Public Infrastructure Financial Reporting Standards: Accomplishments & Challenges

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Nearly twenty years after the adoption of GASB 34, both the research and policymaking communities are lagging in their assessment of the statement’s practical implications. The standard’s intent was to address fiscal policy concerns surrounding infrastructure spending and maintenance, but questions remain as to whether GASB 34, along with subsequently adopted standards, have fully accomplished their objectives. While financial reporting clearly can play a role in facilitating infrastructure finance, the current model has not yet delivered on its initial promise. The evolution of infrastructure financing arrangements is driving a reconsideration of the role of financial reporting against a backdrop of complexities inherent in today’s infrastructure finance architecture. That evolution raises questions about the assumptions on which the accounting standards were formulated and perhaps drives the need for a re-assessment of financial reporting approaches in the current context of domestic and international infrastructure development.

This paper is sectioned into five parts. In the first section, we offer a brief overview of several infrastructure reporting standards – Statements 34, 60, 70 and 87. We look at the features of the standards, issues the standards were intended to address and their potential effects.

In the second section, we outline what we see as the main lessons derived from the last 20 years of financial reporting developments. Those lessons include the positive impacts on fiscal accountability and transparency of intragovernmental cash flows and spending, the complexity by design of the dual reporting method across states and infrastructure asset classes, the implications for infrastructure maintenance, and the usefulness of GASB 34 for credit rating agencies, insurers, investors, creditors and other non-governmental stakeholders. We also highlight the tension between incentives for achieving high-quality financial reporting and meeting broad standard objectives.

In section three, we focus on the implications of the various GASB standards on infrastructure finance. We discuss how infrastructure in the U.S. is financed and reported. We look at the various users of government financial statements, including bond analysts, bond insurers, and decision-making government officials, and evaluate whether and how they are using the statements. We find that there is room for improvement concerning the use of GASB statements for credit rating agencies and other analysts.

In the fourth section, we focus on the implications for fiscal policy in terms of budget transparency and accountability. While the GASB does not set budget principles for state and local governments, the accounting and financial reporting standards that it sets, have implications for public budget concepts and practices. The ability to hold a government accountable to the law by the traditional fund accounting financial statements was adequately improved through financial reports that are more user friendly and tailored to the evolving complexity of government activities and transactions, expanding accountability beyond mere compliance with annual budgets.

Finally, in section five, we conclude with observations and elements to be considered going forward. Specifically, we suggest greater standardization between stakeholder reporting requirements.
Introduction

It is well documented that modern, efficient and reliable infrastructure is a pillar of a healthy economy and necessary for sustained productivity and economic growth. Local economies are dependent on their infrastructure systems (e.g., transportation, water, buildings, parks, telecommunications, broadband networks and energy systems) to serve as a foundation for a stronger middle class, higher standards of living, and long-term economic competitiveness.¹

Unfortunately, the United States has struggled in recent decades to develop new infrastructure and maintain its existing base. The American Society of Civil Engineers (ASCE) assigned a D+ to U.S. infrastructure health reflecting that deteriorating state. ASCE estimates that if infrastructure investment continues at current levels, the expected cumulative loss in GDP through 2040 would be $1.4 trillion.²

Infrastructure financial reporting can play a major role in facilitating infrastructure investment by allowing accurate assessment of credit risk, bringing maintenance to the forefront of budgets and promoting industry-wide coordination and cross-state harmonization of financial requirements and performance benchmarks. From a financial risk perspective, this should lead to more efficient and competitive financing, and improve the accessibility of infrastructure as a financeable asset class. To enable this, standards have been designed and prescribed to improve and benchmark the quality of financial reporting. They bring about uniformity and ensure consistency and comparability in the data published by governments and companies. Standards prove beneficial to firms and governments by “lowering the cost of equity or loan capital, allowing companies to more easily cross list in developed international capital markets, improving transparency and comparability of financial reports, reducing information asymmetry between insiders and outside shareholders, improving analyst forecast accuracy, and allowing for more efficient allocation of funds.”³ They are also aimed at providing useful information to users of the financial statements. In the case of infrastructure finance, stakeholders include shareholders, creditors, lenders, management, investors, suppliers, competitors, researchers, regulatory bodies, citizen groups, legislators, legislative staff and oversight bodies.⁴

In this policy brief, we seek to shine light on the impact that government accounting standards have had on infrastructure finance. We also seek to determine whether existing government financial reporting standards are sufficient to accommodate innovation given the multi-dimensional array of infrastructure finance options now possible.

The Governmental Accounting Standards Board (GASB) establishes accounting and financial reporting standards based on Generally Accepted Accounting Principles (GAAP) for U.S. states and local governments. Its aim is to enhance accountability between governments and their constituents by making information publicly available to users of government financial reports.⁵ The Financial Accounting Standards Board (FASB) establishes financial accounting and reporting standards that also follow GAAP for public and private companies and not-for-profit organizations.⁶

Internationally, countries have converged towards the alignment of financial standards. That was necessitated by the rapid growth of international trade and globalizing of firms, developments of new communication technologies, and the emergence of international competitive forces in the global space.⁷ Domestic and cross-border harmonization – thought of in this context as the process through which financial standards enhance convergence, predictability, and sustainability of infrastructure project financing transactions – can facilitate capital raising because investors, financial analysts and lenders can gain a better understanding of financial statements issued by governments and compare
investment opportunities. By 2005, over 100 countries had begun to use a common accounting language, the International Financial Reporting Standards (IFRS). GASB Concept Statement No. 1, “Objectives of Financial Reporting,” identifies comparability as one of the pillars of financial information, as differences in financial reporting should be based on substantive considerations, in lieu of on accounting procedures. As stated previously, the U.S. continues to use GAAP and not IFRS. The Securities and Exchange Commission (SEC) notes that “IFRS lacks consistent application, allows too much flexibility with judgment, and is underdeveloped in many specific areas, for which the U.S. GAAP has detailed and accepted guidance and established practice, especially in terms of industry accounting and reporting.”

As ASCE and others have noted, American infrastructure today needs repair and states have decades-old maintenance backlogs despite the introduction of GASB Statement No. 34, Basic Financial Statements—and Management’s Discussion and Analysis—for State and Local Governments in 1999. Statement 34 established financial reporting standards for state and local governments, and proponents predicted that it would result in more substantial and standardized disclosure of financial results and financial conditions of governments with increased emphasis on infrastructure assessment and proactive maintenance and replacement planning.

The art of infrastructure finance has evolved from being solely public procurement, and discussions on alternative infrastructure financing including public private partnership (P3s) arrangements are gaining traction. Infrastructure reporting standards need to be able to accommodate such new hybrid arrangements. Such standards require transparency and consistency in reporting and disclosure that allow taxpayers to engage with their local governments and hold them accountable, government officials to borrow at lower costs and gain new funding sources for infrastructure, and policymakers to choose optimal financing arrangements to assess prudently the fiscal impacts on taxpayers. Against this backdrop, GASB issued Statement No. 60, which establishes reporting standards for Service Concession Arrangements (SCAs), and Statement No. 87, which establishes standards for leases. However, reporting gaps remain open. GASB is currently conducting research into whether the many varieties of P3 arrangements can be accounted for appropriately under these standards.

Additionally, to leverage private sector innovation and participation in infrastructure investment, financial reporting and risk management need to be further aligned. Prevailing accounting standards do not always reflect risk management activities in financial statements. The emphasis of accounting has traditionally been focused on the fundamentals of a company’s finances while risk management has focused on the prospective future. In an environment of high-perceived risks, financial reporting standards that feed into credit ratings and loan and insurance due diligence can be of little help if they fail to provide risk assessments that market participants can rely on across regions and sectors as a basis to adjust the cost of financing for infrastructure projects. Credit enhancements are an important element of some P3s in reducing risk. To accommodate these in P3s and other contexts, GASB issued Statement No. 70, which establishes reporting standards for Nonexchange Financial Guarantees. This paper focuses on statements 34, 60, 70, and 87 which deal with infrastructure financial reporting standards; however, this is not an exhaustive list.

Despite the merits of GASB standards, they are not enforceable, which means that states determine whether to employ the standards. Further, while GAAP governs U.S. accounting standards in general, some disparities and inconsistencies exist between the accounting standards of state and local governments and those of the private sector. There is the twin challenge of a lack of state harmonization as well as a lack of industry-wide coordination.
Summary of Current Standards

GASB Statement No. 34

GASB Statement No. 34, Basic Financial Statements—and Management’s Discussion and Analysis—for State and Local Governments, issued in 1999, established financial reporting standards for state and local governments, including states, cities, towns, villages, and special-purpose governments such as school districts and public utilities. Statement 34 is the lead in to more disclosure about capital assets. The statement’s overarching goal is to help comprehensively assess the financial health of a municipality.

Unlike before, agencies are required to provide information about their public infrastructure assets such as buildings, roads, and bridges. Governments’ financial statements must show a value for their infrastructure investments and the costs associated with depreciation of those assets to receive auditors’ certification that the statements were prepared in accordance with GAAP. They are also required to provide an introductory section analyzing the government’s financial performance.

GASB 34 requires governments to perform a condition assessment on infrastructure assets at least every three years, and the results of the most recent assessments must demonstrate that assets are being preserved at or above the condition level established by the government. The increased disclosure is intended to enhance accountability and fiscal stewardship for infrastructure assets, enabling a focus on long-range preventative maintenance and continuous assessment of the condition of infrastructure assets over their life cycles. The hope was that by regularly assessing the state of public infrastructure and proactively planning its maintenance and replacement, a municipality could reap many benefits. Most importantly, to the extent that reporting led to better maintenance, it was expected that it would increase the useful life of the infrastructure at perhaps a lower long-term cost. Regular assessment would also result in opportunities for innovative financing, asset management and infrastructure renewal, as well as in the use of reporting information to establish national spatial databases for infrastructure.

GASB 34 was expected to result in better disclosure of financial results and condition. The new format would make government financial reports resemble corporate reports, allowing for increased understanding among legislators of the public issues involved in managing governmental assets. Bond rating agencies could rely on GASB 34 reporting to assess the financial condition of government borrowers, thereby improving the investor view of government borrowing risk possibly leading to lower interest rates and more favorable lending terms and increasing access to new funding sources and innovative finance for infrastructure.

Regarding accountability, the statement would provide more granular information with which to make better financial management decisions and highlight actions of regulators and elected officials if they failed to spend adequately in infrastructure maintenance. This would improve the public perception of government management and accountability for taxpayers’ infrastructure investments.

For state governments, the statement was designed to aid in assessing future capital financing requirements and to provide support for increased budgetary allocations for capital and maintenance purposes. Finally, the statement would enhance comparability between states and local governments and infrastructure assets.
Key elements

In Statement 34, GASB established the current blueprint for state and local government financial reporting, including the format and measurement focus of the basic financial statements, related notes to the financial statements, and required supplementary information including Management’s Discussion and Analysis (MD&A).

Under this standard, governments record infrastructure assets at historical cost and must either depreciate these assets over their estimated useful lives or account for them using the modified approach. The traditional depreciation approach involves subtracting a standard portion of an infrastructure asset’s value each year. The modified approach involves periodically assessing the condition of the infrastructure, investing in regular upkeep and subsequently reporting the maintenance funding.

Requirements for reporting general infrastructure assets under GASB 34 are among the most significant changes introduced by the statement. Prior to GASB 34, state and local governments did not report general infrastructure assets in their fund balance sheet or in the notes accompanying the financial statements. Statement 34 introduced government-wide financial statements containing accrual information for activities previously reported only on a modified accrual basis in the governmental funds.

An important additional element preceding the financial statements was the required MD&A narrative, which introduced basic financial statements and provided a qualitative discussion of the city’s or municipality’s fiscal health, as well as an analytical overview of the government’s financial activities. Statement 34 also required the presentation of the original budget to the budgetary comparison schedule, introduced major fund reporting in the governmental and enterprise funds, and added note disclosures related to capital asset and long-term liability activity during the reporting period.

The statement covers “land, improvements to land, easements, buildings, building improvements, vehicles, machinery, equipment, works of art and historical treasures, infrastructure, and all other tangible or intangible assets that are used in operations and that have initial useful lives extending beyond a single reporting period.” It defines infrastructure assets as “long-lived capital assets that normally are stationary in nature and normally can be preserved for a significantly greater number of years than most capital assets” and provides examples: roads, bridges, tunnels, drainage systems, water and sewer systems, dams and lighting systems.

Statement 34 was first effective for periods beginning after June 15, 2001. Most provisions of the statement became effective in three phases, beginning with the largest governments: up to an additional four years were allowed for Phase 1 for governments with annual revenues of $100 million or more and Phase 2 governments, with annual revenues of $10 million to $100 million, to retroactively report existing infrastructure assets. Phase 3 governments – below $10 million – could report general infrastructure prospectively.

GASB Statement No. 60

Statement No. 60, Accounting and Financial Reporting for Service Concession Arrangements (SCAs), was issued in November 2010 and became effective for financial statements beginning after December 15, 2011. The statement addresses how to account for and report SCAs, including toll roads, airports,
hospitals, prisons, city swimming pools and golf courses. Parties involved in such an arrangement include a transferor, operator and customer or user. An SCA is a P3 arrangement between a transferor (a government) and an operator (governmental or nongovernmental entity) in which the transferor conveys to an operator the right and related obligation to provide services through the use of infrastructure or another public asset in exchange for significant consideration. The operator collects and is compensated by fees from users. In the spectrum of what constitutes a P3, SCAs are typically the last type before being outright privatization.

Statement 60 requires a general description of the arrangement, information about the nature and amounts of associated assets and liabilities and deferred inflows of resources, the nature and extent of rights granted and retained by the transferor, and related guarantees and commitments. Multiple SCAs would either be reported individually or bundled if they have similar facilities and risks. The standards are generally required to be applied retroactively for all prior periods presented.

This statement establishes measurement, and disclosure requirements for both transferors and operators, requiring governments to account for and report SCAs in the same manner, improving the comparability of financial statements. It also improves the usefulness of financial reporting in terms of decision-making by requiring disclosures be made by transferors and governmental operators. The statement also contributes to assessing inter-period equity by reporting up-front payments or the present value of installment payments primarily as deferred inflows of resources, reflecting the acquisition of resources that are applicable to a future reporting period.

**GASB Statement No. 70**

GASB Statement No. 70, *Accounting and Financial Reporting for Nonexchange Financial Guarantees* was issued in April 2013 and became effective for years beginning after June 15, 2013. This statement discusses accounting for when a governmental entity extends a non-exchange financial guarantee to another entity that is ‘more likely than not’ to be paid by that government. This would cover, for instance, a state government providing a financial guarantee for local government bonds when the guarantee is likely to be invoked and the guarantor is not fully compensated for that risk. In this case, the guarantor would essentially bear some of the cost of the debt. Statement 70 sets forth a requirement of three separate parties involved with this transaction: the holder of the obligation (the entity to whom the debt is owed), the issuer of the obligation (the entity that issued the debt subject to guarantee), and the entity that extended the financial guarantee (the guarantor).

Both the guarantor as well as the issuer of the obligation are subject to disclosure requirements. This statement requires a government that extends a nonexchange financial guarantee to recognize a liability when qualitative factors and historical data indicate that it is more likely than not that the government will be required to make a payment on the guarantee.

GASB asserts that adherence to this statement enhances comparability of financial statements among governments because of the increased consistency in reporting by governments that extend nonexchange financial guarantees and those that receive nonexchange financial guarantees. Further, it improves the information disclosed about a government’s obligations and risk exposure from extending nonexchange financial guarantees. Statement 70 also enhances the ability of users of financial statements to assess the likelihood that governments will repay obligation holders by requiring disclosures about obligations that are issued with this type of financial guarantee.
In addition to intergovernmental guarantees, governments can extend financial guarantees to privately issued debt as part of a public-private partnership without directly receiving equal or approximately equal value in exchange (a nonexchange transaction). Overall, Statement 70 helps private-capital providers gain a more complete view of their government partners’ financial health allowing for better recognition of revenues and expenses that arise from nonexchange transactions.26 This holistic view through a monitoring function, is pivotal to the efficient protection of long-term investments in infrastructure projects.

GASB Statement No. 87

GASB Statement No. 87, “Leases,” was issued in June 2017. The new rules are applicable for reporting periods beginning after December 15, 2019, however, earlier application is encouraged.27 This statement is expected to increase the usefulness of governments’ financial statements by requiring reporting of certain lease liabilities that currently are not reported.

This statement establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Prior to this, certain lease assets and liabilities for leases were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. Under this statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources.

Its requirements are expected to enhance the relevance and consistency of information about governments’ leasing activities. It is also expected to improve the comparability of financial statements among governments and to enhance the decision-usefulness of the information provided to financial statement users by requiring notes to financial statements related to the timing, significance, and purpose of a government’s leasing arrangements.

Because GASB’s existing lease rules were derived from the Financial Account Standards Board’s (FASB) original lease accounting rules (FASB Statement No. 13), GASB entities and FASB entities currently report leases similarly, recognizing a distinction between operating and capital leases.28

Four Implementation Lessons

Prior to the implementation of GASB 34, state and local governments were not required to report general infrastructure assets in their fund balance sheet or disclose them in the financial statements.29 In 1999, when this statement was issued, the new standard was predicted to improve the value of states’ Comprehensive Annual Financial Reports (CAFR), making it easier to accurately assess the overall financial health of a city, county, or other government. This would be accomplished through improved disclosure of the financial condition of governments, greater emphasis on infrastructure assessment and a proactive approach towards maintenance and replacement planning.

There is extensive literature studying the lessons drawn from 17-year implementation of GASB 34. This section is not an exhaustive survey of existing GASB 34 literature. Instead, we highlight salient issues where there is a tension between incentives for achieving high-quality financial reporting and meeting broad standard objectives. In particular, we focus on what we see as four main lessons from the last two decades, namely the positive impact on fiscal accountability and transparency of intragovernmental cash flows and spending, the complexity by design of the dual reporting method across states and
infrastructure asset classes, the implications for infrastructure maintenance, and the usefulness of GASB 34 for credit rating agencies, insurers, investors, creditors, and other non-governmental stakeholders.

Bloch (2014) in 2013 conducted a survey of municipal analysts to determine their perceptions of the value of new information provided by Statement 34 in their analyses, whether they thought GASB 34 improved financial reporting by governments and how they used the information. The author found that the analysts widely perceived that the statement's reporting model improved overall financial reporting by governments. The author also found that the Management Discussion and Analysis (MD&A) section was beneficial by speeding up the process of identifying key issues and potential red flags enabling them to make judgments about credit worthiness within a short timeframe.

GASB 34 brought about the requirement that public infrastructure assets be reported and allowed state and local governments to choose between two alternative methods. The first method, the depreciation approach, requires reporting of infrastructure assets as long-lived assets that will be depreciated, and amounts spent to extend the life of infrastructure assets capitalized. The second approach, the modified approach, requires disclosure about the condition of the infrastructure and an accounting of preservation costs. The state or local government chooses how they measure the condition of the infrastructure. The infrastructure reporting provision in GASB 34 was controversial. The concept of traditional depreciation was deemed more appropriate, by GASB, to show the costs associated with capital assets. However, there was substantial criticism surrounding “the costs versus the potential benefits of retroactively determining and then capitalizing infrastructure assets and then assigning depreciable lives. A modified approach for reporting infrastructure assets was ultimately developed as an option in the final version of Statement No. 34...rather than reporting depreciation on assets with potentially indefinite lives.”

Benson and Marks (2009) and Vermeer et al. (2011) examined the decision of state and local governments to use either depreciation accounting or the modified approach in their financial reporting of infrastructure assets. Benson and Marks (2009) found that the decision of a state government to select the modified approach related to factors that implied a stronger financial and political system such as a higher population growth, a better infrastructure grade (from The Government Performance Project), non-use of revenue bond financing backed by vehicle or fuel taxes, fewer highway lane miles per capita, and greater voter support for the governor. Benson, Marlowe, and Mead (2016) attributed governments’ use of the modified approach to having a ready, suitable asset management system. For a government to continue to use the modified approach, it needs to provide evidence that it is maintaining infrastructure assets at or above the condition level established by the government. The states utilizing the depreciation approach used this approach because they felt that the modified method was too difficult to implement or they did not have an appropriate asset management system. The authors found that for the various types of governments they used as sample, 29 governments utilized the depreciation method and 23 governments utilized the modified approach.

Given that states can opt for which method to employ in accounting for infrastructure assets there are already differing levels of disclosure. There is significant variation in the useful life assumed for the depreciation approach and that of the modified approach. Preservation costs – expenditures that extend the useful life of an asset without increasing its capacity or efficiency – are capitalized under depreciation accounting and expensed under the modified approach. There is also a lack of uniformity among states using the modified approach. This manifests as each implements its own condition assessment of infrastructure assets leading to considerable variation in reporting. GASB 34 can bring about more consistency in reporting when tied to a specific asset management system.
GASB 34 was promised to result in greater transparency into the financial health of a local government. Frank and Gianakis (2010) conducted a national survey of local governments and found that over 70 percent of respondents did not believe that GASB 34 had improved elected officials’ decision-making capacity or provided managers with useful information for planning or decision-making. Further, the study found that 77 percent of respondents disagreed that GASB 34 resulted in a “more informed political debate over capital budget priorities.” Further, several state officials expressed the view that while GASB 34 was an effective tool for accounting for money spent, it was not an effective tool to guide investment decisions of money yet to be spent. Also, major rating agencies often do not quantify the cost of maintenance needs in their reports and this could be because GASB 34 allows for subjectivity and manipulation in reported numbers.

A goal of GASB in issuing Statement 34 was that it would not only have focused more attention on the need for maintenance spending in general, but more specifically that the choice of the modified approach would have played a larger role in informing spending decisions because it would provide support for increased budgetary allocation for this purpose. Many states today have large maintenance backlogs and will face budgetary challenges in meeting these needs. Kim and Ebdon (2017) looked at whether GASB 34 reporting requirements affected spending decisions on infrastructure projects and associated preventative maintenance (and to what extent). They found that in response to the increased availability of financial information on infrastructure, governments changed their “existing practices related to capital and total spending for state highways.” This was not the case for maintenance spending. The choice of reporting method did not appear to affect either type of spending. Overall capital spending generally increased, however there was not a statistically significant effect on maintenance spending.

The comparison of infrastructure assets across states is difficult because of the differences in approaches of financial reporting. For states to have accurate bond ratings, analysts should be able to compare states’ infrastructure condition and risk. There are contradictions in the literature concerning the utilization of GASB 34 information in analyses. Benson and Marks (2014) in their examination of whether GASB 34’s newly provided accounting information impacts the decisions made by bond insurers and bond rating agencies found that accounting variables derived from new accounting information in GASB 34 are significant in determining insurance premiums charged for municipal bond insurance and bond ratings. However, Johnson, Kioko and Hildreth (2012) reviewed state credit reports and noted that the reports do not provide any indication that Statement 34 information is used in credit raters’ analyses.

Instilling Certainty in Modern Infrastructure Finance

In this section we discuss the infrastructure finance process and how it is reported. We look at various users of government financial statements, including bond analysts, bond insurers, and decision-making government officials that the statements are geared towards and evaluate whether and how they are using the statements.

The U.S. relies on local and state spending to meet much of its infrastructure needs. About 25 percent of public infrastructure funding comes from the federal government while 75 percent comes from state and local governments. Of federal spending, about two-thirds goes to new, improved, or rehabilitated structures and equipment. State and local governments use a much larger proportion of their spending on operation and maintenance of infrastructure. Transportation infrastructure – roads, highways and mass transit projects – comprises the bulk of infrastructure spending and is primarily funded through
direct grants to states paid out from the Highway Trust Fund (HTF) which was created to fund the creation of the interstate highway system with money from the gas tax and other transportation-related taxes.  

The federal government also supports infrastructure development through financing mechanisms or tax incentives including the 1998 Transportation Infrastructure Finance and Innovation Act (TIFIA). TIFIA provides low-interest loans and other credit assistance to state and local governments and other eligible applicants to finance large-scale, surface transportation projects including highway, transit, railroad, intermodal freight and port access facilities. TIFIA was created as state and local governments often had difficulty obtaining financing at modest rates as they sought to finance large-scale transportation projects with tolls and other forms of user-backed revenue. This was due to the uncertainties associated with such revenue streams. The program was designed to leverage both federal funds, by attracting private and other non-federal co-investment, and private co-investment by providing supplemental and subordinate capital. To date, TIFIA has provided about $30 billion in financing.  

Financing for state and municipal infrastructure mostly comes from the public capital markets through municipal bonds. Municipal bonds fund more than 75 percent of U.S. public infrastructure. They represent a $3.8 trillion market, with thousands of state and local governments issuing $400 billion in bonds annually. The U.S. government also supports the bond market by providing federal tax exemptions for municipal bonds investors.  

Finally, public-private partnerships (P3s) are a growing infrastructure project financing mechanism. A P3 is an arrangement between a public entity and a private partner designed to deliver a public infrastructure project or service under a long-term contract where both parties share risks. Under this model, the private firms win a concession from the government to construct the infrastructure or manage another aspect of the project and are repaid either through user fees or availability payments from the government. P3s, already popular in Europe, Canada and Australia, have been less popular in the United States, in part, because of the lower cost of traditional financing through municipal bonds. Historically, P3 projects were financed by a private entity using financing such as bank loans, lines of credit, private equity and corporate debt.  

There has been an increase in the use of municipal bonds in P3 transactions due to the rise of TIFIA-sponsored projects. TIFIA financing, which usually takes the form of subordinated debt, provides funds at the same fixed interest rate at which the U.S. Treasury borrows—lower than would otherwise be possible—and offers flexible repayment terms. Repayments can start up to five years after substantial completion of the project to allow sufficient time for construction, and amortization schedules are flexible.

GASB does not set budget principles for state and local governments but rather government accounting and financial reporting standards. Because their standards have implications for public budget concepts and practices, they have very real implications for infrastructure finance. Having outlined the ways in which infrastructure is financed, now we look at the implications of reporting standards on infrastructure finance through their effects on credit assessment. The focus of literature has been on Statement 34 and hence that is our focus here. Statement 87 on leases was issued in 2017 and its implementation is expected beginning in 2020. After implementation there will be a sense of whether that statement is being used across industries and whether it has had an impact on infrastructure finance.
Although compliance with GASB standards is not generally required, all 50 state governments have implemented GASB 34; the last state in 2005. However, Vermeer, Patton & Styles (2011) found significant variation in reporting practices; specifically, useful lives for depreciation calculations differ widely across states, states using the modified approach have different assessment methods, and the baselines used for determining infrastructure condition sometimes differ between the CAFR and the annual data reported to the federal government.

As stated previously, a national survey of local governments found that over 70 percent of respondents believed that GASB 34 neither improved elected officials’ decision-making capacity nor provided managers with useful information for planning or decisions. The survey also found that the majority of respondents did not think that GASB 34 brought about a more informed political debate concerning prioritization in capital budget. Further, several state officials believed that GASB 34 was an effective tool for accounting for money already spent, but there was limited use in forecasting practices.

Most state governments receive a credit rating on their general obligation (GO) bonds, which provides an assessment of the governments’ ability and willingness to repay their debt in full and promptly. A higher bond rating indicates that the state has a greater ability and willingness to pay debt service than one with a lower bond rating. High-quality data about infrastructure projects should be available, accessible and standardized for an adequate assessment of risks. Kravchuk and Vorhees (2001) posit that GASB standards promote consistency and comparability across governments and are viewed as beneficial for such purposes as calculating bond ratings.

Bondholders, financial institutions, other governments or lessors invest money in loans and funds to government entities, relying on rating agencies and supported, where appropriate, by insurance coverage. In addition, these creditors and investors demand information to assess the health of the government entity, namely the long-term stability and debt-repayment ability of the government. In turn, rating agencies and insurers partially base their ratings and premiums upon compliance and past performance. Thus, they are also primary users of GASB-issued financial reports, which assist them in assessing the overall financial position of the government entity with which they are partnering, the cost of services, how similar infrastructure projects are financed, and the extent to which the government has invested in capital assets.

The results of a survey conducted by Bloch (2016) indicate an improvement in disclosure quality as a result of the implementation of Statement 34 among bond analysts, who perceive these standards as valuable for their analyses. According to this survey, analysts find MD&A particularly useful to assess the quality of management, and the financial condition of the government.

By contrast, greater reliance on fund financial statements than on government-wide financial statements, lack of interoperability between fund and government-wide statements, persisting inconsistency in quality and methodologies for reporting and uncertainty in coordinating with government officials translates into a perception of limited usefulness and limited use among analysts. Further research, however, is warranted to test the extent to which the information is actually used by analysts and the impact of this use in credit ratings and financing interest rates.

Bloch also conducted a study on the value of the new information introduced by Statement 34, the MD&A and the impact of variation in disclosure across municipal markets. Bloch finds that MD&A is positively valued by ratings analysts and that there is an association between higher levels of disclosure
and lower default risk, while use of municipal disclosure by investors is also associated with lack of other credit-risk evaluation sources.63

Johnson et al. (2012) analyzed the incorporation of government-wide financial statement-based ratios into credit risk decisions by Standard and Poor’s and Moody’s Investors Service. After reviewing several credit reports, they found no direct evidence that rating agencies have incorporated information from these financial statements into their financial analyses. The relevant financial analysis sections of credit reports still show a continued focus on the general fund.64

Reck and Wilson (2014) examined whether the new government-wide accrual and modified accrual information added by Statement 34 is incrementally useful for assessing municipal bond default risk. Current accounting focuses on current sources and uses of funds and allows users to assess short-term performance and fiscal compliance. However, under the previous model it was not possible for users to assess the longer-term effects of government’s decisions on financial position and condition. The authors found that GASB 34 added new information through the statement on net assets and statement of activities that increased the understanding of credit risk. They also found that recent credit ratings were consistent with the information provided by government-wide financial statements, but that rating agencies’ financial reporting still emphasized the general fund and not the entire government.65

Many states currently have sizeable maintenance backlogs. A goal of GASB in issuing Statement 34 was that it would focus more attention on the need for preventative maintenance spending. Kim and Ebdon (2017) analyzed the effect of GASB 34 reporting requirements on infrastructure projects and associated preventative maintenance spending decisions. They found that the increased availability of financial information on infrastructure led governments to change their “existing practices related to capital and total spending for state highways.” However, this was not the case for maintenance spending.66

Fiscal Impact Accountability to the Test

Financial management is impacted by the usefulness of financial reporting for taxpayers, public officials, investors, and other users. Through Statement 34, GASB has sought to ensure the state or local government’s compliance with finance-related laws and regulations. The ability to hold a government accountable to the law by the traditional fund accounting financial statements was adequately improved through financial reports that are more user friendly and tailored to the evolving complexity of government activities and transactions, expanding accountability beyond mere compliance with annual budgets. Statements 60 and 87 seek to capture alternative financing arrangements regarding infrastructure and service delivery. While GASB does not set budget principles, the accounting and financial reporting standards that it sets have implications for public budget concepts and practices. Kravchuk and Voorhees (2001) analyze the link between GASB 34 and accountability in general.67 Chan (2001) outlines six implications of GASB 34 on budgeting at the state and local levels.68

1. GASB 34 emphasizes the long-term perspective in budgeting

Chan asserts that the increased visibility into long-term liabilities in the financial statement might increase public awareness of the importance of such obligations. Operating debts are the deferred costs of past government services and require future cash payments. Governments now prepare detailed projections of future debt service payments for outstanding bonds. The author also notes that recognizing and accruing these liabilities can improve the accuracy of multi-year projections. To prepare government-wide financial statements required by Statement 34, a government will collect a great deal
of accrual data, such as capital assets, long-term receivables, and long-term payables. These steps could facilitate the budget office’s estimation of the amounts and timing of future funding requirements.69

2. GASB 34 stresses budgets as a tool for showing public accountability
Chan notes that the overarching goal of GASB 34 was to demonstrate government accountability. The budget can help facilitate this by incorporating more accounting information required by this statement. While budgets assert intentions, accounting deals mainly with actual performance. The inclusion of operating debts into the government-wide financial statements makes them more accessible to public scrutiny. Kravchuk and Voorhees (2001) assert that GASB 34 introduced significant operational accountability in addition to fiscal accountability by adding a set of government-wide financial statements to the existing set of fund-based financial statements.70

3. GASB 34 considers the government holistically
For a government to have an integrated budgeting and accounting system and an informed and realistic budget, government reporting needs to be based on a holistic government budget. Statement 34 sees whole-government financial statements as critical to the basic financial statements of a government. A government should show its complete fiscal picture before those of the individual funds and this involves a holistic and longer-term assessment. Prior to Statement 34, financial statements did not reflect the complete financial picture of government. The traditional fund-based statements measured current financial resources, such as cash and short-term receivables and relegated longer-term information, such as general long-term debt, to a separate category called Account Groups.

4. GASB 34 accounting activates the debate about accrual budgeting
Accounting and budgeting are normally done in one of two methods – the cash method or the accrual method. The cash method of accounting is focused on the inflows and outflows of cash with little regard to when the revenue was earned, or the expense incurred. The cash basis of accounting and budgeting recognizes a transaction when the cash is received or when cash is paid out. Accrual accounting and budgeting match income and related expenses in the same fiscal period, regardless of the timing of the receipt or disbursement of actual cash. The accruals basis recognizes a transaction when the activity generating revenue or consuming resources takes place. Full accrual basis is reserved for government-wide reporting while accounting for the different fund types maintains the status quo. This allows individual jurisdictions to use their budgetary basis in making the required budgetary comparisons. Kravchuk and Voorhees (2001) assert that accrual accounting in government is complex and costly to implement. Accrual accounting and financial reporting can have both favorable and unfavorable consequences. It can make the government’s fiscal picture look more positive than before. The authors assert that under Statement 34, many governments will be able to add millions of dollars of valuable fixed assets to their balance sheets. Also, the inclusion of depreciation expense provides a rationale for raising user fees. However, accruals may not reflect an actual improvement in the financial position of a government. Most government fixed assets were bought or built for use, not for sale, and do not improve a government’s ability to pay its obligations. Furthermore, the balance sheet will now be burdened with potentially large amounts of previously unrecognized liabilities for past services.
5. **GASB 34 implementation raises the need to project financial position**

Under the accrual basis, a complete set of financial statements includes a balance sheet, an operating statement for revenues and expenses, and a cash flow statement. They place equal and often greater, emphasis on the resources and financial burdens carried over from one period to the next. Government budgets however stress the financial resource flows within a fiscal year. The balance sheet emphasis of Statement 34 requires the complementary budgeting effort to balance a government’s resources and responsibility in the short, medium, and long terms.

6. **The statement critically appraises budget practices.**

Even though GASB lacks the authority to set government budgeting standards, accounting standards can be used as conceptual benchmarks to compare and evaluate budget practices. State and local governments have the incentive to comply with Statement 34 because they want an unqualified audit opinion for their financial reports and favorable bond ratings. Statement 34 may promote conversation between scholars in public budgeting and government accounting. The accounting policies underlying the government-wide financial statements may trigger another round of debate on budget principles. Though financial professionals see the advantages of different information for different purposes, to the public, multiple sets of books appear of questionable usefulness. Aligning budgeting and accounting standards in terms of GAAP is essential for the credibility of government financial information.

Lu (2007) used the Georgia Comprehensive Annual Financial Report (CAFR) and interviews with practitioners to examine the implication of GASB 34 on the linkage between reporting and accountability. The research findings show that Statement 34 has had significant impacts on reporting and the potential to improve accountability. However, while there has been a change in what is reported, budget preparation and the information utilized in this process has largely remained the same. The author states however that improving the linkage would take time as the article was written only six years after implementation of statement 34 began. She further asserts that current reporting is still too complex and full of technical jargon for average citizens to understand in order to enforce government accountability. While the MD&A improves understanding, governments still need to communicate their financial positions in a simpler way. Finally, Lu notes the difficulty in impacting the budgeting system. She states that “government agencies, legislature, and budgetary personnel appear distant from the implementation of GASB 34, and therefore, are not very concerned with how the new information might be incorporated into resource allocation or daily management decisions.” While Statement 34 improved information supply, the challenge of information consumption remains. The author recognized that in 2007 it was too early to precisely assess the impact of the statement on accountability. Further research also focused on state level and so results might not hold true at the local government level.

**Public-Private Partnerships**

To ensure governments make sound economic and fiscal infrastructure investment decisions, public officials must understand the implications of different infrastructure financing approaches for pricing, allocating and managing risks effectively. P3 financing is often supplied by the concessionaire; therefore, associated costs cannot be determined as easily compared to a typical governmental entity’s bond structure under a conventional debt financing. If done properly, accounting can inform the debate about whether a specific P3 is in the public interest from a fiscal standpoint.

The primary reason for P3s’ recent growth in the U.S. is that they do not require public-sector funding immediately. P3s are off-balance-sheet infrastructure investments that postpone the recording of fiscal
costs. It allows the capital cost of a public-sector loan to be spread out over its life cycle, rather than requiring it to be charged immediately against the public budget. This cost is then either paid for by users or charged to the public-sector budget over the life of the P3 contract, in both cases through the payment of service fees. A P3 allows the public sector to not be restricted by short-term constraints on investment in public infrastructure imposed by insufficient tax revenues and limits on public-sector borrowing. In some instances, P3s allow governments to embark on projects that they could otherwise not afford or that pose excessive risks to public finances. Critics of P3s argue that governments use this tool not primarily to achieve efficiency gains but to circumvent budget procedures and mask fiscal impacts.

P3s do not show up as public-sector borrowing, nor is their original capital cost accounted for as expenditure in the public budget. However, in the case of the service fees, these are a future annual cost, and therefore have an eventual impact on the public-sector budget similar to borrowing. This may eventually worsen the original constraints which led to the adoption of the P3 route. GASB issued statement 60 on Service Concession Arrangements (SCA) to more accurately reflect such an arrangement. This statement requires disclosures about an SCA including a general description of the arrangement and information about the associated assets, liabilities, and deferred inflows, the rights granted and retained, and guarantees and commitments.

Availability and lease payments are both paid from General Fund (GF) resources and GF debt capacity is therefore impacted. As the market for availability payment structures evolves and expands, conversations regarding the accounting treatment of the structure are ongoing. Also, under current GASB accounting rules, many leases are structured to avoid the recognition of leased assets, and corresponding liabilities on the balance sheet. As such, GASB issued Statement 87 on leases which will be implemented in the coming years.

**Conclusions**

We revisited the basic lessons from more than 17 years since the issuance of Statement 34, as well as its interoperability with subsequently-adopted standards. Standards need to be periodically re-examined to remain effective. Undoubtedly, the numerous changes to government-wide financial statements that GASB has introduced have yielded major benefits for planning and public accountability over the costs and financing of public investments in infrastructure. Hence, financial accounting and reporting standards for state and local governments are vital for the process of valuing, reporting, financing and maintaining infrastructure assets nationwide.

The infrastructure financing environment is rapidly evolving. Infrastructure investments can be highly complex to manage, and investors often face information constraints interwoven with design challenges impacting financial reporting standards. All these factors can result in risk levels that investors and financiers have difficulty absorbing.

What we specifically suggest is greater industry-wide harmonization in asset management and financial reporting combined with the use of appropriate budgetary tools to reduce risks for taxpayers and stakeholders, and to add more transparency in the face of adverse economic shocks.

It is important that stakeholders strive to achieve greater harmonization in respect to the format and standard of disclosure, which are driven largely by market practice. To that end, one approach could be to draft model templates that could be uniformly adopted by banks, investors, credit rating agencies and
insurers who are currently challenged by inconsistent and varying formats of each government and stakeholder group.

A more relaxed attitude vis-à-vis P3s as opposed to the comparatively heavier budgetary scrutiny for traditional funding mechanisms presents the risk of derailing fiscal accountability and masking fiscal impacts that will ultimately be absorbed by taxpayers. With the realization that no budgetary procedure justifies myopia regarding taxpayer impacts and risks to fiscal and debt sustainability, these changes would not bridge the infrastructure gap, but would represent a major improvement from the current puzzle of under-investment despite capital availability.

10 Hybrid projects may be realized in different variants, in which the government builds and finances the infrastructure project and later, auctions off the operation and maintenance aspects to the private sector.


The author surveyed members of the National Federation of Municipal Analysts (NFMA)


Ibid

Ibid

Ibid

Ibid


