unfunded health insurance liabilities