



Commentary How to manage tax-exempt funding exposures

By Ira Kawaller

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It's a fairly common practice for municipalities and other borrowers in the tax-exempt market to structure variable rate liabilities tied to LIBOR and then overlay interest rate swaps, intending to create synthetic fixed-rate debt. For instance, many structures historically tied the funding to a fraction of 3-month LIBOR, say, 65%, plus a credit spread of, say, 50 basis points. The less-than-100 % of LIBOR feature is a reflection of the fact that the investor bears no Federal tax liability, thereby allowing the issuer to offer the security at a lower nominal interest rate; and the 50-basis point spread is designed to compensate the investor for bearing the issuer-specific credit risk.

To achieve the desired synthetic fixed-rate outcome, the borrowing entity would enter into a *pay fixed/receive variable* interest rate swap. The swap's notional amount would match the outstanding principal of the debt, period by period. Additionally, the variable cash flow obligation (receive) on the swap would apply the same leverage factor as the debt (i.e., 65 % in this example). Assuming such a structure were put in place with the appropriate alignment of reset dates and settlement dates for the debt and the swap, this swap-plus-debt combination would foster identical cash flows as those that would arise with that of fixed rate financing, with the effective cost of funds equaling the swap's fixed rate, plus 50 basis points. Presumably, that would be the entity's intention as of the date the swap was entered into.

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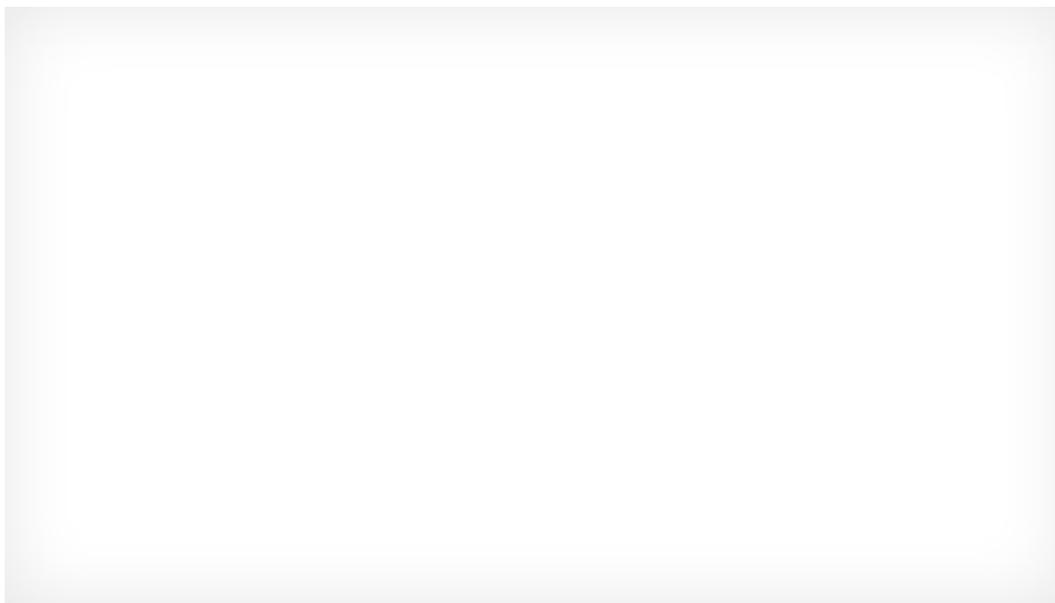


To have that outcome reflected on the entity's financial statements, however, the entity would have to qualify for and apply *hedge accounting*. Technically, hedge accounting rules differ – slightly – depending on whether the reporting entity is following FASB or GASB guidance. Under both, hedge accounting in a case like this serves to defer the earnings recognition arising from derivative gains or losses, such that those gains or losses are ultimately reflected in earnings concurrently with the earnings

effects of the risk being hedged. Under FASB, properly documenting the hedge relationship is a prerequisite to applying hedge accounting, where this documentation includes, among other things, a discussion of hedge objectives, identification of the derivative and the item being hedged, and a statement or validation of the fact that the entity can expect the hedge to generate highly effective offsets to the risk being hedged. In this case, the risk being hedged would most likely be defined to be the risk associated with 65% of changes in 3-month LIBOR rates. GASB imposes an analogous hedge effectiveness testing requirement, but hedge documentation, per se, is not explicitly required.

While reporting entities have a choice as to whether they are seeking to hedge the risk of a benchmark rate change – specifically the risk associated with 0.65 % of any change in LIBOR – or the risks of changes in the full interest obligation of the funding; and, as it turns out, in this instance, the choice matters.

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To understand this issue, we need to appreciate that in many cases, the LIBOR-linked debt has a “yield protection” provision that allows the terms of the interest to be adjusted in the event of a change in the Federal tax rate. The recently enacted Federal tax changes have thus triggered many such modifications. The precise terms of these adjustments may vary from instrument to instrument, but a common design applies a *margin rate factor* to the original LIBOR multiplier, with the margin rate factor calculated as follows:

$$MRF = (1 - t_{new}) / (1 - t_{orig})$$

Where MRF = Margin Rate Factor

***t_{new}* = the new tax rate**

***t_{orig}* = the original tax rate**

Assuming an original tax rate of 35% and a new tax rate of 21%, the marginal rate factor would be 1.2154. Mathematically, the original interest rate on the variable-rate debt was the following:

$$Int_{orig} = 0.65 \times Libor + .0050$$

And the revised interest rate after the tax rate adjustment becomes:

$$\text{Intrevised} = 1.2154 \times (0.65 \times \text{Libor} + .0050)$$

Or

$$\text{Intrevised} = 0.79 \times \text{Libor} + .006077$$

Critically, the MRF would apply to the debt, going forward, but no comparable adjustment would apply to the swap. Thus, with this adjustment on the debt's interest calculation, the debt and swap will be mis-aligned. It should be clear that without any adjustment to the swap position, going forward, the variable cash flow (received) under the swap will now prove to be too small. Put another way, these revisions to the funding calculation clearly exaggerate the risk exposure faced by the hedging entity, but nothing has changed for the swap. If the risk being hedged had been defined to be the exposure to 65% of any change in LIBOR, then it would seem appropriate to conclude that the hedge is still just as effective as it had been before the change. On the other hand, if the risk being hedged had been defined as the risk due to any and all interest rate changes, that same conclusion wouldn't necessarily hold. Thus, defining the risk being hedged as the risk associated with the total interest amount might end up jeopardizing the application of hedge accounting, altogether.

For the purposes of this article, let's assume that the original intent was to hedge the benchmark rate exposure, which, experience and intuition tells me has been the predominant orientation. With this perspective, it should be appreciated that, economically, the original swap remains just as effective as it ever was in covering 65% of LIBOR changes. It's just that, in the past, 65% of LIBOR was the full extent of the exposure; but with the change in the tax rate, an additional risk that hadn't existed before has now been introduced – i.e., exposure to 14.0% × LIBOR, reflecting the difference between the new multiplier (79.0%) and the old (65.0%).

Given this new exposure, the entity is faced with a decision: remain exposed to this new risk or hedge it. Tactically, the borrower could liquidate the old swap and replace it with a new one. With the intention of fully hedging the benchmark exposure, the notional amount of the new swap would remain unchanged from the original, but the multiplier on LIBOR on the variable leg of the swap would be raised to 79.0%.

One possible impediment to this course might arise if, as of the intended liquidation date, the original swap had a liability value. In that case, early termination would require making a cash settlement, which, depending on the size, could be problematic. Some entities might try to obviate this cash requirement by structuring the replacement swap with an off-market swap with the same starting liability value. With this strategy, the entity is exchanging one liability for another of the same value, so the adverse cash flow is avoided. While this strategy works, economically, starting a hedge relationship with an off-market derivative complicates the effort to qualify for hedge accounting.

Entities operating under GASB rules face a second consideration. That is, under GASB, any termination of a derivative position automatically triggers an immediate reclassification of the deferred cash flows to current income. Not so for FASB reporting entities. Under FASB rules, as long as the hedged item that was defined in the hedge documentation is still expected to arise (or, more technically, if we *cannot* conclude that those forecasted cash flow *won't* occur), the reclassifications proceed on the basis of the originally planned reclassification schedule.

Rather than replacing the original swap and entering into a new one, a better approach would be to keep the original swap but add a second one, along with new documentation (under FASB) for this second hedge relationship. In this case, the notional of the swap would replicate the notional of the original swap, but the variable leg of this new swap would be 14.0% × LIBOR. With

this structure in place, the effective interest will reflect a blend of the original swap's fixed rate and the fixed rate of the new swap. Both swaps, together, would cover the entirety of the benchmark rate exposure, and hedge accounting would be applied to each.

Even with this alternative course of action, GASB-reporting entities might not be entirely out of the woods. Their standard leaves some room for interpretation, whereby the change in facts and circumstances could force the early reclassification of the deferred cash flow amounts. Even worse, hedge accounting could be denied going forward for either swap. Under GASB, it appears that there's some prospect that you're damned if you do, and damned if you don't, regardless of how you respond to the changes in the calculation of interest charge.



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