Municipal Bonds After the Deluge

by Adam S. Wallwork

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In this article, Wallwork shows how tax reform has affected the municipal bond market and why Republicans should care.

For generations, municipalities have leveraged their authority to issue tax-exempt debt to encourage private investments in public goods. In so doing, state and local governments can revitalize communities with private money, thus avoiding the bloated public balance sheets that led to Detroit's 2013 bankruptcy and Puerto Rico's effective bankruptcy last year. Last month's near-termination of the $102 billion annual market for tax-exempt private activity bonds (PABs) (more than 20 percent of the U.S. tax-exempt bond market), before Republicans restored the break 10 days before the zero hour, fundamentally undermined the stability of a market that depends on stability for its value. Without meaningful bond reform this year to stabilize a panicked muni market, Republicans will have undercut President Trump's infrastructure agenda before it begins by eliminating a central source of low-cost financing for state infrastructure projects, including airports, docks and wharves, intercity rails, and other mass transit facilities. This article shows how the 2017 tax reform has affected the municipal bond market and why Republicans should care.

I. History

The federal government has never taxed interest on municipal securities. Many forget that the Supreme Court's infamous decision in *Pollock*,[1] which invalidated the federal income tax of 1894, was in part about the federal government's power to tax income derived from investments in municipal bonds. While the Court divided 5 to 4 over *Pollock*'s sweeping conclusion that direct taxation of individual incomes was unconstitutional, seven justices concluded on grounds of federalism that the 1894 law was unconstitutional insofar as it levied "a tax on the power of the states and their instrumentalities to borrow money."[2]

The 16th Amendment expressly overruled *Pollock* in 1913 and authorized federal taxation of incomes, from whatever source derived. Nevertheless, since 1913 Congress has codified the exemption of interest on state and local bonds from federal income taxation. The constitutionality of federal taxation of municipal bond interest was not raised until 1983, when South Carolina challenged limitations on the exemption imposed under the 1982 Tax Equity and Fiscal Responsibility Act.[3] Section 310(b)(1) of TEFRA removed the federal income tax exemption for interest earned on publicly offered long-term bonds issued by state and local governments unless those bonds are issued in registered form.[4] In rejecting South Carolina's 10th Amendment challenge, a majority of the Court foreclosed any constitutional challenge to federal taxation of municipal bond interest, while federalism's staunchest supporters — Chief Justice William Rehnquist and Justices Antonin

[1] *Pollock v. Farmers' Loan & Trust Co.*, 157 U.S. 429 (1895).

[2] *Id.*

[3] *South Carolina v. Baker*, 485 U.S. 505 (1988).

[4] *See* section 149(a).

Scalia and Sandra Day O'Connor — dissented from that aspect of the opinion.

Thus, Republican supporters of states' rights have strong ideological reasons to limit, rather than expand, federal taxation of municipal securities. State and local bonds provide municipalities with a means independent of federal grants and subsidies to finance local operations and foster local economic development. Because interest on those bonds is exempt from federal tax, bondholders achieve identical yields at lower interest rates than would be available for taxable securities, with the result that municipalities have lower borrowing costs than other borrowers do.

Consider, for example, an investor in a simplified tax environment in which everyone is taxed at a flat rate of 33 percent. Interest income earned by the investor is therefore subject to a 33 percent tax unless the interest is paid on a municipal bond, which is excluded from the tax base. The investor is offered a choice between two $10 million bonds with the following characteristics: (1) the first bond pays taxable interest at a coupon rate of 7 percent (the taxable bond), and (2) the second pays tax-exempt interest at a coupon rate of 4.69 percent (the tax-exempt bond). Thus, the issuer of the tax-exempt bond pays the investor 2.31 percent less interest capital than the issuer of the taxable bond. As the following example shows, that rate differential is a matter of indifference to the investor because the federal government makes up the difference, thus shifting $231,000 in otherwise collectible revenue to the tax-exempt borrower.

Republicans since President Eisenhower have also supported "conduit" financing by municipalities of nongovernmental entities at tax-exempt borrowing rates to promote infrastructure, transportation, and affordable housing developments at the local level. Beginning with Mississippi in 1936, state and local governments began issuing tax-exempt industrial development bonds (a more expansive precursor of today's PABs), to finance industrial plant construction for private enterprise.[5] Eisenhower, together with Republican majorities in the House and Senate, first recognized the tax-exempt status of industrial development bonds in the Internal Revenue Code of 1986. In 1986 Republicans imposed significant restrictions on PABs to combat perceived abuse, including the widespread financing of sports stadiums with tax-exempt financing. But Republicans since 1986 have broadly supported, and often argued for expanding, local governments' authority to offer nongovernmental organizations low-cost tax-exempt financing to spur local development of airports, docks and wharves, mass commuting facilities, high-speed intercity rail facilities, intermodel freight transfer facilities, hospitals, charter schools, colleges, and universities.

Table 1. How Federal Tax Exemptions Subsidize Municipal Borrowers

Basic Facts			
Principal amount of bonds			$10 million
Investor's tax rate			33%
Coupon Rates			
Taxable bond rate			7.00%
Tax-exempt bond rate			4.69%
Taxable Versus Tax-Exempt Interest Rates			
	Interest Income (borrower's cost)	Tax Liability (goat's income)	Net Interest Income (bondholder's income)
Taxable rate	$700,000	($231,000)	$469,000
Tax-exempt rate	$469,000	$0	$469,000
Gain/ (loss)	$231,000	($231,000)	$0
Compared to Taxable Scenario: Government's foregone tax income is transferred to the borrower in the form of lower interest cost negotiated in the market with taxable investor.			

II. Private Activity Bonds

Municipal governments have two basic tax-exempt ways to finance local projects: (1) issuing general obligation bonds or otherwise incurring

[5] Advisory Commission on Intergovernmental Relations, "Industrial Development Bond Financing, Summary of Report A-18," at *1-*2 (June 1963).

debt directly to finance local government expenditures and facilities (governmental bonds) or (2) encouraging nongovernmental entities (including private individuals and businesses) to borrow proceeds for specified projects that meet the requirements for qualified private activity bonds under sections 141 through 150.

State and local bonds are PABs unless the issue fails both the private loan financing test under section 141(c) and at least one of the private business tests under section 141(b). In other words, municipal bonds are PABs, which are taxable unless they are qualified bonds — meaning bonds that are issued for private purposes such that the issue meets either the private loan financing test or both the private business use test and the private security or payment test (collectively, the private business tests). These tests essentially evaluate whether the government or some other person is benefiting from the ability to finance projects at tax-exempt rates.

To fail the private loan financing test, no more than $5 million or 5 percent of the proceeds of a bond issue may be used directly or indirectly to finance loans to a nongovernmental person. While this test evaluates whether a specific transaction is a loan based on its economic substance (for example, a long-term lease arrangement or management contract), these arrangements will generally not constitute loans for purposes of the private loan financing test unless tax ownership is transferred to the nongovernmental person.

Municipal bonds, which fail the private loan financing test, may nonetheless be PABs if they meet both the private business use test and the private security or payment test under section 141(b). In other words, to avoid PAB status under the private business tests, it is sufficient to fail either the private business use test under section 141(b)(1) *or* the private security or payment test under section 141(b)(1). To fail the private business use test, no more than 10 percent of the bond proceeds may be used in the trade or business of any person other than a state or local governmental unit. For this purpose, any use by an entity other than a natural person and the federal government is considered to be use in a "trade or business" even if, for instance, a 501(c)(3) organization merely uses the property for a charitable purpose, which would not generally be considered a private business use under general tax principles. Any entity using a bond-financed project as a member of the public (for example, a distributor using a public toll bridge) is not considered to be making *private* business use of the project. Individuals using property for residential or other nonbusiness purposes also do not count toward the 10 percent private business use threshold. If the use of the bond proceeds satisfies the private business use test, the bonds can only avoid PAB status by avoiding the private security or payment threshold, which requires that no more than 10 percent of the payment of principal of or interest on the issue is secured by any interest in property used in a trade or business, or derived from payments related to property used in a trade or business. Thus, even if a municipal government granted a private enterprise free use of tax-exempt bond proceeds to finance its facilities, as in the form of a grant, the bonds would not be PABs if the government simply gave the business the proceeds, without requiring repayment or a security interest in the facility.

In many other scenarios, however, such as tax-exempt financed hospitals, transportation projects, airports, college campuses, and charter schools, the nongovernmental entity's use of the facility will be sufficient to make the issue a PAB. In those cases, Congress has under the 1986 code set forth only seven categories of PABs that may nonetheless pay interest exempt from federal income tax. Qualified bonds under section 141(e) must be (1) an exempt facility bond, (2) a qualified mortgage bond, (3) a qualified veterans' mortgage bond, (4) a qualified small issue bond, (5) a qualified student loan bond, (6) a qualified redevelopment bond, or (7) a qualified section 501(c)(3) bond.

Exempt facility bonds are fundamental sources for low-cost infrastructure financing at the state and local level. To qualify, at least 95 percent of the net proceeds of these tax-exempt PABs must be used to provide:

- airports;
- docks and wharves;
- mass commuting facilities;
- facilities for the furnishing of water;

- sewage facilities;
- solid waste disposal facilities;
- qualified residential rental projects;
- facilities for the local furnishing of electric energy or gas;
- local district heating or cooling facilities;
- qualified hazardous waste facilities;
- high-speed intercity rail facilities;
- environmental enhancements of hydroelectric generating facilities;
- qualified public education facilities;
- qualified green building and sustainable design projects; or
- qualified highway or surface freight transfer facilities.

All of Trump's infrastructure priorities — roads, rails, ports, and airports — could be financed at relatively low cost through enhancement of the exempt facility bond rules, which is what Treasury Secretary Steven Mnuchin meant when he suggested raising the volume cap or otherwise enhancing tax-exempt infrastructure bonds.

For instance, Congress enacted bipartisan transportation legislation in 2005 that authorized up to $15 billion of new tax-exempt private activity bonds to be issued after August 10, 2005, to finance certain qualified highway or surface freight transfer facilities. Section 142(a)(15) and (m), as amended by the 2005 Transportation Act (P.L. 109-59, section 11143), permit the Transportation secretary to allocate a national limit of $15 billion among any of the following three types of "qualified highway or surface freight transfer facilities": (1) any highway surface transportation project which receives federal highway assistance under title 23 (as in effect on August 10, 2005); (2) any project for an international bridge or tunnel for which an international entity authorized under federal or state law is responsible and which receives federal highway assistance under title 23 (as in effect on August 10, 2005); or (3) any facility for the transfer of freight from truck to rail or rail to truck (including any temporary storage facilities directly related to those transfers) which receives federal highway or transportation assistance under title 23 or title 49, respectively. Examples of facilities that may be financed with tax-exempt bonds under the 2005 transportation legislation include cranes, loading docks and computer-controlled equipment that are integral to intermodal freight transfers from trucks to rails or from rails to trucks. Intermodal freight transfer facilities are one type of private activity bond that can be used for infrastructure projects favored by the Trump administration and Congress should consider increasing the $15 billion national limitation on the tax-exempt financing available for such facilities under section 142(m)(2).

III. Advance Refundings of Governmental Bonds

A refunding is an issuance of bonds for the purpose of redeeming outstanding bonds. It is an advance refunding if the refunding bond is issued more than 90 days before the redemption of the bond it refunds. Advance refunding allows governmental issuers and 501(c)(3) organizations (and no other obligors on PABs) to restructure eligible tax-exempt debt by refinancing outstanding debt at a lower rate or spreading debt service payments over a longer period. This technique allows governmental and 501(c)(3) organizations to obtain the benefit of lower interest rates when the outstanding bonds are not currently callable but may be redeemed before maturity with proceeds of bonds issued at a lower interest rate. The federal tax expenditure arises from the fact that both the refunded bonds and the refundings are outstanding and generating interest income that is exempt from federal taxation for the same project.

Because savings from advance refunding are a function of prevailing interest rates and the particular redemption features of an obligor's outstanding debt, the ability of governmental and tax-exempt entities to quickly change advance refunding schedules in response to tax policy is fairly limited. The GOP tax bill enacted on December 22, 2017, repealed advance refundings just four business days before year's end, effectively foreclosing further tax planning around advance refunding repeal.

The lack of transition relief for advance refunding bonds is a key feature of all three GOP tax plans, which many participants in the municipal bond market consider unduly harsh. Transition rules are routine when new tax laws unsettle expectations, and advance refundings have been authorized under section 149(d) for 31 years. While it is true that Congress has gradually chipped away at advance refundings so that they are now available only to governmental issuers and 501(c)(3) borrowers, those organizations had little warning before November 2, 2017, that their long-standing ability to advance refund a tax-exempt bond once during its life would end as of December 31, 2017. That created havoc at the end of 2017 for 501(c)(3) organizations, elected officials, bidding and escrow agents, underwriters, issuers, and their respective representatives, who all scrambled to get advance refunding deals closed before the ball dropped in Times Square.

IV. 2017 Tax Reform

A. False Signals

America's municipal governments had every reason to believe the Trump administration and those in Congress's taxwriting committee were in their corner up until details of Republicans' tax overhaul were released. Mnuchin promised during confirmation hearings earlier in 2017 to "enhance" PABs used by state and local governments to encourage private investment in infrastructure projects.[6] Moreover, at least nine Republican members on the House Ways and Means Committee had sponsored legislation expanding the use of PABs during the 18 months immediately preceding the committee's release of H.R. 1, the Tax Cuts and Jobs Act (TCJA). Reps. Tom Reed, R-N.Y., and Patrick Meehan, R-Pa., sponsored the National Disaster Tax Relief Act of 2017, which would have granted each state with a federally declared disaster area $10 billion of tax-exempt PABs to spur reconstruction and permitted more than one advanced refunding of those qualified disaster area recovery bonds. Reps. Meehan, Mike Kelly, R-Pa., Carlos Curbelo, R-Fla., James B. Renacci, R-Ohio, Jackie Walorski, R-Ind., and Patrick J. Tiberi, R-Ohio, all sponsored a bill expanding PABs on which the interest is federally tax exempt to include elementary and secondary schools, state colleges and universities, public libraries, courts of law, hospital, health care facilities, laboratory facilities and research facilities, public safety facilities, and offices for employees of a governmental unit. Reps. Kristi L. Noem, R-S.D., and Adrian Smith, R-Neb., also sponsored legislation last year that would have allowed more first-time farmers to acquire land with proceeds of tax-exempt PABs, while Rep. Kenny Marchant, R-Texas, sponsored legislation expanding access to PABs for nonprofit scholarship funding corporations in the private student loan industry. Moreover, Trump signaled early on that tax reform should include infrastructure incentives for rebuilding America's "crumbling" infrastructure, including "our roads, rails, ports, and airports."[7]

Economists call these "signals." Through months of public action, the president and Republicans in both chambers of Congress signaled to participants in the municipal bond market that they had nothing to fear from tax reform. If anything, municipal bond buyers were told the opposite. Trump promised to rebuild U.S. infrastructure and nominated a Treasury secretary who was formerly head of Goldman's municipal bond desk and whose written testimony expressed support for expanding the federal tax exemption for public financing of private infrastructure projects. And Congress's main taxwriting committees were stacked with Republican leaders like Reed and Meehan, who, while drafting the TCJA, released legislation on September 5, 2017, that would have expanded PABs to include disaster bonds used to redevelop areas affected by hurricanes Irma and Harvey. Less than two months later came the deluge.

B. Fifty Days That Changed the Muni Market

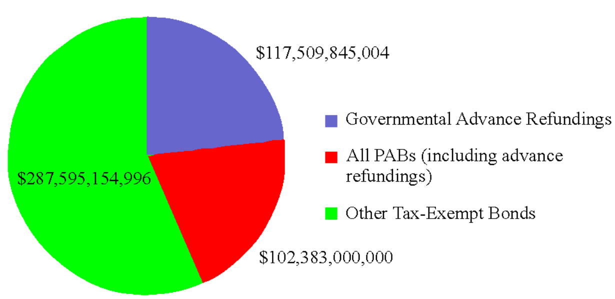
On November 2, 2017, House Republicans released a tax plan that shocked the municipal financing world. The plan terminated, for bonds issued after November 2, 2017, the federal tax exemption for interest on governmental bonds or PABs, the proceeds of which are used to finance or refinance capital expenditures for a stadium that is used during at least five days during any calendar year as a stadium or arena for professional sports training, exhibitions, or games

[6] Lynn Hume, "Mnuchin Says He'll Work to 'Enhance' PABs for Infrastructure Projects," *The Bond Buyer* (Jan. 25, 2017).

[7] The White House, "President Trump's Plan to Rebuild America's Infrastructure" (June 8, 2017).

(stadium bonds). It eliminated the federal tax exemption for interest on any PAB issued after December 31, 2017 (PAB termination). It terminated, for governmental bonds and qualified section 501(c)(3) bonds issued after December 31, 2017, the ability to advance refund prior bonds. And it eliminated the authority of state and local governments to issue tax credit bonds after December 31, 2017. As Figure 1 below shows, this proposal would have terminated 43 percent of the U.S. tax-exempt bond market overnight.

Figure 1. The GOP Threat to Municipal Bonds Governmental Advance Refunding Bonds and PABs (including section 501(c)(3) advance refundings) (2015)



Source: IRS Databook 2017.

C. Survival of PABs

Municipalities petitioned congressional leaders throughout the two-week markup of the House bill but had no success in curbing the tax-exempt bond measures. On November 16, 2017, the House bill passed with the same tax-exempt bond reforms, which would have raised $56.8 billion in federal tax revenue over 10 years at the cost of erasing $220 billion of annual financing for state and local infrastructure improvements, transportation projects, and affordable housing facilities. These figures, while enormous, underestimate the House bill's effect on low- and moderate-income housing, however, because they do not account for PABs' indirect role in facilitating 4 percent low-income housing tax credit projects under section 42(h)(4). Under that provision, which the House bill would have obviated, developers can access substantial tax equity through a 4 percent annual tax credit available over 10 years for projects that are at least 50 percent financed with PABs subject to the section 146 volume cap for PABs (as opposed to the much smaller volume cap available to state housing agencies otherwise available under section 42(h)). Before Congress revised the tax bill, experts estimated that repeal of PABs would have effectively eliminated half the demand for U.S. affordable housing projects throughout the country, in a bill, ironically, touting its retention of affordable housing tax credits.

Ultimately, the House-Senate conference committee abandoned efforts to repeal PABs entirely and made no changes. While a welcome development, the House's abandonment of any effort to reform PAB rules after threatening to repeal them entirely left many concerned about how Republicans approached this issue. Although Congress is not expected to act with the same discernment as Federal Reserve chairs, the House's haphazard approach to municipal bond rules last year created chaos in markets affecting hundreds of billions of dollars in securities and left municipal bonds forever changed.

These steep costs imposed on a municipal industry that can hardly afford the destabilizing externalities require some policy-based explanation that Congress has yet to supply. In that regard, the Ways and Means Committee offered two policy considerations as justification for its repeal of all PABs after 2017. First, the committee said, "The federal government should not subsidize the borrowing costs of private business, allowing them to pay lower interest rates while competitors with similar creditworthiness, but that are unable to avail themselves of PABs must pay a higher interest rate on the debt they issue." Second, the committee added, "The provisions would not apply to any previously issued bond, nor would the provisions prevent state and local governments from issuing PABs in the future; the provisions would merely remove the federal tax subsidy for newly issued bonds."

Far from explaining the committee's work, however, those two sentences call into question House Republicans' basic understanding of the municipal bond reforms they released on an unsuspecting municipal bond market last November.

Starting with the second sentence, because its claims are factual rather than normative, the committee explains that termination on January 1, 2018, of all tax-exempt PABs (1) will not affect previously issued bonds, (2) will not prevent municipalities from issuing PABs, and (3) will merely remove the federal tax subsidy for newly issued bonds. Each of those claims is misleading. The House bill struck all seven categories of tax-exempt PABs in sections 142 (exempt facility bonds), 143 (mortgage revenue bonds: qualified mortgage and qualified veterans' mortgage bonds), 144 (qualified small issue bonds; qualified student loan bonds; qualified redevelopment bonds) and 145 (qualified section 501(c)(3) bonds). Section 3601 also removes all references in the code to PABs under sections 103, 146, and 147, with the result that municipalities simply could not issue PABs after 2017 because they would not exist. Moreover, contrary to the committee's assertion, interest on PABs issued and outstanding before January 1, 2018, could have become taxable under the House bill in at least two ways. First, under general income tax principles, tax-exempt debt that is issued before a statutory effective date but substantially modified thereafter becomes subject to the new rules. Under normal circumstances, a reissuance of a PAB is usually considered a current refunding, with few tax consequences. But when an entire sector of the tax-exempt bond market is eliminated overnight, without transition rules, the risk of reissuance means the loss of tax exemption for all outstanding PABs issued before the statutory deadline, which would have imposed exorbitant monitoring costs on every PAB under the House bill, regardless of when it was issued.

Second, the House simply ignored draw-down bonds. Under IRS rulings, tax-exempt draw-down bonds, which are often used in construction projects so that developers can draw funds when needed, are treated as issued when drawn upon for statutory deadline purposes. Thus, nearly every issuer and conduit borrower that had issued draw-down bonds with terms that allowed draws after December 31, 2017, found themselves scrambling to fully fund bonds years before they thought that would be necessary. Any other approach to drawdowns after the House proposed its bill could have resulted in otherwise tax-exempt bonds becoming taxable to the extent of any post-2017 draw. The transaction costs expended on drawdowns during that months-long uncertainty has not been estimated, but, based on personal experience, must be staggering.

Nowhere does the committee explain the policy behind PAB repeal. In the first sentence, the committee offers a normative premise that "the federal government should not subsidize the borrowing costs of private business," that is fundamentally at odds with federal tax policy since 1913. Every federal income tax deduction, credit, exclusion, deferral, and incentive invariably "subsidizes" taxpayers who conduct their affairs in accordance with those rules. Interest incurred by a taxpayer in the conduct of a trade or business is deductible from federal income tax, which provides a significant tax subsidy to real estate developers and other capital-intensive businesses, whose property can easily be leveraged. Accelerated depreciation, as well as immediate expensing under the House bill, makes another federal tax subsidy available for leveraged real estate companies and other capital-intensive businesses that is not otherwise available to similarly creditworthy taxpayers. The federal government also subsidizes private debt incurred by partnerships under subchapter K's basis allocation rules, which allow partners to defer recognition of income far longer than other types of private borrowers (for example, transferors of encumbered property to a C corporation).

Those long-standing federal subsidies for private borrowing are no different from exempting interest income on specified PABs from federal taxation, or any of the thousands of other subsidies available under the IRC. "Anyone may so arrange his affairs that his taxes shall be as low as possible," so the mere fact that federal tax exemptions subsidize a carefully delineated set of PABs does not as a normative matter reflect bad tax policy. It is the very essence of tax policy itself.

D. Repeal of Advance Refund Bonds

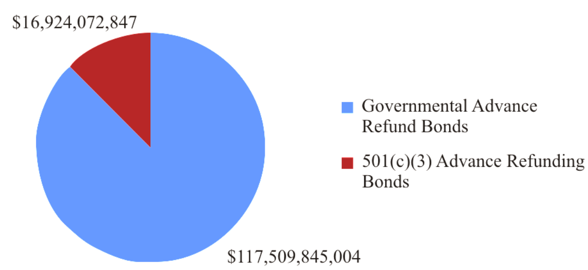
Unlike PABs, advance refundings did not survive the House-Senate conference committee. Interest on advance refunding bonds issued after December 31, 2017, will not be tax exempt. Section 13532 of the conference committee's bill, which

Trump signed on December 22, 2017, was identical to the same section in the Senate bill and section 3602 of the House bill. Like the earlier bills, the final version of the TCJA provides no transition relief for issuers and conduit borrowers whose obligations are already issued and outstanding. Both bills accomplish this by striking the general rule that advance refunding bonds (other than those described in sections 149(d)(2), (3) and (4)) may be tax-exempt bonds under section 103(a) and instead generally providing that "nothing in section 103(a) or in any other provision of law shall be construed to provide an exemption from Federal income tax for interest on any bond issued to advance refund another bond."

Because advance refunding of PABs (other than qualified section 501(c)(3) bonds) has not been allowed since 1986, state and local governments themselves will take the biggest hit on advance refunding repeal, as shown in Figure 2 following this paragraph. Advance refundings include any refinancing of tax-exempt debt by an obligor more than 90 days before the prior debt is redeemed (or more than 180 days before redemption for bonds issued before 1986). When bonds are optionally redeemable by the obligor before maturity, advance refundings offer the opportunity to realize savings at a time of historically low interest rates by redeeming outstanding debt early with the proceeds of bonds that cost the debtor less to repay. Even with three 25-basis-point increases in the federal funds rate last year, the Federal Reserve's 1.25 percent to 1.5 percent target overnight rate is nearly 300 percent lower than pre-crisis levels, so opportunities for interest rate savings abound. Advance refundings from higher to lower interest rates by municipalities and section 501(c)(3) organizations have thus become a way of life in recent years. Those entities will need to adapt to bond reforms that took effect, without transitional relief, on January 1, 2018.

The following tables and figures give a sense of the size of both the tax-exempt market for PABs ($102.38 billion issued during 2015), which survived repeal, and for advance refunds ($134.43 billion issued in 2015), which did not survive the GOP tax reform bill.

Figure 2. Advance Refund Bonds, by Issuer (2015)



Source: IRS Databook 2017.

Table 2. Tax-Exempt Bonds, by Type (2015)

	Governmental Bonds	Private Activity Bonds	Tax-Exempt State and Local Bonds	Percent of Total Tax-Exempt Bonds
New money issues, total	$174,497	$46,446	$220,943	44%
Refunding issues, total	$230,608	$55,937	$286,545	56%
Advance refundings	$117,510	$16,924	$134,434	26%
Current refundings	$113,098	$39,013	$152,111	30%
Total	$405,105	$102,383	$507,488	100%

Note: Amounts are in millions of dollars.

Table 3. Advance Refunding Bonds, 2015

	Advance Refundings	Percent of Total Tax Exempt Bonds
Governmental advance refund bonds	$117,509,845,004.00	22%
Section 501(c)(3) advance refunding bonds	$16,924,072,847.00	8%
Total	$134,433,917,851.00	30%

E. Tax Credit Bonds and Stadium Bonds

The Joint Committee on Taxation expected 99 percent of tax savings related to the municipal bond reforms to come from repealing PABs and advance refunding bonds as of January 1, 2018. But two other significant municipal bond proposals, with revenue effects aggregating less than $1 billion, may still affect some areas of public financing, including charter schools (which tax credit bonds have previously supported), colleges, and universities (which will not have let sports stadiums go unused in the off-season because of Congress's rejection of the House bill's stadium bond reforms).

1. Tax credit bonds.

Qualified tax credit bonds (QTCBs) are taxable bonds that incentivize investment by delivering federal tax credits to bondholders rather than paying tax-exempt interest. Holders of QTCBs receive quarterly allocations of credits, which may be used to offset federal income and alternative minimum taxes. The amount of the bondholder's credit is determined by multiplying the bond's applicable credit rate by the face amount of the holder's bond, and Treasury determines the applicable credit rate as of the date that a binding commitment is made to purchase the bonds. Therefore, because the repeal of tax credit bonds is expressly limited to bonds issued after December 31, 2017, the repeal should not affect taxpayers' right to receive tax credits generated by QTCBs issued and outstanding as of that date, including tax credits from qualified zone academy bonds (QZABs), qualified school construction bonds (QSCBs), new clean renewable energy bonds (new CREBs), and qualified energy conservation bonds (QECBs).

The authority to issue Build America Bonds and recovery zone economic development bonds expired on January 1, 2011, so those bonds are not directly affected by this legislation. However — like QZABs, QSCBs, new CREBs, and QECBs — other QTCBs, Build America Bonds, and recovery zone economic development bonds that remain outstanding will continue to be subsidized as before.

2. Stadium bonds.

In a victory for the rule of law, if not for municipal balance sheets, Congress decided against retroactively repealing the authority to build stadiums used by professional sports teams at least five days per year. The House bill's retroactive effective date of November 2, 2017, for otherwise tax-exempt bonds used to build sports stadiums was unusual, and potentially applied not only to abusive planning around the private business use test but also to a wide variety of colleges and universities with state-of-the-art athletic facilities that go unused for several months a year. Under this provision, tax-exempt bonds would no longer be available to build any facility, including a state or private college athletic stadium, used for professional sports exhibitions, games, or training for five days in any calendar year. This is a broad provision, encompassing not only governmental bonds issued with general taxes repaying the debt, but also apparently picking up facilities financed by section 501(c)(3) bonds issued by colleges and universities to finance their athletic facilities that may be rented to professional sports organizations on days when they are not being used for college athletic events.

The Senate bill rejected this new limit on governmental and PABs, and so did the conference committee. Therefore, it did not become part of the 2017 tax reform bill. But colleges and universities, who would suffer most under this provision, should remain vigilant, lest it be raised again as a pay-for during negotiations over infrastructure reform expected early this year.

F. Economic Consequences

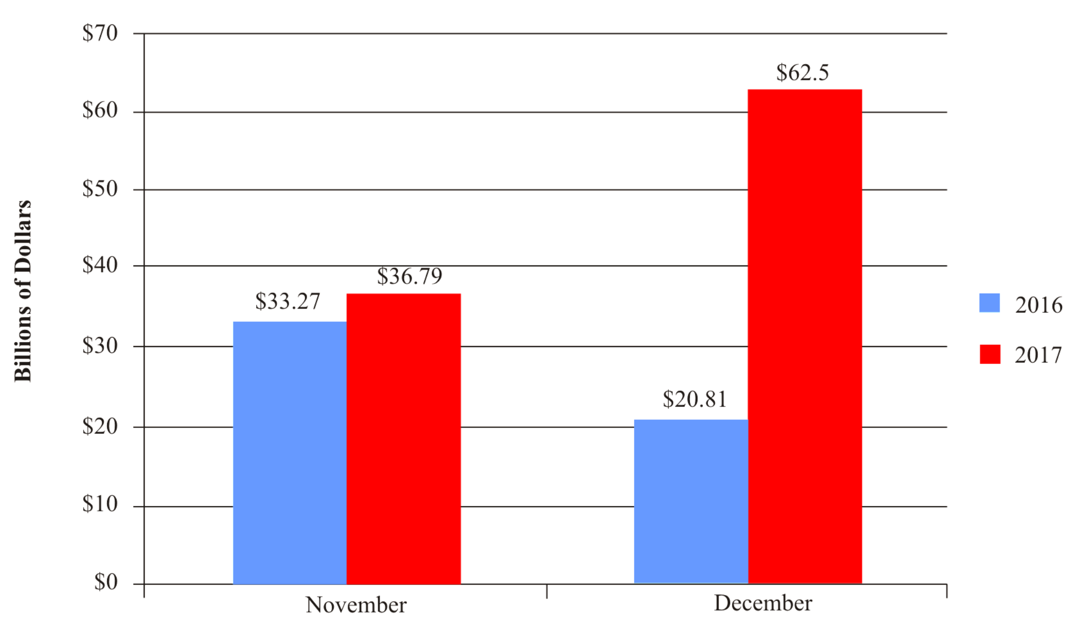
With Republicans poised to take up Trump's infrastructure proposal this month, it is not too late for Congress to clean the mess they made last year for the municipal bond market. But for that to happen, policymakers must take a clear-eyed view at how their last year's brutal lurch toward tax reform destabilized a bond market that derives its value from stable returns on investment. In the near term, Congress must act to make investors understand that the tax-exempt status of municipal bonds will not be regarded as a cash cow when federal deficits balloon as predicted under the tax reform measure. In the longer term, congressional leaders in both parties should take stock of what is lost from the externalities imposed by ill-considered legislative proposals.

For reasons explained above, the 2017 tax reform effort panicked the municipal bond market. The frenzy started on November 2, 2017, with the release of the House bill, which repealed PABs, and continued through December 31, 2017, for governmental and section 501(c)(3) bond issuers seeking to take advantage of their last potential advance refunding before their termination effective January 1, 2018.

Unlike the 1986 Tax Act, which included numerous transition rules for tax-exempt bonds, including for advance refunding bonds, no such relief was provided in the TCJA for the repeal of advance refunding bonds, which became obsolete as of January 1, 2018. Thus, both the threatened repeal of tax-exempt PABs, including draw-down bonds issued on or before December 31, 2017, and the actual repeal of advance refunding bonds as a potential means of refinancing at lower costs set off a wave of municipal bond issuances and frenzied activity behind the scenes by accountants and lawyers to determine which clients' bond documents might need to be rewritten when Congress agreed on a final tax plan. That did not happen until 10 days before the day on which all PABs, refunding bonds, and tax credit bonds faced an existential threat under the House bill.

Data from Thomson Reuters shows that municipal bond issuances hit an all-time single-month record of $62.5 billion in December 2017, up more than 300 percent from December 2016's $20.81 billion municipal bond volume. Volume for December 2017 exceeded by $7.8 billion the previous record for municipal bonds issued in a single month, set the month before the 1986 act imposed new rules on PABs and advance refundings. Figure 3 provides a comparison

Figure 3. Long-Term Municipal Bond Issuances (volume in billions of dollars)



against 2016 of bond issuances in November and December of last year, after Congress released its proposed bond reforms on November 2, 2017.

Given the lack of transition relief from Congress and the potential scope of the GOP tax reform bill, last year's record-breaking municipal bond volume was no surprise. But Congress's rough handling of the municipal bond market was truly surprising. Bipartisan coalitions in both chambers have long supported the use of federally tax-exempt PABs for reasons that Republicans hold dear: They foster economic development through public-private partnerships, they harness private enterprise to accomplish public goals, they foster marketplace transactions over bureaucratic planning, and they ultimately disperse governmental power, not only from the federal government to the states, but from the states to the private marketplace.

When Republicans tackle infrastructure reform this year, they should return to the approach Mnuchin outlined in the comparative calm of January 2017. Mnuchin spoke proudly during his confirmation hearings about his work on municipal bonds in the private sector and how he planned to use that experience to rebuild the United States' roads, airports, and transportation systems. Trump is right that the United States, which boasts the world's biggest economy, is not doing right by its people when it allows its public infrastructure to slip to 12th in the world. European and Japanese high-speed rails are far better than anything equivalent in the United States, and the New Jersey Transit's recent woes have created enormous costs for commuters and businesses alike.

Trump is correct that state and local governments must provide highways, airports, and mass transit facilities for their citizens, and PABs already provide municipal governments a powerful tool for meaningfully improving America's highways and byways. But those bonds have been hard hit by Republicans' destabilizing lurch toward tax reform last year and are sorely in need of real enhancement. When Trump, Mnuchin, Senate Majority Leader Mitch McConnell, R-Ky., House Speaker Paul Ryan, R-Wis., and other Republican leaders begin negotiations over infrastructure, improving PABs in the wake of tax reform should be at the heart of their agenda. Public goods built by private enterprise with federal tax benefits controlled by local governments should be a plan for public infrastructure improvement that Democrats and Republicans can work on together, and a central piece of that decentralized national infrastructure plan must be PABs. ■