

Assessing Existing Local Government Fiscal Early Warning System through Four State Case Studies: Colorado, Louisiana, Ohio and Pennsylvania

Dr. Eric Scorsone, Michigan State University

Natalie Pruett, London School of Economics and Political Science

Brookings Municipal Finance Conference

Monday, July 13, 2020

Funded by the Pew Charitable Trust

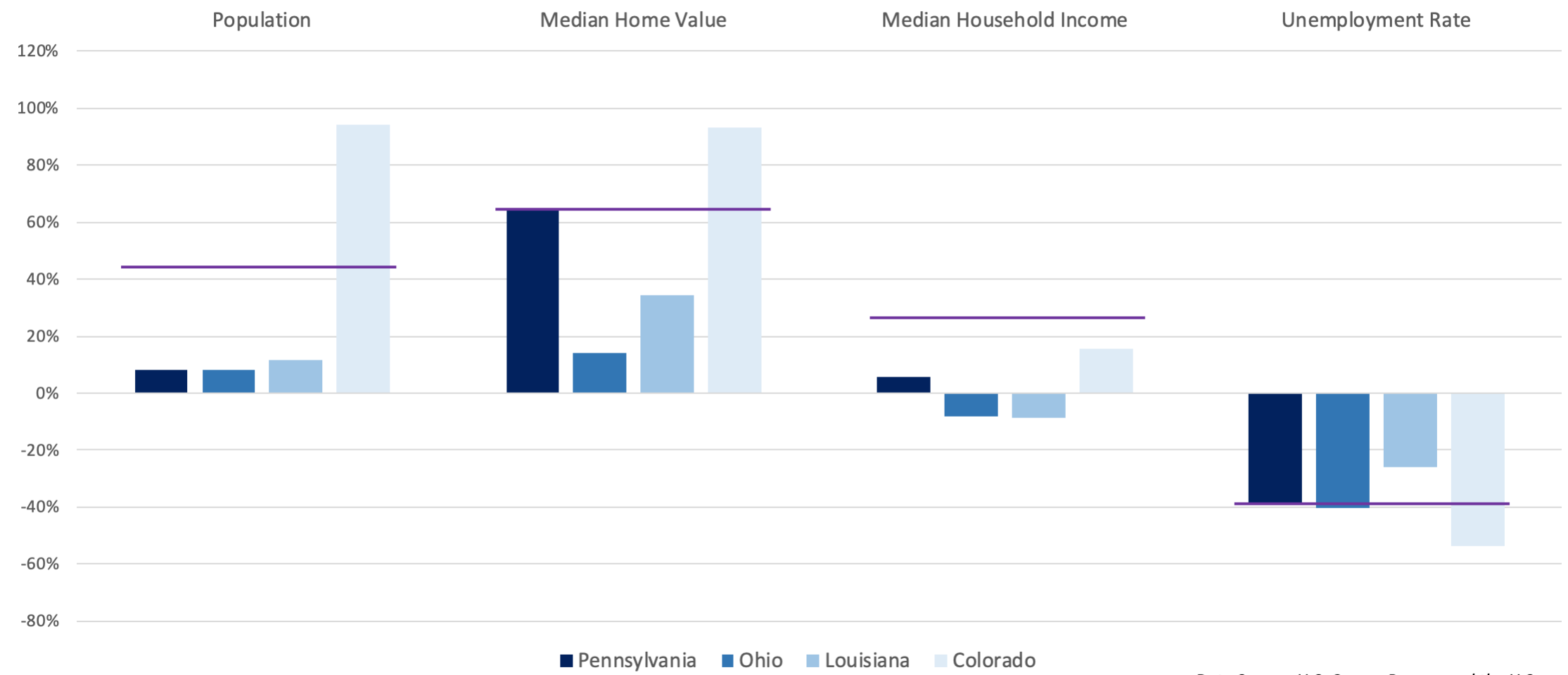
INTRODUCTION

- The Great Recession of 2007-2009, nearly a decade ago now, was the catalyst for a series of major financial problems in American local governments.
- For many states, these problems have heralded a new era, which has resulted in the search for proactive strategies to prevent and mitigate financial instability before it becomes a crisis.
- There is a long history of attempts to measure and identify local fiscal problems going back to the crisis of New York city in the 1970's.
- As computing power and data have improved, more states have joined in attempting to predict fiscal distress using ratios.
- Add scale of local government fiscal early warning systems

SURVEY OF THE PAPER

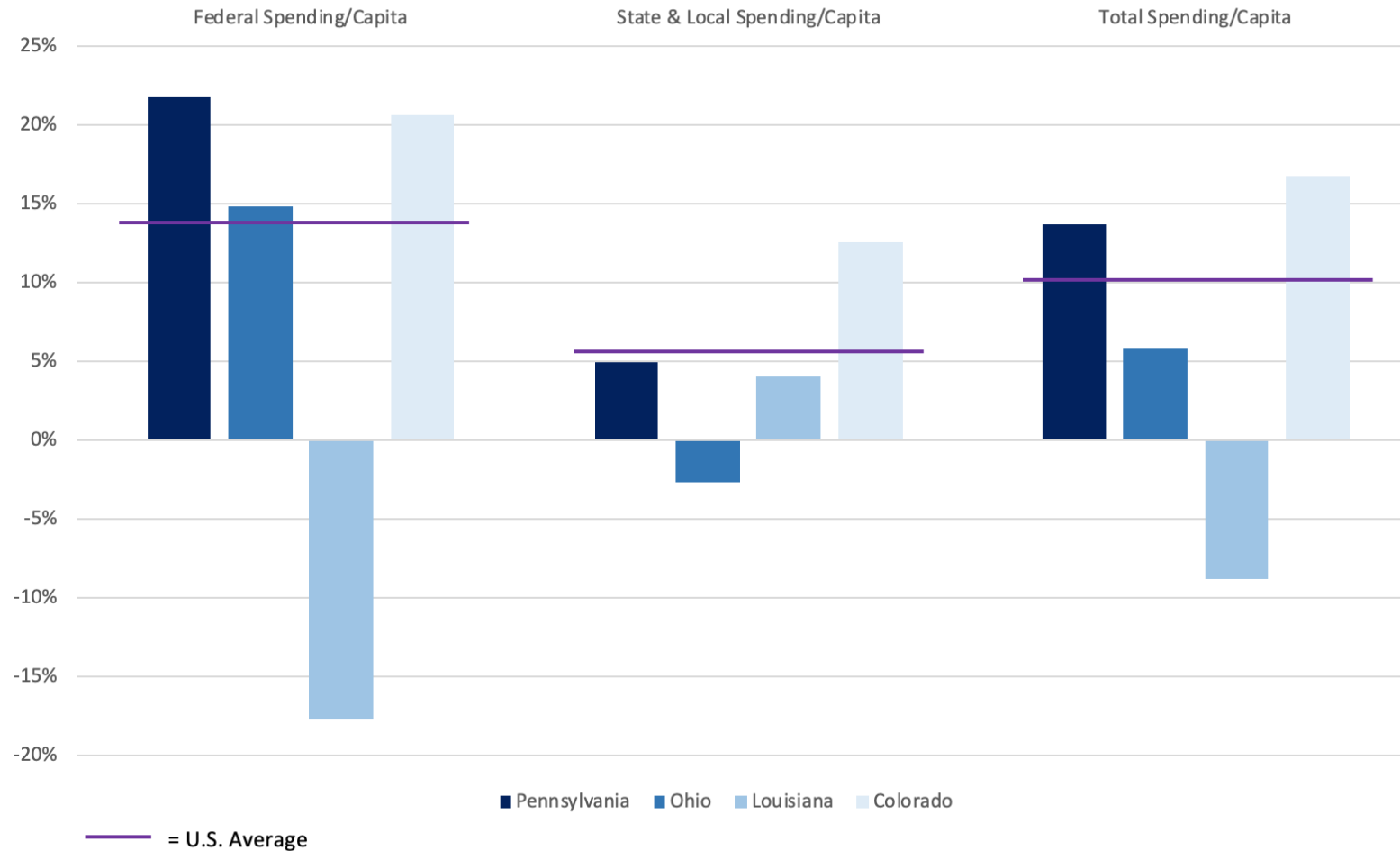
- Surveys four state early warning systems: Pennsylvania, Ohio, Louisiana, and Colorado.
- The purpose of this paper is to add depth to the literature around fiscal early warning systems by (1) presenting detailed explanations of four existing systems and (2) analyzing the tradeoffs and implications of the four distinct ratio indicator approaches.
- This paper asserts that there is no one optimal system, only the right system based on the perceived needs of policymakers in that particular location.

State-Level Changes, 1980-2017



Data Source: U.S. Census Bureau and the U.S. Department of Labor Bureau of Labor Statistics

State-Level Changes in Spending, 2006-2015



Data from the U.S. Census Bureau, the Tax Policy Center of the Urban Institute & Brookings Institution, <https://www.taxpolicycenter.org/statistics/state-and-local-general-expenditures-capita> (accessed April 15, 2019), and the Council of State Governments, <http://knowledgecenter.csg.org/kc/content/federal-spending-states-2015> (accessed April 16, 2019).

STANDARD FISCAL SOLVENCY MEASURE CLASSIFICATION (ICMA BASED)

	Solvency Measure	Solvency Term
Short-Term	Cash	30 – 60 days
	Budgetary	Normal budget period, often 1 – 3 years
Long-Term	Long-Run	Greater than a normal budgetary period, often 10 – 20 years
	Service-Level	Ability to meet the needed local service priorities without threatening long-term fiscal solvency

FISCAL SOLVENCY MEASURE EXAMPLES FROM FOUR STATES

- **Louisiana Indicator 1:** Did the agency submit an audit as required during the reporting year and the previous two years and were they free of disclaimers of opinion?
- **Louisiana Indicator 15:** Total Assets / Total Liabilities (government-wide)
- **Ohio Indicator 4:** 3-Year Change in Unassigned General Fund Balance
- **Pennsylvania Indicator 14:** Residential Vacancy Rate
- **Colorado Indicator 3:** Intergovernmental Revenue Dependence

FISCAL SOLVENCY MEASURE RATIO CLASSIFICATION

Figure 20: Ratio Indicators by Solvency-Type Measure

Solvency-Type Measure		Colorado	Louisiana	Ohio	Pennsylvania	All
ST	Cash	0	5	1	1	7
	Budgetary	1	5	8	3	17
LT	Long-Term	2	0	6	2	10
	Service-Level	8	0	1	9	18
Total		11	10	16	15	52

Source: Data from the Pennsylvania Department of Community and Economic Development, the Ohio Auditor of State, the Louisiana Legislative Auditor Advisory Services Section, and the Colorado Department of Local Affairs Division of Local Government Services

INDICATOR RATIO ANALYSIS: SOLVENCY-TYPE MEASURES

Each state chooses ratios amidst its specific context. The legal framework, economic climate, and purpose varies from state to state. Thus, the focus of each system varies. This focus generally drives the process of selecting ratios.

Recommendation: Consider incorporating indicators for each solvency type. When doing so, distinguish between short and long-term distress.

Figure 21: Incidents of Fiscal Distress from Ratio Indicators, Short vs. Long Term

State	None	Short-Term Only (Cash and/or Budgetary Solvency)	Long-Term Only (Long-Run and/or Service-Level Solvency)	Both
CO	53	0	278	3
OH	150	21	95	1,079
PA	1,662	1,009	8,152	7,111

Source: Data from the Pennsylvania Department of Community and Economic Development, the Louisiana Legislative Auditor Advisory Services Section, and the Colorado Department of Local Affairs Division of Local Government Services

INDICATOR RATIO ANALYSIS: VOLUME

Do different ratios measuring the same type of solvency generate the same rates of distress? The data for the states of Colorado, Ohio, and Pennsylvania indicates that different ratios for the same type of solvency can give different fiscal distress results.

Recommendation: Choose a direction in which to err. If one wants to err on the side of underestimating fiscal distress, then choose fewer ratios. If one wants to err on the side of overestimating fiscal distress, then choose more ratios.

Incidents of Fiscal Distress by Solvency-Type Measure				
Solvency-Type Measure	n	Minimum	Maximum	Average
Cash	2	2%	7%	5%
Budgetary	12	1%	39%	17%
Long-Run	10	9%	40%	22%
Service-Level	18	1%	69%	18%

Data Source: the Pennsylvania Department of Community and Economic Development, the Louisiana Legislative Auditor Advisory Services Section, and the Colorado Department of Local Affairs Division of Local Government Services

INDICATOR RATIO ANALYSIS: LEVEL VERSUS CHANGE

“For instance, a unit's fund balance may be negative in the current year as well as during the previous two years, but if the balance currently is less negative than in previous years, the unit's fiscal condition may be improving. In addition, a unit may appear to be fiscally healthy because it has had a positive fund balance over the previous two years, but it might be heading for fiscal distress if this number is trending downward quickly. Both of these concerns can be captured by a mix of level ratios as well as change ratios” (Plerhoples and Scorsone, 2010).

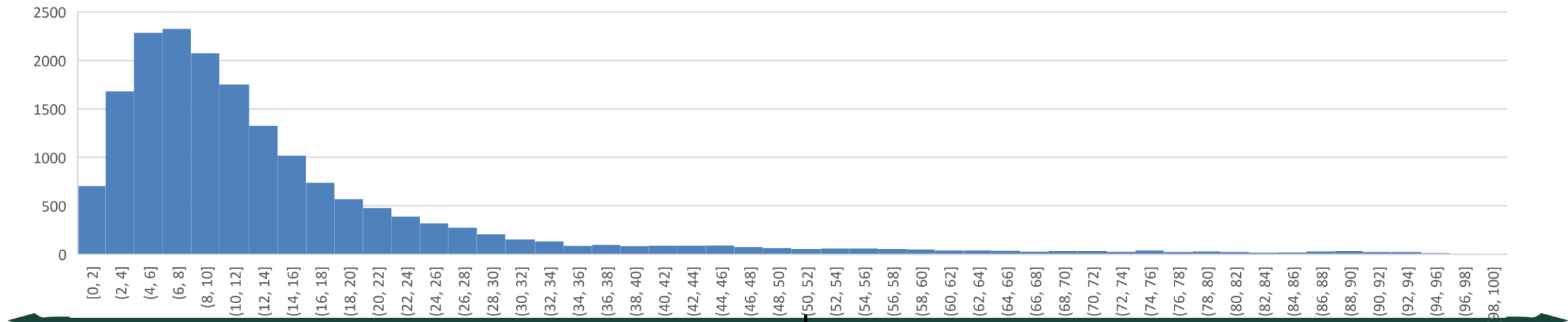
Recommendation: Consider incorporating both level and change ratios to measure both the status and trajectory of fiscal health.

INDICATOR RATIO ANALYSIS: SETTING BENCHMARKS

Benchmarks should represent fiscal health distinctions between municipalities. If the administrator of a system cannot explain the distinction between municipalities that are above the benchmark and those that are below it, then the benchmark should be evaluated.

Recommendation: Set benchmarks that are meaningful and align with the purpose of the fiscal monitoring system. as is the case with selecting the volume of ratios to include, when setting ratio benchmarks, one must choose a direction in which to err. If one wants to err on the side of underestimating fiscal distress, then set less demanding benchmarks. If one wants to err on the side of overestimating fiscal distress, then set more demanding benchmarks.

Histogram of Ratio Values for Pennsylvania Indicator 14 (Residential Vacancy Rate)



INDICATOR RATIO ANALYSIS: SCORING

States employ an array of scoring methods to assess municipal fiscal health. These scoring methods generally fall into two categories: (1) those that generate composite scores for each municipality that represent overarching conclusions regarding fiscal health and (2) those that assess each individual ratio only.

States use fiscal health monitoring systems to assess a wide range of municipalities. Of the four case studies examined in this paper, municipalities range from the Village of Lillie, Louisiana that has a population of around 100 and assets worth \$4,448 to the City of Philadelphia that has assets worth \$2.5 billion and a population of nearly 1.6 million.

Recommendations:

- Structure scoring systems to contain measures for both individual ratios and fiscal health as a whole.
- To the extent possible, this report recommends comparing municipalities to like municipalities, particularly according to size, function, and legal structure.

INDICATOR RATIO ANALYSIS:

TIMING OF ANALYSIS, METHODOLOGY REVISION, AND COLLABORATION WITH LOCAL GOVERNMENTS

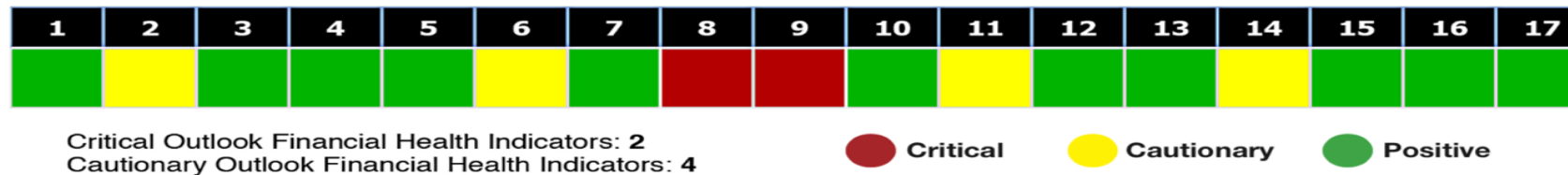
Recommendations:

- Consider incorporating methods for diminishing the lag time between fiscal analysis and local financial activity.
- Review the methodology taken and consider revisions to it with some frequency.
- State officials should collaborate with local government officials in developing fiscal monitoring systems and should design them with the utility of local governments in mind.

FINANCIAL HEALTH INDICATORS

How to read the indicators

2015 Financial Health Indicators at a Glance:



Source: "Financial Health Indicators: How to Read the Indicators," provided by the Ohio State Auditor, January 2019.

COVID-19 AND LOCAL GOVERNMENT FISCAL DISTRESS

- Will current early warning systems be able to identify and detect distress?
- Unlike Great recession, higher expenses due to public health crisis are a reality for many local governments
 - Hazard, PPT and overtime pay
 - PPE and testing
- Revenue hits have not been evident in many states for locals yet, with certain key exceptions
 - Gas taxes
 - Casino and gaming taxes
 - Sales taxes

PROBLEMS AND CHALLENGES FACING ALL SYSTEMS

- Lagged data
 - Even at the local level, it can be difficult to fully track revenues and expenses timely, especially in places most at risk
- What are we trying to track?
 - Short term cash flow problems
 - Long term solvency
- Service solvency and service provision is critical
 - Governments don't exist to balance the budget; they exist to provide services and fulfill other governmental responsibilities
- What do we do if detect distress?

KEY POINTS MOVING FORWARD

- Identifying fiscal distress has been a long search for academics and practitioners for decades
 - Often based on and concepts from the private sector models of corporate fiscal distress and bankruptcy prediction
 - Altman score for example and credit scoring models going back to the 1930's
- Unlike private sector, key questions remains as to what state/local governments are going to do when they find or predict distress
 - Assistance, takeover, more debt
- What about prevention and rules that are designed to prevent fiscal distress in the first place?
 - Debt limits were the 19th century prevention tool
 - Budget and accounting rules in 20th century
 - Pensions, what else now??

- Thank you!

Dr. Eric Scorsone, Michigan State University, Center for Local Government Finance and Policy

Natalie Pruett, London School of Economics and Political Science

Brookings Municipal Finance Conference Monday, July 13, 2020