

Municipal Bonds and the Making of American Infrastructure

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As we approach the 250th anniversary of our nation’s founding, it is an opportune time to also recognize the central role municipal debt has played in shaping the American economy. Municipal bonds have been a foundational nation-building tool, financing the infrastructure that underpins economic growth and social development by translating public ambition into physical systems. From early canal and road projects to modern investments in water systems, mass transit, airports, utilities, and digital-era infrastructure, municipal debt has allowed state and local governments to fund long-lived assets while spreading costs across generations of beneficiaries. This approach enabled infrastructure development at a scale and pace that would not have been achievable through pay-as-you-go taxation alone.

This historical model has regained prominence in recent years. Rising construction costs and the infrastructure demands of the digital economy have contributed to back-to-back years of record municipal bond issuance, with gross supply reaching approximately \$500 billion and \$585 billion in 2024 and 2025, respectively. These issuance levels reflect renewed reliance on municipal balance sheets to finance essential infrastructure.

The rapid growth of cloud computing, artificial intelligence, and hyperscale data centers is driving substantial new demand for energy, water, transportation access, and site-ready development. While data centers themselves are typically privately financed, the enabling infrastructure they require frequently relies on municipal issuers.



Municipal Debt as a Nation-Building Tool

Infrastructure is capital-intensive, indivisible, and designed to serve communities for decades. Roads, bridges, water systems, schools, airports, and power grids require large upfront investments but deliver benefits over long periods of time. Throughout U.S. history, annual tax revenues alone have been insufficient to fund these assets within the timeframes demanded by population growth, industrialization, and technological change.

Municipal bonds emerged as a solution to this mismatch. By borrowing upfront and repaying investors over time using taxes, user fees, or dedicated revenues, governments aligned debt service with asset life and beneficiary use. This construct accelerated infrastructure delivery while supporting intergenerational equity by ensuring that future users helped pay for the assets they consume.

Early Foundations: Canals, Roads, and Transportation Networks

Municipal borrowing gained prominence during the early 19th century, when high transportation costs constrained economic growth in the young republic. Public leaders sought to connect interior regions to coastal ports and global markets, spurring investment in canals, roads, and bridges. Canals were among the first large-scale projects financed through public borrowing. New York’s early 19th-century canal financing and the subsequent success of the Erie Canal demonstrated that long-term municipal and state debt could fund transformative infrastructure that reshaped regional economies.

The early success of canal finance established a durable template for municipal borrowing while the near default of canal-backed bonds in the wake of the Panic of 1837 highlighted the risks associated with rapid debt expansion during economic cycles—lessons that continue to inform modern public finance practices.

Waterworks, Schools, and the Rise of the American City

As American towns evolved into industrial cities, municipal borrowing expanded beyond transportation to public health, education, and civic infrastructure. Water supply and sanitation systems became essential for reducing disease, supporting fire protection, and enabling dense urban development. Municipal bonds allowed cities to undertake these projects at scale by pairing large upfront investments with long-term repayment.

Alongside utilities, municipal debt financed schools, courthouses, libraries, and other civic facilities that formed the institutional backbone of American cities. This period also formalized the distinction between general obligation debt backed by taxing power and revenue bonds supported by enterprise revenues—a framework that continues to define municipal finance today.

Mass Transit, Airports, and Public Utilities

Urban congestion and economic concentration in the late 19th and 20th centuries drove investment in streetcars, subways, and rapid transit systems. These infrastructure-heavy projects required public finance, as tunnels and dedicated rights-of-way were too costly to fund solely through private operators.

As commercial aviation matured, municipal bonds became central to financing airports, while electric power, water, and wastewater systems relied on long-term debt to fund capital-intensive assets with predictable service lives. By mid-century, municipal bonds had become the backbone financing tool for core U.S. infrastructure nationwide.

The Digital Economy and Infrastructure Demand

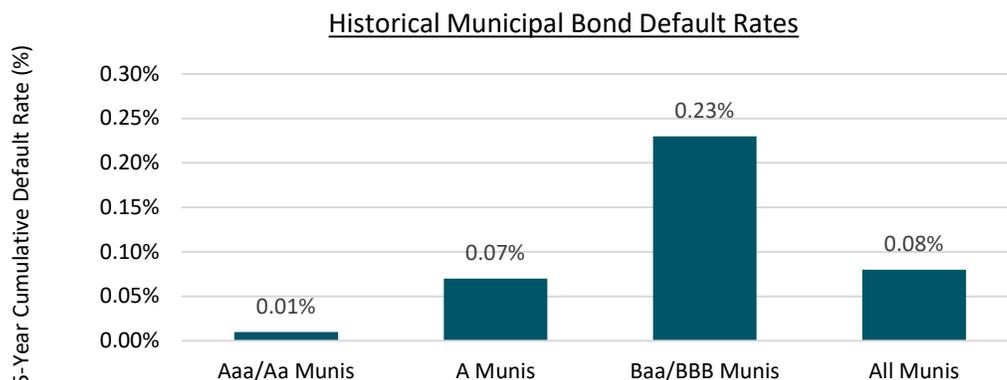
The rise of cloud computing and artificial intelligence is driving a new wave of infrastructure demand. Hyperscale data centers require vast amounts of electricity, water, and transportation access, placing new demands on public infrastructure systems. While the facilities themselves are privately financed, the infrastructure that enables them—grid upgrades, substations, transmission, water systems, and site development—often falls to municipal issuers.

Public power utilities and local governments are increasingly responsible for financing these investments using municipal bonds, reinforcing the market's historic role as the financier of enabling, rather than proprietary, assets.

Why This History Matters for Investors

For investors, the enduring appeal of the municipal market lies not only in its public-purpose mission, but also in its exceptional credit stability. Over more than five decades of data, Moody's has found that the average five-year cumulative default rate for the entire U.S. municipal sector has been approximately 0.08%, a fraction of the comparable corporate default rate. High-grade general obligation and essential-service revenue bonds have exhibited even lower default frequencies, reflecting the legal ability of issuers to levy taxes or adjust user fees and the essential nature of the services financed.

This combination of long asset lives, dedicated revenue streams, and strong legal protections has made municipal bonds one of the safest segments of the fixed-income market historically, particularly during economic downturns. As infrastructure needs expand in the digital era, this safety profile remains a defining characteristic for investors seeking durable income backed by essential public assets.



Source: Moody's Investors Service, U.S. Municipal Bond Defaults, 1970-2022.

Conclusion

From canals to cloud computing, municipal bonds have enabled the United States to build the infrastructure necessary for economic growth and innovation. Their enduring value lies in their ability to translate long-term public needs into investable capital while balancing opportunity with fiscal discipline. As new infrastructure demands emerge—from energy-intensive digital systems to resilient utilities—municipal bonds are likely to remain the financial backbone of public-purpose assets, offering investors a historically safe means of participating in the next chapter of American infrastructure development.

Past performance does not guarantee future results.

Investors should carefully consider investment objectives, risks, charges and expenses. This and other important information is contained in the fund prospectuses and summary prospectuses, which can be obtained from a financial professional and should be read carefully before investing.

In a rising interest rate environment, the value of fixed income securities generally declines and conversely, in a falling interest rate environment, the value of fixed income securities generally increases. High-yield securities may be subject to heightened market, interest rate or credit risk and should not be purchased solely because of the stated yield. Ratings are measured on a scale that ranges from AAA or Aaa (highest) to D or C (lowest). Investment-grade investments are those rated from highest down to BBB- or Baa3.