

The Use of Inter-Fund Transfers to Manage the “Bottom Line” in the Municipal Context

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ABSTRACT: This study examines whether municipalities use inter-fund transfers to manage the general fund. Since the general fund is a municipality’s largest fund, its financial position often reflects that of the whole municipality. Results indicate that transfers are used to manage the general fund toward zero. In particular, the tendency to use transfers to manage the general fund does not differ between general funds that had a positive and negative pre-managed change in fund balance, suggesting the incentive to report neither surplus nor deficit exists. Results also reveal that the practice of using transfers to manage the general fund toward zero is more substantial in municipalities with greater external oversight from citizens, creditors, state and federal granting agencies, and employees, as well as in municipalities with a strong-mayor form of government.

Keywords: governmental accounting; municipalities; fund accounting; inter-fund transfers.

JEL Classifications: H71; H72; M48; M41; G39.

INTRODUCTION

In an effort to enhance transparency, municipalities use fund accounting, where each fund is a self-balancing set of accounts, to separately track various activities. Due to its size, the general fund is often seen as an important indicator of the municipality’s financial condition ([Raman 1981](#)). Given the general fund’s relative importance, this study explores whether municipalities manage the change in fund balance (i.e., bottom line) of the general fund. Specifically, this study examines the use of inter-fund transfers as a mechanism to manage the general fund’s bottom line and the pressures that affect this practice. As such, this study sheds light on the reporting incentives of a significant portion of the economy.

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As a municipality's largest fund, showing a large surplus or deficit in the general fund can be problematic. On one hand, a large deficit can indicate mismanagement of public funds. Moreover, in municipalities with balanced budget provisions, a deficit is prohibited. On the other hand, a large surplus can indicate an over-collection of taxes and/or an under-provision of services (Anthony 1985), which can have adverse political consequences. Thus, municipal officials have incentives to report the change in the general fund balance as close to zero as possible. Alternatively, municipal officials can be more interested in building the general fund balance to project financial viability (Government Finance Officers Association [GFOA] 2002) rather than approaching a bottom line of zero. In such cases, the incentive is to manage the general fund balance upward.

I focus on inter-fund transfers as a mechanism to manage the general fund's bottom line since they are common to all municipalities. Also, given the considerable and economically significant discretion over their use, transfers are a prime mechanism for such smoothing practices (General Accounting Office [GAO] 1985).¹ Because transfers can occur for other reasons, I calculate abnormal inter-fund transfers as the residual from a regression of current-year net transfers on the prior-year net transfers.

Using a hand-collected sample of 103 municipalities from 2001–2003, I find that the change in the general fund balance is indeed managed toward zero. Specifically, pre-managed change in fund balance and abnormal net transfers vary inversely.² This finding holds for general funds with both surpluses and deficits in pre-managed change in fund balance. There is no statistical difference for the coefficient on the pre-managed change in fund balance variable in the two subsamples, suggesting symmetric incentives to reach zero. Thus, when pre-managed change in fund balance is high (low), there are more abnormal transfers out (in) in order to manage the change in fund balance toward zero.

The use of inter-fund transfers to manage the general fund bottom line toward zero is more pronounced in the face of certain pressures. The negative relationship between pre-managed change in fund balance and abnormal transfers is more substantial for municipalities that have greater citizen oversight, creditor monitoring, heavy reliance on state and federal grants, and strong labor union power as well as municipalities led by a strong mayor instead of a city manager.

Each of the external oversight factors acts as a monitoring function on municipalities. Consequently, municipalities respond to this monitoring by managing transfers to show revenues equal to expenditures. Furthermore, a municipality's reporting is affected by its internal governance. Since mayors are more sensitive than managers about promoting the appearance of financial stability for political considerations, municipalities led by a mayor are more likely to use transfers to manage the general fund toward zero.

The finding that the general fund bottom line is managed toward zero is robust to alternate specifications of abnormal net transfers. Specifically, the results hold when abnormal net transfers are calculated as the difference between actual net transfers and either the budgeted net transfers, the average net transfers for each municipality over the sample period, or the average net transfers for all the municipalities in the state for which a given municipality resides during the sample period. Results are also robust to scaling abnormal net transfers and the regressors by alternate

¹ Net transfers, calculated as transfers in less transfers out, are equal to 10 percent of general fund assets in my sample.

² Pre-managed change in fund balance is general fund revenues less general fund expenditures. This is the subtotal before inter-fund transfers on the statement of operations.

deflators. Additional analysis reveals that municipal officials offset the abnormal transfers used to manage the general fund into the governmental funds rather than the enterprise funds.³

This study documents that inter-fund transfers are an important mechanism to manage municipal financial statements. Moreover, the findings suggest that municipalities face incentives to report a change in general fund balance that is near zero. Specifically, the incentive to report a zero change in general fund balance is more substantial in municipalities with oversight from voters, creditors, higher levels of government, and employees, as well as in municipalities with strong mayors. As such, this study contributes to the literature on governmental accounting manipulation. For instance, [Costello, Petacchi, and Weber \(2014\)](#) find that states transfer money into the general fund to balance the budget and [Gore \(2012\)](#) documents that municipalities manipulate their general fund to hide funds from unions.

While these studies each focus on a particular reporting incentive, this paper highlights a variety of external oversight mechanisms that can induce manipulation. Furthermore, this study documents that a municipality's governance structure can impact its financial reporting manipulation. Finally, by showing that particular attention is given to manage the general fund, even at the expense of other funds, the findings highlight the relative importance of the general fund.

The remainder of the paper outlines the hypotheses, discusses the design and data, presents the primary analysis, offers additional analysis, and then concludes.

HYPOTHESES

Municipalities fund their operations from resources obtained from external sources, namely the citizenry and state and federal granting. Thus, in line with the notion of municipal stewardship of these public funds ([Chan 1981](#)), municipalities use fund accounting. Funds are a self-balancing set of accounts that separately track the finances of a specific activity. The general fund is the largest fund on a municipality's ledger and is the fund where primary government functions are recorded. Because of its size, the general fund receives the most scrutiny when analyzing the overall financial situation of a municipality ([Raman 1981](#); [Ruppel 2010](#)). Stated differently, the financial health of the general fund is viewed as a primary indicator of the municipality's viability.⁴

Municipal officials are charged with collecting taxes from the citizenry to provide public services ([Zimmerman 1977](#)). Thus, the citizens are involuntary resource providers (Government Accounting Standards Board [GASB] 2006) and, as such, they have incentives to ensure that the funds are appropriately expended ([Downs 1957](#)). Consequently, showing a large surplus or deficit can be undesirable. Showing a deficit reflects poorly on municipal officials to the extent that the municipality has to finance current activity with prior-year reserve funds. For example, the State of

³ Governmental funds are the group of funds that account for funds for a specific activity. Typical governmental funds are set up for capital projects and debt repayment. The general fund is a type of governmental fund but, as is explained in the text later, it is excluded from the calculation of governmental-fund variables. Enterprise funds account for the business-like operations of the municipality such as public utilities.

⁴ Anecdotal evidence supports the notion that the general fund is viewed as the barometer of the municipality's financial condition. Newspaper articles often cite the bottom line of the general fund as the operating result of the entire municipality. For instance, on May 2, 2011, the *Pittsburgh Business Times* ran a story titled "Controller: City ends 2010 with deficit" ([Mamula 2011](#)). The article stated the city of Pittsburgh ended 2010 with a deficit of \$12.5 million. The financial statements of the city show that the deficit in question was referring to the general fund.

Maryland Legislative Auditor labeled cities with a deficit as having a “negative trend” ([State of Maryland Office of Legislative Audits 2010](#)).

Conversely, a large surplus can have its own adverse effects. Such a surplus can imply that the municipality collected more taxes than it needed, which can prompt citizens to call for a limit of their taxes, request more services, or both ([Lipnick, Rattner, and Ibrahim 1999](#)). Large surpluses can also embolden labor unions to make higher demands ([Gore 2012](#)) and jeopardize state and federal grants that are subject to financial need ([Anthony 1985](#)). Accordingly, given the ramifications of a large surplus or deficit, municipal officials have incentives to report a change in the general fund balance as close to zero as possible ([Raman 1981](#)).

At the same time, municipal officials can have incentives to build up the general fund balance by managing the change in fund balance upward in order to project increased solvency and viability (GFAO 2002). Accordingly, the direction of potential reporting management is unclear, *ex ante*. As will be further explained in the next section, I focus on inter-fund transfers as the mechanism for managing financial reporting. Thus, if transfers are used to manage the general fund in *any* direction, then there should be an association between inter-fund transfers and the pre-managed change in fund balance. The above arguments lead to the following hypothesis, stated in the null form:

H1: There is no association between inter-fund transfers and the pre-managed change in the general fund balance.

Thus far, I considered whether general fund reporting is managed. However, if it is managed, then such a practice can be affected by external factors. For instance, at the state level, the tendency to manage toward budget goals is accentuated by several institutional features ([Costello et al. 2014](#)). At the municipal level, several oversight mechanisms can create incentives to manage the general fund financial statements.

The first of these factors is citizen oversight. Citizens theoretically monitor municipal officials. While monitoring can be costly to each citizen individually ([Zimmerman 1977](#)), evidence reported in prior studies is consistent with the notion that citizens use financial information for voting and relocation decisions ([Copley et al. 1997](#); [Kido, Petacchi, and Weber 2012](#)). Indeed, financial ratios are correlated with the outcomes of municipal elections suggesting that voters are implicitly aware of financial information when making voting decisions ([Ingram and Copeland 1981](#); [Brender and Drazen 2008](#)).

In addition, municipal literature indicates that municipalities with larger populations disclose more accounting information, adding further evidence to the notion of citizen monitoring ([Evans and Patton 1983](#); [Giroux and McLelland 2003](#)). Therefore, if citizens are aware of financial information, then municipal officials are wary of reporting information that provokes an unfavorable reaction from the citizenry. Consequently, the tendency to manage the general fund change in fund balance toward zero can be more substantial when citizens have greater oversight.

Managing the general fund, however, can adversely impact the citizens. For instance, if funds are transferred from a fund that is designated for a particular activity into the general fund, then that other fund lacks sufficient resources to fulfill its services. [Costello et al. \(2014\)](#) note that Hawaii depleted its Hurricane Relief Fund in 2011 to balance its general fund. Such a maneuver could have hampered relief efforts. Moreover, a municipality may need to raise taxes in the future to compensate for dwindling resources in other funds. Thus, although managing the general fund financial statements can help municipal officials present the municipality favorably in the short term, it can also have long-term consequences for the citizens.

The second oversight factor considered is creditors since they are often viewed as a primary audience for municipal financial information. Indeed, prior literature documents how creditors react to financial information. For instance, bond ratings are lowered in response to declining financial condition (Wallace 1981; Copeland and Ingram 1982) and cost of debt is lower for municipalities with higher financial disclosure levels (Wilson and Howard 1984; Gore 2004; Gore, Sachs, and Trzcinka 2004; Baber and Gore 2009). It follows then that creditors serve as an important monitor of the municipality's finances. Creditors, of course, want to ensure that the municipality is able repay its debt, which may tempt a municipality to manage its earnings upward to project financial viability. However, creditors can usually detect such maneuvers and are more interested in sound, stable management practices (Lipnick et al. 1999). Reporting neither surpluses nor deficit promotes the appearance of stability, thus managing the general fund toward zero should be more pronounced in municipalities with greater creditor presence.

Another oversight factor that potentially impacts municipal financial statement management is state and federal agencies. Municipalities that receive grants from these agencies are subject to additional reporting requirements to ensure grant money is expended properly and to assess future eligibility (Chan 1981; Broadus and Comtais 1985). Moreover, securing such aid becomes easier with the report of a deficit (Zimmerman 1977).

In addition to the oversight variables mentioned, labor unions are another factor that can entice municipal officials to manage the general toward zero. Labor unions base their demands on the financial condition of the municipality (Anthony 1985). Zimmerman (1977) suggests that municipalities have an easier time negotiating with unions if the municipal financial statements look weaker. Indeed, Gore (2012) supports this claim by documenting that municipalities with strong labor unions shift resources away from the general fund.

Beyond the external oversight variables discussed, a municipality's governance structure can impact general fund reporting. A municipality's chief executive can be either a mayor or a professional city manager. Since city managers are driven by reputational concerns and not by political considerations, municipalities led by managers have stronger governance, which leads to better outcomes. For instance, prior research finds that manager-led municipalities have higher disclosure quality and better financial conditions (Evans and Patton 1983; Giroux and McLelland 2003). Thus, a municipality's governance form potentially influences its reporting incentives. The above discussion suggests that oversight factors can impact the use of inter-fund transfers to manage the general fund toward zero, which leads to the following null hypothesis:

H2: The association between inter-fund transfers to the general fund and pre-managed change in general fund balance is independent of characteristics that distinguish municipalities according to oversight of the municipal reporting process.

DESIGN AND DATA

Design

The focus of this study is to determine if municipalities manage the change in the general fund balance. I examine inter-fund transfers as the mechanism for such management practices. Although each fund is a separate self-balancing set of accounts, the municipality can transfer money between funds. Inter-fund transfers can be used to subsidize the operations of the receiving fund, or account for long-term inter-fund loans and other reimbursements (Anthony 1985). For

example, a debt service fund may be set to account for debt repayments. But since this fund generates no revenue on its own, it would be subsidized by the general fund via transfers.

Although transfers have a legitimate purpose, discretion remains regarding their use. For instance, if the general fund were to transfer more money than needed to the debt service fund, it could create a “rainy day” fund that facilitates lower transfers in future years while still showing the desired general fund balance. [Anthony \(1985\)](#) notes that municipalities can use transfers to alter the reporting of a budget deficit or surplus. For example, an SEC report about New York City’s financial troubles in the 1970s states that the city transferred \$35 million into the general fund to mask the underlying deficit ([Securities and Exchange Commission \[SEC\] 1977](#)).

In addition, the GAO concludes that inter-fund transfers are used as “one-time fixes” to close budget shortfalls ([GAO 1985](#); [GAO 1993](#)). Though other manipulation methods can be employed, I focus on transfers because they are common to all municipalities and economically significant. Still, because there are natural economic reasons for operating transfers, I estimate *Abnormal Net Transfers* as the residual from following the model estimated for each year:

$$Net\ Transfers_{i,t} = \beta_0 + \beta_1 Net\ Transfers_{i,t-1} + \varepsilon_{i,t}, \quad (1)$$

where *Net Transfers* is calculated as general fund total transfers in less total transfers out scaled by the total assets of the general fund. *Abnormal Net Transfers*, then, captures the discretion that municipal officials have over inter-fund transfers. H1 is tested using the model below:

$$\begin{aligned} Abnormal\ Net\ Transfers_{i,t} = & \beta_0 + \beta_1 Pre\text{-}Managed\ CFB_{i,t} + \beta_2 Strong\ Mayor_{i,t} + \beta_3 Asset\ Ratio_{i,t} \\ & + \beta_4 Beg\ Fund\ Balance_{i,t} + \beta_5 Other\ Financing\ Sources_{i,t} \\ & + \beta_6 Population_{i,t} + \beta_7 Pre\text{-}Managed\ CFB\ Govts_{i,t} \\ & + \beta_8 Beg\ Fund\ Bal\ Govt_{i,t} + \beta_9 Other\ Financing\ Sources\ Govt_{i,t} \\ & + \varepsilon_{i,t}. \end{aligned} \quad (2)$$

Pre-Managed CFB, pre-transfer change in fund balance in the general fund, is calculated as general fund revenue less expenditures. Accordingly, β_1 is expected to have a negative coefficient if the general fund is managed toward zero. Alternatively, if transfers are used to boost fund balance, then β_1 is positive. It is important to note that in the statement of operations, this subtotal is followed by the “Other Financing Sources” subsection and then the bottom line of change in fund balance. Other financing sources include transfers but can also include other items such as proceeds from a bond issuance or sale of an asset. Because the other amounts in the other financing section can affect the general fund’s bottom line, I control for *Other Financing Sources*, calculated as the total of other financing sources less net transfers. It is important to note that *Other Financing Sources* excludes net transfers.

Strong Mayor is coded 1 if the municipality is led by a mayor and 0 if it is led by a professional city manager and controls for municipal governance. *Asset Ratio*, computed as total general fund assets scaled by the total assets of the governmental funds, controls for the relative size of the general fund and the natural tendency of the largest funds to finance the smaller ones. I control for *Population* to consider the effect of municipality size. *Beg Fund Balance* is the beginning balance of fund balance in the general fund and controls for the ability of municipal officials to draw down reserves to finance current-year operations.

I include as control variables *Pre-Managed CFB*, *Beg Fund Balance*, and *Other Financing Sources* for the total of governmental funds. Including variables from the governmental funds further controls for the economic reasons for inter-fund transfers. Since the general fund is considered to be part of the governmental-fund group, these governmental-fund variables subtract out the general fund totals. Thus, these control variables represent the amounts for the non-

general fund governmental funds. All financial variables are scaled by the fund balance of the respective fund. To further control for municipal specific characteristics that potentially affect managing the financial reports, I include municipal fixed effects in addition to state and year fixed effects. Standard errors are clustered by municipality.

Data

I compile a sample based on the 2001 International City/County Management Association (ICMA) governance survey. Although the ICMA survey is conducted every five years, I choose 2001 to avoid potential effects of the financial crisis, as reporting incentives can differ during this period.⁵ The ICMA survey includes 4,245 municipalities, but in keeping with prior literature, I focus on municipalities with populations over 25,000. This limits my initial sample to 631. For these municipalities, I emailed a request for the municipalities' financial reports for the years 2000–2003. I use reports from the year 2000 to obtain lagged variables. A total of 135 municipalities replied (21 percent) but 32 of those replies did not provide all the requested years. Therefore, my final sample includes 103 municipalities from 24 states for the period 2001 to 2003.⁶ I hand-collected the requisite financial data from the financial reports.

Table 1, Panel A reveals that the average municipality has a population of 91,369 and that 34 percent of municipalities have a strong-mayor municipal form. The general fund has an average of \$35.8 million in assets that account for 39 percent of all governmental-fund assets, underscoring the relative size of this fund. *Pre-Managed CFB* is 8.6 percent of fund balance in the general fund, while *Abnormal Net Transfers* is 1.7 percent of the general fund assets. As noted in Panel B, general fund pre-managed change in fund balance is negatively correlated with *Abnormal Net Transfers*. This correlation is preliminary evidence that the general fund is managed toward zero using inter-fund transfers.

PRIMARY ANALYSIS

Test of H1

Table 2 presents the results of Model (2). The R^2 of the model in column 1 is 57 percent. The R^2 is high due to the inclusion of municipal fixed effects, which appear to subsume the effect of the control variables.⁷ In column 1, *Pre-Managed CFB* has a significantly negative coefficient ($\beta = -0.127$).⁸ Thus, the null H1 is rejected in favor of the alternative hypothesis that inter-fund

⁵ During a crisis, managers can opportunistically manage earnings up to conceal true performance (Choi, Kim, and Lee 2011) or take more write-offs ("big bath") since most firms are experiencing significant losses. Since the purpose of this study is to examine earnings management in typical periods, I choose a sample period that reflects this aim. As a sensitivity check, I collect financial information for 60 of the municipalities in my sample for their most recent year available, conduct the operating transfer analysis, and note that the results are consistent.

⁶ California and Ohio combine for 56 municipalities in the sample. To ensure that these two states are not driving my results, I include state fixed effects.

⁷ When municipal fixed effects are omitted from the model, *Pre-Managed CFB* remains significantly negative but *Other Financing Sources*, *Beg Fund Balance* are statistically significantly negative, while *Pre-Managed CFB* and *Other Financing Sources* for the governmental funds also yield negative and statistically significant coefficients, respectively. *Beg Fund Balance* for the governmental funds produces a positive and significant coefficient.

⁸ Transfers can be influenced by amounts available in the enterprise funds. Results are unchanged when period t change in pre-transfer enterprise fund balance is included.

TABLE 1
Descriptive Statistics

Panel A: Univariate Statistics (n = 309)

Variable	Mean	P25	P50	P75
<i>Population</i>	91,369	31,872	46,832	68,652
<i>Abnormal Net Transfers</i>	0.017	(0.050)	0.030	0.124
<i>Pre-Managed CFB</i>	0.086	(0.033)	0.128	0.370
<i>Beg Fund Balance</i>	1.038	0.877	0.987	1.143
<i>Other Financing Sources</i>	0.008	0.000	0.000	0.008
<i>Asset Ratio</i>	0.394	0.257	0.360	0.487

Cross-Sectional Characteristics (Indicator Variables)

<i>Strong Mayor</i>	0.340	—	—	—
<i>Citizen Boards</i>	0.932	—	—	—
<i>Citizen Initiative</i>	0.816	—	—	—
<i>Recall</i>	0.789	—	—	—
<i>Appointment Method</i>	0.304	—	—	—
<i>Pension Costs</i>	0.197	—	—	—
<i>Bond Issue</i>	0.520	—	—	—
<i>Intergovt. Revenue</i>	0.197	—	—	—

Panel B: Pearson Correlation between Selected Variables

	<i>Abnormal Net Transfers</i>	<i>Pre-Managed CFB</i>	<i>Strong Mayor</i>	<i>Population</i>	<i>Citizen Boards</i>	<i>Pension Costs</i>	<i>Intergovt. Revenue</i>
<i>Pre-Managed CFB</i>	−0.455***						
<i>Strong Mayor</i>	0.042	0.027					
<i>Population</i>	−0.118**	0.112**	0.218***				
<i>Citizen Boards</i>	0.002	−0.057	−0.295***	0.109*			
<i>Pension Costs</i>	0.049	−0.148***	0.073	0.014	−0.060		
<i>Intergovt. Revenue</i>	−0.147***	0.145***	0.056	0.118**	−0.092	0.387***	
<i>Bond Issue</i>	−0.009	0.044	0.110	0.191***	−0.095	0.121**	0.011

*, **, *** Represent significance at the 1 percent, 5 percent, and 10 percent levels, respectively.

This table displays descriptive statistics for variables used in the analysis. Panel A provides descriptive statistics of the main variables used in the analysis. Panel B provides the Pearson correlations between selected variables.

All variables are defined in Appendix A.

transfers are used in the general fund to manage the change in fund balance toward zero. In fact, for the average general fund in the sample with *Pre-Managed CFB* of 8.6 percent of general fund balance, the *Abnormal Net Transfer* is -0.011 , $(-0.127 * 0.086)$, or -1.1 percent of average general fund assets. Since the average general fund total assets is \$35.8 million, this amounts to an additional \$391,000, $(-0.011 * 35.8 \text{ million})$, transferred out of the general fund, a nontrivial amount.

The results suggest that *Abnormal Net Transfers* are used in the general fund to manage toward zero. To get a clearer picture, I estimate Model (2) using subsets of municipalities that report a positive and negative *Pre-Managed CFB*. Column 2 shows that for the positive *Pre-*

TABLE 2
Effect of Abnormal Transfers on Pre-Managed Change in Fund Balance
Dependent Variable: *Abnormal Net Transfers*

Variables	Full Sample	Observations with Pre-Managed Surpluses	Observations with Pre-Managed Deficits
<i>Pre-Managed CFB</i>	−0.127** (−2.515)	−0.115*** (−3.202)	−0.226** (−2.362)
<i>Strong Mayor</i>	−0.099 (−0.291)	−0.199 (−0.660)	−0.046 (−0.186)
<i>Asset Ratio</i>	−0.242 (−0.523)	0.451 (1.057)	0.711 (0.937)
<i>Beg Fund Balance</i>	−0.182 (−1.293)	−0.022 (−0.102)	−0.467*** (−3.424)
<i>Other Financing Sources</i>	−0.171 (−0.670)	−0.188 (−0.533)	−0.586** (−2.670)
<i>Population</i>	−0.115 (−0.807)	−0.101 (−1.102)	0.150 (1.207)
<i>Pre-Managed CFB Govt</i>	−0.026 (−1.038)	−0.034 (−1.371)	0.000 (0.025)
<i>Beg Fund Bal Govt</i>	0.041 (1.322)	0.098 (1.305)	0.039 (1.363)
<i>Other Financing Sources Govt</i>	−0.036 (−1.286)	−0.106 (−1.290)	−0.008 (−0.732)
State, Year, and Municipal FE	Yes	Yes	Yes
Constant	1.791* (1.836)	2.563 (1.017)	−1.368 (−0.871)
Observations	309	216	93
No. of States in Regression	24	21	17
R ²	0.578	0.584	0.897

*, **, *** Represent significance at the 1 percent, 5 percent, and 10 percent levels, respectively.

This table presents the results of Model (2). The dependent variable is *Abnormal Net Transfers*, which is the residual obtained from regressing net transfers on prior-year net transfers. The independent variable is the general fund *Pre-Managed CFB*. In column 1, variables capturing the financial condition of general and governmental funds are included. Column 2 runs Model (2) only on the subset of observations whose *Pre-Managed CFB* is positive, while column 3 runs Model (2) only on the subset of observations whose *Pre-Managed CFB* is negative. Municipality, state, and year fixed effects (FE) are included. Standard errors are clustered by municipality. The difference between *Pre-Managed CFB* in situations of surpluses and deficits is statistically insignificant ($\chi^2 = 1.91$).

All variables are defined in Appendix A.

Managed CFB group, *Pre-Managed CFB* is negative and statistically significant. For the negative *Pre-Managed CFB* group, column 3 reveals that *Pre-Managed CFB* is also negative and statistically significant. A test of coefficients reveals no statistical difference between the coefficients of *Pre-Managed CFB* in either subsample, suggesting that the incentive to reach the zero threshold is equally strong in both subsamples. Altogether, the evidence indicates that when *Pre-Managed CFB* is high (low), municipalities adjust their net transfers downward (upward) in order to be closer to a bottom line of zero.

I estimate Model (1) twice to distinguish *Abnormal Transfers In* from *Abnormal Transfers Out*. I calculate *Abnormal Transfers In* (*Abnormal Transfers Out*) as the residual from transfers in (out) on the value from the prior year. *Pre-Managed CFB* varies negatively with *Abnormal Transfers In* and positively with *Abnormal Transfers Out* (results not tabulated). This confirms the results of Table 2 and suggests further that managing the bottom line of the general fund requires adjusting of both transfers in and out of the fund. Also, in untabulated results, to verify that reported results are not attributable to factors correlated with *Other Financing Sources*, I confirm the results of Table 2 on the subsample of observations with no *Other Financing Sources*.

Test of Cross-Sectional Associations

The following model tests H2:

$$\begin{aligned} \text{Abnormal Net Transfers}_{i,t} = & \beta_0 + \beta_1 \text{Pre-Managed CFB}_{i,t} * \text{Factor}_{i,t} + \beta_2 \text{Factor}_{i,t} \\ & + \beta_3 \text{Pre-Managed CFB}_{i,t} + \beta_4 \text{Controls} + \varepsilon_{i,t}. \end{aligned} \quad (3)$$

Factor is a measure of the particular reporting pressure in question. First, I examine citizen pressure. In particular, I consider whether the municipality has a citizen board, which is a collection of residents either appointed or elected to serve an advisory or policymaking role regarding specific issues. Although citizen boards are mainly advisory, they can serve as a “perceived” monitoring tool for public officials because of their close involvement in government. *Citizen Boards* is coded 1 if it exists in the municipality, and 0 otherwise.

I also examine *Appointment Method*, coded 1 if the mayor is selected by direct vote, and 0 if selected by the council, because the mayor’s incentives to manage general fund reporting could be altered depending on how s/he is appointed. I also code *Citizen Initiative* 1 if the municipality allows for such initiatives, which allow for “direct democracy” and give citizens more influence in government. Likewise, I code *Recall* 1 if the municipality allows the citizens to remove an elected official from office, as such provisions potentially empower citizens in their effectiveness of their oversight.

The next set of *Factor* variables have to do with creditor, granting agency, and labor union pressures. *Bond Issue* is set to 1 if the municipality issued a bond in the previous year. Because creditors react to municipal financial information and have oversight through bond covenants, *Bond Issue* captures the extent of creditor monitoring. *Intergovt. Revenue* measures the effect of state and federal aid on reporting incentives. *Intergovt. Revenue* is coded 1 if the general fund’s state and federal grant revenue is in the top quintile in the prior year. Intergovernmental revenue indicates reliance on those agencies and thus, potentially, greater incentive to manage the general fund reporting.

To measure labor union strength, I examine pension contributions since those costs are a part of the contractual agreement between the unions and the municipality. But since pension contributions can vary with municipality size, I first regress pension costs on a municipality’s population and calculate the residual. The residual represents pension costs above and beyond factors related to municipality size and approximates the influence of the labor union. *Pension Cost* is coded 1 if the municipality’s pension cost residual is in the top quintile of all residuals in the prior year. Moreover, I use *Strong Mayor* to capture the municipality’s internal governance structure.

Table 1, Panel A presents descriptive statistics for these variables. Of note, 79 percent of municipalities have a *Recall* provision, while in 30 percent of the observations the mayor is elected directly by the citizens. Also, 52 percent of municipalities issued a bond in the prior year.

Table 3 presents the results of Model (3). I estimate a separate regression for each *Factor* variable to maximize the power of my tests. Because all the citizen oversight variables yield comparable results, I only present the *Citizen Boards* specification. The interaction between *Pre-*

TABLE 3
Effect of Reporting Pressures on Use of Abnormal Net Transfers
Dependent Variable: *Abnormal Net Transfers*

Variables	<i>Citizen Boards</i>	<i>Pension Costs</i>	<i>Bond Issue</i>	<i>Intergovt. Revenue</i>	<i>Strong Mayor</i>
<i>Pre-Managed CFB * Factor</i>	−0.327*** (−4.863)	−0.257*** (−6.600)	−0.193*** (−3.154)	−0.193*** (−4.163)	−0.213*** (−3.828)
<i>Factor</i>	0.049 (1.017)	−0.200 (−1.030)	0.057 (1.177)	0.065 (1.134)	−0.256 (−0.723)
<i>Pre-Managed CFB</i>	0.108*** (7.105)	0.070*** (5.957)	0.021 (1.245)	0.053** (2.265)	0.061** (2.574)
<i>Strong Mayor</i>	0.224** (2.415)	−0.693** (−2.158)	0.202 (0.692)	0.502** (2.280)	
<i>Asset Ratio</i>	−0.154 (−0.472)	−0.374 (−1.568)	−0.726 (−0.899)	−0.570 (−0.785)	−0.243 (−0.611)
<i>Beg Fund Balance</i>	−0.284*** (−3.817)	−0.210*** (−3.733)	−0.248*** (−3.101)	−0.140** (−2.090)	−0.169* (−1.825)
<i>Other Financing Sources</i>	−0.403*** (−3.426)	−0.122 (−1.331)	−0.269* (−1.871)	−0.138 (−1.083)	−0.169 (−1.047)
<i>Population</i>	−0.075* (−1.825)	−0.033 (−0.388)	−0.042 (−1.143)	−0.185*** (−3.454)	−0.046 (−0.373)
<i>Pre-Managed CFB Govt</i>	0.000 (0.023)	−0.014** (−2.134)	−0.006 (−0.843)	−0.006 (−1.051)	−0.004 (−0.707)
<i>Beg Fund Bal Govt</i>	0.001 (0.047)	0.039*** (2.714)	0.033* (1.939)	0.021 (1.411)	0.021 (1.319)
<i>Other Financing Sources Govt</i>	−0.001 (−0.191)	−0.030*** (−3.874)	−0.013 (−1.058)	−0.010 (−1.016)	−0.014* (−1.709)
State, Year, and Municipal FE	Yes	Yes	Yes	Yes	Yes
Constant	1.082*** (3.560)	0.842 (1.084)	0.711* (1.949)	1.851*** (4.581)	0.910 (0.851)
Observations	309	309	309	309	309
No. of States in Regression	24	24	24	24	24
R ²	0.756	0.607	0.642	0.614	0.636

*, **, *** Represent significance at the 1 percent, 5 percent, and 10 percent levels, respectively.

This table presents the results of Model (3). Each column presents the interaction of a different cross-sectional variable, labeled *Factor*, with the *Pre-Managed CFB*. The dependent variable in all columns is *Abnormal Net Transfers*. In column 1 the *Factor* is *Citizen Boards*, which is coded 1 if the municipality has at least one citizen board. In column 2 the *Factor* is *Pension Costs*, which is coded 1 if the municipality is in the top quintile of excess pension costs, where excess pension costs is the residual obtained from regressing total pension costs on municipality population. In column 3, the *Factor* is *Bond Issue*, which is coded 1 if the municipality issued a bond in the prior year, and in column 4, the *Factor* is *Intergovt. Revenue*, which is coded 1 if the municipality is in the top quintile of total grant money from state and federal agencies in the prior year. In column 5, the *Factor* is *Strong Mayor*, which is 1 if the municipality is led by a mayor, and 0 if it is led by a professional city manager. For each model, municipality, state, and year fixed effects (FE) are included. Standard errors are clustered by municipality.

All variables are as defined in Appendix A.

Managed CFB and *Citizen Boards* is negative and significant. This suggests that the general fund is more aggressively managed toward zero only when there is active citizen oversight.

Similarly, the interaction between *Pre-Managed CFB* and *Bond Issue* is negative and significant as is the interaction with *Intergovt. Revenue*, *Pension Costs*, and *Strong Mayor*.⁹ This suggests that only municipalities with high creditor oversight, high reliance on grant money, facing powerful unions, or led by a mayor actively use inter-fund transfers to manage the general fund toward zero. Interestingly, *Pre-Managed CFB* has a *positive* coefficient in all the columns and is significant in four of them. This suggests that for municipalities *without* these factors, transfers vary positively with pre-managed change in general fund balance. Accordingly, the association between *Pre-Managed CFB* and *Abnormal Net Transfers* documented in Table 2 is driven by the subset of municipalities that have these incentives in place. In other words, these reporting factors *distinguish* the instances where inter-fund transfers are used to manage the general fund toward zero.¹⁰

ADDITIONAL ANALYSIS

Alternative Specifications

Although the results of Table 2 suggest that net transfers are used to manage the general fund toward zero, I consider alternate specifications for *Abnormal Net Transfers*. First, *Abnormal Net Transfers* is calculated as actual net transfers less budgeted net transfers. Budgets are a crucial governing document for municipalities and a key constraint on the discretion of municipal officials (Chan 1981). Therefore, in this approach, *Abnormal Net Transfers* is the discretionary amount beyond the budgeted amount. I rerun Model (2) with this variable as the dependent variable. Results (not tabulated) are consistent with those in Table 2, suggesting that management of the general fund financial statements occurs using discretion over transfers beyond the budgeted amounts.

The second alternate way *Abnormal Net Transfers* is calculated is as the difference between net transfers in a given year and the average net transfers for the municipality during the sample period. In this specification, a municipality's actual net transfers over the sample period acts as the expected transfers for the year. Similarly, the third configuration of *Abnormal Net Transfers* is computed as the difference between net transfers in a given year and average net transfers for all the municipalities in the state in which the municipality belongs during the sample period. Accordingly, this last specification uses the average net transfers in the state as the expected transfers for the year. Results (not tabulated) are similar when *Abnormal Net Transfers* is calculated using either of these two approaches.

Another issue is that the deflator for the general fund control variables is ending fund balance. Since ending fund balance is a function of prior-period net transfers, a mechanical relationship can arise. Thus, I estimate specifications where general fund control variables are scaled using

⁹ The results are robust when *Intergovt. Revenue* and *Pension Costs* are considered as binary variables based on a quartile ranking or median ranking of the prior-year amounts of intergovernmental revenue or pension costs.

¹⁰ A regression model is considered that includes all the factors and their respective interactions. The interaction between *Pre-Managed CFB* and the following citizen oversight variables produces a negative and significant coefficient: *Citizen Initiative*, *Citizen Boards*, and *Recall*. The interaction for *Appointment Method* is negative but insignificant. The interaction between *Pre-Managed CFB* and *Pension Costs* is positive and significant, while the interaction with *Intergovt. Revenue* is positive but insignificant. The interaction for *Bond Issue* is negative but insignificant. The interaction for *Strong Mayor* is negative but insignificant. The difference in results between this specification and the one reported in Table 3 indicates multi-collinearity between factors.

population, general fund assets, and general fund total revenue. Results (not tabulated) are similar when using the alternate deflators. Results are also similar when *Abnormal Net Transfers* and the general fund regressors are both scaled by these alternate deflators.

Abnormal Transfers in Other Funds

The evidence indicates that inter-fund transfers are used to manage general fund reporting. Since abnormal transfers in (out) of the general fund suggest an abnormal transfer out (in) for another fund, it is instructive to understand the impact of general fund abnormal transfers on other funds. Accordingly, I calculate *Abnormal Net Transfers* for two sets of funds: the “other” governmental funds, defined as the total of governmental funds less the general fund, and the enterprise funds. Other governmental (enterprise) fund *Abnormal Net Transfers* is regressed on *Pre-Managed CFB* for the other governmental (enterprise) funds and the general fund, respectively, as well as the rest of controls from Model (2). This model examines abnormal transfers of the other governmental (enterprise) funds as a function of pre-managed change in fund balance in the other governmental (enterprise) funds as well as change in fund balance in the general fund.

Results not reported show that parameter estimates for *Pre-Managed CFB* for the other governmental and enterprise funds are insignificant, suggesting that transfers are not used to manage these two sets of funds. Interestingly, though, general fund *Pre-Managed CFB* has a positive and significant coefficient in the model for other governmental-fund *Abnormal Net Transfers*. However, general fund *Pre-Managed CFB* has no statistical relationship with enterprise fund abnormal transfers. This suggests that as general fund pre-transfer change in general fund balance increases, more abnormal transfers go *into* other governmental funds but not the enterprise funds. Coupled with the results of Table 2, this suggests that municipal officials use transfers to manage the general fund toward zero and offset those transfers into the other governmental funds.

CONCLUSION

This study examines whether municipalities use inter-fund transfers to manage the general fund toward zero. Consistent with the notion that municipalities have a strong incentive to not report large surpluses or deficits in the bottom line of its most visible fund, the results indicate that inter-fund transfers are used to manage the general fund toward zero. In fact, the tendency to use transfers to manage the general fund does not differ between general funds that have a positive and negative pre-managed bottom line, suggesting the zero incentive is strong regardless of the starting point. The results also reveal that the use of transfers to manage the general fund toward zero is concentrated among municipalities with greater oversight from citizens, creditors, granting agencies, and labor unions as well as municipalities with a strong-mayor municipal form of government.

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APPENDIX A

Variable Definitions

Variable	Definition
Dependent	
<i>Abnormal Net Transfers</i>	The residual from regressing net transfers on prior-year net transfers where net transfers is transfers in minus transfers out for the general fund scaled by total general fund assets.
Independent	
<i>Pre-Managed CFB</i>	Sum of revenues less expenditures scaled by general fund balance.
Controls	
<i>Strong Mayor</i>	Coded 1 if the chief executive is the mayor, and 0 if the chief executive is a professional city manager.
<i>Asset Ratio</i>	The ratio of general fund assets to all governmental-fund assets.
<i>Beg Fund Balance</i>	Beginning general fund balance scaled by the ending general fund balance.
<i>Other Financing Sources</i>	Total financing sources minus general fund net transfers scaled by the general fund balance.
<i>Pre-Managed CFB Govt</i>	Sum of revenues less expenditures in all the governmental funds less the sum of revenues minus expenditures in the general fund scaled by the total fund balance of the governmental fund.
<i>Beg Fund Bal Govt</i>	Total governmental-fund beginning fund balance less general fund beginning fund balance scaled by the total governmental-fund ending fund balance.
<i>Other Financing Sources Govt</i>	Total financing sources in the governmental funds less general fund <i>Other Financing Sources</i> scaled by the total governmental-fund ending fund balance.
<i>Population</i>	The log of the municipality population in 2000.
External Factors: Citizen Oversight	
<i>Citizen Boards</i>	Coded 1 if the City has citizen boards, 0 otherwise.
<i>Recall</i>	Coded 1 if the municipality has a recall provision, 0 otherwise.
<i>Citizen Initiative</i>	Coded 1 if municipality has a citizen initiative provision, 0 otherwise.
<i>Appointment Method</i>	Coded 1 if mayor is elected directly by the citizens, 0 otherwise.
External Factors: Other External Oversight	
<i>Bond Issue</i>	Coded 1 if the municipality issued a bond in the previous year, 0 otherwise.
<i>Intergovt. Revenue</i>	Coded 1 if prior-year intergovernmental revenue in the general fund is in the top quintile of all intergovernmental revenue, 0 otherwise.
<i>Pension Costs</i>	Coded 1 if prior-year Excess Pension Costs are in the top quintile of all Excess Pension, 0 otherwise. Excess pension costs are calculated as the residual from regressing pension costs on population.