Cash Management

Cash Flow Management

A cash flow for any period of time is the difference between cash income and cash outlays. Cash flow management consists of predicting and managing variations in cash income and cash outlays so that the net cash position (i.e., the sum of a beginning cash position and cash flow) is consistently positive, allowing a safety margin for the inevitable forecast error. When the net cash position is negative, outside financing must be used, either in the form of explicit credit agreements (such as a line of credit with a bank), or through increases in accounts payable.

Use of external financing should not unduly place an organization at risk — that is, the assets used to secure external financing should be available in the amount and at the time to meet the maturing obligations. This concept is known as liquidity — the ratio of cash and other cash-convertible assets to near-term financial obligations (or current liabilities). The management of liquidity is closely related to cash flow management. Whereas cash flow management is evaluated from actual cash transactions over some period, liquidity is evaluated over a longer period of time, using a more methodical rendering of assets and liabilities as reported in annual financial statements.

We reviewed MTA's cash flow management from two perspectives — trends in liquidity, using year-end financial statements for 1996 through 2000; and monthly, for fiscal year 2000 (i.e., July, 1999 through June, 2000), using cash transaction data made available to us by the MTA.

At the close of FY96, MTA was in reasonably sound financial condition. Since then, however, all indicators of liquidity have deteriorated dramatically. MTA does not have enough cash to meet maturing obligations — cash plus receivables are less than current liabilities. In the last two years cash flow has been managed actively using an external line of credit (LOC), accounts payable, and accrued expenses.

The latter two tactics allowed MTA to avoid a $785,000 cash shortfall at the close of FY99 (see Exhibit 10-1 July Cash Balance – Beginning). In FY2000, excluding the funds made available by the LOC, this shortfall would have increased to about $1.9 million. Net draws (i.e., draws less payments) on the LOC, totaling $1.68 million in FY2000, lowered the overall cash shortfall to about $195,000 (Exhibit 10-1) June Cash Balance - Ending). Expenses and revenues accrued at year-end allowed a more positive cash position (+$89,811) to be reported in the financial statements. Nonetheless, liquidity and cash flow continue to be problematic.

Sufficient liquidity can be restored through several actions; creating an operating reserve, creating capital reserve for FTA and State funds, and either current-funding the Metro capital match or allowing MTA to issue bond anticipation notes for Metro bonds that will cover the local share. The reserves must be rigorously managed so that they will be maintained, rather than depleted, at year-end.

The details of our findings on liquidity trends, monthly cash flow, and a proposal to improve MTA's liquidity are presented below.

Liquidity Trends

We analyzed MTA's trend in liquidity from its balance sheets for 1996–2000, presented in summary form on Exhibit 10-2. Three indicators of liquidity — the current ratio (i.e., current assets divided by current liabilities), the quick ratio (i.e., cash plus receivables, divided by current liabilities), and weeks of working capital (i.e., current assets less current liabilities, divided by average weekly expenditures) were calculated from the balance sheet data. All three have deteriorated since 1996:

- The current ratio declined to 1.07 in 2000 from 2.45 in 1996. This indicates that all assets held by MTA that could conceivably be converted to cash would, at par value, barely cover current liabilities (i.e., those coming due within the next year).
- The quick ratio was relatively safe in 1996, at 1.13, but fell below 1.0 in 1997 and has stayed about the same since then. This indicates that MTA has insufficient cash and receivables to cover near-term liabilities, technically an indication of insolvency. This is a more conservative indicator of liquidity since it excludes materials and supplies inventories, which are usually valued well above their potential liquidated value.
- Working capital declined to less than one week of expenditures in 2000, from about five weeks in 1996. This means that MTA could fund less than one week of operating and capital expenditures after meeting its current liabilities, assuming that all current assets could be converted to par value in cash.

Several important changes to MTA's financial structure have contributed to this trend. First, annual unfunded operating deficits have drawn down MTA cash.

Second, annual expenditures have increased by 50%, to about $27.6 million in 2000 versus $18.1 million in 1996. Most of this increase is in capital outlays which, although 100% grant funded, increase MTA's working capital needs because these expenses are reimbursed in arrears.

Third, MTA's use of external financing (i.e., accounts and notes payable) has increased dramatically. This is reflected in the almost seven-fold growth in current liabilities. Finally, MTA now carries a much larger accounts receivable balance of about $4.4 million in 2000, versus about $1.1 million in 1996. See Table 10-1 for details on receivable balances.

Collectively, these changes have added to MTA's cash requirements and have increased its financial exposure.

Another factor that may contribute to MTA's deteriorating financial condition is the lack of multi-year financial planning. MTA has not developed a systematic means to anticipate its financial requirements beyond the current budget cycle, and even that process is wanting. Given the lack of financial planning, in combination with the budget variances (further discussed in the Budgeting, Accounting and Internal Control section), it is not surprising that the agency has suffered from significant financial uncertainty.

More attention to financial planning would allow the MTA to more carefully determine an affordable level of service, including some margin of safety for unanticipated events.

FY2000 Cash Flow

An estimated FY2000 monthly cash flow for MTA is presented in Exhibit 10-1. This is an "estimated" cash flow because the financial transactions from which the monthly cash flow data were generated do not reflect time lags that occur between check issuance and payment, and between grant invoices and payment. Thus, it is difficult to confirm each month's actual revenues and expenditures.

Accordingly, we focus on general trends rather than month-to-month specifics. The annual totals, however, conform reasonably to the audited financial. The monthly cash flow total for operating expenses, net of depreciation and capitalized expenditures, differed by less than 1% from the financials. Capital expenses, however, were about 10% different. We attribute these differences to year-end accruals that affect the month to which a transaction is credited.

The precariousness of MTA's cash flow can be seen in the beginning cash balance, a deficit of $785,108 (see "cash balance" toward the bottom of Exhibit 10-1. This deficit contrasts with the FY99 year-end cash balance of $23,235 presented in the audited financial statements. The difference is attributed to expense accruals at the close of FY99. In the subsequent year 2000, MTA again began and ended the year in a difficult financial condition. (see "Ending Cash Balance" of a deficit $194,833 in Exhibit 10-1).

We simplified the presentation of MTA's cash flow for the remainder of the year by separating it into an operating cash flow, a capital cash flow, and net draws (i.e., draws less payments) from its letter of credit. In reality, MTA co-mingles these funds.

The operating cash flow consists of internally generated operating revenues, and operating assistance from Metro, the State, and from the FTA (planning and ridesharing grants). Internally generated revenues, accounting for about 41% of operating revenues, vary within a small range throughout the

year. Operating assistance, accounting for the remaining 59% of operating revenues, varies substantially month to month.

MTA draws on the Metro operating assistance first, since the annual amount is available as of July 1. Financial assistance from the State becomes available in January, although in FY2000 the first payment of State funds occurred in March. Planning and ridesharing funds, like all FTA funds, are paid within a week of the funding request for active grants. The overall operating cash flow was negative (-$380,708). The financial statements showed a slightly lower loss on operations of just over $200,000, due to lower operating expenses that may reflect treatment of accrued expenses. The revenue totals are virtually the same.

The capital cash flow consists of capitalized maintenance expenditures, other capital expenditures (e.g., acquisition of plant and equipment), and reimbursement of capital expenses. The capital cash flow differs from the operating cash flow in that it is 100% grant funded, and funds are received in arrears of expenses. Practically all MTA capital projects are funded 80% Federal, 10% State, and 10% Metro.

Table 10-1
MTA Performance Audit
MTA Year-End Receivables from Other Governments
1996-2000

	1996	1997	1998	1999	2000	'96–'00
Federal Transit Administration	$642,793	$1,200,466	$1,055,415	$2,663,251	$1,917,653	$1,274,860
Tennessee DOT	116,468	189,331	178,772	666,944	625,967	509,499
Metro	124,346	344,823	143,239	817,787	1,558,653	1,434,307
Other	0	0	46,896	5,692	5,692	5,692
Total	883,607	1,734,620	1,424,322	4,153,674	4,107,965	3,224,358

Source: audited financial statements 1996–2000

The FTA funds derive from formula grants. Funds for the Federal fiscal year (October–September) are made available by reasonably predictable Congressional appropriations. The FTA makes payment usually within two days of request. These funds are routed through Metro, and are usually received by MTA within a week. State funds are usually received within two to five weeks following a payment request. Capital funds from Metro have been paid very slowly. As noted in Table10-1, the Metro receivable totaled $1.43 million at June 2000 and accounted for 44% of receivables from other governments, despite a 10% share of capital costs.

The total capital cash flow for the year showed a deficit of $706,652. This is slightly less than the unbudgeted capitalized maintenance costs for FY2000 (approximately $728,000). The capital cash flow

ran a cumulative surplus until May, when additional maintenance costs were capitalized. See Exhibit 10-1 "cumulative" cash flow in May.

Net draws on the line of credit (LOC) were fairly steady throughout the year, totaling $1.68 million. This raised the LOC principal balance to $2.54 million at fiscal year end. The draws exceed the combined operating and capital deficits of $1.09 million. Presumably, the difference ($590,000) was needed for working capital in MTA's sub-accounts.

The ending cash balance from the estimated monthly cash flow was a deficit $194,833. The audited financial statements show a positive cash balance of $89,811. The difference between the two is partially explained by additional capital funds credited to FY2000 that were apparently not reflected in the cash receipts for June. MTA closed the year in slightly better financial condition than from which it started, but it still verged on being illiquid.

Improve MTA's Liquidity

MTA has two financial issues to solve in order to improve its liquidity: closing out its line of credit, and developing cash management policies that will return the agency to a safer level of liquidity.

Our recommendation addresses the latter of these two issues. It has three components:

- Working capital for operations
- Working capital for capital expenditures
- Funding of Metro local share of capital projects.

Operating Funds – The MTA must work with the Metropolitan government to address the operating cash flow requirements of the enterprise. One possible solution is the establishment of an operating reserve fund. The reserve should be sized to six weeks' operating expenses. These funds could be drawn during the year to meet cash flow needs, but should be fully restored at year-end. This level of reserve is a common requirement of bond covenants for transit systems, and is a liquidity threshold used by the FTA in assessing the financial condition of transit systems applying for New Starts construction funds.

An operating reserve based on FY2000 expenses would have been $2.25 million. This is slightly above the maximum $1.72 million operating cash flow shortfall occurring in FY2000.

Capital Funds - A capital reserve should be established to fund capital grants receivables. The reserve should be set at the outside expectation of the payment lag, say two weeks for FTA funds and five weeks for State funds. Based on FTA grant-eligible expenditures in FY2000 of about $6.14 million, the reserve for FTA funds would be 2:52 of this amount, or about $236,000. The State share of grant-eligible

expenditures was about $767,000 in FY2000. The reserve would be 5:52 of this amount, or about $74,000. Thus, a capital reserve for grant-eligible expenditures would be about $310,000.

Lags in payment of the Metro share for capital projects have been attributed to the time delay between adoption of a capital improvement program, and the issuance of bonds to finance that program. MTA has interpreted adoption of the CIP to connote authority to expend capital funds. The bulk of its capital projects (e.g., maintenance capitalization, vehicle replacement) cannot be deferred to accommodate a Metro bond issue that is governed by different considerations entirely.

For approved projects, Metro should either make the local share funds available to MTA on an as-needed basis, or should allow MTA to obtain external financing for the local share. MTA should investigate lower-cost forms of external capital financing, such as tax-exempt commercial paper or tax-exempt bond anticipation notes. Either of these sources is available at a much lower interest rate than paid by MTA for its line of credit.

In addition to these actions, we believe MTA should separate its accounts for operations and for capital projects. This will make it easier to associate the reserves with the intended uses of funds, and will allow the Board and Metro to exercise better financial control.

The MTA should accelerate its draws on Federal grant funds for capitalization of maintenance expenditures. In FY2000, about 90% of the eligible expenses were capitalized in the final quarter. The present value of these grant funds would be greater if MTA capitalized its maintenance expenditures monthly. There are no restrictions that would prevent MTA from doing so. The potential interest savings from a more aggressive draw program are outlined in Exhibit 10-3.

Use of Grant Funds

MTA receives grant funds from two sources: the Federal government, acting through the Federal Transit Administration (FTA); and the State of Tennessee, acting through its Department of Transportation (TennDOT). Grant funds are based on a contract between the grantor and the MTA. The grant contract specifies the scope of the grant, the amount of the grant, among other information.

The MTA also receives operating assistance and local matching funds for capital grants from the Metro government, but these funds are made available by action of the Council to MTA as a political subdivision, and thus are not technically grant funds.

Grant funds are used almost exclusively for capital projects. The cost of capital projects is shared among the Federal government (80%), the State (10%), and Metro (10%).

- Several controls are in place to ensure that grant funds are expended only for their intended purposes. First, before grant funds are applied for, the projects must be included in the regional transportation improvement plan (TIP) that is approved by the Metropolitan Planning Organization (MPO). The MPO is an intergovernmental policy body that approves projects for Federal transportation funds.
- Second, a grant contract between MTA and the FTA, or MTA and TennDOT, specifies the terms and conditions of use of the grant funds.
- Finally, when MTA makes a request for reimbursement for eligible capital expenditures, the expenditures must clearly relate to the scope of the grant, and the reimbursement requested must be within the remaining grant balance.

Authorization to apply capital expenditures to grants is made by the MTA Manager of Capital Planning. The procedure is as follows:

1. A "request for purchase" form must be completed for any grant-related capital purchase
2. The form is submitted to purchasing, then brought to the capital planning manager for approval
3. Purchasing assigns a purchase order and either purchases or authorizes the purchase of the item
4. When the item is received, the purchase order and invoice go to accounting
5. Accounting requests approval from capital planning manager to pay
6. The purchase is entered in the accounting system as a charge against a particular grant.

The procedures described above appear to be an adequate safeguard for the proper allocation of capital funds.

Use Of and Authorization of Lines of Credit

In March 1999, the MTA entered into a revolving loan note, also referred to as a line of credit (LOC), with the Bank of America, with whom the MTA has its checking accounts. The LOC is for a maximum of $2.9 million. Draws from the LOC are triggered when a negative balance is reached in the MTA revenue account.

Repayments of the LOC draws are authorized by MTA as funds are available. MTA pays 1% below the bank's prime rate. At the time of our fieldwork, MTA was paying 9% annual interest. The outstanding principal on the LOC was $2.54 million at the close of FY2000. According to the current note, the outstanding principal balance and any accrued and unpaid interest is due on March 5, 2001. In fiscal year 2000 the MTA paid approximately $164,000 in interest versus approximately $56,000 in 1999.

In October 2000, the Metro Department of Law concluded that the MTA did not have the authority to open a line of credit without Metro Council approval. The legal memorandum stated that the MTA is authorized two kinds of debt — secured financing of real and personal property, and long-term or short-term debt through bonds or notes issued by Metro.

The memo also noted that although MTA may enter into secured financing agreements for the purchase of real or personal property, there is no express authority for MTA to enter into revolving lines of credit.

Timeliness in Paying Bills

MTA has been timely in paying its bills. We reviewed an accounts payable aging summary from the MTA Accounting Department during our fieldwork. As of September 30, 2000 the accounts payable totaled $672,455. About 54% of payables were less than 30 days, and 46% were 30 to 60 days. This aging is consistent with aging that could be inferred from the FY2000 year-end financials. At that time, accounts payable totaled $2.2 million. About 7% of annual outlays, or slightly less than four weeks' average expenditures.

Conclusions:

- MTA is technically insolvent — cash and current accounts receivable are exceeded by current liabilities.
- MTA has been increasingly reliant on external financing to meet growth in its expenditures. Total expenditures have increased by $9.5 million (52%) since 1996, and current liabilities have increased by $5.2 million (430%).
- MTA's cash position in FY2000 improved slightly compared to FY99, but only due to increased draws on its line of credit. Excluding the LOC draws, MTA had a combined operating and capital cash flow deficit of approximately $1.87 million.
- MTA's negative capital cash flow in FY2000 ($707,000) was only about half of its accounts receivable from Metro ($1.4 million).
- MTA has no financial planning tools that would allow it to accurately anticipate its financial needs.
- Procedures are in place to ensure that grant funds are used only for allowable capital projects.
- MTA paid approximately $164,000 in interest in fiscal year 2000. This was an increase of over $100,000 from the prior year.
- MTA has been timely in paying its bills.

Recommendations

- MTA should work with the assistance of the Metro finance department to find a better long-term solution for the agency's operating cash requirements. Establishment of a six-week operating reserve that may be drawn on during the year is one possible solution.

- MTA should establish, with the assistance of Metro, capital reserves that are tied to the outside expectation of the length of time to receive grant funds, following MTA's invoicing of its grantors.
- MTA should be authorized to secure external financing to fund the local share of approved capital projects, pending receipt of bond proceeds from Metro, unless the local share is provided on an as-needs basis within approved funding levels.
- Operating and capital funds should be managed in separate accounts.
- MTA should invoice FTA for capitalized maintenance expenditures as they occur, rather than bunching these requests late in the year.
- MTA should develop a multi-year financial plan that explicitly establishes its cash requirements, including the funds needed to replace plant and equipment, for periodic discussion with the Metro Mayor and Council. MTA should manage its service levels within the envelope of affordability that is established in this multi-year financial plan.

Cost Implications

While there may be implied costs associated with the establishment of operating reserves, there should be a net reduction in borrowing costs associated lower cost funding sources (Metro versus bank financing). Assuming MTA could reduce interest charges by 2%-3% on approximately $1.5M would save between $35,000-$40,000 annually. Additionally, a more aggressive grant draw program would also save approximately $100,000 annually in interest costs (see Exhibit 10-3).