EXPERT FINANCIAL ADVICE

## INDIVIDUAL STRATEGIES

# Empirical Data on the Effectiveness of Partial Credit Enhancement of Tax-Exempt Bonds 

## Buck Financial Advisors LLC

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## Introduction

- In late 2009 and early 2010, two bond issues were partially enhanced by guarantees of philanthropic organizations and other entities. These guarantees lasted only 10 of the $30+$ years of the issues and did not cover all P\&I payments during that time.
- These two bond issues were issued on behalf of KIPP Houston (2009, \$66 Million in bonds, $\$ 20$ Million enhancement) and Aspire Public Schools (2010, $\$ 93$ Million in bonds, $\$ 17$ Million enhancement)
- These two issues were both rated "BBB", with KIPP's rating from S\&P and Aspire's rating from Fitch.
- Within 1-3 weeks of these enhanced issues, two large and similarly rated unenhanced issues were sold by IDEA Public Schools (S\&P "BBB" - 2009) and Uplift Education (S\&P "BBB-" - 2010).
- We analyzed the results of each pricing and found that the partial enhancement resulted in negligible, if any, reduction in the cost of capital for the two enhanced issues versus the un-enhanced issues as measured by the spread to the MMD.

Municipal Yleld Curves as of 03/30/2010

## Example MMD Matrix All Bond Issues are Priced as a "Spread" to the High-grade (AAA)

|  |  | General Obllgations |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | "AAA | PRE-RE | INSURED | *AA" | ${ }^{*} \mathrm{~A}^{*}$ | "BAA |
| 1 | 2011 | 0.32 | 0.34 | 0.56 | 0.39 | 0.74 | 2.04 |
| 2 | 2012 | 0.79 | 0.83 | 1.13 | 0.91 | 1.31 | 2.71 |
| 3 | 2013 | 1.10 | 1.14 | 1.53 | 1.25 | 1.71 | 3.05 |
| 4 | 2014 | 1.45 | 1.49 | 1.94 | 1.61 | 2.07 | 3.43 |
| 5 | 2015 | 1.77 | 1.81 | 2.32 | 1.94 | 2.42 | 3.76 |
| 6 | 2016 | 2.21 | 2.25 | 2.77 | 2.38 | 2.87 | 4.20 |
| 7 | 2017 | 2.52 | 2.56 | 3.09 | 2.69 | 3.20 | 4.52 |
| 8 | 2018 | 2.74 | 2.78 | 3.32 | 2.91 | 3.46 | 4.75 |
| 9 | 2019 | 2.94 |  | 3.53 | 3.12 | 3.67 | 4.94 |
| 1.0 | 2020 | 3.08 |  | 3.67 | 3.26 | 3.83 | 5.05 |
| 17 | 2021 | 3.18 |  | 3.81 | 3.37 | 3.97 | 5.14 |
| 12 | 2022 | 3.26 |  | 3.89 | 3.46 | 4.06 | 5.20 |
| 13 | 2023 | 3.34 |  | 3.97 | 3.54 | 4.14 | 5.24 |
| 14 | 2024 | 3.42 |  | 4.03 | 3.62 | 4.22 | 5.29 |
| 15 | 2025 | 3.50 |  | 4.09 | 3.70 | 4.30 | 5.34 |
| 16 | 2026 | 3.58 |  | 4.15 | 3.78 | 4.38 | 5.38 |
| 17 | 2027 | 3.66 |  | 4.22 | 3.85 | 4.44 | 5.41 |
| 18 | 2028 | 3.73 |  | 4.27 | 3.91 | 4.49 | 5.44 |
| 19 | 2029 | 3.80 |  | 4.32 | 3.98 | 4.54 | 5.46 |
| 20 | 2030 | 3.86 |  | 4.36 | 4.04 | 4.58 | 5.48 |
| 21 | 2031 | 3.92 |  | 4.41 | 4.09 | 4.62 | 5.49 |
| 22 | 2032 | 3.97 |  | 4.45 | 4.14 | 4.65 | 5.50 |
| 23 | 2033 | 4.01 |  | 4.49 | 4.18 | 4.67 | 5.51 |
| 24 | 2034 | 4.05 |  | 4.52 | 4.22 | 4.69 | 5.53 |
| 25 | 2035 | 4.09 |  | 4.55 | 4.26 | 4.71 | 5.55 |
| 26 | 2036 | 4.12 |  | 4.57 | 4.29 | 4.73 | 5.56 |
| 27 | 2037 | 4.14 |  | 4.58 | 4.30 | 4.74 | 5.57 |
| 28 | 2038 | 4.15 |  | 4.59 | 4.31 | 4.75 | 5.58 |
| 29 | 2039 | 4.16 |  | 4.60 | 4.32 | 4.76 | 5.59 |
| 30 | 2040 | 4.17 |  | 4.61 | 4.33 | 4.77 | 5.60 |

## High-Grade (AAA) MMD Spread Comps

| KIPP Houston - \$66 Million |  | IDEA Public Schools - \$29 Million - 8 Investors |  |
| :---: | :---: | :---: | :---: |
| Priced October28,2009 |  | Priced November 19, 2009 |  |
|  |  | 2013 | +218 |
| 2014 | +226 | 2014 | +219 |
| 2015 | +230 | 2015 | +220 |
| 2016 | +229 | 2016 | +222 |
| 2017 | +228 | 2017 | +228 |
| 2018 | +220 |  |  |
| 2019 | +216 |  |  |
|  |  |  |  |
| 2024 | +240 | 2024 | +237 |
|  |  |  |  |
| 2029 | +228 | 2029 | +250 |
|  |  |  |  |
| 2039 | +212 | 2039 | +222 |
|  |  |  |  |
| 2044 | +222 |  |  |
|  |  |  |  |
| TIC | +222 | TIC | +213 |

## High-Grade (AAA) MMD Spread Comps



## Reducing Cost of Capital \$20MM Project

- TEBs Alone
- 37-year financing
- Par:
- \$22,360,000
- Annual D/S:
- Year 1-37: \$1,610,039
- Total: \$57,961,418
- Interest Rate: 6.50\%
- IRR: 6.44\%
- NMTC/TEB Combo
- 37-year financing
- Par:
- Lev. Loan: \$16,875,000
- Sub-Debt : \$ 6,000,000
- Annual D/S
- Year 1-7: \$1,234,063
- Year 8-37: \$1,309,033
- Total: \$46,601,392
- Interest Rate: 6.75\% (LL)
- IRR: 4.44\%


## Reducing Cost of Capital \$20MM Project

- TEBs alone require $\$ 375 \mathrm{~K}$ more in annual debt service during 7 -year compliance period than combo structure
- TEBs alone require $\$ 300 \mathrm{~K}$ more in annual debt service for the 30 -year postcompliance period than combo structure
- A $\$ 20 \mathrm{MM}$ project typically could house 1,000 students ( $\$ 20 \mathrm{~K}$ per student capital cost), meaning the combo structure would result in:
- \$375 per student lower facility cost during compliance period
- \$300 per student lower facility cost for 30-year post-compliance period
- Reduced facility cost has same effect on budget as an increase in operational funding but WITHOUT ANY BURDEN ON STATE


## Credit Enhancement Facility (CEF)

- \$6.170 Million Credit Enhancement Facility (CEF) for a \$20 Million project
- Declines annually as payments are made.
- Payments Yr 1
- CEF End of Year 1
- Payments Yr 2
- CEF End of Year 2
- Payments Yr 3
- CEF End of Year 3
- Payments Yr 4
- CEF End of Year 4
- Payments Yr 5
- CEF End of Year 5
\$1,234,063
\$4,936,250
\$ 1,234,063
3,702,188
\$ 1,234,063
\$ 2,468,125
\$ 1,234,063
\$ 1,234,063
\$ 1,234,063
\$0

Re-deployed Enhancement
\$1,234,063
\$2,468,125
$\$ 3,702,188$
$\$ 4,936,250$
\$6,170,313

## Comparison w/ TEBs

- TEBs Alone
- 100\% Enhancement tied up for 10 years
- Leverage ratios have been about 3:1-5:1
- Negligible, if any,
reduction in school's cost of capital
- Proven by comps w/ IDEA and Uplift
- NMTC/TEB Combo
- Enhancement burns off annually - average life 2.5 years ( $75 \%$ less than TEBs alone)
- Leverage ratio approximately 4:1
- Schools receive 200 basis point (31\%) reduction in cost of capital


## Conclusions

- Reducing the cost of capital for charter school facility financings will lower annual debt service costs for charters, achieving the same result as grant funding or increases in operational funding (i.e. more $\$ \$$ in the classroom). Recent efforts to achieve a reduction in capital costs have centered on enhancing TEBs vs. structures such as NMTCs and Stimulus/HIRE programs, or combos structures.
- Based upon the KIPP and Aspire deals versus IDEA and Uplift, respectively, partially enhancing TEBs neither reduces the cost of capital nor results in increases in sources of financing.
- NMTCs, structures arising from Stimulus Plan/HIRE Act, and combo structures such as NMTC \& TEBs will help achieve the goal of reducing charter schools' cost of capital, but these markets need partial enhancement to attract investment.
- Enhancement is needed for these structures because most loans and investments arising from NMTC and Stimulus/HIRE are taxable, and there are not nearly the broad and deep taxable lending sources for charters as exists in the tax-exempt market, or to address other factors.
- Any entity that wishes to enhance charter financings should seriously consider a partial enhancement program to include NMTC, combo and other structures in order to help achieve the goal of reducing charter schools' cost of capital and debt service, because those markets need the enhancement to attract the necessary capital while the tax-exempt market does not need nor value partial enhancement.

