The Economic Consequences of GASB Financial Statement Disclosure

Michael Dambra - University at Buffalo

Omri Even-Tov - University of California, Berkeley

Jim Naughton - Northwestern University

Brookings Institution

July 16, 2019

Overview

What? Do changes in GASB reporting requirements have real economic consequences?

Why? Provide insights into how GASB and governmental accounting (not just budget) shape economic choices

How? Exploit the differential effect of GASB 68 to identify the effect of financial statement disclosure across 502 municipalities

Identification Strategy

- GASB 68 covers the reporting of pension obligations, which are an economically important item for many municipalities.
- GASB 68 put the net pension liability on the balance sheet, but the adoption was different for “cost-sharing” versus “agent” pension plans.
- In agent plans, assets are pooled for investment purposes but the plan maintains separate accounts so that each employer’s share of the pooled assets is legally available to pay benefits for only its employees.
- In cost-sharing plans, the pension obligations, as well as the assets, are pooled, and the assets can be used to pay the benefits of any participating employer.

Identification Strategy

- For employers participating in agent plans, their share of the pension plan previously appeared in the notes to their financial statements, so the only change was moving that information onto the balance sheet. [*RECOGNITION*]
- In contrast, employers participating in cost-sharing plans did not report their share, so including their share of state plan assets and liabilities on the balance sheet is a more substantial change. [*DISCLOSURE + RECOGNITION*]
- This difference in pre-GASB 68 reporting allows us to isolate the effect of financial statement disclosure by comparing the changes in several economic constructs for municipalities that participate in shared plans with those that participate in agency-type plans.

Identification Strategy

- We employ a difference-in-differences (DD) research design that compares economic outcomes for municipalities that participate in shared plans with those that participate in agency-type plans.
  - Are the **changes** for "cost-sharing" versus "agent" different following GASB 68
- The economic outcomes we consider are broad measures of revenues, expenses and the number of employees. We analyze these variables because they broadly capture the economic behavior of the municipality.
- Conceptually, our use of municipalities with agency-type plans allows us to control for general macroeconomic trends in revenues, expenses, and number of employees.

Data

- Our analyses use a broad sample of 502 unique municipalities from across 47 states, representing the full list of counties whose population is in excess of 100,000 or is one of the three largest counties in a particular state.
- Our data is primarily hand collected from each municipality's annual audit report or comprehensive annual financial report.

Table 3: Difference in Difference with Net Pension Liabilities

	(1) Tax Revenues per Capita	(2) Fee Revenue per Capita	(3) Salary Expenses per Capita	(4) Welfare Expenditures per Capita	(5) Ln(Govt. Employees)
Post	0.009*	-0.001	0.083***	0.005**	0.003
	(1.82)	(-0.12)	(4.09)	(2.25)	(0.94)
Post × PMEPP NPL	**-0.001**	**-0.009**	**-0.131*** **	**-0.008*** **	**-0.007** **
	(-0.11)	**(-0.79)**	**(-4.74)**	**(-3.13)**	**(-2.02)**
Population	0.131	-0.505	1.110	0.021	0.327*
	(0.44)	(-1.01)	(1.12)	(0.24)	(1.86)
Establishments	0.120	0.149	0.175	-0.035	0.245*
	(0.60)	(0.35)	(0.22)	(-0.49)	(1.93)
Person					0.011
					(0.18)
Unemp					-0.001
					(-0.76)
Density					0.000
	(-0.72)	(1.69)	(-3.29)	(-0.93)	(0.34)
Poverty Rate	-0.002	-0.002	0.006	-0.001	-0.001
	(-1.50)	(-0.71)	(1.12)	(-1.18)	(-1.35)
Loss	-0.017***	-0.010*	-0.031	-0.000	-0.000
	(-2.82)	(-1.85)	(-1.54)	(-0.04)	(-0.12)
Adj. R-squared	0.991	0.934	0.859	0.987	0.999
Observations	1,540	1,530	1,318	1,378	1,443

- Differential reduction in expenses
- No differential change in revenues

Table 4: Difference in Difference with Net Pension Assets

	(1) Tax Revenues per Capita	(2) Fee Revenue per Capita	(3) Salary Expenses per Capita	(4) Welfare Expenditures per Capita	(5) Ln(Govt. Employees)
Post	0.008	-0.063	-0.109	0.002	0.009
	(0.54)	(-1.26)	(-1.11)	(0.37)	(0.97)
Post × PMEPP NPA	**-0.001**	**0.017**	**0.216****	**-0.001**	**0.006**
	(-0.08)	**(0.45)**	**(2.29)**	**(-0.26)**	**(0.56)**
Population	0.065	0.075	-1.942	-0.181**	0.201
	(0.14)	(0.03)	(-0.59)	(-2.54)	(0.79)
Establishments	-0.156	-2.291	-1.074	0.028	0.237
	(-0.36)	(-0.95)	(-0.29)	(0.33)	(0.88)
Perso					0.071
					0.99)
Unem					0.001
					0.46)
Densi					0.000
					1.57)
Pover					0.001
	(-1.95)	(0.26)	(0.24)	(0.57)	(0.42)
Loss	-0.014	-0.003	-0.015	0.003	-0.005
	(-0.76)	(-0.12)	(-0.17)	(1.49)	(-1.03)
Adj. R-squared	0.980	0.885	0.726	0.996	0.999
Observations	265	262	228	237	253

- Complements NPL
- Differential increase in expenses
- No differential change in revenues

Table 5: Difference in Difference with Continuous Measure of Net Pension Liabilities

	(1) Tax Revenues per Capita	(2) Fee Revenue per Capita	(3) Salary Expenses per Capita	(4) Welfare Expenditures per Capita	(5) Ln(Govt. Employees)
Post	0.012*	0.008	0.047**	0.002	0.003
	(1.70)	(0.74)	(2.41)	(0.94)	(1.13)
Post × PMEPP NPL per Capita	**-0.006**	**-0.045**	**-0.269*** **	**-0.010*** **	**-0.008**
	(-0.37)	**(-1.43)**	**(-3.79)**	**(-2.66)**	**(-1.17)**
Population	-0.035	-0.205	0.734	0.107	0.332
	(-0.11)	(-0.32)	(0.68)	(1.02)	(1.64)
Establishments	0.132	-0.245	-0.738	-0.176*	0.227
					1.49)
Perso					0.013
					0.19)
Unem					0.002
					0.73)
Densi					0.000
					0.41)
Poverty Rate					-0.002
	(-0.81)	(-0.75)	(0.90)	(-0.88)	(-1.21)
Loss	-0.017**	-0.009	-0.034	-0.001	0.002
	(-2.09)	(-1.27)	(-1.16)	(-0.36)	(0.58)
Adj. R-squared	0.987	0.933	0.851	0.978	0.999
Observations	1,108	1,100	880	969	1,042

- Among those entities with NPL, larger NPLs are associated with greater reductions in expense

Cross-Sectional Tests

- What is driving the differences that we observe?
- We suggest that debt market participants and rating agencies are focused on GASB statements, and that there may be pressure on the municipality that varies depending on how it interacts with those entities.
- If this hypothesis holds, then the effects we document should be stronger for this subgroup of our sample

Table 6a: Cross Section Variation with Debt Issuance

	(1) Tax Revenues per Capita	(2) Fee Revenue per Capita	(3) Salary Expenses per Capita	(4) Welfare Expenditures per Capita	(5) Ln(Govt. Employees)
Post	0.000	-0.008	0.018	0.005*	0.002
	(0.10)	(-0.90)	(0.77)	(1.70)	(0.53)
Post × Hi Debt × PMEPP NPL	**0.003**	**-0.015**	**-0.140****	**0.004**	**-0.003**
	(0.21)	**(-0.65)**	**(-2.53)**	**(0.85)**	**(-0.41)**
Post × Hi Debt	0.018**	0.014	0.139***	0.001	0.002
	(2.25)	(0.60)	(2.64)	(0.27)	(0.34)
Post × PMEPP NPL	**-0.002**	**-0.001**	**-0.063*****	**-0.010*****	**-0.006**
	(-0.34)	**(-0.11)**	**(-2.98)**	**(-2.62)**	**(-1.09)**
Population	0.089	-0.515	0.968	0.013	0.326*
	(0.31)	(-1.03)	(1.00)	(0.16)	(1.86)
Establishments					0.247*
					(1.94)
Personal Incom					0.011
					(0.17)
Unemployment					-0.001
					(-0.76)
Density					0.000
	(-1.17)	(1.46)	(-3.62)	(-1.09)	(0.34)
Poverty Rate	-0.002	-0.002	0.005	-0.001	-0.001
	(-1.64)	(-0.75)	(0.95)	(-1.22)	(-1.36)
Loss	-0.017***	-0.010*	-0.031	0.000	-0.000
	(-2.75)	(-1.87)	(-1.54)	(0.05)	(-0.13)
Adj. R-squared	0.991	0.934	0.862	0.987	0.999
Observations	1,540	1,530	1,318	1,378	1,443

- Differential reduction for those entities that are more active in debt markets

Table 6b: Cross Section Variation with County Size

	(1) Tax Revenues per Capita	(2) Fee Revenue per Capita	(3) Salary Expenses per Capita	(4) Welfare Expenditures per Capita	(5) Ln(Govt. Employees)
Post	-0.002	-0.013*	0.007	-0.000	-0.001
	(-0.48)	(-1.80)	(0.49)	(-0.15)	(-0.27)
Post × Hi Revenue × PMEPP NPL	**0.005**	**-0.024**	**-0.153*** **	**-0.015*** **	**-0.009**
	(0.46)	**(-1.20)**	**(-3.20)**	**(-3.15)**	**(-1.23)**
Post × Hi Revenue	0.022***	0.023	0.151***	0.010***	0.008
	(3.18)	(1.28)	(3.49)	(3.31)	(1.41)
Post × PMEPP NPL	**-0.002**	**0.005**	**-0.046*** **	**0.000**	**-0.002**
	(-0.34)	**(1.02)**	**(-3.80)**	**(0.01)**	**(-0.45)**
Population	0.194	-0.528	0.918	-0.002	0.311*
	(0.63)	(-1.05)	(0.92)	(-0.02)	(1.78)
Establishments					0.262**
					(2.04)
Personal Income					0.012
					(0.19)
Unemployment R					-0.001
	(-5.33)	(-1.48)	(1.30)	(0.07)	(-0.59)
Density	-0.000	0.000	-0.003***	-0.000	0.000
	(-1.43)	(1.39)	(-3.48)	(-0.96)	(0.28)
Poverty Rate	-0.002*	-0.002	0.007	-0.000	-0.001
	(-1.79)	(-0.67)	(1.16)	(-1.01)	(-1.30)
Loss	-0.017***	-0.010*	-0.033	-0.000	-0.000
	(-2.83)	(-1.88)	(-1.63)	(-0.18)	(-0.14)
Adj. R-squared	0.991	0.934	0.862	0.987	0.999
Observations	1,540	1,530	1,318	1,378	1,443

- Differential reduction for larger entities

Conclusion

- Our results suggest that GASB accounting has real economic consequences for municipal governments.
- These consequences appear to be stronger for those municipalities that are active in debt markets, suggesting that the use of GASB financial statements by rating agencies or debt market participants may be driving our results.

We are open to other suggestions
(even weeks from now – please contact us!)

Thank you!