

# **An Evaluation of Bond Ratings to Financial Reporting Structures**

**Shannon Sohl, Research Associate, Center for Governmental Studies**  
**Michael Peddle, Associate Professor, Division of Public Administration**  
**Kurt Thurmaier, Professor, Division of Public Administration**  
**Curt Wood, Assistant Professor, Division of Public Administration**  
**Gregory Kuhn, Senior Research Associate, Center for Governmental Studies**

## **ABSTRACT**

States and local governments have a significant amount of discretion in financial reporting within the recommended best practices. In some cases, this discretion results in complex and analysis-intensive processes for examining financial reports, as well as reduced transparency. Bond rating decisions are heavily reliant upon the financial results published in the Comprehensive Annual Financial Report (CAFR). This study analyzes ten cities' GO bond ratings and the number of funds reported in their individual CAFRs over four years to better understand the nexus of bond ratings and policies and practices. We evaluate relationships between components of CAFR transparency (represented by the number, types and groupings of funds) and the costs of borrowing (measured by bond rates), and we identify relationships between the number of funds and a community's general obligation (GO) bond ratings. We find a measurable inverse relationship between the number of funds and the municipality's bond rating. Municipalities should note that higher numbers of funds appears to increase the costs of borrowing.

**Prepared for**  
**The Annual Meeting of the**  
**Association of Budgeting and Financial Management**  
**October 23-25, 2008**  
**Chicago, Illinois**

---

## Introduction

On May 6, 2008 the city of Vallejo, California voted to declare Chapter 9 bankruptcy.<sup>1</sup> Their debts will be frozen, as they continue to operate, until negotiations take place regarding the repayment of their obligations. With bond insurers experiencing financial pains as well, some bond holders are unsure of the future stability of their investments. What were the warning signs, and are any of those warning signs applicable to other local governments? A multi-dimensional analysis might identify reliable warning signs; one possible starting point would entail the degree of transparency related to the quantity of funds used for reporting financial decisions. For fiscal year ending June 30, 2006, Vallejo's Comprehensive Annual Financial Report (CAFR) reported the following major funds, one General Fund, two Special Revenue Funds, and seven Enterprise Funds.<sup>2</sup> In addition there were 47 non-major governmental funds (segregated by special revenue, debt service, capital projects and permanent funds) and five individual funds comprising Internal Service Funds – for a total of 62 funds.<sup>3</sup> In contrast, one can compare Vallejo to a mid-sized Illinois city that manages half the number of Vallejo's funds and maintains a stable general obligation (GO) bond rating (Aa3). Would the relative number of funds affect their respective bond ratings, *ceteris paribus*?

At the same time, some states such as California are calling for bond raters to ease their rating standards to allow for lower interest rates, claiming they have a lower risk of default than the private sector and that interest payments could translate to a \$5 billion savings for California

---

<sup>1</sup>American City & County, "Vallejo, Calif, to declare bankruptcy" (Penton Media, 2008). <http://americancityandcounty.com/news/vallejo-ca-bankruptcy-0805/> (accessed May 13, 2008).

<sup>2</sup>Vallejo, California 2006 CAFR. <http://www.ci.vallejo.ca.us/uploads/48/022207%20-%20Comprehensive%20Annual%20Financial%20Report%20%20%20CAFR%20June%2030%20%20%202006.pdf> (accessed May 17, 2008).

<sup>3</sup> Ibid.

over thirty years if the rating were to move from A+ to AAA.<sup>4</sup> Though low default rates may have historically been the case for those bonds backed by the full faith and credit of the government (GO bonds), state and local governments are not held to the same reporting standards required by the SEC. Hence, leading global bond raters such as Moody's Investors Service, Standard & Poor's and Fitch Ratings must rely heavily on audits of financial data and conduct additional analysis to understand the reporting anomalies in order to notify the public of the risks associated with bond issuances passed on through their bond ratings.

This paper begins to explore the question: does a municipality's fund structure affect the cost of borrowing money? Within this framework, we use bond ratings as a proxy for the cost of borrowing money. Operationalizing "fund structure" is not so straightforward. Our approach is to begin by deconstructing the complexity of fund structure into three dimensions: transparency, liquidity, and administrative ease. We then identify three indicators of fund structure: the number of funds, the number of fund groups, and the types of fund groups. In this paper, we use a sample of peer cities to focus attention on the relationship between the total number of municipal funds and the cost of borrowing. Following our analysis, we discuss the implications for municipalities and future research on fund structure.

## **Comprehensive Annual Financial Report (CAFR) Standards**

California's plea to "level the playing field" with the private sector's risk assessments is no surprise given Wang, Hou and Duncombe's finding that states are more likely to seek debt financing over pay-go financing of capital projects during unfavorable economic conditions.<sup>5</sup> States often seek debt financing as a means to allocate future benefits of current infrastructure costs to future generations. In addition, debt financing increases funds available for current

---

<sup>4</sup> Josh Goodman, "Business of Government: Giving Muni Bonds Their Due," *Governing* (May 2008), p. 67.

<sup>5</sup> Wen Wang, Yilin Hou, and William Duncombe, "Determinants of Pay-as-You-Go Financing of Capital Projects: Evidence from the States." *Public Budgeting & Finance* 27, no. 4 (Winter 2007): 18-42.

operating expenditures. Wang, et al reported that the requirement of referendum approval is a statistically significant factor in debt financing.<sup>6</sup> Hence, in communities experiencing fiscal stress and significant resistance from residents to finance necessary infrastructure additions and/or improvements, debt financing (particularly of bonds not requiring the backing of the general fund - often associated with increases to property taxes) may be more prevalent and may be presented to residents in a complex arrangement of funds within the CAFR's fund-based financial statements, negatively impacting transparency. Balancing these types of political rationalities against the technical, legal and managerial rationalities are core activities of governance<sup>7</sup>. Yet, when rationalities fall out of balance (e.g., a great portion of decisions based on political rationalities versus based on technical or institutional rationalities), the uncertainty and complexity, and ultimately the cost of borrowing and reporting debt may either increase or decrease. But how much of an effect on borrowing costs occurs when the rationalities are out of balance? It is not known if large numbers of funds lead to reductions in transparency.

### ***The Case***

Complexities in reconciling and analyzing multiple funds was realized firsthand in a recent study by Northern Illinois University's (NIU's) Division of Public Administration and the Center for Governmental Studies (CGS). The project team was charged with the task of comparing one city to a cohort of 10 other cities from various states over a span of seven years. The study revealed significant variations in the cities' choices of bonds to finance debt as well as the method for reporting the debt. For instance, the study determined that capital projects are sometimes financed via GO bonds and passed through the general fund in one city or state while the same

---

<sup>6</sup> Ibid.

<sup>7</sup> Kurt M. Thurmaier and Katherine Willoughby. *Policy and Politics in State Budgeting* (Armonk, NY: M.E. Sharpe, 2001); George Giannakis and Clifford P. McCue. *Local Government Budgeting: A Managerial Approach* (Westport, CT: Quorum, 1999); C. Bourdeaux. "The Problem with Programs: Multiple Perspectives On Program Structures In Program-Based Performance-Oriented Budgets," *Public Budgeting and Finance* (Summer): pp. 20-47.

type of project is financed via revenue bonds in another city or state using an enterprise fund. The impact of these decisions, *ceteris paribus*, was higher fiscal position indicator scores for the target city compared to its reference group (e.g., higher General Fund revenues per capita and higher Total Governmental Funds per capita). The target city asserted that their almost exclusive use of the General Fund for all transactions including borrowing allowed for increased transparency and higher bond ratings. However, the project team concluded that their transparency was not enhanced (and probably deteriorated given the co-mingled balances within a single fund) and noted their bond rating was not even in the mid-tier of their cohort group.

### ***Standards***

The Governmental Accounting Standards Board (GASB), an independent non-governmental entity established in 1984, is the primary originator and oversight body of Generally Accepted Accounting Principles (GAAP) for state and local governments.<sup>8</sup> While GASB's standards are not federally enforceable, they are enforced through many of the individual states and by way of the audit process.<sup>9</sup> The Securities and Exchange Commission (SEC) regulates municipal security issuers and requires them to report certain financial information according to Rule 15c2-12. In addition to GASB and the SEC, the Government Finance Officers Association (GFOA) is an independent body charged with developing financial policies and procedures for state and local governments.<sup>10</sup> Though the CAFR is not mandated, GFOA highly recommends state and local governments use the CAFR as the main reporting mechanism for complying with Rule 15c2-12.<sup>11</sup> GASB standards are implemented indirectly through GFOA's prestigious award program for CAFRs. Also, GFOA's Certificate of Achievement for Excellence in Financial Reporting

---

<sup>8</sup> [http://www.gasb.org/facts/facts\\_about\\_gasb.pdf](http://www.gasb.org/facts/facts_about_gasb.pdf) (accessed May 17, 2008).

<sup>9</sup> Ibid.

<sup>10</sup> [http://www.gfoa.org/index.php?option=com\\_content&task=view&id=76&Itemid=96](http://www.gfoa.org/index.php?option=com_content&task=view&id=76&Itemid=96) (accessed May 17, 2008).

<sup>11</sup> <http://www.gfoa.org/downloads/caafrfordisclosure.pdf> (accessed May 17, 2008).

Program requires that state and local government CAFRs “include all funds and component units of the entity, in accordance with generally accepted accounting principles.”<sup>12</sup> One criterion of GFOA’s CAFR Award Program reviews the number of reported government funds. GFOA supports this decision in their best practice recommendation of *Improving the Effectiveness of Fund Accounting (2004)* which advises “Whenever it is possible to do so without sacrificing the goals of fund accounting, similar internal ‘funds’ should be combined into a single fund for external financial reporting purposes.”<sup>13</sup>

GFOA’s recommendation to consolidate funds reported in the CAFR’s fund-based financial statements is based on adherence to GASB Statement No. 34’s criteria for reporting major versus non-major governmental funds<sup>14</sup>:

*Each of the fund statements will report separate columns for the general fund and for other major governmental and enterprise funds. Major funds are those whose revenues, expenditures/expenses, assets, or liabilities are at least 10 percent of the total for their fund category or type (governmental or enterprise) and at least 5 percent of the aggregate amount for all governmental and enterprise funds.*

*– Any other fund may be reported as a major fund if the government’s officials believe the fund is particularly important to financial statement users.*

*– Non-major funds will be aggregated in a separate column.*

*– Internal service funds will also be aggregated in a separate column on the proprietary fund statements.*

Might the transparency of financial data reported in CAFRs matter for bond ratings?

Moody’s Investor Services claims amounts and reasons for interfund transfers are a determinant of bond quality.<sup>15</sup> Since recent decades appear to be experiencing growth in debt financing, it is

---

<sup>12</sup> <http://www.gfoa.org/downloads/CAFREligibility.pdf> (accessed May 17, 2008)

<sup>13</sup> GFOA website ([www.gfoa.org](http://www.gfoa.org) accessed May 20, 2008).

<sup>14</sup> Governmental Accounting Standards Board (GASB) Statement No. 34, Basic Financial Statements—and Management’s Discussion and Analysis—for State and Local Governments.” ([www.gasb.org](http://www.gasb.org) accessed May 20, 2008).

<sup>15</sup> <http://www.moodys.com> (2002) “Determinants of Credit Quality” (accessed May 27, 2008).

important to know which factors significantly influence borrowing costs through bond ratings. As management assumes debt, they also make decisions on how to report the debt in their CAFRs. Denison, Yan and Zhao assert that in addition to fiscal health, the management of the local government influences bond rating (school bonds in particular).<sup>16</sup>

***Hypotheses***

The CAFR compilation process and bond rating policy process are highly integrated and worthy of further research. Table 1 suggests that complexity in fund structure can be examined in three dimensions. *Transparency* is a foundational principle and value in public finance, and among finance professionals. It is a core component in MPA and CPA coursework and professional standards of GFOA and other public finance organizations. That said, it is unclear what transparency actually means when we consider fund structure.

**Table 1. Hypothesized Relationships of Complexity Dimensions to Fund Indicators**

	<b>Number of Funds</b>	<b>Number of Fund Groups</b>
<b>Transparency</b>	Bimodal Distribution	Bimodal Distribution
<b>Liquidity</b>	Inverse Relationship	Inverse Relationship
<b>Administrative Ease</b>	Inverse Relationship	Inverse Relationship

One can argue that having many separate funds increases transparency regarding the use of the specific revenues flowing into those funds. In fact, this is often the reason a special fund is created—to allow elected officials (and thereby citizens) to make sure the taxes or revenues raised for a specific purpose are used for that purpose, be it a sidewalk repair or a civic center.

On the other hand, one can argue that a plethora of funds inhibits accountability because the limited cognition of elected officials (especially limited time available to monitor

---

<sup>16</sup> Denison, Dwight, Wenli Yan and Jerry Zhao. “Is Management Performance a Factor in Municipal Bond Credit Ratings? The Case of Texas School Districts” *Public Budgeting & Finance* 27(4): 86-98.

administrators) requires them to focus attention on a few issues, neglecting attention to the multitude of details associated with an abundance of funds. In other words, we expect a bi-modal distribution of low transparency outcomes associated with the total number of funds in a municipality. Too many funds or too few funds diminish transparency; somewhere in the middle is an optimal range of the total number of municipal funds.

We expect that the effect of the number of funds on *liquidity* is more clearly an inverse relationship. That is, the higher the number of separate funds, the lower the degree of liquidity. The barriers to transferring money across fund boundaries are expected to be higher than transferring money across accounts within a single fund. This need not be the case always, but should be the case normally. The more difficulty a municipality has in reallocating the balances in different funds to other municipal uses, the lower the liquidity within the municipality's system of accounts.

Finally, table 1 suggests an inverse relationship between the total number of municipal funds and the *administrative ease* of managing the municipality's system of accounts. Each fund is a set of self-balancing accounts, each of which must be reconciled, reported, and integrated into the system of accounts for the municipality. Fewer funds require less administrative work, lowering the cost of administration.

The number of fund groups and the types of fund groups probably matter for the cost of borrowing because they affect each of the three dimensions of complexity in our framework. For the present, we will focus on analyzing whether there are relationships between our three dimensions of complexity and the total number of municipal funds. Given GFOA's recommended best practice of using minimal numbers of funds and Moody's preference for limited interfund transfers, we assert deviations from best practices may be a result of over-

explaining unfavorable fiscal health conditions, masking problem areas via complex reporting structures (e.g., exorbitant usage of interfund transfers), or an indication of volumes of debt (e.g., issuance of bonds are often classified in separate funds). The greater the number of funds, the more difficult it is for CAFR users to determine the holistic fiscal condition of the community. We leave to future research an exploration of the other relationships suggested in table 1.

We hypothesis bond ratings are related to the number of funds reported in CAFRs. Our essential hypothesis is:

***A higher number of total municipal funds will increase the cost of municipal borrowing as reflected in a lower bond rating.***

After presenting our methodology, we present our analysis of this hypothesis and discuss the implications of our findings.

### ***Methodology***

This paper stems from a project conducted in 2006-2007 that evaluated the relative fiscal position of a mid-sized city based on a cohort of 11 highly comparable communities across multiple states using 24 financial, socioeconomic and demographic variables.<sup>17</sup> The cohort of 11 cities was then used for evaluating the fiscal position of the target city over a seven-year period. The striking observation from that study is the significant use of discretion in presenting financial information in CAFRs. We observe a wide range of fund usage (particularly the number of funds reported) that seems to be a product of policy decisions related to pay-go financing versus debt financing. Not surprisingly, increased usage of debt financing through

---

<sup>17</sup> A complete description of the methodology used to create the sample cohort is presented in Shannon Sohl, Curtis Wood, Mike Peddle, Greg Kuhn and Kurt Thurmaier, “Measuring Financial Position of Municipalities: Numbers Don’t Speak for Themselves” Presented October 2007 at the Annual Meeting of the Association of Budgeting and Financial Management (ABFM) Conference.

revenue bonds appears to increase the number of funds reported.<sup>18</sup> In addition, not only is there diverse use of internal service funds across cities and states, the number of individual funds within the internal service funds also varied.

Our current analysis of bond ratings and financial statement fund structures is strengthened by the comparability of those 11 cities. CAFRs offer audited fund information for each city; these statements are a reliable source for performing counts of individual funds (independent variables) within the governmental fund statements and proprietary fund statements. Each city in the sample received GFOA Certificates of Achievement in the CAFR Program regardless of number of funds reported or bond rating. Moody's reports underlying GO bond ratings at the time of issuance, providing a better proxy (dependent variable) of borrowing costs than insured ratings.<sup>19</sup> We analyze correlations between numbers of funds and bond ratings, then use a regression analysis to assess the relationship between the underlying GO bond ratings and fund counts of major funds, by fund type over the years 2002 through 2005. Using 10 cities over four years produced 40 cases for comparison.<sup>20</sup> Table 2 presents the descriptive statistics for the 10 cities over the four years, by type of fund. The analyses exclude fiduciary fund types.

---

<sup>18</sup> Issuances of new bonds sometimes generate newly, segregated funds for their repayment.

<sup>19</sup> Estimates based on the GO bond ratings of issuances in the previous or subsequent year were used when cities did not issue a GO bond in a given year. This is a highly reliable method since bond ratings available from Moody's did not fluctuate from year over year within this four-year time span for the cities analyzed here. Definitions of Underlying ratings and insured ratings can be found at Herbert J. Sims & Co. (<http://www.simsbonds.com/bonds/faq.html#faq9>), last accessed October 21, 2008.

<sup>20</sup> One city was eliminated from the analysis because the assistant finance director of this city confirmed that this city (as well as most cities in this state) do not use GO bonds. They rely heavily on local sales taxes for revenues. The 2002 cut-off of prior years was chosen to take into consideration the impact of GASB Statement No. 34 - particularly the consolidation of funds into non-major funds.

Table 2.

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Std. Deviation	Variance
GeneralFund	40	1.00	1.00	1.0000	.00000	.000
SpecRevFund	40	.00	4.00	1.5500	1.08486	1.177
CapProjFund	40	.00	2.00	.6000	.54538	.297
DebtSvcFund	40	.00	1.00	.7000	.46410	.215
NonMajGovFunds	40	11.00	52.00	23.1750	11.64846	135.687
TtlGovFunds	40	15.00	57.00	27.0250	11.21923	125.871
EntFund	40	.00	9.00	2.1000	1.53255	2.349
NonMajEntFund	40	.00	10.00	3.0750	2.57590	6.635
InternalSvcFund	40	.00	12.00	3.5500	3.13745	9.844
AllFunds	40	24.00	57.00	35.7500	9.11676	83.115
BondRating	40	1.00	4.00	2.9000	.95542	.913
Valid N (listwise)	40					

## Findings

### Total Fund Counts Matter

Table 3 displays the gradual decrease in the 4 year average GO bond ratings as total governmental funds and proprietary funds rises. The three municipalities with the lower A1 bond rating have an average 40 percent more funds than the municipality with the Aaa rating, and 15 percent more than the two municipalities with the Aa2 rating. The relationship between borrowing costs and heavy use in number of funds calls for further analysis, including an analysis of interfund transfers. High volumes of funds may result in high volumes of interfund transfers which are not perceived positively by Moody's in terms of their assessments of bond quality.

**Table 3. Overview of Key Variables Results**

<i>Bond Rating</i>	<i># of Cities</i>	<i>Avg # of Total Funds</i>
Aaa	1	28.0
Aa2	2	34.1
Aa3	4	35.9
A1	3	39.2
Total	10	35.8

GASB Statement 34 may have started a movement in fund consolidations (table 4). It would be prudent to rerun the regression at a future point in time to assess the reliability of the relationship between GO bond ratings and combined Governmental & Proprietary Funds. Since 2002, the total number of governmental and proprietary funds has decreased 12 percent, from an average 38 funds to only 33 funds.

**Table 4 - Number of Combined Funds in Sample Cities**

<i>Year</i>	<i>Governmental &amp; Proprietary Funds(Combined)</i>	<i>Decrease from 2002 (Base)</i>
2005	33.4	-11.9%
2004	34.1	-10.0%
2003	37.6	-0.8%
2002	37.9	-

Table 5 highlights significant correlations between the bond rating of a municipality and the number of funds in selected fund types. High overall usage of funds is associated with lower bond ratings and higher borrowing costs. The exception is non-major enterprise funds, where a higher bond rating is associated with greater use of these funds ( $r=.362$ ).

The regression analysis of the number of all types of governmental funds and proprietary funds revealed a high positive correlation to individual bond ratings (R Square of .418, significant at the .05 level per Tables 7 through 9 of the appendix).

**Table 5. Positive Relationship of Increased Usage of Number of Funds to Bond Rating.**

<i>Higher Use of Number of Funds</i>	<i>Low Bond Rating</i>	<i>High Bond Rating</i>
Total Number of Funds	.336	
Special Revenues Funds	.327	
Non-major Enterprise Funds		.362
Internal Service Funds	.335	
Correlations are significant at the 0.05 level (2-tailed).		

**Fund Type Matters:**

Given that the total number of funds affects the cost of borrowing, it raises the question of whether the number of a specific type of fund matters more than others. The regression of bond rating on the number of selected fund types tests whether there is a fund type effect, *ceteris paribus*. Table 6 presents the results of the regression. The model is significant ( $p \leq 0.01$ ) and the adjusted r-squared is .291.

As seen in table 6, only three variables produced predicted effects. Two enterprise group variables are noteworthy. The number of internal service funds (ISFs) is the only clearly significant effect in the model ( $p \leq 0.05$ ). Larger numbers of ISFs negatively influences the bond rating, raising the cost of borrowing for municipalities. In addition, a higher number of debt service funds negatively influences bond ratings, although it is only marginally significant ( $p \leq 0.08$ ) in this model. Alternatively, a larger number of non-major governmental funds raises the bond rating and lowers the cost of borrowing, although it is also only marginally significant ( $p \leq 0.10$ ) in this model. It is possible that a larger sample size would result in the latter two variables becoming more clearly significant.

**Table 6. Regression Results**

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	1.291	1.079		1.196	.240
Special Revenue Funds	-.330	.210	-.375	-1.573	.126
Capital Projects Funds	.017	.278	.010	.062	.951
Debt Service Funds	.666	.373	.324	1.786	.084
Non-Major Governmental Funds	-.030	.018	-.363	-1.663	.106
Enterprise Funds	-.073	.107	-.118	-.685	.499
Non-Major Enterprise Funds	-.046	.088	-.124	-.525	.603
Internal Service Funds	-.166	.051	-.544	-3.221	.003

**Discussion**

While there is much discretion for local governments to choose the number of funds in reporting financial results, they also exercise significant discretion in the types of financing tools and types of funds to use for reporting revenues and expenditures. For instance, without increasing its GO bond rating, City A using the largest number of funds in years 2002 and 2003 (56 and 57 total governmental and proprietary funds, respectively) consolidated its funds in years 2004 and 2005 (using 34 and 31, respectively) to a total lower than the average number of total funds reported by the cohort (or 35.4 and 35.9, respectively). Interestingly, City A was the only city with no proprietary funds reported in its CAFR for all four years. Yet, City A financed capital projects that were similar in nature to capital projects of other cities; for example, City A financed and reported a civic center in governmental funds, although a civic center was financed and reported in an enterprise fund in City X.

Unquestionably, other factors surrounding the reporting of financial decisions relate to borrowing costs and/or transparency. The r-squared in our model suggests it is underspecified. Though heightened use of funds reported in the CAFR appears to be associated with lower costs

of borrowing, the quantity of funds does not appear to be the only factor related to unfavorable fiscal conditions. The analysis presented here is intended to generate additional interest in examining the relationship of financial statement transparency to borrowing costs.

This paper does not explain why the increase in number of funds usage occurs (e.g. explaining away deteriorating conditions or capitalizing on fungible nature of resources via increased interfund transfers). Rather the relationship we detect speaks to the issue of the impact of transparency on a bond rating. Integrating quantitative analysis and qualitative measures will lead to a better understand of a community's borrowing costs in relation to its financial transparency, or lack thereof. Analysis could be strengthened by the following future enhancements:

- Expanding the number of cases beyond the present 40
- Incorporating dollar values of funds as well as content of funds (e.g., revenue sources)
- Analyzing interfund transfers, line item quantities and line-item transfers
- Interviewing decision makers to assess the political rationale involved for adding, eliminating or combining funds and/or line items.

## **Conclusion and Implications**

We cannot be certain why the heavy usage of multiple funds is related to higher costs of borrowing, although we found a relationship between these two conditions. Are local governments trying to increase transparency by explaining away details in multiple, separate funds when fiscal health wanes? Or, does increased number of funds serve as a mechanism for creating confusion, masking poor fiscal health? Currently, there is no identifiable optimal level of number of funds or combinations of funds to use in CAFR reporting. Regardless, finance and budgeting scholars can play an important role in reporting conditions that may be associated with poor fiscal health. This study sets a baseline for assessing those conditions, but we recognize

more rigor is needed to understand the nexus of financial reporting policies (CAFRs) with borrowing costs (GO bond ratings).

Research in this area may be strengthened by integrating the fiscal environment and other socioeconomic and demographic factors of the state or local government in analyzing the various CAFR fund structures. For example, it may be appropriate for Chicago, Illinois to use more funds and line items in their CAFR than South Elgin, Illinois, but is there a cut-off for the number of funds that should be classified as Internal Service Funds? For example, if the motor pool is a fund within the Internal Service Funds for Chicago should it not also be a fund within the Internal Service Funds for New York? A better understanding of financial reporting transparency can greatly enhance bond rating criteria which would directly impact borrowing costs and ultimately fiscal health. However, there is still much to learn in how states and local governments are using discretion in their style of financing and reporting. For instance, this phenomenon points to another dimension of evaluating transparency of financial statements; a more in-depth analysis encompassing number of line items and line-item transfers in CAFRs would strengthen our understanding of transparency as it relates to borrowing costs.

Continued research in CAFR fund structures as they relate to bond ratings may reveal unfavorable trends in financial reporting structures associated with risky financing practices. Evaluating fund structures with financing practices and outcomes (fiscal health and borrowing costs) will allow for enhanced transparency mechanisms. Vallejo, a city in extremely ill fiscal health, had a significant amount of funds on its books but does not issue GO bonds. Of the \$43 million dollars of Vallejo's debt on the books, zero dollars were attributed to GO bonds; the bulk of the dollars (about \$30 million) were classified as certificates of participation.<sup>21</sup> Compare Vallejo to the case of the Illinois city in this study (also referenced at the beginning as using half

---

<sup>21</sup> Ibid.

of the number of funds as Vallejo) that does not use any proprietary funds but finances and reports all capital projects activity through the governmental funds instead in order to issue double barrel bonds to decrease the cost of borrowing, and maintains a fiscally stable position.

Do certain types of financing arrangements increase the quantities of funds reported in an entity's CAFR? How well were Vallejo's shareholders equipped to reconcile and monitor the volumes of funds (or lack of funds) on its books? GASB has recently announced an initiative to review fund balance reporting - "Making Fund Balance More Useful: GASB Proposes Near Total Revamp".<sup>22</sup> One element of this project aims to increase the comparability of funds by being more explicit in its definitions of funds. We suggest GASB also encompass a review of financing decisions' impacts on the use of number of funds as well as the use of number of funds' impact on transparency in this project to strengthen shareholders' assessments of risk.

---

<sup>22</sup> GASB May 2008 Newsletter. ([http://www.gasb.org/newsletter/fund\\_balance\\_may2008.html](http://www.gasb.org/newsletter/fund_balance_may2008.html) last accessed June 26, 2008).