Realty-based Indicators of Chicago’s Balance Sheet

April 19, 2017

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Federal Reserve Bank of Chicago
Balance Sheet Approach to Reflect Municipal Solvency

Key questions

- What is “insolvency” or “dysfunctionality” for a city?
  - Bond default/inability to borrow?
  - Inability to provide services/fulfill its mandates?
    - Value of assets within its boundaries are zero (value-creating residential and commercial activity are nil)?
    - Some may argue that political/institutional constraints or relations also are a determinant

In either case, I might argue that a balance sheet tally may be helpful in assessing insolvency now and future

- Further, many indicators may be useful in assessment and forecast, but property value very good asset to reflect current situation and prospects
Municipal Balance Sheet

- **Assets**
  - Financial assets/cash
  - Building, equipment and land
  - Public capital (infrastructure)
  - **Other?**
    - Value of real property within boundaries
    - Other business activities/income streams (with taxable/reachable nexus?)
      - E.g. retail, tourism, commuter earnings
    - Goodwill, shared responsibility, and intergovernmental revenue streams from overlying or sponsoring government, i.e. state govt.

- **Liabilities**
  - Service responsibilities/mandates
  - Debt
    - Unfunded pension liability
    - Other post-retire benefits
  - **Other?**
    - *E.g. Constraints on borrowing or revenue or effective governance as reflected by chronic or structural deficits?*
    - Tax flight sensitivity
    - Political gridlock & lack of social capital
Income (P&L) Statement

**Revenues/income**
- Own-source taxes and fees
- Inter-governmental revenues and grants-in-aid
- Interest and rental income on assets
- “Capital gains”
  - On public and private assets
  - Changes inst. Constraints
  - Changes future service needs
  - Changes future revenue streams

**Expenditures**
- Services
  - E.g. “normal cost of pensions”, wages, contracted services)
  - New obligations for current services (e.g. OPEBs)
  - Depreciation of physical assets
  - “Capital losses”
    - Ditto, ......
Traditional Fiscal Indicators can be reflected in balance sheet approach

- High/climbing cost population for service provision (e.g. poverty or high percent school-age)
- High/climbing cost/prices of service provision (e.g. undue unionization or rising crime, flight of pop. tax base)
- Ongoing sale of assets and use of one-time revenue sources
- Growing borrowing to meet current service obligations/rising costs of borrowing
- Inordinate borrowing and/or revenue-raising constraints
- Political gridlock/inability of cooperation in development
Property value may reflect most portions of the balance sheet and city’s solvency

-- actively traded

-- forward looking

-- widely reachable/liquid by city govt.

-- much of it is immobile (like equity)
Single-Family Housing Market (OK, It is far from perfect.)

S&P/Case-Shiller Home Prices
(Index: Jan. 2000=100)
Evidence in favor of property value indicator

Are fiscal liabilities (fully) capitalized? Past studies

- Stadelmann/R. Eichenberger (*Int. Tax Public Finance*, 2013)
  - Capitalization substantial (Swiss Cantons) but varies with est. strategy

  - Municipal Pension Funding: Pittsburgh and suburbs
  - Mixed results: Overcap if exclude city of Pittsburgh; none otherwise

- William Wheaton (*National Tax J.*, 1984) full capitalization

- John McDonald (*National Tax J.*, 1993) mostly capitalized

- R. McKay (*National Tax Journal*, 2014)
  - “Announcement study” in San Diego
  - Overcapitalization
Why test this out on Chicago v. Detroit?

-- Is Detroit a Benchmark?

Property market collapse coincides with

-- Service provision near zero

-- Gridlock apparent (political disarray, little local intergovt. cooperation, state gov’t at odds (e.g. Emergency Financial Management)

-- Taxable reach/ local resources exhausted (intergovernmental resources, too)

-- Sharp flight/sensitivity of tax base fairly obvious
Yet, popular media couldn’t refrain from comparing with Chicago.
Some Measures of Real Property Values: Chicago, Detroit, and Milwaukee
(Is Chicago “Detroit”?)
Annual Average Home Selling Price - Detroit

Woodward Corridor, East Riverfront, and Detroit
($000s current dollars per capita)

* Source: Paul Traub’s calculations using MLS data from Realcomp II LTD. Includes single family residential and condominium sales.
Detroit Jurisdiction
Real Estate Sales Data - by Type of Financing
Percent of Total Reported
Residential and Condo Only

* Source: RealComp

Note:
All Other includes Cash to Existing Mortgage, Exchange, FHA, FHA-203, VA, and Rural Development.
Estimated Market Values: Three Cities

Total
($000s per capita)

- Chicago
- Detroit
- Milwaukee

Residential
($000s per capita)

- Chicago
- Detroit
- Milwaukee

* Market values for Detroit were estimated by multiplying assessed values reported in CAFRs by 2. Chicago market values reported by the Civic Federation. Milwaukee values are equalized assessed values.
Chicago and Detroit Estimated Market Values

**Industrial**
($000s per capita)

**Commercial**
($000s per capita)

*Sources: Detroit Certified Annual Financial Reports and The Civic Federation.*
Estimated Real Estate Values of Large Cities

($ thousands per capita, 2013)

San Diego, CA
Los Angeles, CA
New York City, NY
Austin, TX
Chicago, IL
Jacksonville, FL
Houston, TX
Phoenix, AZ
San Antonio, TX
Milwaukee, WI
Philadelphia, PA
Detroit, MI

* Sources: Individual city comprehensive annual financial reports
Sources of urban revival....
Office Vacancy Rates: Downtown Areas

Midwest Cities
(percent)

* Source: CB Richard Ellis
Central Chicago Gains HQs

“Over 50 since 2001....”

- **From suburbs**, e.g. McDonalds (2016), Motorola Mobility and Solutions, United Air, Walgreens, Sara Lee, Hilshire Brands...

- **From elsewhere**, e.g. Oscar Meyer (Madison), GE Healthcare (London), Boeing (Seattle), ConAgra (Omaha, MeadeJohnson Nutrition (Evansville), ADM (Decatur), Caterpillar (Peoria), Kraft-Heinz (Pittsburgh), CLAYCO (St. Louis)

Source: *Chicago Tribune*
Economic Perspectives, Vol. 34, 4th, No. 4, 2010
“Educational Attainment and Household Location: The Case of Chicago’s Lakefront,”
By William Sander, William Testa
How do cities’ positioning with respect to property value change if we consider explicit debt liabilities, hypothesizing that property owners are vs. failing to capitalize public debts into transaction values of property?
## Liabilities (Working Draft Estimate for EOP 2013)

<table>
<thead>
<tr>
<th>Category</th>
<th>Chicago</th>
<th>Amount</th>
<th>Detroit</th>
<th>Amount</th>
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<tbody>
<tr>
<td><strong>Direct and Overlapping Bonded Debt ($000s)</strong></td>
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<td><strong>Direct and Overlapping Gov’t Act. Debt ($000s)</strong></td>
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<td>Net Debt Applicable</td>
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<td>Net Debt Applicable</td>
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<td>City of Chicago G.O. Bonds</td>
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<td>City of Detroit Direct</td>
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<td>Board of Education</td>
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<td>Detroit Public Schools</td>
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<td>Chicago Park District</td>
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<td>Wayne County</td>
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<td>City Colleges of Chicago</td>
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<td>Wayne County Community College</td>
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<td>Cook County</td>
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<td>Cook County Forest Preserve</td>
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<td>Metropolitan Water Reclamation</td>
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<td>Water Revenue Bonds ($000s)</td>
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<td>Water Revenue Bonds ($000s)</td>
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<td>Wastewater Transmission Revenue Bonds ($000s)</td>
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<td>Sewage Disposal Revenue Bonds ($000s)</td>
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<td>OPEB ($000s)</td>
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<td>State Teachers' Retirement System ($000s)</td>
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<td>Commercial Paper Notes ($000s)</td>
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<td><strong>Total Debt</strong></td>
<td>68,484,572</td>
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<td><strong>Total Debt</strong></td>
<td>18,824,016</td>
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## Milwaukee Liabilities, 2013

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<th>Amount</th>
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<td><strong>Debt Repaid with Property Taxes ($000s)</strong></td>
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<td>Total Direct and Overlapping Debt</td>
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<td>Direct Debt</td>
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<td>Milwaukee Area Tech. Coll. District</td>
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<td>County of Milwaukee</td>
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<td>Milwaukee Metro. Sewage Area</td>
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<td><strong>Water Revenue Bonds ($000s)</strong></td>
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<td><strong>Pension UAAL ($000s)</strong></td>
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<td><strong>State Retirement UAAL ($000s)</strong></td>
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<td><strong>Total Debt</strong></td>
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</table>
(Preliminary) Realty-Based Value Estimates

With and Without Capitalization
($000s per capita)
Property owners apparently see considerable value in the “Chicago franchise” despite mounting debt and the administrative disarray of local and State government.

Some ratings/rankings of city fiscal health may be misleading.
Bond Ratings

Standard and Poor's

Moody's

* Sources: Chicago and Detroit values were obtained from Comprehensive Annual Financial Reports. Milwaukee values are reported in the Office of the Comptroller's official statements on bond issues.