Tools for Predicting Municipal Bankruptcy: Indicators of Long-Run Governmental Financial Condition

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Long Run

- Sufficient time to permit managers to adjust all resources: capital & labor
- A government must maintain assets in real terms or it will be unable to continue providing services at given quantity & quality

Long-Run Financial Condition

- Assessment requires
  - entity-wide presentation
  - economic resources measurement focus
  - full accrual basis of accounting
- Unavailable before GASB Statement 34
  - Still problems, as we will see

Definition

- Two dimensions of long run financial condition
  - Financial *position* (net assets) combined with
  - Financial *performance* (change in net assets)
- Compute with data from entity-wide statements
  - Excluding discretely presented component units

Measurement Issues

- Asset valuation
  - Two methods permitted
  - Capital assets generally are not sold to liquidate debt in case of default
- Pension liabilities
  - Not on balance sheet
  - Pension obligation bonds excepted

Partial Solutions

- Assets: subtract capital assets from total & net assets
  - Issue is how much will taxes have to increase to meet current obligations
- Liabilities: subtract pension obligation bonds
  - Lowers visible liabilities but liability is still there
  - Indicator won't change when a hard liability is substituted for a soft one

Current Indicators

- 69 reported in the literature
  - ICMA & Ken Brown’s pre-GASB 34
  - Plus post-GASB 34
- Only 5 are used by multiple authors
- Only 2 of these deal with long run
  - Leverage (Liabilities / Assets)
  - Surplus or Deficit (Revenue / Expenses)

Suggestions

- Position – Net financial assets per dollar of total financial assets
  - Eliminating capital assets may cause ratio to become negative
- Performance – Change in net assets per dollar of total assets
  - Retain capital assets because over time both asset valuation methods should yield similar results

Performance

- Well-known as *Return on Assets (ROA)*

- Must exceed 2.5% (long run rate of inflation for government capital outlays)
  - Otherwise, a government cannot maintain its assets at replacement cost with the current revenue stream

Application

- Phoenix
  - Population growing
  - Total expenses = $2.9 bn
  - S&P credit rating: AAA
- Detroit
  - Population shrinking
  - Total expenses = $3.1 bn
  - S&P credit rating: Ba3

Averages 2006 to 2010

	Phoenix	Detroit
Net Asset Ratio	0.50	0.11
Net Financial Asset Ratio	-0.50	-1.26
Return on Assets	3.3%	-1.6%
Real Per Capita Return on Assets	-0.8%	-1.9%

Larger numbers are more desirable.
Negative numbers closer to zero are larger.

Comparison of Position

- Phoenix's
  - Total assets are double its liabilities
  - Financial assets are 67% of its liabilities
- Detroit's
  - Total assets approximately equal its liabilities
  - Financial assets are 44% of its liabilities
- Financial Asset Ratio is a more stringent test

Comparison of Performance

- 5-year average ROA
  - Phoenix = is **+3.3**%
  - Detroit = **-1.6**%
  - Spread is **4.9** points in Phoenix's favor.
- Real capital per inhabitant
  - Decreasing by **0.8**%/year in Phoenix
  - Decreasing by **1.9**%/year in Detroit
  - Spread is only **1.1** points in Phoenix's favor.
- More similar than expected but plausible

Plausible

- More similarity than expected but plausible because ….

- In 2010 Brookings ranked both Phoenix & Detroit metro areas among the 20 weakest metro economies

Specific Conclusions

- Both cities are caught in the throes of anti-tax sentiment prevalent in the country at the time.

- Less public capital accumulation per person is an unavoidable consequence, whether a city is growing or shrinking

General Conclusions

- Financial *position indicators* are problematic
  - – Net Financial Asset Ratio is a stringent test
- Financial *performance* indicators are less so
  - – ROA can be interpreted on an absolute scale – meaning that it can be compared to an objective benchmark like the inflation rate & is not dependent upon the performance of peers.
- Application of these indicators to two apparently different cities give confidence in the model

Also in Paper

- List of all indicators in the literature since GASB 34 + ICMA & Brown
- Discussion of issues involved in using population as the denominator of financial indicators

The End