The Double Benefit Myth: Disallowed Interest Expense and Inefficiency in the Municipal Bond Market

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Municipal bonds trade at wide tax-adjusted spreads relative to otherwise comparable taxable corporate or Treasury securities. One contributor to this inefficiency is the effective exclusion of banks and similar financial intermediaries from the market because of Section 265 of the Internal Revenue Code, which denies banks tax deductions for interest expense used to finance tax-exempt income. This rule was motivated by an erroneous belief that investors in tax-exempt bonds receive a "double benefit" by both receiving tax-exempt income and also deducting interest expense associated with that investment. In fact, because financial market equilibrium equates the after-tax return to taxable and tax-exempt debt, Section 265 imposes a penalty on financial intermediaries funded by debt or deposits, excluding banks and other intermediaries from participating in the market. This raises the borrowing costs of municipal bond issuers, reduces liquidity, increases trading costs, and benefits top-bracket individual investors.

In 1980, commercial banks were the largest investors in municipal bonds, holding 38 percent of all bonds outstanding (Federal Reserve 2023). In 1990, they held only 10 percent of bonds, pushed out of the market for new issuances by tax legislation that unintentionally penalized banks for holding tax-exempt debt. The resulting exodus of commercial banks from the tax-exempt sector contributes to high issuing costs for state and local governments, illiquidity and high trading costs in secondary markets, and thus imposes substantial burdens on taxpayers and bond investors.

The source of the tax penalty imposed on bank holdings of tax-exempt bonds are longstanding rules, codified today in IRC Section 265, that prevent taxpayers from deducting expenses attributed to the production of tax-exempt income. Prior to the 1980s, banks avoided these rules. But a series of laws culminating in the Tax Reform Act of 1986, disallowed financial institutions from deducting any interest expense allocable to their holdings of most tax-exempt bonds.

These rules were motivated by an erroneous belief that investors in tax-exempt bonds receive a "double benefit" if they receive tax-exempt income while also deducting interest expense associated with that investment. This 'theory', however, rests on a misunderstanding of financial equilibrium in the markets for taxable and tax-exempt bonds, and the basic empirical result of that theory—that tax-exempt bonds pay lower interest rates because they are tax exempt. Only when the incidence of tax-exemption falls on the bond investor (in the sense that they enjoy a windfall profit above and beyond that available from comparable taxable investments), rather than on municipal issuers (who, in reality, are able to issue bonds at a premium and pay lower rates) is there an excess tax benefit to the investor. Considering the differences in the pre-tax returns paid on taxable and tax-exempt bonds, Section 265's disallowance of interest expense imposes a tax penalty on banks and reduces their after-tax return below that of otherwise similar taxable bonds. That penalty is a reason why banks are no longer significant investors in tax-exempt bonds.

The de facto exclusion of banks from other than de minimus participation in the municipal bond markets raises borrowing costs for issuers, reduces liquidity and increases trading costs in secondary markets, and benefits top-bracket individual investors. A substantial literature documents that municipal bonds trade at high tax-adjusted spreads to otherwise comparable taxable bonds because of liquidity risk, perceived default risk, or tax clientele effects. While that literature frequently disagrees on the exact attribution of the excessive spread to each factor, essentially all theories imply that a key contributor to the problem is the absence from the market of banks with their deep pools of risk-taking capital and trading sophistication.

More directly, the experience with taxable direct-pay bonds, like Build America Bonds (BABs), which were designed to appeal to a broader pool of primary- and secondary-market investors, including banks, or with bank-qualified bonds, which are exempt from Section 265's rules because they are issued by "small issuers", suggest that bank participation reduces issuing costs. For instance, Treasury estimates suggested that yields on BABs were 31 to 112 basis points lower than comparable tax-exempt securities even after the effect of the subsidy (Treasury 2010). And recent analysis of bank-qualified bonds suggests their borrowing costs are 8 to 17 percent lower than non-qualified bonds, which not only raises the costs to issuers, but also reduces the

amounts governments borrowed, and reduces employment and economic activity in the affected community (St. Clair 2022, Dagostino 2022).

A rational approach to addressing the problems imposed by Section 265 is to eliminate the specific disallowance imposed on financial intermediaries—if not the entire code section. In a world in which all taxpayers face the same marginal rate, that would level the playing field between taxable and tax-exempt investments for banks in terms of after-tax returns, as it is for non-bank investors in taxable versus tax-exempt bonds. With the C-corporate tax rate below that imposed on individual taxpayers, the after-tax returns to tax-exempt bonds would still typically be less attractive to C-corporate banks than to investors facing top individual rates, but the relative disparity would be reduced in the absence of 265. Hence, while the repeal of Section 265 eliminate the tax penalty on banks and allow them to return to the market, the yields on tax-exempt bonds would still remain lower than they could achieve with taxable bonds, making it unlikely that they would be as important players in the market as they had been prior to the 1980s. Nevertheless, the empirical evidence suggests they could still have a material effect based on the experiences of bank-qualified issuers. Short of complete repeal, there are several incremental approaches to scaling back Section 265, such as expanding the small issuer exception or reinstating a temporary de minimus rule enacted in 2009.

Background: Section 265 and the tax treatment of financial institutions in the tax-exempt bond market

US tax law has prohibited taxpayers from taking tax deductions for expenses related to earning tax-exempt income for more than a century. The basic principle behind this prohibition is the idea that taxpayers should not receive double benefits from the tax system. Specifically, if an income stream was exempt from tax, any expenses incurred to produce that income should not be tax-deductible. This concept, aimed at maintaining fiscal fairness, has persisted across various iterations of the U.S. tax code, including revisions in 1921, 1924, 1926, 1928, and the consequential Revenue Act of 1932 amid the Great Depression, as well as in the ensuing Internal Revenue Code of 1939. The recodification of the Internal Revenue Code in 1954 saw this rule formally designated as Section 265, yet its essence remained unaltered—to curb potential double tax benefits. In practice, however, banks and other financial intermediaries escaped this prohibition by arguing that their borrowing costs were not directly allocable to investments in tax-exempt securities.

In 1982, the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) imposed a formulaic disallowance of interest for Financial Institutions (basically, depository institutions). Financial institutions determined what fraction of their assets were tax-exempt assets, the same fraction of their interest expense was deemed allocable to their tax-exempt investments, and (in TEFRA) 15% of that interest was disallowed. The disallowance was increased to 20% in 1984 and 100% in the Tax Reform Act of 1986. (In addition, the Tax Reform Act of 1986 included tax-exempt interest in the base of the corporate Alternative Minimum Tax, such that affected banks could face an effective 10% tax rate on tax-exempt interest.)

There are exceptions to this disallowance for qualified small issuers. Historically, the Code has generally defined qualified small issuers as States and localities that issued no more that $10

million of certain tax-exempt bonds annually (the qualified small issuer limit). For bonds issued in 2009 and 2010, the Recovery Act modified the definition of qualified small issuer to allow the annual issuance of up to $30 million in these bonds.

For financial institutions organized as C-corporations, the Code disallows only 20 percent of the otherwise deductible amount. For S-corporation banks, there is no disallowance of the amount allocated to these obligations. So C-corporation financial institutions can deduct 80 percent of interest expense allocated to these qualified small issuer bonds, and S-corporation financial institutions can deduct all of their interest expense allocated to these bonds.

The American Recovery and Reinvestment Act also established a temporary rule that allowed financial institutions to deduct up to 80 percent of interest expense allocated to any tax-exempt bond issued in 2009 or 2010, regardless of whether the bond was a qualified small issuer obligation. But the bonds that were treated in this way could not exceed 2-percent of each financial institution's total assets.

A "Double Benefit"? Tax and Financial Arbitrage in the Market for Municipal Bonds

The motivation for Section 265 and, specifically, the pro rata disallowance of expense for financial institutions is motivated by the concern that "a taxpayer could accrue a double benefit by deducting interest paid on money borrowed to invest in tax-exempt securities." (U.S. General Accounting Office (GAO) 1988.) To understand this perspective, it is worth quoting directly from the GAO's 1988 report to the Joint Committee on Taxation:

> An underlying principle of the federal tax code is to tax net income, or gross income minus the expenses incurred (e.g., interest expense), in the production of that income. Allowing a deduction for the interest expense incurred to produce tax-exempt income would deviate from this principle because a taxpayer could use this interest expense as a deduction against other income that is taxable. This method of avoiding taxes through such a series of transactions is referred to as tax arbitrage.

> To see how tax arbitrage can work, suppose a taxpayer with an annual income from taxable dividends of $5,000 borrows $100,000 at 5-percent interest and uses the $100,000 to purchase tax-exempt securities that pay 5-percent interest. In this example, the $5,000 tax-exempt interest income received from the tax-exempt securities offsets the $5,000 interest expense paid on the loan. But if the $5,000 interest expense is allowed as a deduction, no tax would be due on the $5,000 in taxable dividends. As long as the return on the tax-exempt securities plus the tax savings from the interest deduction is greater than the interest owed on the loan, a taxpayer could offset wage or investment income, reducing his taxes at no risk with no increase in net savings.

The flaw in this theory is the assumption that taxable and tax-exempt securities pay the same rate of interest (or, alternatively, can be purchased at the same price). But that is an unrealistic, non-equilibrium, and empirically false assumption. In that case, tax-exempt bonds would produce a windfall after-tax profit to their investors above and beyond that received on taxable bonds.

Financial market participants would wish to sell taxable bonds and purchase tax-exempt bonds, stopping only when their after-tax returns were equalized. In the market for taxable securities (and, prior to the 1980s, in the market for municipal securities) banks and other financial institutions implemented this financial arbitrage directly but issuing taxable debt (or paying interest on deposits), investing the proceeds in higher-interest securities, driving down the spread. In the case of municipal bonds, this arbitrage should continue until the after-tax return on tax-exempt bonds equals the after-tax return on taxable bonds. Indeed, this financial market arbitrage is key to the pricing of municipal securities, not only in theory (e.g. Fama 1977) but also empirically in that the interest rates paid by issuers on tax-exempt bonds are lower than on equivalent taxable bonds, and the spread is proportional to the marginal tax rates of bond investors. But when the after-tax rate of return is the same on taxable and tax-exempt bonds, investors aren't getting a "single" benefit from tax exemption, and banks aren't getting a "double benefit" when they deduct interest paid. Instead, when their interest expense is disallowed, there is a tax penalty on municipal investments.

To see this, consider the examples in Table 1. As a baseline, consider a bank investing in a taxable bond paying an interest rate r and financed with deposits upon which the bank pays an interest rate d. The bank earns the spread $r-d$ pays a tax of $t(r-d)$ and its after-tax income is $(r-d)(1-t)$. (Table 1, column 1.) (In theory, the spread $r-d$ should be small because of competition and arbitrage; in practice, banks provide maturity transformation and provide financial services in lieu of interest to depositors.)

Now assume that instead of being taxable, the bond is tax-exempt, but assume that it still pays the same interest rate r as taxable bonds. Assume that there is no disallowance of interest (Column 2). The pre-tax profit is again $r-d$, but the taxable income is $-d$ (a loss) which reduces the tax burden by td. Thus the after-tax profit is now $(r-d) + td$ (the untaxed spread plus an extra tax benefit). Relative to the taxable case, this is the "double benefit"—the taxpayer has not only earned a tax-free profit (the first benefit) but also gets a tax deduction against other income (the second benefit).

Column 3 illustrates how Section 265 "fixes" this problem by denying the deduction. In this case, the after-tax profit is $(r-d)$ (the "first benefit" above from excluding tax on the spread) but the second benefit is denied. Problem fixed?

Table 1: Tax Benefits and Tax Arbitrage in Taxable and Tax-Exempt Bonds

	(1)	(2)	(3)	(4)	(5)
	Taxable Bond	Tax-Exempt Bond	Tax-Exempt Bond	Tax-Exempt Bond	Tax-Exempt Bond
Interest Deduction	Allowed	Allowed	Disallowed	Allowed	Disallowed
Interest earned	r	r	r	$r(1-t)$	$r(1-t)$
Interest paid ($r>d$)	d	d	d	d	d
Pre-tax income	$r-d$	$r-d$	$r-d$	$r(1-t)-d$	$r(1-t)-d$
Taxable income	$r-d$	$-d$	0	$-d$	0
Tax	$t(r-d)$	$t(-d)$	0	$t(-d)$	0
After-tax income	$(r-d)-t(r-d)$ $(r-d)(1-t)$	$(r-d)+td$	$(r-d)$	$r(1-t)-d+td$ $(r-d)(1-t)$	$r(1-t)-d$
Profit vs taxable bond	-	$td+t(r-d)$ "Double Benefit"	$t(r-d)$ "Single Benefit"	0 No Benefit	$-td$ Tax Penalty

However, this example ignores financial market equilibrium and no-arbitrage conditions that require that the after-tax yields on taxable and tax-exempt securities be the same. In practice, the return on tax exempt securities reflects their tax preference, and the bonds are issued at a premium to taxable bonds and pay a lower interest rate than comparable bonds that is proportional to the marginal tax rates of investors.

Continuing the example above, instead of assuming that tax-exempt bonds pay the same interest rate as taxable bonds, assume they pay *r(1-t)* such that a taxable equity investor is indifferent between investing in a taxable bond versus a non-taxable bond (because the after-tax return is the same). In that case (column 4), and assuming the bank can deduct interest paid, the pre-tax income earned by the bank is *r(1-t)-d*, its taxable income is *-d*, and its after-tax income is *(r-d)(1-t)*. In this case, (and in the absence of Section 265), the bank's after-tax profit is exactly the same as if it had invested in a taxable bond. Not only is there not a double benefit—there is not even a "single benefit."

In this case, Section 265 penalizes the bank from investing in tax-exempt bonds (column 5). By denying the deduction, the bank's after-tax income falls to *r(1-t)-d* and thus compared to an investment in taxable bonds, it pays a tax penalty of *td*.

A couple other observations are useful. First, in the no-arbitrage example (Column 4) compared to the taxable bond example (Column 1), the bank's tax payments are indeed lower (it literally pays the IRS a smaller amount) giving the impression the bank is avoiding taxes. However, the reduction in tax payments exactly offsetts the fact that it is charging the municipal issuer a correspondingly lower interest rate, and its after-tax profits are unchanged. In effect, the bank is clipping a coupon on behalf of the issuer, transferring the tax subsidy as an intermediary between

the Treasury and the issuer. In short, this advances the public policy purpose of the tax exemption for municipal bonds, which is to allow municipal issuers to raise capital at lower cost.

Second, in a market with both debt-financed and equity-financed investments, the interest rates paid on taxable bonds, tax-exempt bonds, and deposits must be closely related (after adjusting for the characteristics of the investments). The spread between r and d must be small, shrinking the before- and after-tax profits of banks (proportional to the spread) but exacerbating the relative tax penalty from Section 265 (proportional to d).

Third, in the example, the tax rate t is assumed to be uniform across taxpayers. In practice, individual taxpayers face a progressive marginal tax rate (as do the shareholders in S-corporation banks) and since 2018, C-corporate banks pay a rate of 21 percent. In the case where individual investors are the marginal buyer of tax-exempt bonds, banks facing lower marginal rates benefit even less from investments in tax-exempt securities even in the absence of Section 265 because the pre-tax return is lower than the after-tax value of the deduction. Section 265 exacerbates this relative penalty.

Finally, under current law, given an opportunity to earn the after-tax spread on taxable investments $(r-d)(1-t)$ (Column 1) or $r(1-t)-d$ on tax-exempt bonds, the bank will almost never choose to invest in the latter, which is why banks exited these investments in the 1980s (as the next section shows). One exception is when the borrowing rate (d) is zero and banks are indifferent—which is close to the situation after the financial crisis, and helps explain increases in bank-financed investments in that period.

To be concrete, Table 2 calculates the after-tax rates of returns implied by columns 1, 4, and 5 in Table 1 (which is the after-tax rate of return on taxable bonds and tax-exempt bonds when interest expense is allowed and dis-allowed) under the assumptions that banks face a marginal tax rate of 21 percent (the C-corporate rate). I assume that banks pay depositors 2.86% (the average 5-year CD rate according to Bankrate.com and published daily by the Wall Street Journal) and banks invest those funds either in AAA corporate bonds paying 4.77% (the average yield on seasoned AAA corporate bonds according to Moody's) or 20-year municipal bonds yielding 3.14% (the average rate on investment-grade municipal bonds according to EMMA EMBIS).

Table 2: Numerical Examples of After-Tax Returns with and without Interest Expense

Bond	(1) Taxable	(2) Tax Exempt	(3) Tax Exempt
Interest Deduction	Allowed	Allowed	Disallowed
Interest earned	4.77	3.14	3.14
Interest paid	2.86	2.86	2.86
After-tax income	1.51	0.88	0.28
Interest earned 1% higher	2.30	1.88	1.28
Interest earned 1% lower	0.72	-0.12	-0.72
Interest expense 1% higher	0.72	0.09	-0.72
Interest expense 1% lower	2.30	1.67	1.28
Spread 0.5% smaller	1.31	1.13	0.53
Tax rate 34% (not 21%)	1.26	1.25	0.28

Note: Assumes 21% tax rate. Taxable yield is equalt to Moody's Seasoned AAA Corporate Bond Yield; Tax-Exempt yield is equalt to EMMA MBIS Investment Grade index of 20-year Bonds; Interest paid is equal to Bankrate average yield on 5-year CDs.

The third row of Table 2 shows the annual after-tax return (in percent) of the bank for an investment in each asset funded by deposits. If the bank invests in taxable bonds (and deducts interest expense), it earns 1.51%; if it invests in tax-exempt bonds (and deducts interest expense), it earns 0.88%; if it invests in tax-exempt bonds (and cannot deduct interest expense), it earns 0.28%. (Because the bank is borrowing for 5-years and lending for 20+ years, there is a lot of maturity transformation in this example.)

In this case, taxable bonds provide the highest return even relative to investments in tax-exempt bonds when interest expense is allowed. This is because the tax-exempt market equilibrium is dominated by individual investors who face higher marginal tax rates. Indeed, the implied tax rate of marginal investors is 34% (1-3.14/4.77), which is higher than the 21% corporate rate. But if interest expense is disallowed, the after-tax return is substantially worse (0.28%).

The next four rows of Table 2 provide some alternative calculations indicating that this result is insensitive to the interest rates earned or paid. In all cases, the disallowance of interest expense imposes a significant tax penalty for investments in tax-exempt bonds relative to taxable bonds. In each of these examples, even when interest expense is allowed, the returns on taxable bonds are weakly preferred to those of tax-exempt bonds, simply because the yields on tax-exempt bonds are too low (at least, relative to the bank's low tax rate).

The last two rows show that tax-exempt bonds are only attractive to banks if either the spread between taxable and tax-exempt bonds narrows (which might occur either if the tax rate faced by banks increased or faced by individuals fell), or if banks also faced a 34% tax rate. In this latter case, the after-tax returns on taxable and tax-exempt bonds are the same—but only when they

can deduct interest. However, even in these situations, disallowing interest expense still returns in a substantial tax penalty that makes tax-exempt investments undesirable.

The last row of Table 2 emphasizes the general observation that financial market arbitrage eliminates differences in the after-tax returns to different financial instruments and eliminates any potential "double benefit" of banks (or any other investor) from investing in tax-exempt assets. In this case, individual investors are indifferent between taxable and tax-exempt bonds, and banks would be too (if they faced a 34% tax rate)—but only if they were allowed to deduct interest expense.

The fact that financial-market arbitrage should cause the after-tax return on municipal bonds to be equal to that on taxable bonds is not a new observation, and its implications for the pricing of municipal securities has been described at least as early as Fama 1977. Indeed, Fama's pricing model emphasizes the role of financial intermediaries in this market implementing the arbitrage that produces the subsidy to municipal issuers. When banks issue taxable debt, invest the proceeds in tax-exempt bonds, and deduct the interest expense against other taxable income, the amount they appear to gain in tax arbitrage exactly compensates them for the losses on the financial arbitrage. Without the ability to expense interest, that is unprofitable.

The Consequences of Section 265

One important consequence of the interest disallowance was to encourage banks to exit the market for municipal securities. The chart below shows the fraction of all municipal securities held by commercial banks. Prior to the 1980s, banks held a fluctuating fraction of bonds— between 30% and 50%. The fluctuations have multiple causes including changes in the spread between individual and corporate tax rates (which made bonds more attractive to individuals prior to the mid-1960s); changes in tax law in the early 1970s, which allowed for tax-exempt bond mutual funds; and falling bank profitability in the 1970s and 1980s. But the changing tax-treatment of bank investments is a principal cause of the decline (Poterba 1989).

After the legal changes in the 1980s, however, bank holdings of municipal bonds fell to below 10%. Holdings have recovered slightly since 2010—in part because of temporary expansions in bank-qualified bonds, historically low interest rates on deposits, and increased issuances of taxable municipal bonds. However, bank holdings remain well below historical levels.

Commercial Bank Holdings of Municipal Securities
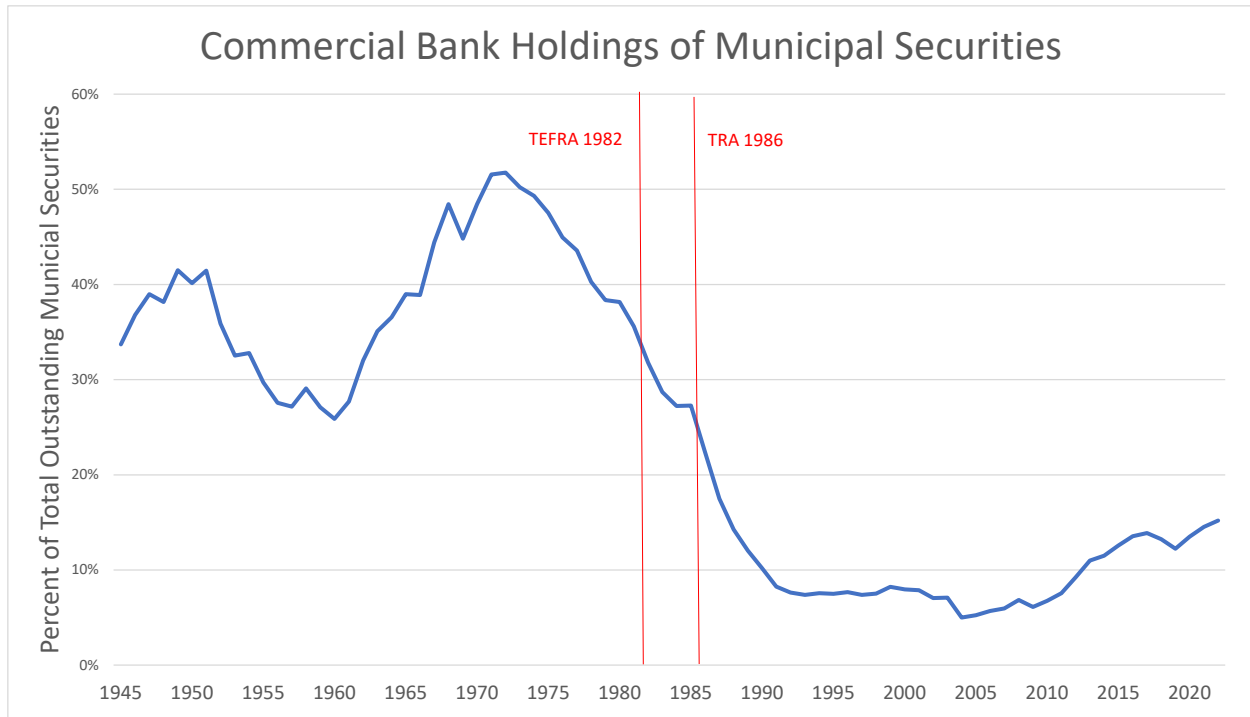
The decline in commercial bank investment in municipal bond markets has increased costs for issuers and in secondary-market trading.

In general, municipal bonds trade at large tax-adjusted yield spreads relative to similar Treasury or corporate bonds, and transaction costs are unusually high. While there is considerable academic debate about exactly why spreads are so high, essentially all theories suggest that the absence of commercial bank participation raises these costs.

One prominent theory argues that the fact that municipal bonds are a retail product, are sometimes complicated and bespoke products, trade rarely, and, when they are traded, they are traded in over-the-counter markets where dealers may have market power makes them unusually illiquid, and this illiquidity is a principal cause of the spread (Green, Hollifield, and Schurhoff (2007), Wang, Wu, and Zhang (2008), Green, Li, and Schurhoff (2010), Schultz (2012), Li and Schurhoff (2014), Ang, Bhansali, and Xing (2014)). Liquidity is unusually bad in municipal bond markets for a variety of reasons: a lack of information impairs rapid or reliable valuation; the issues tend to be bespoke products with specific rules and imbedded derivatives, which make them less-fungible and interchangeable; the market is segmented and decentralized, and trades occur through OTC dealers, which impairs matching of buyers and sellers; they tend to be issued in small amounts and in series, because of the incentives, budget requirements, and regulations that apply to the multitude of disparate issuers; and, because of the structure of the tax exclusion, they held almost exclusively by retail investors, making informational barriers and fixed transactions costs especially large.

Bid-ask spreads are extremely high—transactions costs for individuals to buy and sell a bond are, on average, 2-3 percent but can exceed 5 percent (Green, Hollifield and Schurhoff (2007); Harris and Piwowar (2006); Hong and Warga (2004)). This is more than double what institutions

pay, twice as much as what it costs to trade a corporate bond, and many times what it costs to trade a stock. It is twice is as expensive to trade munis today as it was in the 1920s, when muni bonds were actively traded on the NYSE (Biais and Green 2005).

The average muni bond trades only twice per year, the 10 percent most illiquid bonds trade once every 5-6 years, even the most liquid bonds trade once every two days, on average. The MSRB reports that from March 1998 to May 1999, 71 percent of the outstanding issues did not trade at all. For bonds that did trade more than ninety days after issuance, Green, Hollifield, and Schürhoff (2007) report that the average number of trades for a given bond per day is two. In Ang, Bhansali, and Xing's 2010 dataset, which covers all MSRB-reported transactions from January 1996 to April 2007, the average municipal bond traded only twice per year, with 5 percent of securities trading only once over the twelve-year period (and the dataset does not include the bonds that never trade over the sample period).

The entire market has annual turnover of less than 10 percent (versus 25-35 percent for corporate bonds, 1,730 percent for GSE-MBS, and 3,570 percent for Treasuries and 1,456 percent for NYSE stocks). Many municipal bonds are traded only a few times after issuance (Downing and Zhang, 2004). On the other hand, the number of muni bonds far exceeds Treasuries; well above one million different municipal securities are issued by over 50,000 state and local governments.

Schwert (2017), instead, finds that most of the spread represents risk premium and only a minority illiquidity. Given that municipal defaults are rare, this suggests the risk premium demanded by investors in bonds is high. For instance, Schwert calculates that the annual risk-neutral probability of default implied by the risk premium is between 108 and 126 times higher than the actual empirical probability of default. This risk premium is an order of magnitude larger than demanded by investors in investment-grade corporate bonds.

Whether the cause of excessive tax-adjusted spreads is illiquidity or unusually high risk premia, the fact that the market is dominated by retail investors and excludes bank capital is surely a contributing factor. A key function of banks is to organize large pools of risk-bearing capital, which are presumably as well equipped to manage risks in municipal markets as they are in markets for taxable corporate bonds. Likewise, banks are more adroit in overcoming informational and search costs to assessing individual issues, and to trade them in secondary markets.

More directly, several studies and experiences suggest that bank investments in municipal bond markets reduces issuer yields. One piece of evidence is from the market for BABs. BABs were taxable bonds, and the federal subsidy was distributed directly to issuers as a credit. As a result, they were exempt from Section 265 and thus appealed not only to commercial banks, but also to low-tax or tax-exempt investors like insurers, foreign investors, and pension funds. Adjusted for the federal subsidy, yields on BABs were substantially lower than yields on otherwise similar tax-exempt bonds, particularly at longer maturities.

In addition, recent comparisons of "bank-qualified" bonds, which are largely exempt from the rules of Section 265, to non-qualified bonds suggest that the interest disallowance results in

higher interest costs to issuers, reductions in issuance, and reduced economic activity at the locality (St. Clair 2022, Dagostino 2022).

Hence, while Section 265 does not have a good rationale to exist, its existence imposes substantial costs on issuers in the form of higher yields, and efficiency costs on the economy from illiquidity, from imposing risks on investors less willing to bear risks, and transactions costs.

How to Scale Back 265

The obvious (and correct) solution to redressing the problems above is a wholesale repeal of the relevant sections of Section 265 that impose the disallowance of interest expense. Given the relatively low marginal tax rates of C-corporate banks, banks would be unlikely to return to their predominant position in the market for municipal bonds, but the evidence above suggests their participation would improve efficiency and outcomes in the market.

Short of complete repeal, there are several incremental approaches (several of which are described in Treasury's 2016 "Greenbook").

Congress could raise the threshold for 'bank qualified' issuers and index it to inflation. Since 1986 (I believe), the threshold for being a small issuer has been $10,000. In 2009, the limitation on 'bank qualified' issuers was increased from $10 million to $30 million temporarily. Congress could raise the threshold permanently to $30 million (about the threshold in 1986 adjusting for inflation). Small issuers make up most of the total number of issuers but only a small volume of issuances, hence this change could potentially encompass many illiquid issues.

Enact a de minimus rule that allowed banks to hold up to, say, 2 percent of its assets in tax-exempt securities without being subject to the requirements of 265.

Provide targeted exceptions, such as for a class of conduits, designed like REMICs or to facilitate CLOs, which allowed for the creation of bonds collateralized by income from bundles of municipal bonds, and either passed through the exemption or allowed for a taxable parent to 'strip' the subsidy by deducting the negative carry (similar to how Low Income Housing Tax Credits are regularly 'sold' to taxable corporations). Such conduits could facilitate the aggregation of small, unique issues into 'plain vanilla' bonds, and/or could facilitate participation of non-taxable institutions, like pension funds in much the same ways as BABs, by funding the conduit with taxable bonds collateralized by municipal bonds. Several rules, including Section 265, prohibit such engineering, but a defined safe harbor could be established that would facilitate more innovation in this area.

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