IMPACTS OF THE FINANCIAL CRISIS ON THE TRANSIT INDUSTRY

CHALLENGES AND OPPORTUNITIES

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AMERICAN PUBLIC TRANSPORTATION ASSOCIATION

APTA AMERICAN PUBLIC TRANSPORTATION ASSOCIATION

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I. Executive Summary

Introduction

Jeffrey A. Parker & Associates, Inc. ("JPA") was engaged by the American Public Transportation Association ("APTA") to conduct a scan of the immediate impact of the economic and financial crisis on the transit industry.

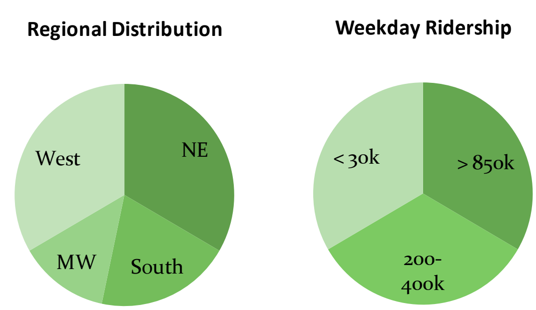
The effort entailed research on rapidly-changing credit market conditions, identifying the concerns of private sector partners, and interviews with senior management from a representative sample of large and small transit agencies, the Federal Transit Administration, investment banks and rating agency analysts to gather perspectives on the evolving capital market situation.[1]

The 15 public agencies interviewed serve more than 50% of all U.S. transit ridership. Interviewees included: four of the top five agencies for heavy rail ridership; three of the top four for commuter rail ridership; five of the top eight for light rail ridership; six of the top eight for bus ridership; as well as five agencies with ridership of under 30,000 per weekday.

It will be many years before a comprehensive history of the financial crisis can be written, and events will undoubtedly overtake many findings that follow. Consequently, this paper is best viewed as a snapshot in time, as of early 2009.

We are grateful to all who so generously shared their time and insights. Readers will greatly benefit from them – and we regret that in scanning a broad array of agencies and topics, we could not include every point raised nor case study offered.

Agencies Participating in Interviews	
Bay Area Rapid Transit, BART	San Francisco, CA
Centre Area Transportation Authority, CATA	State College, PA
Dallas Area Rapid Transit, DART	Dallas, TX
Des Moines Area Regional Transit Authority	Des Moines, IA
Interurban Transit Partnership, The Rapid	Grand Rapids, MI
King County Metro	Seattle, WA
Los Angeles County Metropolitan Transportation Authority, Metro	Los Angeles, CA
Massachusetts Bay Transportation Authority, MBTA	Boston, MA
Metropolitan Transportation Authority, MTA	New York, NY
New Jersey Transit, NJT	New Jersey
Northern Arizona Intergovernmental Public Transportation Authority, NAIPTA	Coconino and Yavapai Counties, AZ
Regional Transportation District, RTD	Denver, CO
Triangle Transit	Research Triangle, NC
TriMet	Portland, OR
Washington Metropolitan Area Transit Authority, WMATA	Washington DC



[1] See Appendix II for complete list of interviews held.

Key Observations

The effects of repeated financial market shocks in recent months and the ensuing economic recession have been felt across the transit industry and indeed the world. In the US, public transport is broadly affected by declining funding sources and tighter credit, in particular in the domestic municipal bond market.

Our interviews reveal that the impact on US transit agencies defies easy generalization. Some transit providers have not issued significant amounts of debt or engaged in complex financial transactions, having instead followed conservative policies that limited the impact of market disruption on their current and future operations. Others used the cheap credit markets of the pre-crisis years to squeeze more capital investment dollars out of limited revenue streams by applying creative financing strategies that included complex tax-advantaged lease transactions and/or debt products built on lower, short term interest rates, and "sculpted" principal repayments that anticipated future revenue growth. For the latter group of agencies, the disappearance of monoline insurers and sudden gridlock in the municipal bond markets quickly turned prudent risks under "normal" conditions into a fast-breaking crisis whose effects are still being unwound.

The surprise in our conversations with transit industry representatives and credit market participants was not just the loss of "normalcy" but the universal sense that no one really knows what will be "normal" market conditions in the future. Since the interviews, the second quarter of 2009 is seeing market conditions stabilize and move back toward some semblance of traditional relationships for the first time since the upheaval at the end of 2008. Transit investment in large-scale capital projects is dependent upon stable municipal finance markets. To the extent we have entered an era of uncertainty in the pricing of risk, the transit sector now faces a planning horizon that must anticipate episodes of extreme volatility, the emergence of new constraints on credit market access and debt tenor, and the potential for entirely new finance options, such as taxable Build America Bonds (already issued by the New York MTA) or the emergence of a quasi-governmental insurer or lender. The implications of this new reality are a return to sound fundamentals in developing financial plans and greater recognition of downside risks. The results will potentially include broadly reduced leverage and potentially a more deliberate scaling and increased timing flexibility of investment programs over time.

High profile issues such as the unwinding of LILO/SILO transactions and variable rate / auction rate securities emerged in the interviews as concentrated within a limited number of painful situations, with many agencies quietly working their way through these gnarly transactions using good faith negotiations and case-by-case, individualized solutions.

The changes in the credit environment have also exacerbated existing problems for transit industry suppliers. Constrained bank lending has limited access for some firms to working capital loans that are essential to financing work-in-progress for transit clients and even maintaining ongoing operations. In other cases, contraction and risk aversion in the surety bond markets has led to perceived rationing of limited bonding capacity, making it more costly and in some cases, impossible to meet traditional bonding requirements. These issues would benefit from more detailed treatment in future APTA research and analysis.

The larger backdrop for the discussions held as part of our research is a general fear of an accelerating economic downturn that could: eliminate the jobs, health services and educational opportunities to which transit riders travel; erode dedicated tax revenues and general fund support that subsidize every transit ride taken in the US; and undermine the larger financial markets upon which transit and other governmental services depend. While dedicated tax revenues have fallen by varying degrees in different regions of the country, transit issuer credit ratings have remained relatively stable. The reason is a "gross revenue pledge" that takes the first revenue dollars received "off the top" for debt service. These pledges make transit credit ratings relatively strong and have preserved access to the bond markets for most transit issuers at times when other borrowers have had to defer taking on new debt at least temporarily. However, such benefits come at a cost. With the first dollars received going to debt service, operations and state of good repair capital projects take the brunt of revenue shortfalls. This effect has magnified the impact of revenue declines at agencies such as Boston's MBTA, which faces operating shortfalls of $150 million, New York's Metropolitan Transportation Authority (MTA), whose budget gap projections exceed $1 billion, and St. Louis' Bi-State Transportation Authority, which has implemented drastic service reductions and suffered downgrading of its credit ratings by some analysts.

At the time the interviews were conducted, all agencies were eagerly anticipating the funds being made available under the American Recovery and Reinvestment Act ("ARRA"), the federal stimulus program. However, longer term concerns about the viability of the transit industry in the face of a shrinking economy remain. The depleted capacity of transit suppliers raise background concerns that the current slack in the order books of vendors may soon be replaced by capacity constraints and higher pricing in key commodity areas. Thus far, however, many transit system capital projects are attracting more bidders and pricing frequently running 25 – 50% below engineering estimates.

In addition, service cuts in the face of rising demand and an increasingly energy-conscious public have given rise to a growing sense that the traditional transit business and funding models need to be re-visited.

During the course of research, several respondents indicated active public-private partnership (PPP) and/or innovative project delivery programs in progress (Denver RTD's FasTracks and BART's Oakland Airport Connector[2]) or under consideration (Dallas Area Rapid Transit). Interest in PPP arrangements as a project delivery mechanism for transit appears generally to remain open; however, the absence of test cases in the US has limited plans for broader applications until the models are demonstrated and the potential costs and benefits are better defined.

Findings and Recommendations

- Continued federal engagement is vital to the transit industry and its stakeholders in overcoming challenges during this severe economic downturn.

- Public transport, among other infrastructure sectors, is critical to the nation and must be assured access to investment capital at reasonable cost. Responsibly-managed transit agencies must be assured credit access during future periods of market disruption.

    - This access could be provided quickly during periods of market disruption through expanded use of the federal TIFIA loan program, potentially for up

[2] BART is planning a potential re-launch of the project using a Design-Build -Operate-Maintain ("DBOM") contracting structure.

to 80% of transportation project costs for senior borrowing by public entities, as well as the RRIF loan program for 100% of eligible capital project costs.

  - Over time, new federal credit mechanisms, such as an infrastructure bank or a federally-mandated municipal bond insurer, could provide similar support and stability.

  - In addition, new strategies to open municipal infrastructure to investment from pension funds and other long-term, taxable fixed income investors that do not participate in tax-exempt debt markets are needed to broaden the pool of capital available to meet the nation's demand for transportation services. While PPPs can have substantial merit, PPP equity investment should not be the only way for these massive sources of capital to participate in the municipal market. Build America Bonds, created temporarily under ARRA, are proving to be such a mechanism and are demonstrating opportunities for more lasting changes.

- Structural reform within the industry itself will be needed to devise new service delivery strategies that reduce subsidy requirements, address pension and other legacy costs, improve self-generated revenue yields, and target subsidies to those riders who are most in need. The current climate of economic hardship raises the opportunity for discussion of new business models and fiscally sustainable service expansion opportunities to meet an era of growing demand. Upcoming reauthorization of federal transportation legislation coincides with the need for greater resources from new and existing revenue sources to support increased transit demand. Potentially, the injection of new federal funding resources can be linked to incentives for positive change.

- Grant-making, procurement and administrative processes are in need of simplification and reform to enhance efficiency. Planning cycles must be reduced and project execution times condensed – the growing trend of institutional rigidities will mean higher costs for less service and less investment. Approaches to contracting and performance guarantees need to be optimized in light of market realities to ensure adequate competition and reliable delivery.

- Finally, greater attention must be given to downside risks and getting "back to basics" in finance policy. Financial planning models built upon expectations of ever-increasing revenues must be tempered with greater consideration of "rainy day" funds to preserve life line service levels during economic downturns. Increased visibility is also needed in transit agency debt policies for "net revenue" debt service coverage tests that accord higher priority to preserving every day operations. Higher funding levels will be necessary to adequately support the transit industry's investment needs – recent events underscore the pitfalls of using excessive leverage and exotic financial tools to compensate for chronically under-funded capital programs.

II. Debt Markets and the Financial Crisis

Background[3]

The first serious rumblings of sub-prime mortgage failures caused market dislocation in the fourth quarter of 2007. Hedge funds and large investors in municipal bonds were impacted quickly, along with bond insurers, many of whom lost investor confidence in their guarantees along with their "AAA" ratings. These shifts led to a breakdown in the mechanisms used to maintain the markets for variable rate debt. Weekly auction failures and rate spikes on auction rate securities appeared by the end of 2007.

Capital Markets Participants Interviewed[4]
Citigroup
Fitch Ratings
Goldman Sachs
Merrill Lynch
Moody's Investors Service
MFR Securities, Inc.
Ramirez & Co.

The forced sale of Bear Stearns, the bankruptcy of Lehman Brothers and the difficulties of Citigroup and AIG significantly heightened credit concerns and counterparty risks for investors in September 2008. An overall lack of confidence caused investors to retreat further from the market and flee to quality by moving into Treasury obligations. Several structural changes have emerged in the municipal debt markets and there is no indication if or when a return to what had passed, until 2007, for "normalcy" may occur.

Municipal Debt Affected

The sub-prime mortgage crisis led to increased volatility throughout the U.S. and international financial markets. These conditions quickly spread to the municipal bond market. Transit agencies have regularly issued municipal bonds backed by pledges of dedicated revenues, such as sales taxes, tolls or real estate related measures. There are many varieties of municipal debt that have evolved over the years to reflect investor preferences and prevailing credit market conditions. Important examples include:

- Debt with variable interest rates – these instruments allowed issuers to benefit from lower interest costs for short term maturities. The interest rates could vary over the life of the debt and are set periodically to the market. In some cases, interest rate swaps are acquired to limit the potential future interest rate variations.

- Debt "wrapped" by monoline insurers – institutional investors, such as tax exempt bond and money market funds, and insurance companies, had emerged in prior years as major buyers of municipal bonds. Credit-worthy issuers were able to purchase insurance that would raise the ratings of their debt to "AAA." The cost of the insurance was offset by reduced interest expense resulting from the higher rating. Wrapped securities were favored by these institutional investors because of their high credit quality.

The meltdown of the municipal finance market has subjected variable rate debt to severe liquidity shortages and volatility. Monoline insurance is either not available, does not provide debt service savings, or is not as highly valued by investors. Long term interest rates have increased, as maturities sought by investors

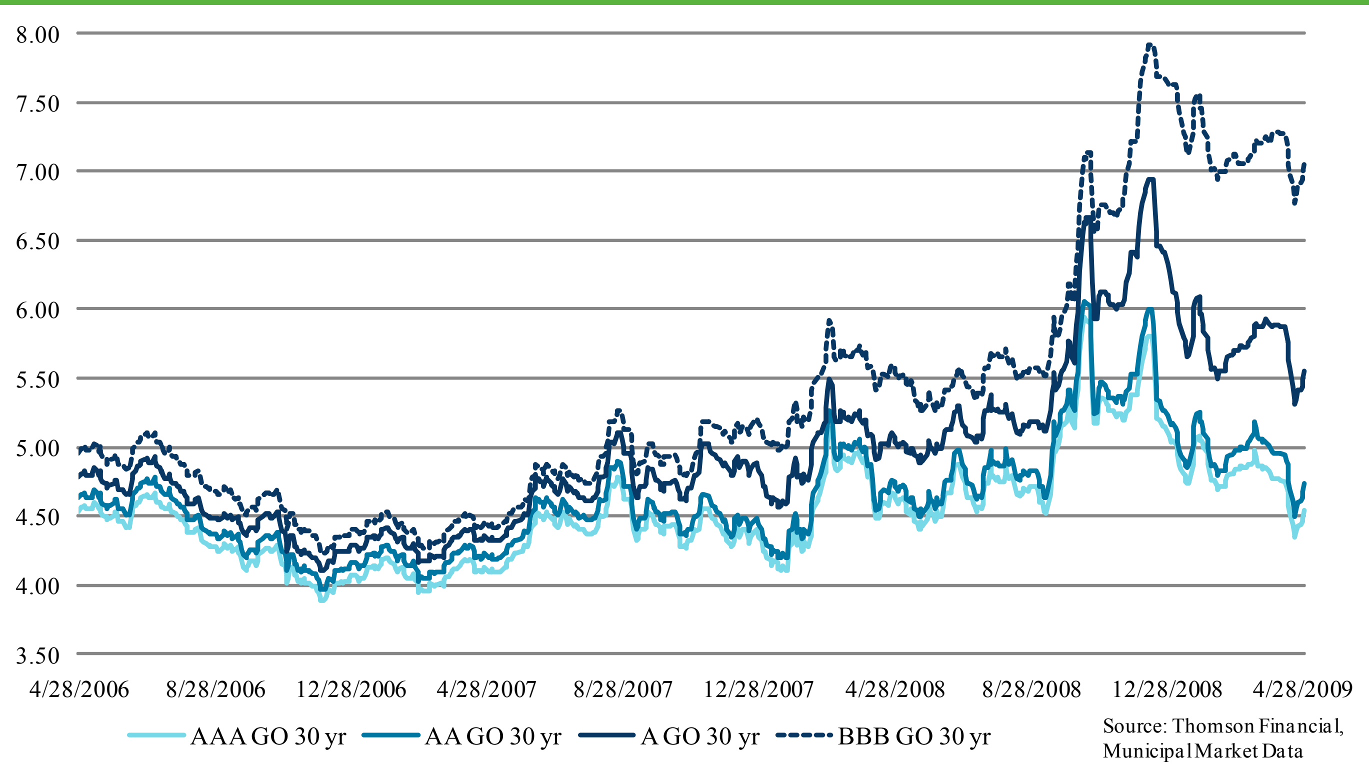
[3] Market summary is as of March 31, 2009.
[4] See Appendix II for full details of interviewees including participating professionals.

have become shorter and long term fears regarding inflation surface. Large institutional investors suffered net outflows of funds beginning in October 2008 and retreated from municipal debt. In the first two quarters of 2009, large inflows are returning to the municipal market, although the ability of the market to absorb large debt issuances continues to be constrained.

Investor appetite for debt issued with lower ratings has been reduced and the tax exempt market "sweet spot" is for highly rated issuers, shorter term securities and modest issue sizes. Congress has introduced a range of taxable municipal debt alternatives in the recently-approved American Recovery and Reinvestment Act ("ARRA"), such as the Build America Bonds (BABs). BABs are attracting global investors interested in large deals, with high credit ratings and earning taxable returns. Public sector borrowers are provided with a federal subsidy which makes the BABs cost competitive with tax-exempt funding. Initial indications are that the BABs are proving to be an effective financing tool for municipalities and have opened the market for longer term maturities to municipal issuers

Transit agency credits tend to be strong because they are backed by "gross revenue pledges" – debt service receives the first dollars of revenue collected. This credit structure results in high debt service coverage factors for most transit industry issuers – since transit systems use a large proportion of their revenues to subsidize operations and build ongoing capital projects on a pay-as-you-go basis there is always a large cushion of funds to meet debt service obligations. While a comfort to bondholders, this flow of funds magnifies the effects of downside revenue fluctuations on operations and

Chart 1
Historic MMD Spreads



Source: Thomson Financial, Municipal Market Data state of good repair capital projects.

Credit Risk Premiums Have Increased the Cost of Borrowing

In recent months, the absolute levels of long-term municipal bond rates rose due to shrinkage of investor demand, and have now settled to relatively low levels at the shorter end of the yield curve. The market's re-pricing of risk has caused credit spreads (the premium paid to purchase bonds rated less than AAA) to rise to historic levels. Two years ago, the average credit spread between 30 yr AAA and BBB was a scant 30 basis points (bps).[5] At the end of April 2009, spreads ballooned to nearly 250 bps. Chart 1 shows that the range in interest rates between AAA and BBB-rated 30-year general obligation debt began to widen in the Fall of 2007.

Of particular interest is the relatively narrow difference that currently exists between AAA and AA debt and the large additional premiums the market is demanding for A-rated credits. Credits below the A range face the greatest interest rate premiums. Under prior market conditions, monoline insurance was available to bring all of the credits shown in Chart 1 to AAA levels, but this is no longer the case. As a result, credits below A are having more difficulty accessing the credit markets.

While most transit agencies who issue debt are rated in the AA/A range, "project finance" transactions, including many public-private

partnerships, typically fall below the A range and accordingly are being forced to look to

Chart 2
Decoupling of Munis and Treasuries

Source: Thomson Financial, Municipal Market Data

[5] A basis point is defined as one-hundredth of a percentage point, i.e. 30 bps = 0.3%.

shorter-term (7 – 10 year) bank loans bearing taxable rates for debt financing.

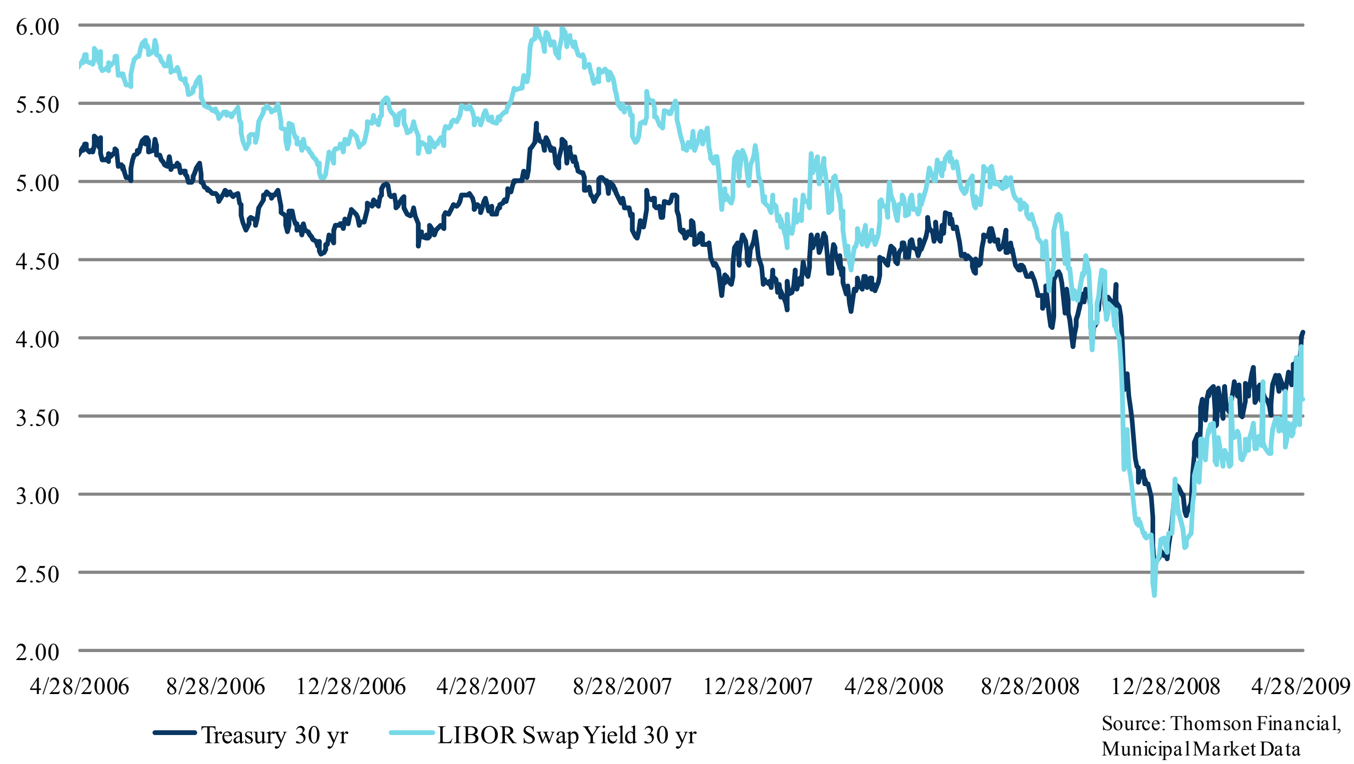
Decreased Benefit of Municipal Bond Tax Exemption

Municipal bond credit is no longer considered "risk-free," even in the AAA category, and the historical relationship between municipal bonds and Treasuries has been altered for now. Longer term municipal rates historically have been about 85 percent of Treasuries; however, during the fourth quarter of 2008, as the credit crisis peaked and investors fled to Treasuries, this relationship reversed with municipal rates moving to almost 200 percent of Treasuries. This relationship had eased to approximately 110 percent in April 2009 and continues to narrow, albeit within a context of unprecedented volatility. These trends can be observed in Chart 2.

Alternative Financing Mechanisms

At the same time, US Department of Transportation loans under the Transportation Infrastructure Finance and Innovation Act (TIFIA) became attractive relative to municipal bonds. TIFIA loans bear an interest rate which tracks long-term treasury rates. As shown in Chart 2, prior to the Fall of 2007, TIFIA loans were more costly than tax exempt bonds, but in recent months the relationship has reversed only to be tending back towards the historic relationship in April 2009. In addition, TIFIA will lend to a project for 35 years after revenue operations begin, a maturity that is difficult to achieve in the current tax exempt market. Access to TIFIA credits has emerged as an important option for public financing of transport projects; however, the capacity of the

Chart 3
LIBOR Rates Have Fallen, but are Moving Higher…



Source: Thomson Financial, Municipal Market Data program is presently constrained. Congress provided limited additional funding under the stimulus package at the discretion of the Secretary. The Secretary has allocated up to $200 million to TIFIA. The application process for TIFIA loans supported by stimulus funding has been complicated by the additional approval required by USDOT's Transportation Investment Generating Economic Recovery ("TIGER"). TIFIA has always considered applications on a first come first serve basis, but the new TIFIA application procedure will require two approvals. In addition, projects will be ranked, time tables for approval may be long, and the use of the funds may be compressed.

The reality is there have been few transit projects using TIFIA loans, but new possibilities exist. The New York MTA expressed interest in seeing more TIFIA funding to assist such high-profile projects as Second Avenue Subway. BART also is examining the use of TIFIA in its re-launch of the Oakland Airport Connector. Another federal option receiving increased attention is the Railroad Rehabilitation and Improvement Financing (RRIF) program, which offers the opportunity for 100% financing at US government borrowing rates to projects involving FRA-classified railroads.

As municipal debt has been subjected to higher credit spreads and options such as Private Activity Bonds (PABs) became unmarketable, taxable bank debt emerged as a competitive substitute in some project finance transactions. Bank loans are benchmarked to the London Interbank Offering Rate (LIBOR) which fell in the fourth quarter of 2008. As shown in Chart 3, since the start of 2009, LIBOR is now on the rise, moving almost lock step with Treasuries, but starting to break away at points with unprecedented volatility. Taxable bank funding may become a more viable option for municipal borrowers, but because of a scarcity of capital and a fundamental re-pricing of risk, banks are able to impose credit spreads two to three times greater than historical levels and with stricter covenants. Bank financing is further limited in its attractiveness because there is minimal appetite for lending beyond a 10 year horizon.

General Implications for Transit Agencies

The dampened economy and loss of tax revenues is resulting in rating downgrades[6] for some public sector borrowers and negatively impacting investor appetite as they seek low-risk returns. Credit spreads continue to be higher than historical levels for borrowers or projects rated A or below in the near-term, both in the bond market and for bank loans, leading to potentially higher and certainly more volatile debt costs. However, the recent narrowing of credit spreads points to a potential window for longer term borrowing on improved terms for highly-rated issuers.

[6] Two extreme cases include St. Louis Metro and the City of Detroit which operates the city's transit services. Moody's confirms Metro's A2 rating but has assigned a negative outlook, while Fitch downgraded $418 million outstanding sales tax appropriation bonds of the St. Louis Bi-State Development Agency from A to BBB+ because of multiple challenges facing the agency. Current market conditions have impacted St. Louis Metro's financing prospects, and due to failed remarketing, it is now faced with the difficulty of having to restructure floating rate debt issued to support a light rail extension. With a deteriorating financial situation, Detroit was downgraded to junk on its $2.4 billion in outstanding debt. In addition, failure to reach a consensus on a long-term fix for the New York MTA's budget shortfall has caused Moody's to place the agency's $12 billion of dedication revenue-backed debt on negative credit watch on March 26. Moody's New Issue Report, Bi-State Development Agency, MO, March 3, 2009; *Bond Buyer,* "Fitch Drops St. Louis Metro Two Notches, Warns of More Action," February 12, 2009; *Bond Buyer,* "Fitch Drops Detroit to Junk," January 22, 2009; *Bond Buyer,* "N.Y. MTA Could Face Downgrade, Moody's Says," March 26, 2009.

III. Impacts to Transit Agencies

Interviews and all too many headlines describe a transit industry beset by the most challenging financial market and economic conditions since the Great Depression. Wide swings in fuel prices have been followed by devastating fluctuations in interest rates, periodic capital market shut-downs, the evaporation of major financial institutions, and the need to unwind complex financial transactions during turbulent market conditions. Rapid erosion of dedicated revenue sources is forcing deferral of state of good repair capital investment and triggering service reductions at a time of increased demand.

The "Impacts to Transit Industry" section of this report distills the results of interviews with 15 agencies and a number of capital markets experts into five general topics:

- *Declining Revenues and the "Transit Paradox;"*
- *Capital Investment Moving Sideways;*
- *Agencies and the More Conservative Capital Markets;*
- *Unexpected Costs Rising from Variable Rate Debt;*
- *Impact on PPPs and other innovative finance approaches; and*
- *SILO/LILO Transactions: A Great Concern for a Few Agencies.*

These topics were the most near-term concerns for the agencies at the time of this report, but the extent of the ripples of the financial crisis have yet to be fully realized and may lead to further challenges. For example, John Ceffalio, Assistant Vice President at Moody's, pointed out that it is too early to see how much the equity market decline has affected funded pension ratios. Pension and OPEB funding has always been a big issue for transit entities which have large unionized workforces. The financial crisis will exacerbate these concerns in the long-term, but the extent of the impact is unclear.

Given the diverse nature of the agencies surveyed, their local economies and the funding mechanisms on which they rely, the experiences reported are not uniform. Bus-only agencies did not enter into SILO/LILO transactions and barely issue debt. Even among large agencies, exposures varied. Still, from this range of inputs, key themes emerge.

Operating deficits are a fact of life at virtually every transit system in the world, small and large. Current conditions underscore the need for a more sustainable funding strategy that is capable of maintaining lifeline services and state of good repair investment during difficult economic times. While the present focus for the public transportation industry is on economic recovery and federal stimulus spending, upcoming reauthorization legislation will need to deliver a more predictable and secure funding source beyond the gas tax and consider incentives to modify individual transit agency business models to curtail growth rates in operating subsidies.

Declining Revenues and the "Transit Paradox"

The interviews revealed deep concern over economic conditions in agencies large and small, with rapid job losses in local economies and budget-driven service reductions combining to reduce hard-earned ridership gains in several instances. Early in 2008, the rise in fuel prices drove transit ridership up to record levels. Demand for transit services remains strong, even as fuel prices return to historical levels. APTA reported 10.7 billion trips on public transportation in 2008, the highest level of ridership seen in 52 years.[7]

While increased usage has bolstered fare revenues, transit agencies struggled with their own higher fuel prices and now declining dedicated revenues to provide the service levels required to meet demand. Dubbed "the transit paradox" by Cal Marsella, General Manager of Denver's Regional Transportation District (RTD), in a recent *New York Times* article,[8] this phenomenon was explored in his interview with the research team and repeatedly surfaced in discussions with other transit systems participating in the survey. [9,10]

At the time of our interviews, agencies were just beginning to look toward the next fiscal year and formulate their budgets. Given the sudden turn of economic events, most were struggling to estimate the size of their upcoming budget deficits. Since then, the impact of revenue losses is being reflected in deferred capital investments, service reductions, and, in some cases, fare increases and reductions in administrative job categories. All agencies are focused on trimming current fiscal year budgets.

Large, urban area transit properties represented over half the agencies interviewed and were planning service cuts or strongly considering them. For these agencies, service cuts often were seen as the most effective method for aligning budgets since fare increases are politically unpalatable during a recession and the

Interviews and subsequent reports revealed extreme revenue shortfalls and ensuing budget deficits:

David Leininger, Sharon Leary and Gary Thomas of DART explained that the agency had Budgeted $431M in sales tax revenue for FY 2009, but was now expecting ~$385M. Cal Marsalla and RTD are experiencing continued negative annual growth in sales tax, with recent reports anticipating a 4.4% decline for 2009. [9]

Similarly, Kevin Desmond, General Manager of King County Metro explained the agency was projecting negative growth in 2009 sales tax revenues versus budgeted growth of 5%. Terry Matsumoto, Chief Financial Services Officer and Treasurer, and Mike Smith, Assistant Treasurer, of LACMTA stated that they were forecasting a 5-10% drop in revenues for FY 09-10 budget versus prior year projections.

MBTA CFO Jonathan Davis reported January 2008 sales tax revenue declining 8.9% over January 2007, while on the other side of the country, Northern Arizona IPTA's General Manager Jeff Meilbeck anticipated a 20% decrease in sales tax revenue versus prior year projections.

When interviews were held in January 2009, most agency executives had just received this grim 2008 Q4 data.

Subsequent February news reports[10] on the nation's biggest systems included descriptions of budget implications, including: a $154 million deficit in WMATA's next budget, a $165 million in MBTA's and $100 million in San Francisco MUNI's; an anticipated $155 million decline in 2009 Chicago Transit Authority tax revenue versus 2008; and New York MTA's operating deficits triggered large fare increases and services cuts in the nation's largest transit market.

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[7] APTA, "Transit News," March 9, 2009

[8] *The New York Times*, "Rider Paradox: Surge in Mass, Drop in Transit," February 4, 2009

[9] RTD 2009 Annual Program Evaluation Board Presentation, March 3, 2009.

[10] *Washington Times*, "Metro Briefs," February, 12 2009; *Bond Buyer,* "MBTA Faces $165M Deficit for Fiscal 2010," February 18, 2009; *APTA Passenger Transport,* "Transit Agencies Face Financial Crunch," February 16, 2009; *Chicago Tribune*, "Mass-transit 'doomsday' looms yet again," February 16, 2009.

administrative portions of agencies' budget are small and provide only limited opportunities for efficiency gains. The New York MTA's recent announcement of toll increases, a 25% base fare hike to $2.50 and service cuts is the opening salvo in what likely will be a broader, political fight in the coming months.

For all but two agencies, **sales tax revenues** were the funding source most severely and immediately impacted by the economic downturn. Rapid reductions in consumer spending, primarily on autos and housing reflect national trends in all the locales of agencies interviewed (except Portland and Dallas where the regional economies had not yet experienced severe recession at the time the interviews were held).

Anticipated slowing of receipts from other types of tax revenue was also a concern but not yet realized at the time of interviews. For example, property tax revenues were expected to be lower but the impacts on dedicated revenues and general fund support generally lags as reassessment cycles are completed. Revenue streams pledged to City of New York's bonds that fund the 7 Subway Line Extension and a **special assessment zone** supporting WMATA's Dulles Airport Extension are based upon real estate activity within a designated area and may not fulfill projections if the downturn is prolonged or increases in severity in the coming months. However, one of the New York MTA's dedicated real estate taxes has declined 42% due to the drop-off in property transactions.[11] Similarly, the State of Florida's "dock stamp" tax on property transactions supported its growth management initiatives and has impacted statewide transit funding sources.

Every tax revenue stream is ultimately at risk when economic activity slows. David King, General Manager of Triangle Transit in North Carolina, explained Triangle Transit funds its major capital investment program and operations through a **vehicle rental tax and vehicle registration fees** for which reliable measurements of an anticipated lag period have not yet been established – but the Authority is certain that near-term growth previously anticipated will not be realized.

Toll revenues also support transit investments such as the Dulles Toll Road (Dulles Airport Extension of Metrorail), various BART investments in the San Francisco region, the Port Authority of New York and New Jersey (PATH), the New York MTA and the Golden Gate Bridge Highway and Transportation Authority (ferry and bus services). Declining traffic volumes have slowed toll collections causing downward revisions in capital revenue forecasts.

With declining revenues, larger transit agencies are faced with debt service payments consuming a higher proportion of funding resources at the expense of operations. Similarly, as vehicle miles of travel and fuel consumption decline, competition has sharpened between highway and transit uses for dwindling federal **Highway Trust Fund** resources. A recent report from Fitch Ratings sees the transfer of $8 billion to the Highway Trust Fund in the Fall of 2008 as a short-term fix likely to be required again by the end of FY 2009 or the beginning of FY 2010.[12]

Revenue shortfalls are also leading the transit industry's funding partners at the state and local levels to cut **discretionary** amounts for transit operations and investment as their budgets also tighten. Terry Matsumoto, the Chief Financial

[11] *Bloomberg News Report*, "New York's MTA Rating at Risk as Bailout Falters Moody's Says," March 26, 2009

[12] Fitch Ratings, "The Effect of U.S. Surface Transportation Funding Challenges on GARVEE Bonds," October 15 2008

Services Officer and Treasurer at LACMTA, expressed concern in a January interview that the State of California would have to raid transit assistance to close general fund deficits. Since then, California lawmakers facing a projected $42 billion state budget gap reached a final budget agreement that reduced State Transit Assistance (STA) funding by 50 percent for the duration of FY 2008-09 and eliminated it entirely for FY 2009-10.[13]

In conclusion, operating deficits are the most immediate impact on transit agencies. With all types of funding streams facing shortfalls and no operating assistance in ARRA, the transit-riding public will be subject to reduced service and possibly higher fares throughout the nation, and it is unknown when revenue streams will reverse course.

Capital Investment Moving Sideways

It is difficult to generalize about capital investment given the wide array of needs of agencies considering their stage of maturity, size, and modes operated, as well as the potential impact of funding now beginning to flow under the federal ARRA stimulus program. A newer system like Dallas Area Rapid Transit (DART) is focused on its $1.5 billion LRT expansion; an older system like Bay Area Rapid Transit (BART) is preparing for a $3+ billion fleet replacement and the re-launch of the Oakland Airport Connector; small bus systems are programming bus shelters. Different agencies and regions are also prioritizing various types of projects as federal stimulus funding is programmed.

Two agencies, TriMet in Portland and DART in Dallas, were both far along in large capital investments at the time of their interview and

[13] Metropolitan Transportation Commission, "State Budget Hits Public Transit Hard," February 23, 2009

Understanding the Outliers:

The Northern Arizona Intergovernmental Public Transportation Authority ("NAIPTA') increased service by 20 percent over 2007. However, this increase actually fell short of the service level initially promised to voters who approved a sales tax referendum in May 2008. Facing the sharp drop in projected tax collections, General Manager Meilbeck explained the Authority had to make the responsible choice but is hopeful "the clouds will lift."

Hugh Mose, General Manager of Centre Area Transportation Authority in State College, PA, said his agency was receiving higher funding due to a change in Pennsylvania state transit funding formulas which now may be subject to state budget changes.

Similarly, MBTA CFO Jonathan Davis explained that, unlike most transit agencies, MBTA is fortunate to have a minimum guarantee for its sales tax funding from the State, providing some protection from economic volatility. Sales tax proceeds comprise over half of MBTA total revenue. (Actual collections declined 3.1 percent in 2008 over 2007, the steepest drop in over 20 years.)

At the time of interviews, local economies in Portland and Dallas had only experienced modest affects of the economic crisis. TriMet CFO Beth deHamel indicated that while they expected a decline in revenues due to the recession, the lag in the receipt of tax revenues made it difficult to forecast the magnitude of the decline. DART Executive Director Gary Thomas indicated they were uncertain if they would ultimately escape significant declines in revenues.

were proceeding with the projects. At the same time, system-wide service cuts and/or deferral of capital and operations investments are needed to counter-balance the planned increases in new service.

Costs for capital projects were reported across a wide range. Dallas' DART reported that bids for their LRT construction came in within expectation, but the New York MTA is finding little competition for the East Side Access and Second Avenue Subway tunnel construction, so pricing remains relatively high. Denver's RTD FasTracks expansion program construction cost estimates peaked in 2008 and are now projected almost 12.5% lower, in large part due to more favorable materials pricing. However, RTD recently indicated that "the decrease of almost $1 billion in capital costs was not enough to accommodate the continued declines in projected revenues."[14] On April 21, 2009, BART opened nine bids for heavy civil construction associated with its Warm Springs Extension project. The internal estimate for the work was $249 million and five of the nine bids were clustered between $136 and $140 million, with $136 million the winning offer.

Economic conditions have also impacted the private side of the transit industry. Broadly, surety bond availability and working capital lending to transit industry suppliers has become problematic, limiting the supply industry's capacity to bid on new work in a number of cases. While construction costs have trended down due to economic conditions for heavy civil contracting, specialty work involving tunneling, rail, and equipment are maintaining high prices due to the difficulty of new bidders entering these markets.

In summary, existing FFGAs and construction projects already started should continue to move forward and perhaps even on an accelerated schedule depending on the final receipt and allocation of ARRA funds. Capital projects in earlier engineering or planning stages stand more at risk of schedule delays due to declining revenue streams discussed in the last section. Fulfilling long-range plans promised to communities will prove to be difficult with prolonged shortfalls in projected revenues. The erosion in revenue flow has a negative compounding effect over time, while increased volatility and re-basing limits leveraging potential. Even though day-to-day operations are now the predominant focus of budgeting efforts, agencies will also have to consider future capital expansion within revised budgets.

Agencies and the More Conservative Capital Markets

Financing for transit investment is affected by generally higher debt costs and, in early 2009, by episodic constraints on debt issue size and maturity, leading to challenges in delivering projects. As noted previously, as dedicated tax receipts shrink debt service requirements are met first by "taking money off the top," reducing funds available for operations and pay-as-you-go capital investment. Volatility in the debt markets affected primarily the larger transit agencies. Smaller systems operate on a cash basis or have low levels of debt, so they have not been deeply affected by capital market disruption. (Of the six smaller agencies interviewed, four agencies had virtually no debt and the other two had one-time issuances of less than $2M.)

[14] RTD 2009 Annual Program Evaluation Board Presentation, March 3, 2009.

Carlos Desmaras of MFR Securities, Inc. described the debt market as bifurcated, with highly rated transit agencies having access while agencies with lower ratings who had relied on monoline insurance to attract investors and reduce borrowing costs struggling. Other bankers agreed with this assessment: Ron Marino of Citibank explained that **credit ratings** were the predominant factor in accessing the debt market with AA and A rated agencies able to issue debt if necessary. Others senior capital markets professionals confidentially highlighted issuances of nearly $8 billion of lower rated, BBB bonds in the fourth quarter of 2007 as compared to approximately $250 million in the fourth quarter of 2008.

Moody's Transit Issuer Ratings[15]	
Aaa	4%
Aa	58%
A	38%
BART	Aa1
MBTA	Aa2
TriMet	Aa3
RTD	Aa3
LACMTA	Aa3
DART	Aa3
NJTransit	A1
WMATA	A1
NYMTA	A2

However, the nation's largest agency, the New York MTA is now facing a potential credit downgrade[16] and, as of interviews in late January, none of major urban agencies interviewed except LACMTA (see inset box) had issued new debt in the last five months due to high borrowing costs.

Moody's Investors Services issued the special New York MTA report on March 26, 2009, warning: "The lack of recurring revenues, beyond sizeable fare and toll increases coupled with deep service cuts, puts the MTA on an operating path that may not support the current A2 rating on the system's transportation revenue bonds." According to a *Bond Buyer* report published on the same day, "Nearly half — $11.86 billion — of the authority's $26.33 billion of debt outstanding is on its transportation revenue credit."[17]

Agencies and bankers are finding that the newly risk-adverse market is generally looking less favorably on **revenue-backed debt**. In particular, while **sales tax bonds** typically have significant coverage arising from a "gross revenue" pledge, tax increment financing (TIF) and other types of **tax assessment debt** are more vulnerable to economic downtowns due to "localized market weakness or delinquencies by a small group of taxpayers."[18] Cherian George and Michael McDermott of Fitch Ratings reported that GARVEEs, although holding federal appropriations risk, have been viewed as a strong credit throughout the crisis, calming concerns that had first appeared during market disruptions.

While there is some emerging optimism about the potential for **Build America Bonds** (taxable bonds coupled with federal tax credits) to deepen the market,[19] at the time of the interviews were conducted, bankers uniformly cited a need for larger tax exempt issuances to be broken up into smaller pieces and terms focused more on the short-term. Carol Rein and Mitch Gold of Merrill Lynch indicated that the smaller institutional base and shift towards retail

[15] Moody's, "Moody's Continues to Assess Credit Effects of SILO and LILO Agreements on Municipal Issuers," November 2008; "Many Mass Transit Issuers Proving Successful in SILO-LILO Negotiations," March 2009. Note the 1 through 3 are modifiers to indicate relative standing within a rating category. The percentage of ratings is derived from Moody's credit ratings of over 70 mass transit agencies or other municipal entities with some transit functions. As shown, very few were Aaa rated and the majority were at a highly regarded Aa level that is still welcomed in the market.

[16] *New York Times*, "M.T.A. Is Warned It's Facing a Downgrade in Its Bond Rating," March 26 2009

[17] *Bond Buyer,* "N.Y. MTA Could Face Downgrade, Moody's Says," March 26, 2009

[18] Merrill Lynch, "Munis in a recession: A look at 2009," December 8, 2008

[19] See Section IV for a list of major BABs issues in April 2009.

buyers was having a direct effect on the **size and tenor of issuance**. The investment banks are working with agencies to improve investor outreach and tailor structures to meet specific investor requirements. These pressures have now eased, but a sense of "normalcy" has yet to emerge.

Tom Rousakis of Goldman Sachs concurred, gauging as of late January that $500 million would be the upper limit of issuance and 20 years as the prime tenor. But he commented in follow-up that while credit conditions were tight at the beginning of the year, they have continued to improve since. The advent of taxable Build America Bonds has allowed municipal issuers to access an entirely new investor base, addressing a supply and demand imbalance that had been constraining the municipal market.

Finally, agencies in the commercial paper market also cited challenges in rolling over their notes. Commercial paper is used to borrow on a relatively short term basis in order to benefit from lower short term interest rates and await favorable market conditions before issuing long term bonds to repay the notes. Raj Srinath, WMATA's Treasurer, said the Authority's commercial paper program had been backed by Wachovia and Bank of America. When the banking industry's problems became evident, WMATA's interest rates spiked, only recently stabilizing. In addition, the market only accepted very short commercial paper rollover maturities, usually no more than a few days.

"We priced $263 million of variable rate demand bonds on Thursday September 18 (the week Lehman Brothers collapsed)…

"The VRDBs (in weekly mode) were offered at 8.0 percent on the sale date. Goldman and Morgan Stanley were unable to place any of the bonds, but took them into inventory.

"Goldman sold their inventory over the following week or so. Goldman's bonds were backed by Bank of America liquidity. Morgan Stanley's bonds were backed by Dexia, an undesirable name at that point. Morgan Stanley was unable to sell their bonds and continued to hold them in inventory for several weeks, eventually tendering them to the Dexia liquidity facility.

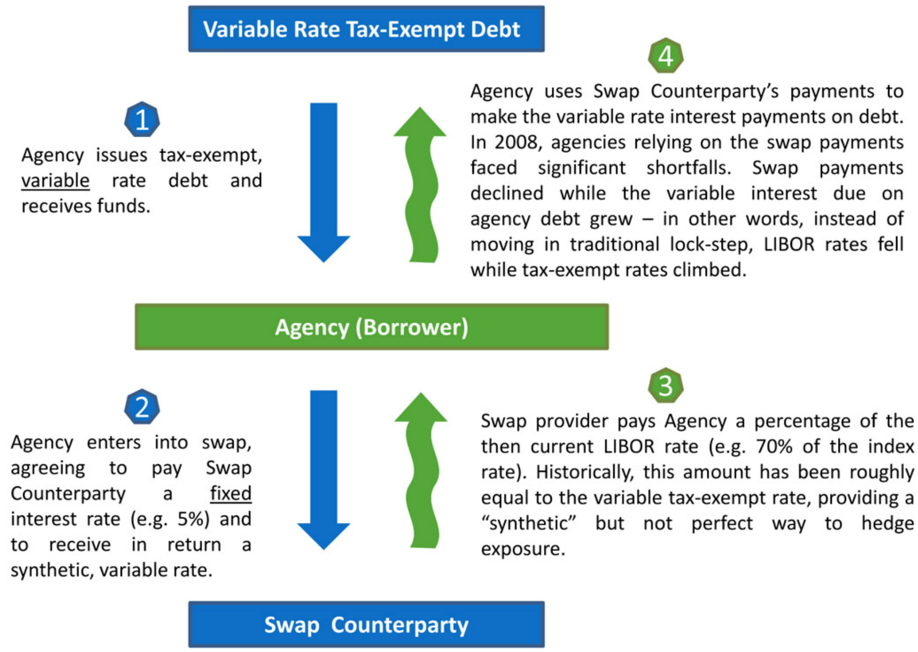
"It took several months for us to work all the bonds into the market. But Dexia does not hold any bonds at this time."

Mike Smith
Assistant Treasurer, LACMTA

As credit spreads begin to stabilize, transit agencies are seeing more market enthusiasm but lower rated issuers will continue to be challenged to finance their capital projects. This uncertainty in affordable financing reinforces the important role innovative federal programs, including expanding the TIFIA program and the development of a national infrastructure bank, can potentially play during periods of market disruption. In addition, the current unexpected and especially severe downturn provides a lesson to be learned by agencies to look beyond the gross revenue pledge of tax revenues and to continuously analyze internally net revenue debt service coverage levels to protect operations and capital investments. For example, the Metropolitan Atlanta Rapid Transit Authority (MARTA) reported its conservative fiscal policy of not programming more than 45 percent of its sales tax for debt service has helped it maintain a strong credit rating.[20] Agencies have been forced to resort to the debt market and "financial engineering" to help finance underfunded capital plans, but the current situation provides ample "lessons learned" regarding the need to recognize downside risk.

[20] *Bond Buyer,* "MARTA's Cash Crunch," April 23, 2008

Unexpected Costs Rising from Variable Rate Debt



The inversion of the relationship between tax-exempt municipal and treasury rates is leading to unexpected interest costs and an inability to refinance certain variable rate debt according to the New York MTA, Los Angeles County MTA and numerous news reports. In many instances, the variable rate tax-exempt debt was converted to a "synthetic" fixed rate by entering into a long term interest rate swap concurrent with issuing the debt. The term, "synthetic" is used because a tax-exempt borrower often entered into a LIBOR-based swap where the borrower pays a fixed rate to a swap counterparty and receives a certain percentage (typically 68-70%) of the current one-month LIBOR[21] rate each interest rate period from the swap counterparty, that is used by the agency to pay bondholders. At the time, these arrangements made sense because historically, the relationship between LIBOR and tax-exempt bonds (and Treasuries) moved in near lock-step, with tax exempt debt always priced slightly lower, as shown in Charts 2 and 3 of Section II.

Once the relationship inverted and LIBOR rates fell below tax-exempt rates, the payments from the swap counterparties to borrowers fell substantially below the amount owed on the underlying tax exempt bonds, leaving borrowers to make up the difference. In other words the synthetic swap did not protect the borrower from changes in the relationship between tax-exempt and LIBOR rates, only in the movement of LIBOR rates. The plummeting of LIBOR rates while tax-exempt rates skyrocketed created a perfect storm.

Interviewed Agencies Variable Rate Debt Exposure	
NYMTA	Exposure and soaring costs
LACMTA	Exposure and soaring costs
MBTA	Exposure but remarketed

To resolve this situation, the variable rate debt is refinanced and converted to fixed rate debt. The consequence is the swaps must be terminated and a public entity could have to make a sizeable swap termination payment, in some cases amounting to hundreds of millions of dollars. With current credit spreads so elevated, the cost of fixed rate debt does not offset the termination payment as would generally be the case for a refinancing.

Given budgetary pressures, Pat McCoy of the MTA indicated that refinancing debt at higher cost is not politically or financially feasible. Recently, the market has seen some normalizing in the relationship between LIBOR, Treasuries

[21] LIBOR means the London Interbank Offered Rate. LIBOR to fixed-rate swaps are exchange traded and the most liquid / available form of variable-to-fixed swap. Some agencies also swapped to indices besides LIBOR such as Treasuries.

and tax-exempt rates up to the 10 year tenor, and if this trend continues it will help agencies address their interest rate swap problems. These issues are also attracting attention from Congress and some form of federal intervention in the coming months appears likely.

It is not surprising that larger agencies with such complex capital plans issued variable rate debt as part of the financing toolbox. The change in the historic relationship between municipal debt and LIBOR/Treasuries was unexpected and is now easing, but points to the need for "back to basics" financial policy and the rediscovery of plain-vanilla debt instruments.

Impact on PPPs and Other Innovative Finance Approaches

While interest is high, public-private partnership ("PPP") projects are new and relatively rare in the U.S. at this juncture, particularly in the transit market. Few agencies interviewed were actively engaged in PPP activities during the market downturn. By contrast, in January most agencies contemplating capital investments were focused on preparing for the federal stimulus bill. Subsequent ARRA funding has led at least one project – the Oakland Airport Connector – to re-launch without a private financing component. With stimulus funding added to prior local grant monies, there simply is little need for private financing for the Oakland Airport Connector.

RTD in Denver was already pursuing a PPP procurement for sections of rail corridors planned under FasTracks. In October 2008, RTD qualified three teams to pursue the project. RTD confirmed in their interview in January that all three teams believed financing could still be secured and are preparing proposals due late 2009 or early 2010. In addition, these corridor projects have been selected as part of FTA's Penta-P program. Goldman Sachs, the financial advisor to RTD, reports that FTA staff is very engaged in the process and working to streamline the New Starts requirements to accommodate a PPP transaction structure.

Globally, PPPs involving transportation revenue and demand risk have faced difficulty closing, while availability payment-based projects such as Florida DOT's $1.7 billion I-595 Corridor Improvements and Express Lanes have been financed successfully, albeit with substantial changes in financial plans. The I-595 Project closed on March 3, 2009 and involved a rapidly-executed shift from Private Activity Bond (PAB) senior debt to bank loans. In availability payment PPPs, any user fees, such as toll revenue or transit fares, can be kept by the public agency and the private partner receives regular payments for project performance and operations, irrespective of demand.

Nationally, anecdotal interest in the availability payment contract approach (as contemplated for FasTracks, various high speed rail projects, and realized in I-595, as well as numerous projects in Canadian and dozens more under the United Kingdom's Private Finance Initiative) appears to be growing as an alternative delivery mechanism to accelerate project delivery, induce competition, achieve cash flow management benefits, and better manage overruns by transferring long-term performance and cost risk. When viewing operations, Cal Marsella, General Manager of RTD, remains convinced that agencies should seek improvements in ways to deliver service as costs of monopolistic service delivery systems have moved so far away from the marketplace that costs are too high for the amount of service delivered. In addition to availability payment PPPs delivering entire systems, they can also be structured around self-contained components of systems (e.g. rolling stock, vertical circulation systems, fare collection systems).

However, PPPs have not been exempt from the credit crisis. Project financing has become less attractive as credit markets have seized up and risk premiums have increased, resulting in higher debt financing costs and requirements for greater equity in capital structures.

Equity investors who relied on excess leverage are facing increasing difficulties as revenues decline and lenders begin forcing assets sales to "de-lever" balance sheets. Conversely, institutional investors' appetite for infrastructure continues to grow, with pension funds such as Calpers setting aside multi-billion dollar allocations to invest in the sector. In the short-term equity losses and the resulting need to rebalance portfolios may slow fund flows to some degree, but the overall amount investment funds available continues to increase.

The turmoil in the bond markets makes it difficult to finance PPPs in the capital markets because of their lower credit ratings, which are typically in the BBB-A rating category. As discussed previously, without monoline insurance there is limited appetite for these lower rated credits. In addition, PPPs can only issue tax-exempt debt by using Private Activity Bonds ("PABs") and until ARRA was passed, the interest on PABs were still subject to the Alternative Minimum Tax, making them unappealing to increasingly predominant retail buyers.

Banks are the traditional source of capital for PPPs in other countries. Among experienced project finance lenders, there is still appetite for funding PPP debt, but costs are high, tenors short and covenants are stringent, placing a great deal of pressure on the economics of the project. The winning I-595 bid originally contemplated a PAB financing but was ultimately financed through a "club" of 12 banks, in addition to TIFIA and equity from the private sponsor.

TIFIA is proving crucial to the viability of project financing in the U.S., whether public or private. TIFIA's Treasury-pegged interest rate has moved counter- cyclically with the market for other debt, carries no credit spread and is available for as long as 35 years after construction is completed, complimenting bank loans or short term bonds. However, TIFIA's capacity is nearly depleted and the ARRA only provided an additional discretionary amount of up to $200 million for the program.

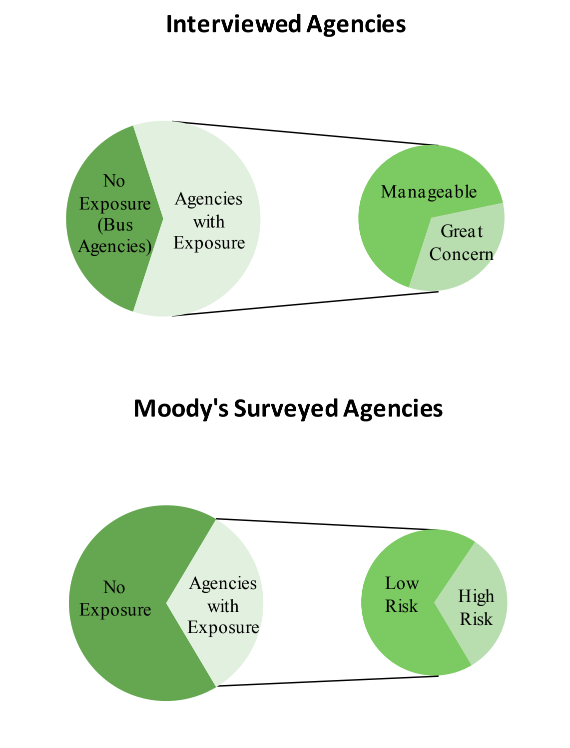
In summary, private financing is facing limitations and higher costs due to market disruptions just as public financing. Yet, innovations continue to exist as options for agencies to deliver projects with strong demand and high public priority. In time, as the market settles, the challenges to financing should lift, making it easier to bring more projects to financial close.

SILO/LILO Transactions: A Great Concern for a Few Agencies

Lease-in/lease-out (LILO) or sell-in/lease-out (SILO) transactions were completed by transit agencies in the 1990s with the encouragement of FTA. Under these arrangements, transit agencies leased-out or sold assets, to private entities and leased the equipment back from the private entity. Through this structure, the private entities were able to depreciate the assets and realize tax savings while the transit agencies were able to receive an upfront cash payment that could help fund capital investments. Proceeds net of the upfront payment were invested in guaranteed payment contracts provided by entities such as AIG and designed to service the lease payments.

Subsequently, SILO/LILO transactions came under scrutiny and were declared "abusive" tax shelters by the IRS. During 2008, as credit

SILO / LILO Exposure



ratings of the contract providers were downgraded, investors demanded substitute collateral under the terms of the lease. Otherwise the transaction would be in technical default and investors would be entitled to demand termination payments – even though agencies were still able to make payments and reserves were intact.

In some cases, agencies had spent the upfront payment received at the beginning of the transaction, and without corrective action, several are now potentially facing a large lump-sum termination payment instead of a planned schedule of small lease payments.

Moody's published a special comment on the issue in late 2008 and followed up in March 2009. Their first review of over 70 agencies found only 25 with SILO/LILO exposure, and the most recent report which looked again at those with exposure found 8 are at high risk.[22] Similarly, among the agencies interviewed for this APTA survey, 9 had exposure and 3 reported great concern.

Terry Matsumoto, Chief Financial Services Officer and Treasurer of LACMTA, expressed concern about SILO exposure. Moody's found in Fall 2008 that seven of LACMTA's ten deals were not in compliance with minimum rating requirements. While circumstances are surely evolving, at the time of the report, full termination payments of these deals were estimated at $165 million. With only $150 million of readily available liquidity plus an additional $1+ billion in cash and investments, LACMTA had indicated to Moody's it would likely sell taxable debt to meet obligations if full termination were required on all the deals to spread the burden over time.

Summarized in the same report, WMATA had 14 deals below the minimum required guarantor credit rating with termination payments totaling $360 million. WMATA reported that it only maintains approximately $40 million in available cash and investments with an additional $100 million under a line of credit, creating a substantial concern over the dramatic budget effects of enforced termination payments.[23]

Moody's reported that since last Fall investors have appeared willing to work out acceptable terms with issuers, either allowing extensions or minimal termination payments. WMATA set a precedent by reaching an agreement in federal court with KBC Bank NV of Belgium to dissolve a leaseback deal. After AIG lost its

[22] Moody's, "Moody's Continues to Assess Credit Effects of SILO and LILO Agreements on Municipal Issuers," November 2008; "Many Mass Transit Issuers Proving Successful in SILO-LILO Negotiations," March 2009.
[23] Ibid.

AAA credit rating, KBC requested a $43 million termination payment for this deal from WMATA, putting the transit agency's capital budget at risk. The final settlement amount is confidential, but WMATA reported that unwinding the deal had no effect on their capital budget.[24]

Among interviewed agencies, smaller, bus-only agencies had never entered into LILO/SILO transactions and consequently were not affected. The six rail agencies without significant concern at the time of interview had either successfully unwound deals or were party to transactions with more favorable terms. For example, CFO Beth deHamel explained that under Portland TriMet's transaction documents, AIG's downgrading triggered a requirement for AIG to post collateral, rather than causing a termination event. Controller-Treasurer Scott Schroeder said that under BART's SILO agreement, termination was only triggered if AIG is downgraded all the way to BBB.

In conclusion, although the majority of agencies with exposure to these transactions are working through them and generally finding success in unwinding the arrangements with limited financial impacts, it remains a great concern for a few agencies, including some of the largest in the country. For those transit agencies that had not yet reached settlement, there remained strong interest in having the U.S. Treasury step in as the guarantor. As Fitch Ratings commented, if any agency should face a large termination payment, it will "compound the existing and emerging problems" and "concern rests in the magnitude of actions taken to offset termination payments, such as increasing borrowing, cutting service, or underfunding maintenance and system operating and capital needs."[25]

[24] Ibid.; *Bond Buyer,* "Judge Urges KBC, WMATA to Settle," Thursday, November 13, 2008; *Bond Buyer* , "KBC, WMATA Reach Agreement," Monday, November 17, 2008

[25] Fitch Ratings, "Fitch Views Potential Leveraged Lease Payments as Adding to Transit Systems Pressures," December 3, 2008.

IV. Federal Policy Action

APTA's Current Policy Recommendations

APTA has repeatedly recognized the need for short-term federal stimulus action and long-term structural change to transit funding in the next transportation reauthorization. Prior to the formulation and signing of the stimulus Act, APTA, in conjunction with the Community Transportation Association of America, presented a 42-point Policy Agenda for Public Transportation to the Transportation Transition Team of President Elect Barack Obama.[26] The list of recommendations was broad and included addressing economic recovery through strategic investments in transit, proposed appropriation levels, and connecting transportation policy to other policy areas such as climate change, land-use, and healthcare.

In this policy agenda, APTA called for at least $8 billion for ready-to-go public transit capital projects including rolling stock in a short-term economic stimulus bill, and at least $32 billion in a longer-term economic stimulus bill, with a waiver of local match for both. The recent ARRA legislation included $8.4 billion for public transit and another $8 billion for high speed rail improvements. Other APTA short-term recommendations focus on moving projects forward in the New Starts/Small Starts process by speeding up the approval process, considering benefits beyond the cost-effectiveness measure alone, applying the streamlined approval process for Very Small Starts for all Small Starts projects, and an overall administration of FFGAs in a more partner-like manner.

[26] A Policy Agenda for Public Transportation, http://www.apta.com/about/policy_agenda/index.cfm, November 25, 2008.

In addition to its original 42-point set of policy recommendations, APTA also has released proposals for new authorizing legislation.[27] APTA recommends increasing federal investment in transit to $123 billion over a 6-year period, doubling the levels in the prior reauthorization. Even this dramatic increase in funding would provide only 50 percent of an estimated $60 billion in annual capital investment needed to meet basic safety and performance standards.

APTA has also recognized the need for structural change in transportation funding by calling for a new revenue source to pay debt service on large scale, core capacity improvements, supporting a long-term transition from gas tax to vehicle mileage tax funding for the highway trust fund (and the mass transit account), and examining the longer-term viability of innovative financing techniques.

American Recovery and Reinvestment Act

Congress answered the call for federal stimulus by authorizing $787 billion of fiscal spending in the American Recovery and Reinvestment Act, signed by President Obama on February 17, 2009. The bill includes $8.4 billion for capital investments in public transportation broken down between multiple programs with a 100 percent federal share (except for New Starts) as shown in the table on the next page. ARRA does not provide any support for transit operations. The majority of the transit funding

[27] APTA Recommendations on Federal Public Transportation Authorizing Law: Post SAFETEA-LU -- Transportation for the Future http://www.apta.com/research/info/online/post_safetea_lu.cfm#toc07, October 5, 2008.

will flow through existing Section 5307 and 5309 formula programs, while the New Starts funding is expected to be allocated to existing FFGA's or priority ready-to-go projects under construction.

Tribal Grants and the New Energy Program will be awarded through competitive selection. In addition, there is another pool of $1.5 billion for discretionary grants to multimodal projects which could include transit. Funding for related intercity rail improvements included $1.3 billion to Amtrak and $8 billion to high-speed rail.

Transit Funding in Federal Stimulus[29] (in billions)	
Urban Formula	$ 5.970
Non-Urban Formula	$ 0.766
Fixed Guideway Modernization Formula	$ 0.742
New Starts/ Small Starts	$ 0.742
New Energy Program	$ 0.100
Tribal Grants	$ 0.017
Administration/Oversight	$ 0.064
Total Transit Funding	$ 8.400

The Act also includes provisions targeted at lowering the financing cost of municipal bonds and increasing investor demand. As discussed previously, the initiatives include provisions for: taxable Build America Bonds (BABs) and other programs with a tax credit offset, in lieu of tax-exempt interest; and an Alternative Minimum Tax exemption for all tax-exempt bonds issued in 2009 and 2010 (as well as an exemption for refunding bonds, retroactive for up to five

Tax Credit Bond Programs Authorized[28] (in billions)	
Qualified Zone Academy Bonds (QZAB)	$ 1.4
Clean Renewable Energy Bonds (CREB)	$ 1.6
Qualified Energy Conservation Bonds	$ 2.4
Qualified School Construction Bonds	$ 22.0
Build America Bonds (BAB)	Unlimited

years).[30] Smaller transit agencies may benefit from another ARRA feature that allows banks to increase their purchases of modestly-sized tax exempt bond issues.

Under the BABs program, the new law authorizes issuers to offer an unlimited amount of taxable debt for governmental projects in the next two years. There are three categories of BABs which provide federal subsidies in the range of 25-45 percent with more restrictions on the higher subsidies. At the time of this report, the most common category going to market were issues to fund capital investments where the issuer receives a cash payment from the federal government equal to 35 percent of the interest on the bonds, making the interest costs lower than tax-exempt debt.

The market is already showing demand for BABs. On April 20, the New Jersey Turnpike Authority issued $1.375 billion in BABs to help finance expansion projects. The same week, the state of California issued $5.2 billion of BABs to fund multiple public works projects, not necessarily in transportation. On the transit side, the NY MTA has issued $750 million worth of BABs for its capital plan. As a result of the strong demand indicated on the NJ and California issuances, NY MTA had increased the amount of BABs sold from the originally planned $200 million.[31]

[28] *Bond Buyer,* "Not-So-Warm Embrace: Market Mixed on Taxable Tax-Credit Bonds," Monday, March 30, 2009.
[29] "American Recovery and Reinvestment Act of 2009 (ARRA)," FTA PowerPoint Presentation, February 13, 2009.

[30] This is particularly helpful for entities wishing to refinance their short-term auction rate securities
[31] *Wall Street Journal,* "MTA Prices $750M 30Yr Bonds At Tsys +350 Basis Pts," April 23, 2009.

Transit Industry Reactions

While ARRA is now law, the exact details of the bill were still being worked out in Congress during interviews for this report. Accordingly, transit agencies could only comment on possible components of the bill as they were available. The short-term deadline given to obligate the first set of funds was the most frequently-cited challenge, although agencies were expecting an even shorter deadline such as 90 days. Small and large agencies anticipated that it would be difficult to have projects "shovel-ready" in the short time frame with delays from internal procurement processes and meeting federal requirements encumbering schedules. In addition, projects ready-to-go within a few months may not be the transit industry's highest priorities. As DART's Executive Director Gary Thomas stated, "Projects sit on a shelf because they are not necessarily the best projects."

Robert Tuccillo, FTA's Associate Administrator for Budget & Policy detailed how the Administration was preparing for the ARRA and processing the influx of grant applications expected. FTA, along with APTA, is encouraging agencies to work on "three steps– planning, procurement, and board processing – simultaneously, in parallel, and immediately."[32]

FTA is being asked to process grants in the approximate equivalent of an extra year's funding in the middle of the current fiscal year on a rapid schedule with the traditional planning, environmental, Department of Labor, and Buy America requirements. [33]

There is also the extra challenge of concurrently providing guidance on the newly created programs, helping grantees address new reporting requirements to meet Congress' call for transparency and accountability, keeping stimulus grants separate from standard formula funds, and devising a strategy for redistribution of any unobligated funds. In addition, the FY 2009 appropriations bill and FY 2010 budget are following close behind ARRA, leading to a heavy administrative burden to move the funds effectively.

Finally, conversations with multiple members of the supply side have raised concerns that firms and industries which are in significant need of stimulus, in some cases will be hampered in pursuing ARRA-related contracts – due to working capital constraints, a surety bond market that has only grown tighter and the costs and accounting treatment of letters of credit.

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[32] "FTA: Prepare Now for Federal Grant Funds," Passenger Transport, APTA, February 16, 2009.
[33] "American Recovery and Reinvestment Act of 2009 (ARRA)," FTA PowerPoint Presentation, February 13, 2009.

Appendix I: Service Statistics for Transit Agencies Interviewed

Bus

Agency	Location	2007 Trips	2008 Trips	2007-2008 Growth	2008 Share of National Total	2008 Rank
Metropolitan Transportation Authority, MTA[1]	New York, NY	738,039,600	746,977,400	1.21%	13.24%	1
Los Angeles County Metropolitan Transportation Authority, Metro	Los Angeles, CA	397,727,700	395,124,800	-0.65%	7.00%	2
New Jersey Transit, NJT	New Jersey	159,736,200	166,219,800	4.06%	2.95%	4
Washington Metropolitan Area Transit Authority, WMATA	Washington DC	131,604,300	135,669,700	3.09%	2.41%	6
Massachusetts Bay Transportation Authority, MBTA	Boston, MA	104,398,500	107,354,200	2.83%	1.90%	7
King County Metro	Seattle, WA	87,187,700	94,109,200	7.94%	1.67%	8
Regional Transportation District, RTD	Denver, CO	61,513,400	66,807,500	8.61%	1.18%	17
TriMet	Portland, OR	62,609,600	66,759,200	6.63%	1.18%	18
Dallas Area Rapid Transit, DART	Dallas, TX	44,357,100	45,419,200	2.39%	0.81%	24
Interurban Transit Partnership, The Rapid	Grand Rapids, MI	7,891,200	8,894,800	12.72%	0.16%	n/a
Centre Area Transportation Authority, CATA	State College, PA	6,365,343	6,849,109	7.60%	0.12%	n/a
Des Moines Area Regional Transit Authority	Des Moines, IA	3,987,300	4,616,800	15.79%	0.08%	n/a
Triangle Transit Authority, TTA	Research Triangle Region of NC	885,000	1,100,000	24.29%	0.02%	n/a
Northern Arizona Intergovernmental Public Transportation Authority, NAIPTA	Coconino and Yavapai Counties, AZ	792,600	1,003,900	26.66%	0.02%	n/a
National Total		5,429,322,000	5,641,011,000	3.90%	33%	

[1] New York City Transit Division

Heavy Rail

Agency	Location	2007 Trips	2008 Trips	2007-2008 Growth	2008 Share of National Total	2008 Rank
Metropolitan Transportation Authority, MTA[1]	New York, NY	2,383,218,100	2,451,201,600	2.85%	68.65%	1
Washington Metropolitan Area Transit Authority, WMATA	Washington DC	283,790,500	293,235,000	3.33%	8.21%	2
Massachusetts Bay Transportation Authority, MBTA	Boston, MA	139,387,600	150,408,300	7.91%	4.21%	4
Bay Area Rapid Transit, BART	San Francisco, CA	112,444,000	117,171,200	4.20%	3.28%	5
Los Angeles County Metropolitan Transportation Authority, Metro	Los Angeles, CA	42,222,500	45,457,700	7.66%	1.27%	9
National Total		3,450,428,700	3,570,785,400	3.49%	85.62%	

[1] New York City Transit Division

Commuter Rail

Agency	Location	2007 Trips	2008 Trips	2007-2008 Growth	2008 Share of National Total	2008 Rank
Metropolitan Transportation Authority, MTA	New York, NY	180,092,700	186,163,800	3.37%	39.15%	1
New Jersey Transit, NJT	New Jersey	74,854,500	77,527,600	3.57%	16.30%	2
Massachusetts Bay Transportation Authority, MBTA	Boston, MA	38,961,600	39,721,400	1.95%	8.35%	4
National Total		454,183,300	475,523,500	4.70%	63.81%	

LRT

Agency	Location	2007 Trips	2008 Trips	2007-2008 Growth	2008 Share of National Total	2008 Rank
Massachusetts Bay Transportation Authority, MBTA	Boston, MA	81,843,000	80,337,200	-1.84%	17.27%	1
Los Angeles County Metropolitan Transportation Authority, Metro	Los Angeles, CA	42,221,600	45,343,400	7.39%	9.75%	3
TriMet	Portland, OR	34,700,400	35,772,900	3.09%	7.69%	5
New Jersey Transit, NJT	New Jersey	19,710,800	21,858,300	10.90%	4.70%	7
Regional Transportation District, RTD	Denver, CO	18,664,600	20,617,500	10.46%	4.43%	8
Dallas Area Rapid Transit, DART	Dallas, TX	17,990,600	19,826,500	10.20%	4.26%	10
King County Metro	Seattle, WA	0	414,200	NA	0.09%	26
National Total		429,631,700	465,138,100	8.26%	48.19%	

Source: APTA PUBLIC TRANSPORTATION RIDERSHIP REPORT, 2008 Q4

Appendix II: Interviewees

Transit Agencies Interviewed

Agency	Location	Participants	Interview Date
Bay Area Rapid Transit, BART	San Francisco, CA	Scott Schroeder Controller-Treasurer	1/21/2009
Centre Area Transportation Authority, CATA	State College, PA	Hugh Mose General Manager	1/30/2009
Dallas Area Rapid Transit, DART	Dallas, TX	Gary Thomas Executive Director David Leininger Chief Financial Officer Sharon Leary Vice President, Finance	1/22/2009
Des Moines Area Regional Transit Authority	Des Moines, IA	Brad Miller General Manager	1/15/2009
Interurban Transit Partnership, The Rapid	Grand Rapids, MI	Peter Varga Chief Executive Officer	1/16/2009
King County Metro	Seattle, WA	Kevin Desmond General Manager	1/23/2009
Los Angeles County Metropolitan Transportation Authority, Metro	Los Angeles, CA	Terry Matsumoto Chief Financial Services Officer and Treasurer Mike Smith Assistant Treasurer	1/20/2009
Massachusetts Bay Transportation Authority, MBTA	Boston, MA	Jonathan Davis Chief Financial Officer	1/21/2009
Metropolitan Transportation Authority, MTA	New York, NY	Christopher Boylan Deputy Executive Director/ Corporate and Community Affairs Pat McCoy Finance Director	1/14/2009 & 1/16/2009
New Jersey Transit, NJT	New Jersey	Rob Webb Project Finance Manager	1/13/2009

Agency	Location	Participants	Interview Date
Northern Arizona Intergovernmental Public Transportation Authority, NAIPTA	Coconino and Yavapai Counties, AZ	Jeff Meilbeck General Manager	1/22/2009
Regional Transportation District, RTD	Denver, CO	Cal Marsella General Manager	1/15/2009
Triangle Transit	Research Triangle Region of NC	David King General Manager Saundra Freeman Chief Financial Officer Wib Gulley General Counsel Greg Northcutt Director of Capital Development	1/13/2009
TriMet	Portland, OR	Beth deHamel CFO, Finance & Administration Executive Director David Auxier Outgoing CFO, Finance & Administration Executive Director	1/14/2009
Washington Metropolitan Area Transit Authority, WMATA	Washington DC	Raj Srinath Treasurer	1/26/2009

Capital Market Participants Interviewed

Firm	Participants	Interview Date
Citigroup	Ron Marino Managing Director	1/12/2009
Fitch Ratings	Cherian George Managing Director– Americas Michael McDermott Managing Director – U.S. Transportation	1/14/2009
Goldman Sachs	Tom Rousakis Vice President	1/23/2009
Merrill Lynch	Carol Rein Managing Director Jim Calpin, Mike Placencia, Mitch Gold and Dave McCarthy	1/12/2009
Moody's Investors Service	Maria Matesanz Senior Vice President John Ceffalio Assistant Vice President	1/26/2009
MFR Securities, Inc.	Itay Feldman Vice President Carlos Desmaras Managing Director Dominick Setari Vice President	1/12/2009
Ramirez Co., Inc.	Stuart Bromberg Director of Municipal Strategy	1/12/2009

Additional Interviews

Organization	Participants	Interview Date
Federal Transit Administration	Robert Tuccillo Associate Administrator for Budget & Policy	2/11/2009