Understanding Bond Refundings
How They Work and What You Need to Know to Maximize Your Savings

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Jeff Seeley
Greg Crowe

Topics we Will Cover

• What is a refunding
• What is the purpose of refunding
• Current market conditions
• Types of refundings
• Refunding “Best Practices”
• How to evaluate a refunding opportunity
• When is the right time to refund

What is a Refunding

• A refinancing of an existing bond/debt issue with new bonds/debt
  – The existing, outstanding bonds that are being refinanced are called the “refunded” bonds
  – The new bonds being issued to refinance the existing bonds are called the “refunding” bonds
• Similar to refinancing your home mortgage, but more complex and subject to many federal and state rules and regulations
Purpose of Refunding Debt

- Save Money
  - Reduce debt payments by issuing new bonds with lower interest rates, which pay off the old bonds with higher interest rates
  - Savings to the District
  - Reduce tax levies (and in some cases, state equalization aid)
- Restructure the District's debt payment schedules
  - Extend a payment schedule
  - Shorten a payment schedule
  - Change the payments in certain years

Current Market Conditions

Refundings – Redemption (Call) Provision

- When a new bond issue is sold, the terms usually include an optional redemption, or "call" provision
  - This is a key factor in determining the viability of refunding the bonds
  - Identifies the dates on which the bonds can be redeemed prior to their scheduled maturities
    - The "call date" (first date bonds can be redeemed) is typically 9 or 10 years from issuance
  - Identifies the maturities that can be redeemed – usually all bonds maturing after the call date
  - Identifies the redemption price – usually par (100% of principal), plus accrued interest to the redemption date
  - In rare cases, may also include a premium (1% or 2%)
Refundings – Redemption (Call) Provision

- Example of a typical call provision – for bonds sold in 2007, with maturities on February 1 each year
  - Bonds maturing on February 1, 2018 and thereafter can be called at par plus accrued interest on February 1, 2017 or any date thereafter
  - What this means:
    - Bonds maturing prior to 2018 can never be redeemed prior to their scheduled maturity date
    - Bonds maturing in 2018 and later can be redeemed, but only on or after February 1, 2017
  - Call provision can be found in the Official Statement or the resolution awarding the sale of the original bonds

Refundings – Redemption Provision

Callable Bonds
- Issuer “purchases” this option by paying bond holders a higher interest rate vs. non-callable bonds
- Cost depends on market conditions, proposed call date, call features on competing bond issues – for a standard 10 year call, the cost may be minimal
  - Shorter bond call may cost more

Non-Callable Bonds
- A bond issue that does not allow for optional redemption
- Typically used if the maturity is less than 10 years
- May result in a lost opportunity to save money through a future refunding
- Refinancing is much more difficult, and unlikely to lead to savings

Refundings – Two Primary Options

1. Current refunding
   - New refunding bonds must close no earlier than 90 days prior to call date on refunded bonds

2. Advance refunding
   - Refunding issue closes more than 90 days in advance of call date on refunded bonds
Variations of Refunding Types

1. Forward Purchase Refunding
   - Variation on a current refunding
   - Issuer agrees to issue bonds on a specified future date and an underwriter agrees to purchase such bonds on that date. The proceeds of such bonds are used to conduct a current refunding the issuer's outstanding bonds.

2. Partial Refunding
   - Issuer refunds only specific callable maturities (or portions of specific maturities), rather than all the callable bonds
   - Strategy used to increase the savings percentage or to keep the new refunding bonds below the bank qualification limit

Bank Qualification

- If you issue no more than $10 million in tax exempt debt in a calendar year (in total), bonds can be designated as “bank qualified”
- When purchased by a commercial bank for its portfolio, the bank may receive an 80% tax deduction for the interest cost of carry for the issue
- Broadens the market for the bonds
- Therefore, results in lower interest cost to the issuer, and thus increases savings of a refunding
Current Refunding

- New refunding bonds are issued within 90 days of the call date or after the call date
- Simplest form of refunding
- The refunding bond proceeds are held and invested by the district until the call date
- On the call date of the existing bonds, the proceeds of the new refunding bonds will be used to defease (pay off) the existing bonds
- Following the defeasance, the issuer will make payments on the new bonds

Advance Refunding

- New refunding bonds are issued more than 90 days prior to the call date
- More complex transaction than a current refunding
- Higher up-front costs of issuance
- More Federal Tax Law Restrictions than a current refunding
- Only allowed one tax-exempt advance refunding per bond issue
- Refunding bond proceeds are invested in a defeasance escrow at a restricted yield

Advance Refunding

- An important difference between an "advance" refunding and a current refunding is that, rather than paying off the old debt within 90 days of incurring the new debt, the proceeds of the new refunding bonds are placed in an escrow account
- The Escrow funds are applied according to a predetermined schedule to the future payment of principal and interest on the refunded bonds and/or the new refunding bonds
- Thus, the refunded bonds are not paid off immediately, but instead will be paid off either as originally scheduled at maturity or on an earlier redemption date in the future according to the bonds’ call provisions.
Advance Refunding Types

1. Crossover
2. Full Net Cash
3. Partial Net Cash

- Similar in concept but provide savings to issuer at different times
- All use an escrow
  - Refunding bond proceeds are placed in an escrow account
  - Difference is which payments are made from the escrow

Advance Refunding Escrows

- When bond proceeds are escrowed, they are typically used to buy State and Local Government Series (SLGS) securities at specified yields
  - A special form of US Treasuries created specifically for this purpose
  - Makes it very easy to restrict yields to comply with federal arbitrage regulations
- Alternative is to purchase "open market" government securities via brokers
  - Closure of SLGS "Window" at US Treasury
  - May offer higher yields than SLGS, especially with larger and longer escrows
  - Increased savings

Crossover Advance Refunding

- Refunding bond proceeds are placed in escrow
- Escrow account pays:
  - Interest on new bonds until call date of old bonds
  - Redeem old bonds (pay outstanding principal) on the call date
- Issuer pays:
  - Principal and interest on old bonds until call date
  - Principal and interest on new bonds after the call, or "crossover", date
- Savings are not realized by issuer until after the crossover date
- Most prominent type used for MN schools
Full Net Cash Advance Refunding

- Refunding bond proceeds are placed in escrow
- Escrow pays:
  - Principal and interest on *old* bonds until call date
  - Principal on old bonds on the call date
- Issuer pays:
  - Principal and interest on *new* bonds immediately
- Issuer begins realizing savings immediately
- Requires a higher amount of new bonds and generally saves less than a Crossover refunding

Partial Net Cash Advance Refunding

- Refunding bond proceeds are placed in escrow
- Escrow pays:
  - Principal and interest on portion of *old* bonds until call date (often just the interest payments)
  - Principal on old bonds on the call date
- Issuer pays:
  - Principal and interest on portion of *old* issue until call date (often the principal payments)
  - Principal and interest on *new* bonds immediately
- Savings can be realized immediately (flexible)

Taxable Advance Refundings

- What if you’ve already issued your one tax-exempt advance refunding, and interest rates are great again?
- Explore refunding on taxable basis
  - Spreads between taxable and tax-exempt rates are lower than historical averages, especially on short-end of yield curve
  - Can also reduce restrictions – e.g. escrow yields
  - Only makes sense if you believe bond yields are likely to increase substantially; otherwise may be better off waiting to do a current refunding
When is the right time to refund?

• Refundings are an OPPORTUNITY, not a CRISIS that disrupts normal debt practices
  – Maintain a debt inventory that includes redemption features on all applicable outstanding debt
  – Be very hesitant to issue any new, long term bonds without a call feature
• Refundings should not be isolated events
  – Combining refunding with new money issuance enhances refunding savings, reduces total costs of issuance
  – Considering future debt issues may help you obtain bank qualification status on either the refunding or the future debt issue
• Thoroughly analyze the financial and risk pros and cons of refinancing now versus waiting until a future time
  – Timing is everything

Best Practices – Advance Refundings

• State of MN
  – Minimum NPV savings of 3%
• GFOA
  – Minimum NPV savings threshold of “3 – 5%” for advance refundings, due to one-time opportunity
  – Unique circumstances may allow for less
  – Competitive sale of general obligation refunding bonds
• Ehlers Standards for Advance Refundings
  – Each refunding has its own unique potential savings
  – In today's low rate environment, prefer to see NPV much higher, especially if call date is several years in the future
  – District should review a thorough analysis of pros and cons of refunding now vs. waiting

Yield Curve
Yield Curve – Impact on Refundings

- Yield curve is almost always “upward sloping” as shown on previous slide – rates increase as the years to maturity increase
- Impact on refundings
  - If you issued bonds in 2007 and the callable bonds mature in 2018-2027, then the maturity on those bonds was 11-20 years
  - If you conducted an advance refunding of those bonds in 2012, the maturity on the new bonds would be 6-15 years
  - If you wait to conduct a current refunding of the bonds in 2017, the maturity on the new bonds would be 1-10 years

Approaching Advance Refundings with Caution

- “Negative arbitrage” – a big inefficiency in today’s markets
  - While yields on new refunding bonds may be low, yields available for the escrow account are currently much lower
  - If you are paying 2.5% on your new refunding bonds, but earning only 0.5% in your escrow account, you are losing money in the escrow account every month
  - This loss is considered “negative arbitrage” – it requires you to issue more bonds to fund the escrow account, and it reduces the savings from the refunding
  - The amount of negative arbitrage can be very large – several million $ for a larger bond issue with a call date two or more years out
  - In general, waiting until closer to the call date will reduce the amount of negative arbitrage

Approaching Advance Refundings with Caution

If we knew that interest rates would not change in the future, then a current refunding would **always** save more money than an advance refunding

- Negative arbitrage is substantially less
- The costs of issuance are lower
- The rates on the new refunding bonds would be lower for a current refunding, since the bonds would be issued closer to their maturity date (shortened maturity term)
Approaching Advance Refundings with Caution

Ehlers Approach to Advance Refundings

- Evaluate estimated savings from an advance refunding, and disclose amount of negative arbitrage
- Also evaluate estimated savings from a current refunding assuming no change in current rates
- Prepare a “sensitivity analysis” showing how savings from the current refunding would be affected by changes in rates
- Present all of this information to the district, and discuss pros and cons of refunding now vs. waiting

Results

- By waiting until closer to the call date, many Ehlers school district clients have achieved NPV savings of 10-15% from refundings in the last year

Debt Management Opportunities

Is this the full picture?

- [Graph showing savings from refunding]
  - Advance (now)
  - Savings from refunding: $200,000

The Full Picture: Illustration of a Sensitivity Analysis

- In this example, rates would have to increase in order to break even on savings

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Significance of This Information

- Provides data on which to base a well-informed decision
- Illustrates the advantage (potential additional savings) by waiting
- Provides a market risk sensitivity factor that can be used to measure the risk of waiting
- Provides clear options
  1. Advance refund now
  2. Continue to monitor the market and target a more opportune time to conduct an advance refunding to generate greater savings
  3. Conduct a current refunding if the advance refunding never meets your savings goal

Timing an Advance Refunding

Remember - a bond issue may be advance refunded only once on a tax-exempt basis
- So take advantage of this opportunity only when it makes financial sense
  - Significant savings AND
  - Interest rates are rising and likely to continue to rise
- If you issue too far in advance of call date, you may lose the opportunity to maximize your savings at a more opportune time

Timing a Refunding

What should you do to make the best decision?
- With any refunding opportunity, the goal is to maximize the savings
- Don’t be overly excited by what sound like very impressive savings now - be patient and exercise due diligence in evaluating any advance refunding opportunity
- Work with a financial advisor that represents your district’s best interest by evaluating the situation and making recommendations designed to maximize savings
- Remember that the opportunity to save money through an advance refunding will continue to be available
  - You can conduct an advance refunding at a time that savings are greater
  - Negative arbitrage lessens as you get closer to the call date
Timing a Refunding

What should you do to make the best decision?
• Involve the Board or Finance Committee
• Evaluate all the applicable information to form the best decision
  – Analysis of savings on a refunding conducted now
  – Analysis of savings on a refunding conducted at the call date
  – A sensitivity analysis
  – Information on market conditions
  – Other debt issuance considerations/needs for all calendar years between now and the year of the call date
  – All costs associated with both options, including
    • Issuance costs
    • Negative arbitrage

Final Thoughts

Keep in mind that you have more options than simply conducting an advance refunding now or waiting for a current refunding at the time of the call date. Your financial advisor can, and should, monitor savings if you choose to forgo the advance refunding now. It is likely that you may have a much better advance refunding opportunity as you get closer to the call date.