U.S. Municipal Bond Market

As the 2024 Elections Loom, America's Infrastructure Challenges Persist & Threaten to Deepen

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- We regard next week's election as pivotal, given its potential to influence the political and financial trajectory of the United States. Regardless of the election's outcome, U.S. infrastructure is anticipated to encounter considerable political challenges. These may include the reduction or elimination of tax-exempt municipal bonds, a crucial tool for infrastructure financing.
- Despite the passage of the Infrastructure Investment and Jobs Act of 2021 and the Inflation Reduction Act of 2022, which together offered only a very modest funding increase, the United States continues to grapple with persistent infrastructure challenges. The American Society of Civil Engineers has highlighted a substantial investment gap remains.
- There is strong public support for infrastructure investment. However, direct policy discussions on infrastructure spending are lacking, and infrastructure financing methods are at risk of being overshadowed by other politically popular policies.

No Matter Who Wins on Nov. 5, America's Infrastructure Could Lose

November 5 marks Election Day, and we find ourselves just a week away from when millions of Americans are set to cast their votes. This election is being heralded as potentially one of the most influential in the past century. The near-term political and financial future of the country is believed to be, and indeed could be, at stake. The outcome of Nov. 5 carries significant weight and could have far-reaching implications.

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New and refreshed fiscal warnings are surfacing. The Committee for a Responsible Federal Budget (CRFB) increased the dollar amount each Presidential candidate would add to the national debt in a renewed analysis published Monday. The CRFB forecast policies from Vice-President Harris could add almost $4 trillion to the current deficit. Former President Trump's proposals would increase the national debt by almost $8 trillion. In an article, Economists Warn of New Inflation Hazards After Election, that appeared on the cover of Monday's Wall Street Journal, the author highlighted, "Both candidates have big spending plans, but economists say Trump's proposals carry the greater risk of stoking price increases."

Infrastructure Gap After the IIJA of 2021 & IRA of 2022 Remains Significant

Period	ASCE Infrastructure Gap	IIJA of 2021 (New Spending)	IRA of 2022 (Energy & Climate)	Remaining Infrastructure Gap
Total (over 10 years)	$2,590 billion	$550 billion	$386 billion	$1,654 billion
Annually	$259 billion	$46 billion	$39 billion	$174 billion

Source: ASCE, CBO, U.S. Chamber of Commerce, and HilltopSecurities.

Please see disclosure starting on page 8.

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U.S. Infrastructure Crisis Persists

The U.S. infrastructure crisis persists and has, in fact, worsened due to the continued and growing need for both traditional and digital infrastructure development. The passage of the Infrastructure Investment and Jobs Act of 2021 (IIJA of 2021) provided only a very modest allocation of $550 billion in new spending over a 10-year period. This translated to only approximately $46 billion of new infrastructure investment annually, which is insufficient to meet escalating demand and close the pending infrastructure gap. The Inflation Reduction Act of 2022 allocated approximately $386 billion towards energy and climate initiatives. However, even when including this investment, recent fiscal policies only address a small portion of the broader infrastructure investment gap in the United States. According to the American Society of Civil Engineers' (ASCE) 2021 Infrastructure Report Card, the United States faced an infrastructure investment gap of $2.59 trillion over the decade, equating to about $259 billion annually. See our breakdown at the bottom of Page 1.

As Tuesday Nov. 5 approaches, there has been a noticeable lack of direct policy discussion regarding infrastructure investment. Infrastructure financing with tax-exempt bonds could be at risk. Support for a national infrastructure bank is growing. Overall, we think infrastructure spending could continue to be crowded out by politically popular policies politicians are promising to win over the battleground states. Despite this, seven out of 10 people polled believe infrastructure will create jobs and boost the economy, and nine out of 10 polled agree critical infrastructure is "crucial to maintaining our daily life activities."

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The HilltopSecurities' 2024 Public Entity Survey identified the leading challenges facing public entities across the United States. "Aging Infrastructure" was not only the second highest theme identified by 453 respondents, but seven of the other categories or themes identified in this year's survey of over 1,200 public entity employees were also challenges directly related to infrastructure which included:

- No. 2 Aging Infrastructure, 453 respondents
- No. 3 Affordable Housing, 377 respondents
- No. 4 Cyber Security, 283 respondents
- No. 6 Traffic, 156 respondents
- No. 7 Schools, 118 respondents
- No. 9 Water, 96 respondents
- No. 13 Flooding, 78 respondents
- No. 19 Energy Reliability, 19 respondents

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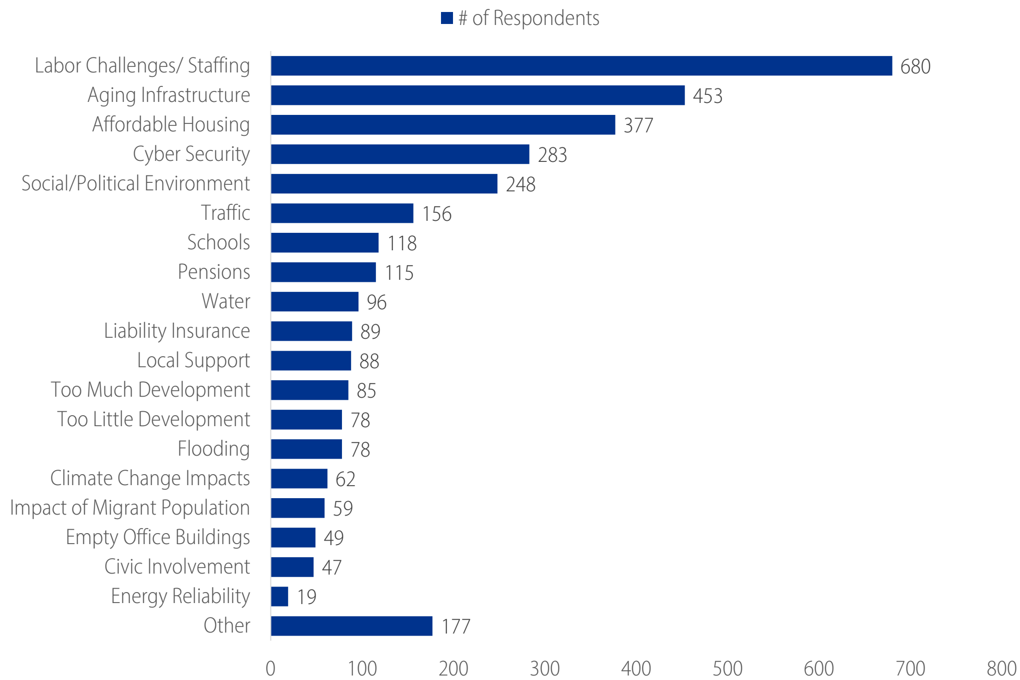
At this time the United States is having a difficult time keeping up with regular maintenance needs even though the country did build mammoth projects that changed the landscape of the national and world economy at one time.

Challenges Facing Public Entities (From the HilltopSecurities 2024 Public Entity Survey)

3. What are the biggest challenges facing your public entity? (Choose up to four).



Source: HilltopSecurities.

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Historically Impactful Infrastructure Projects, In Brief

Proposing and garnering support for innovative and transformative infrastructure or public works programs is often challenging and costly to say the least. These initiatives frequently struggle to gain the necessary backing from individuals and lawmakers, making it difficult for them to progress from their initial stages to full realization, let alone achieve the widespread favor needed for strong consideration. Two major infrastructure mega-projects that were not only considered successful but also pivotal in establishing the United States as a global economic power are the Erie Canal, completed around 1825, and the Eisenhower Interstate Highway System, which, while may never truly be "complete," is often considered to have reached a significant milestone around 1992.

The Erie Canal was a 360-mile canal system that connected the Great Lakes to New York Harbor. Initially the projected was ridiculed as "DeWitt's Ditch" or "Clinton's Folly." The canal system was constructed before the invention of dynamite and considered a "engineering marvel." The project was partially financed with canal bonds, purchased by what today could be described as both institutional and local (New York) investors. The Erie Canal was completed ahead of schedule. Probably most importantly the canal system helped build and advance the northern New York area and connecting regional economies but also "turned New York into the greatest boom town the world has ever known," according to John Steele Gordon in his book "An Empire of Wealth."

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Navigating the financial and political complexities of the time made it difficult but rewarding in the end where the Eisenhower Interstate Highway System was concerned. Both economic and national security considerations were stressed when Vice-President Richard Nixon introduced the details of President Dwight D. Eisenhower's "Grand Plan" to the Governors Conference at Lake George, New York in 1954. The vision was for a comprehensive highway system that would require buy-in from the federal, state and local levels of government across the entire country. President Eisenhower was inspired for such a project because of his experience as a Lieutenant Colonel, he participated in a transcontinental convoy from D.C. to San Francisco in 1919. Later President Eisenhower also said Germany's autobahn system, "Made me see the wisdom of broader ribbons across the land."

Less Future Oriented Since 1970

It should not be considered hyperbole, when advocates say or write that infrastructure is the backbone of any nation's economy. This is especially true in the United States. Traditional infrastructure and emerging digital infrastructure are vital systems that drive the $25 trillion U.S. economy. Both types of infrastructure are critical to the functioning and advancement of a modern economy. Traditional infrastructure encompasses areas such as aviation, bridges, water systems, schools, transit networks and other categories. Meanwhile, digital infrastructure, though newer, includes critical elements like broadband, cellular networks, satellites, AI and cloud computing platforms, and digital payment and banking systems among others as well. Looking ahead, the future of infrastructure will likely see greater digital integration, enhanced climate resilience systems and the incorporation of autonomous vehicles, further solidifying the role of infrastructure's importance as a driver of economic growth and innovation.

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Despite the significant role infrastructure developments like the Erie Canal and the Eisenhower Interstate Highway System play in economic development, population expansion and business efficiency, U.S. spending on infrastructure as a percentage of GDP has been on a steady decline for several decades. Ray Fair, an economist at Yale University, analyzed the history of U.S. infrastructure spending dating back to 1929. He concluded, "Infrastructure [federal, state, and local] as a percent of GDP began a steady decline around 1970, and the government budget deficit became positive and large at roughly the same time." Fair further explains, "The overall results suggest that the United States became less future-oriented beginning around 1970."

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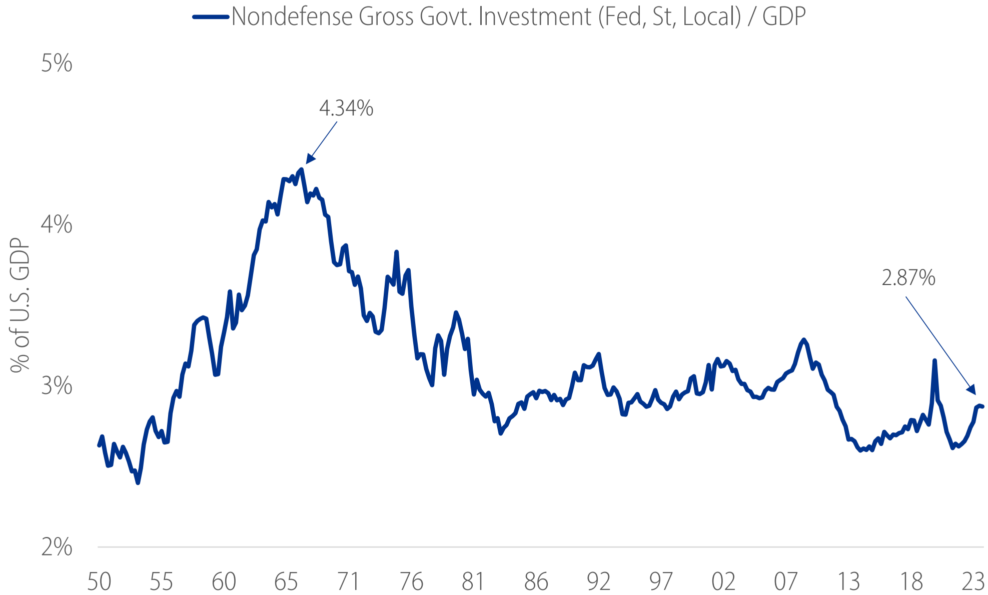
To illustrate public sector infrastructure investment, we are utilizing the gross government investment data from the Bureau of Economic Analysis (BEA). Nondefense gross government investment at the federal, state, and local level as a percent of U.S. GDP has trended downward since it peaked at 4.34% of GDP in 1967, and most recently was only 2.87% of GDP as of the beginning of 2024.

U.S. Government Infrastructure Investment on the Decline



Source: BEA, Fed Reserve, FRED and HilltopSecurities.

The Role of Infrastructure in Economic Competitiveness

Infrastructure is essential for economic growth and competitiveness. Traditional and digital infrastructure enables and facilitates trade, powers business networks, connects workers to jobs, and creates opportunity. Infrastructure development and maintenance allows for lower and more competitive transactions costs, increases productivity, and enhances the overall efficiency of an economy. An economy can also be penalized for failing to invest or keep up investment in its infrastructure network. For instance, the American Society of Civil Engineers (ASCE) estimates that inadequate infrastructure could cost the U.S. economy $10 trillion in lost GDP and more than 3 million jobs by 2039. U.S. infrastructure earned only a "C-" in ASCE's 2021 Report Card for America's Infrastructure.

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ASCE Infrastructure Report Card Grades

Categories	2021	2017	2013
Cumulative Grade	C-	D+	D+
Aviation	D+	D	D
Bridges	C-	C+	C+
Dams	D	D	D
Drinking Water	C-	D	D
Energy	C-	D+	D+
Hazardous Waste	D+	D+	D
Inland Waterways	D+	D	D-
Levees	D	D	D-
Public Parks	D+	D+	C-
Ports	B-	C+	C
Rail	B	B	C+
Roads	D	D	D
Schools	D+	D+	D
Solid Waste	C+	C+	B-
Stormwater	D	NG	NG
Transit	D-	D-	D
Wastewater	D+	D+	D

Grades: Exceptional, B: Good, C: Mediocre, D: Poor, F: Failing. Each category was evaluated on the basis of capacity, condition, funding, future need, operation and maintenance, public safety, resilience, and innovation.

Source: ASCE and HilltopSecurities.

Lawmakers' Recent Rhetoric vs. Action on Infrastructure

While lawmakers frequently emphasize the importance of infrastructure, their actions often fall short of their rhetoric, especially on the national stage. Leading up to the 2016 Presidential election, both candidates included infrastructure in their platforms and debated its merits. At that time, it was believed investing in infrastructure could effectively jump-start U.S. economic growth, which was still struggling years after the World Financial Crisis. Former Senator & Sec. of State Hillary Clinton proposed a five-year, $275 billion infrastructure agenda, while former President Trump, as a candidate, proposed a $1 trillion upgrade to the nation's infrastructure. However, lawmakers were unable to come together on infrastructure until fall of 2021 when the IIJA of 2021 was signed into law. We noted above the IIJA of 2021 barely made a dent in the U.S. infrastructure gap.

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Our current concern is that too many lawmakers may now believe infrastructure is adequately funded, leading to a lack of necessary attention to the topic. There has been a noticeable absence of meaningful discussion about infrastructure from the Harris and Trump campaigns leading up to the Nov. 5 elections. In fact, there is growing concern that lawmaker support for infrastructure finance could be declining or misdirected into ineffective strategies.

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What a Lack of Support for Infrastructure Finance Could Mean – A Summary

For public entities such as state and local governments, or traditional private activity bond issuers such as healthcare and higher education institutions, the lack of support for infrastructure finance is likely to have widespread negative impacts. Our concerns about the rising U.S. federal deficit are being exacerbated by the increased promises from Vice-President Harris and former President Trump, as they have not proposed ways to fund their policy initiatives. Consequently, we are concerned a traditional method of infrastructure finance- tax-exempt bonds- could be at risk when tax policy is revisited in fall of 2025.

From an investor perspective, this threat to the U.S. municipal bond market was covered specifically by CNBC in, The election could have a 'massive impact' on the municipal bond market, analyst says. For more on the potential threat to the municipal bond tax-exemption also please see our recent analysis:

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- Our 2024 Election Preview: We Could See an Unprecedented Threat to U.S. Municipals from Potential Tax Policy Changes (Sept. 11, 2024)

- The Efficiency of the Municipal Bond Tax-Exemption was Called into Question and the Same Analysis Proposes to Eliminate the Tax-Exemption (March 26, 2024)

- Save the Tax-Exemption, A Call to Action for U.S. Public Finance (August 17, 2023)

Interest in the concept of a National Infrastructure Bank is building. In the summer of 2023 legislation was proposed to establish a National Infrastructure Bank. More recently, members of the National Infrastructure Bank Coalition, actively lobbied for this federal financing tool at the Democratic National Convention in Chicago, as reported by this Bond Buyer article. Since the summer, momentum for the infrastructure bank idea has grown. The American Wake-Up Call Survey revealed that the policy received significant support, with 66% of Democrats and 38% of Republicans in favor of it. For more details, refer to the bar chart titled, "Top Policies Are Popular Across Classes and Parties" toward the end of the survey results.

For decades, infrastructure has suffered from chronic underinvestment. Fortunately, tax-exempt municipal bonds remain (at least for now) a vital financing tool, enabling public entities to effectively and efficiently address their regional and local infrastructure needs. This year, we anticipate a near-record, or possibly record-breaking, issuance of municipal debt, driven by the significant infrastructure backlog that persists across the country.

The current pre-election situation underscores the need for greater education to ensure lawmakers fully grasp the vast infrastructure investment gap that still exists, per the

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ASCE. Education about the role tax-exempt bonds plays as a financing tool for public entities is also an important message to deliver as well. It is imperative that all potential solutions are considered and utilized, as more infrastructure financing tools, not fewer, are essential for public entities across the U.S. Eliminating financing options could result in higher borrowing costs and increased red tape and regulation when accessing capital markets.

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Recent HilltopSecurities Municipal Commentary

- The Risk of Unexpended Proceeds Calls Remains Low: The Effect of Declining Rates on Single Family Mortgage Revenue Bonds, October 21, 2024
- Market Volatility Equals What Could Be The Best Opportunity of the Year for Municipal Investors, October 15, 2024
- Higher Education in Crisis, Systemic Pressures Buck the Golden Age Trend, September 25, 2024
- Our 2024 Election Preview: We Could See an Unprecedented Threat to U.S. Municipals from Potential Tax Policy Changes, September 11, 2024
- Revised Again: Strong GDP Growth Boosts Our 2024 Issuance Forecast to $480 Billion, September 5, 2024

Readers may view all of the HilltopSecurities Municipal Commentary here.