Tax Reform of 2017 – “It wasn’t just Tax Cuts”

Presentation to the Ohio University Leadership Program
Presenter: David Tiggett
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Tax Cuts and Jobs Act of 2017

Key Elements

- Reduced tax rates for individuals
- Reduced tax rates for corporations
- Cap of $10,000 on state and local tax deductions
- Elimination of tax credit bonds
- Elimination of advance refunding bonds
## Reduce Tax Rates on Individual Income Tax

### Tax Brackets for Ordinary Income Under Prior Law and the Tax Cuts and Jobs Act

#### Single Filer

<table>
<thead>
<tr>
<th>Tax Rate</th>
<th>Prior Law</th>
<th>Tax Cuts and Jobs Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>$0-$9,525</td>
<td>10% $0-$9,525</td>
</tr>
<tr>
<td>15%</td>
<td>$9,525-$38,700</td>
<td>12% $9,526-$38,700</td>
</tr>
<tr>
<td>25%</td>
<td>$38,700-$93,700</td>
<td>22% $38,701-$82,500</td>
</tr>
<tr>
<td>28%</td>
<td>$93,700-$195,450</td>
<td>24% $93,701-$157,500</td>
</tr>
<tr>
<td>33%</td>
<td>$195,450-$424,950</td>
<td>32% $195,450-$200,000</td>
</tr>
<tr>
<td>35%</td>
<td>$424,950-$426,700</td>
<td>35% $424,950-$500,000</td>
</tr>
<tr>
<td>39.60%</td>
<td>$426,700+</td>
<td>37% $500,000+</td>
</tr>
</tbody>
</table>

#### Married Filing Jointly

<table>
<thead>
<tr>
<th>Tax Rate</th>
<th>Prior Law</th>
<th>Tax Cuts and Jobs Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>$0-$19,050</td>
<td>10% $0-$19,050</td>
</tr>
<tr>
<td>15%</td>
<td>$19,050-$77,400</td>
<td>12% $19,051-$77,400</td>
</tr>
<tr>
<td>25%</td>
<td>$77,400-$156,150</td>
<td>22% $77,401-$165,000</td>
</tr>
<tr>
<td>28%</td>
<td>$156,150-$237,950</td>
<td>24% $156,150-$237,950</td>
</tr>
<tr>
<td>33%</td>
<td>$237,950-$424,950</td>
<td>32% $237,950-$315,000</td>
</tr>
<tr>
<td>35%</td>
<td>$424,950-$480,050</td>
<td>35% $424,950-$480,050</td>
</tr>
<tr>
<td>39.60%</td>
<td>$480,050+</td>
<td>37% $480,050+</td>
</tr>
</tbody>
</table>

Source: Tax Foundation; https://taxfoundation.org
Reduce Tax Rates on Corporate Income Tax

### Graduated Corporate Tax Rates (Prior Law)

<table>
<thead>
<tr>
<th>Rate</th>
<th>Taxable Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>15%</td>
<td>$0-$50,000</td>
</tr>
<tr>
<td>25%</td>
<td>$50,000-$75,000</td>
</tr>
<tr>
<td>34%</td>
<td>$75,001-$10,000,000</td>
</tr>
<tr>
<td>35%</td>
<td>$10,000,001+</td>
</tr>
</tbody>
</table>

### Graduated Corporate Tax Rates (TC and Jobs Act)

- 21% Flat Rate

Source: The Bond Buyer
Market Impact – Still too Early to Fully Gauge

Preliminary Findings

Municipal bonds may become less attractive to corporate investors

Demand for municipal bonds by individual investors likely to increase

Lower issuance volume due to the elimination advance refundings

Higher interest rates due to reduced corporate demand
Yield Curve Comparisons

Yield Curve History

<table>
<thead>
<tr>
<th>Historical MMD Yield Curve Comparison</th>
<th>1-yr</th>
<th>5-yr</th>
<th>10-yr</th>
<th>15-yr</th>
<th>20-yr</th>
<th>25-yr</th>
<th>30-yr</th>
<th>1/30-yr spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>1.57%</td>
<td>1.71%</td>
<td>2.02%</td>
<td>2.39%</td>
<td>2.63%</td>
<td>2.75%</td>
<td>2.80%</td>
<td>123 bps</td>
</tr>
<tr>
<td>1 Month Ago</td>
<td>1.59%</td>
<td>1.68%</td>
<td>2.10%</td>
<td>2.52%</td>
<td>2.81%</td>
<td>2.94%</td>
<td>2.99%</td>
<td>140 bps</td>
</tr>
<tr>
<td>3 Months Ago</td>
<td>1.75%</td>
<td>1.95%</td>
<td>2.31%</td>
<td>2.60%</td>
<td>2.87%</td>
<td>2.99%</td>
<td>3.04%</td>
<td>129 bps</td>
</tr>
<tr>
<td>1 Year Ago</td>
<td>1.49%</td>
<td>2.03%</td>
<td>2.51%</td>
<td>2.76%</td>
<td>2.92%</td>
<td>2.99%</td>
<td>3.04%</td>
<td>155 bps</td>
</tr>
<tr>
<td>5 Years Ago</td>
<td>0.15%</td>
<td>1.23%</td>
<td>2.52%</td>
<td>3.10%</td>
<td>3.47%</td>
<td>3.66%</td>
<td>3.74%</td>
<td>359 bps</td>
</tr>
<tr>
<td>10 Years Ago</td>
<td>0.52%</td>
<td>2.15%</td>
<td>3.19%</td>
<td>4.02%</td>
<td>4.55%</td>
<td>4.81%</td>
<td>4.86%</td>
<td>434 bps</td>
</tr>
</tbody>
</table>

Key Takeaways

Fed Caution
Federal Reserve not committing to raising interest rates in 2019

Demand High
Net inflows of $14 billion into municipal bond funds in 2019 so far

Global Uncertainty
Economic slowdowns in Europe and China have potential to spread to U.S

Municipal Benefits
Lowering spread between tax-exempt and comparable taxable yields

As of March 21st, 2019; Sources: KBCM, Bond Buyer & TM3
Long-Term Rates Since Tax Reform

As of March 21st, 2019;
Sources: KBCM, Bond Buyer & TM3

Bond Buyer Index (Revenue and G.O – Since September 2017)

Fed Fund Rate Hike 0.25%
(3/21/2018)
Fed Fund Rate Hike 0.25%
(12/20/2018)
Fed Fund Rate Hike 0.25%
(9/26/2018)
Fed Fund Rate Hike 0.25%
(12/13/2017)

Tax Cuts and Jobs Act of 2017
December 22, 2017


Interest Rate

3.0%
3.5%
4.0%
4.5%
5.0%

20 - Bond GO Index
Revenue Bond Index

Fed Fund Rate Hike 0.25%
(12/20/2018)
Advance Refundings Eliminated

1. **Current Refunding** – Refunding Bonds are issued within 90 days of Call date.
   
   **Rule of Thumb is to refund if present value of savings is at least 3% of principal being refunded**

2. **Advanced Refunding** – Refunding Bonds are issued more than 90-days before Call Date.
   
   - Refunding Bond proceeds held in an escrow of US Treasury securities until Call Date.
   - IRS allows only one opportunity.
   - Complicated, but used more frequently than Current Refunding.
Municipal Supply in 2018

- Eliminated the ability to advance refund outstanding issuances
- Most Bond Issuances limited to “new money” transactions
- Lower overall issuance as a result

Comparison between 2017 and 2018

<table>
<thead>
<tr>
<th>Month</th>
<th>New Money</th>
<th>Refunding</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>April</td>
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<tr>
<td>May</td>
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<td></td>
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<tr>
<td>June</td>
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<tr>
<td>July</td>
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<td></td>
<td></td>
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<tr>
<td>August</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>September</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>October</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>November</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: The Bond Buyer
Refinancing Options versus Advance Refunding

Current Refunding

The tax-reform bill eliminated advance refundings, but maintained the legality of current refundings; the major distinction between the two is that current refundings occur within 90 days of a call date. Going forward, we expect to see optional redemption dates of fewer than 10 years from the original dated date.

Option 1
Refund outstanding debt within 90 days of the call date

<table>
<thead>
<tr>
<th>July 1, 2019</th>
<th>September 1, 2019</th>
<th>December 1, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorize the Bonds</td>
<td>Price the Refunding Bonds (Rates are locked)</td>
<td>Close the Refunding Bonds</td>
</tr>
</tbody>
</table>
Refinancing Options versus Advance Refunding

Option 2
Execute a current refunding months before the call date, but close within 90 days of the call date.

Current Refunding with a Forward Option
Using a forward option, an issuer can execute a refinancing outside of the traditional 90 day time frame for a current refunding. Under this option, an issuer would price their debt a number of months in advance, and close within 90 days of the call date of the refunding opportunity. Typically, for each month between pricing and closing, issuers will have to pay investors between 5-10bps in extra yield.

March 27, 2019
Authorize the Bonds

April 1, 2019
Price the Refunding Bonds (Rates are locked)

December 1, 2019
Close the Refunding Bonds
Refinancing Options versus Advance Refunding

Option 3
Refund outstanding debt on a taxable basis. Taxable bonds are exempt from federal tax laws.

Issuing Taxable Debt
Taxable bonds are exempt from federal tax law, therefore a taxable refinancing is not subject to the “one advance refunding” rule, like a tax-exempt issuance. This option would allow issuers to execute an advance refunding and secure interest savings on bonds that can only be currently refunded or were advance refunded.

Source: U.S Department of Treasury & TM3
Structuring Options to Consider

Options Include

- Shorter call dates versus the traditional 10 year call date
- Issue notes for repayment flexibility
- Issue variable rate debt
Ohio Employment Trends

Unemployment Rate in Ohio since 2000

Source: U.S Bureau of Labor Statistics
Ohio Election Patterns Since 2004

- School district election successes in Ohio have yet to rebound after the large increase in unemployment rate in 2008

Unemployment Rate and Bond Issues Across Ohio Since 2004

Source: OMAC, Ohio Department of Taxation
**Voter Sentiment for Smaller School Districts**

- Smaller school districts in Ohio have had a hard time passing bond elections
  - For every 100 “yes” votes, 106 voted “no” in smaller districts
  - Statewide average over same time period: for every 100 “yes” votes, 104 “no” votes
- **Clear downward trend in elections and in successful results**

**Reasons for Decreased Passage Rates:**
- Increased Burden on Households
- Fiscal Restraint after Recession
- Fewer Children
- Increased Costs

**Ballot Initiatives Per Year (2003-2018)**

- **Historic Voting Patterns in Smaller Districts**

Source: OMAC, Ohio Department of Taxation, * - Assessed Valuation <$150 million
State of School Facilities Nationally

**Average age of school buildings**
44 years

**Since major renovations**
12 years

**Average cost to get buildings to “good overall condition”**
$4.5 million per school

**Annual average cost for capital improvements**
$46 billion

**Annual average cost to operate school facilities**
$53 billion

**Average annual cost per student**
$1,038

**SOURCES:** www.edweek.org, National Center for Education Statistics; “State of Our Schools, 2016” 21st Century School Fund, National Council on School Facilities, Center for Green Schools; Education Week Research Center
### State of School Facilities Nationally

#### Building Components rated “fair” or “poor”

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air conditioning</td>
<td>30%</td>
</tr>
<tr>
<td>Heating</td>
<td>30%</td>
</tr>
<tr>
<td>Windows</td>
<td>32%</td>
</tr>
<tr>
<td>Sidewalks</td>
<td>27%</td>
</tr>
<tr>
<td>Plumbing/Restrooms</td>
<td>31%</td>
</tr>
<tr>
<td>Roofs</td>
<td>25%</td>
</tr>
</tbody>
</table>

#### Operating Cost Breakdown

- Local Share: 45%
- State Share: 45%
- Federal Share: 10%

#### Capital Cost Breakdown

- Local Share: 82%
- State Share: 18%

**SOURCES:** www.edweek.org, National Center for Education Statistics; "State of Our Schools, 2016" 21st Century School Fund, National Council on School Facilities, Center for Green Schools; Education Week Research Center
Statutory Limitations - GO Debt

Nonexempt Debt

**Direct Debt Limitation**
- Based upon the value of all property in the community as listed and assessed for taxation
- Unvoted GO debt – 1/10 of 1% of assessed valuation
- Voted AND unvoted GO debt – 4% of assessed valuation or 9% with approval from State Superintendent (special needs designation)

**Indirect Debt Limitation**
- Ten-mill limitation based on total outstanding debt service
- Maximum aggregate to be levied on any single piece of property
- “Inside” millage must first be used for the payment of debt service on unvoted GO debt of the subdivision

**Limited Tax General Obligation (LT GO) – UNVOTED**
- Allows for the raising of property taxes up to the “Ten-mill” limitation

**Unlimited Tax General Obligation (UT GO) – VOTED**
- Allows community to levy taxes on property sufficient to support debt service
Statutory Limitations - GO Debt

Exemptions from Limitations

Exempt Debt – Debt not included in the direct debt limit calculation

- Self-supporting GO debt i.e. revenues from the facilities financed are sufficient to pay applicable operating and maintenance expenses and related debt service and other requirements
- Bonds issued in anticipation of the collection of special assessments
- Revenue bonds
- Note issues in anticipation of the collection of current revenues or in anticipation of the proceeds of a specific tax levy
- Notes issued for certain emergency purposes
- Bonds issued to pay final judgments

Note: Revenue Bonds and Notes excluded
Types of Municipal Debt Issued

Types of Debt Issuances

General Obligation (GO Bonds)
- Backed by property taxes of community
- Income taxes may pay for debt service and thus the millage is not levied
- Subject to constitutional / statutory limitations

Revenue Bonds
- Completely self-supporting
- Backed by a particular source of revenue
- Types include Income Tax, Sales Tax, and Utility Bonds

Certificates of Participation (COPs)
- Secured by the revenue stream of the lease payments
- Subject to annual appropriation
Permanent Improvement Levy

Issue Types with PI Levy

General Obligation Bonds:

1. Fixed year PI Levy:
   Project Amount = ½ of the anticipated proceeds to be received over the fixed number of years no more than 5 years

2. Continuing PI Levy:
   Project Amount = ½ of the anticipated proceeds to be received over 10 years

<table>
<thead>
<tr>
<th>Fixed Year PI Levy</th>
<th>Continuing PI Levy</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV = $150,000,000</td>
<td>AV = $150,000,000</td>
</tr>
<tr>
<td>PI Levy = 2.00 mills</td>
<td>PI Levy = 2.00 mills</td>
</tr>
<tr>
<td>Term = max 5 years</td>
<td>Term = max 10 years</td>
</tr>
<tr>
<td>Collections = $1,500,000 (1/2 = $750,000)</td>
<td>Collections = $3,000,000 (1/2 = $1,500,000)</td>
</tr>
<tr>
<td><strong>Project Amount = approx. $660,000 @ 4% interest</strong></td>
<td><strong>Project Amount = approx. $1,200,000 @ 4.25% interest</strong></td>
</tr>
</tbody>
</table>
Certificates of Participation/Lease Structure:

Continuing PI Levy:

*Project Amount* = Present value of the 1st year’s anticipated collection over the term of the financing.

**COPs w/ Continuing PI Levy**
AV = $150,000,000
PI Levy = 2.00 mills
Term = no more than 30 years
Revenue= $300,000

*Project Amount* = approx. $4,700,000 @ 5% interest
Questions

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Thank You!