

Call to Issuers: You Pay for Your Options; Why Not Use Them Wisely?

BY ANDREW KALOTAY, PH.D.

Municipal bonds have traditionally been callable after ten years. Alternatives are seldom considered. This “NC-10 structure” is so entrenched that ‘scales’ showing new issue yields provided by Municipal Market Data and Municipal Market Advisors are for NC-10 bonds, rather than bullet maturities, as would be the norm in the taxable world.

The call option allows an issuer to lock in interest rate savings if rates decline, and is therefore a valuable asset. Naturally, refunding at lower rates goes against investors, who get their money back prematurely and have to reinvest at the lower yields. To compensate for this risk, investors demand a higher yield on entry. But what is the actual yield premium of a callable bond over a bullet? Is it nearer to 10 basis points or to 40? Most municipalities are oblivious as to the answer.

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So it is not surprising that their refunding decisions focus only on savings, while completely ignoring option value. The industry has adopted arbitrary guidelines that recommend refunding when savings reach a certain threshold, say, 3% of par amount outstanding, on a net present value basis. Municipalities find this rule convenient, because present value savings are real and tangible and communicating this to the taxpayers is a feel-good and politically favorable experience. The guidelines play into the hands of the banks, for whom the savings threshold is a business opportunity.

But the refunding decision entails interest rate risk — act now and rates can go lower; wait and rates can start climbing. To fixed income professionals this risk is reflected in the call option’s value. These practitioners recognize that option value

is just as real as savings, and they will exercise an option only when they extract its full value. Examples include government sponsored enterprises (GSE’s) such as Fannie Mae and Freddie Mac calling their bonds and investment banks exercising swaptions. It is time for municipal issuers to do the same, i.e., understand that the

option is a real and valuable asset, even though it is less tangible than savings.

“But how do we determine the value of our call options?” a municipal treasurer may ask. Admittedly, the technology is complex and has not been easily accessible. However, with the *Advance Refunding Calculator* available on the Bond Buyer website (www.bondbuyer.com/calculator), there is no excuse for not knowing the value of your call options. You can retrieve any of your bonds, find out its option value, and then determine if refunding is warranted.

Let’s consider the \$4,765,000 San Antonio 5.50% bonds due 8/1/2023, callable at par on 8/1/2018, as shown in the table below. If San Antonio can achieve a 12-year rate today of 3.60% to refund the bonds, the option is worth around \$104,000. At 3.80%, the option value declines to about \$85,000, and at 3.40% it increases to \$126,000.

In addition to option value, the table also displays savings at various refunding

rates. The professional standard is to refund only when the savings represent at least 95% of the forfeited option value (known as 95% refunding efficiency). San Antonio would need a refunding rate of 3.40% to capture the full value of the option (100% efficiency). Refunding at 3.50% would give a \$44,000 windfall to the investors, to the detriment of the taxpayers. Note that while refunding at 3.80% would make no sense, the (out-of-the-money) option still has considerable time value.

Municipal issuers are encouraged to visit the *Advance Refunding Calculator* on the Bond Buyer website (www.bondbuyer.com/calculator) frequently. Keep an eye on the option value in your debt; you will be surprised how much it is worth. You are paying for the option; refunding efficiency will help you use it wisely. GFOA

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Option-Based Refunding of San Antonio 5.50% Bonds due 8/1/2023 (\$4,765M)

SA 12-Year Rate (%)	Savings (1)	Option Value (2)	Refunding Efficiency (1÷2) (%)
3.40	\$125,817	\$125,817	100.0
3.50	\$69,726	\$114,389	61.0
3.60	\$14,298	\$103,685	13.8
3.70	-\$40,468	\$94,008	-43.0
3.80	-\$94,583	\$84,523	-111.9