

# CMTA

## Exploring Taxable Municipal Bonds

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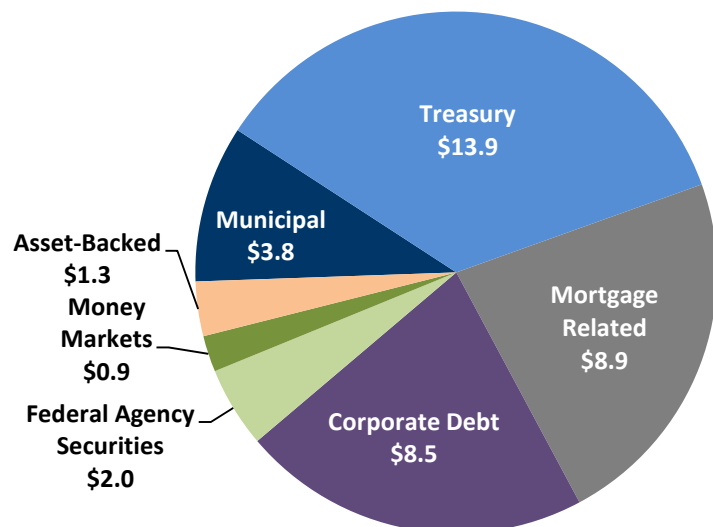
# STIFEL

April 27, 2017

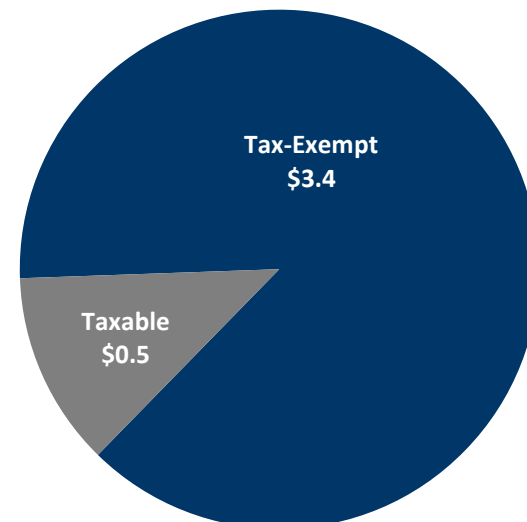
## U.S. Bond Market – It is Really Big!

- **\$40.5 Trillion in total outstanding US fixed income market**
  - Asset-Backed, Corporate, Federal Agency, Money Markets, Mortgage Related, Municipal & Treasury
  - Municipal bonds accounted for approximately 9% of the outstanding total in 2016

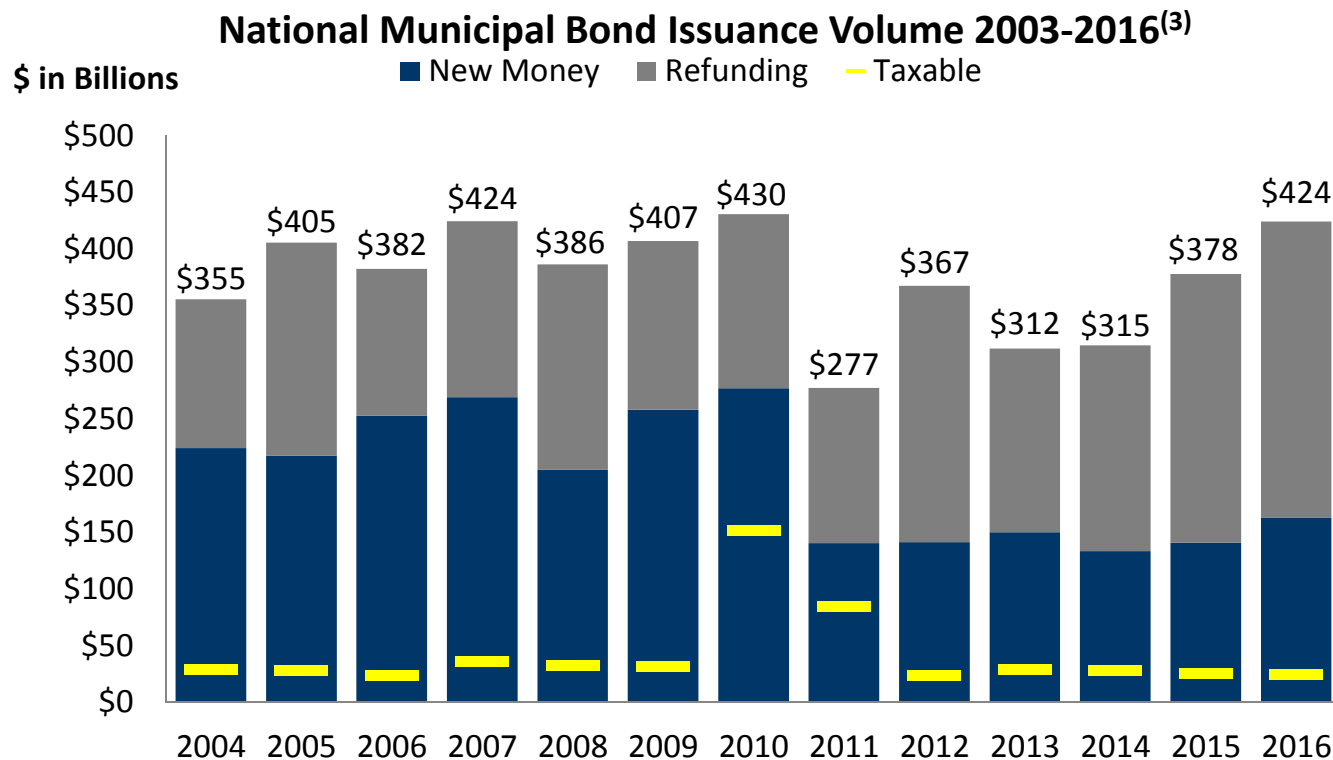
**Outstanding U.S. Bond Market in 2016**  
(\$ in Trillions)



**Outstanding U.S. Municipal Market in 2016**  
(\$ in Trillions)



- **Estimated to be \$3.8 trillion outstanding at year-end 2016** <sup>(1)</sup>
  - Approximately 31,000 municipal issuers with debt outstanding<sup>(1)</sup>
  - \$3.1 trillion traded in more than 9.3 million transactions in 2016 <sup>(2)</sup>
- **Since 2003 annual municipal issuance has averaged \$364 billion**<sup>(3)</sup>
  - ~53% issued to finance educational or general government projects
  - *Why did taxable volume shoot up in 2010 & 2011?*



(1) SIFMA  
 (2) MSRB 2016 Fact Book  
 (3) Thomson Reuters – SDC Platinum; Figures represent data from 1/1/2003 to 12/31/2016 and include all negotiated and competitive issuance

- **Private Activity Bond**

- More than 10 percent of the proceeds is to be used in a trade or business of a person or persons other than a governmental unit *AND*
- Directly or indirectly repaid from, or secured by, revenues from a private trade or business

- **Advance Refunding constraints**

- Tax-exempt municipal bonds may be *advance* refunded once
  - An advance refunding is the refunding of an outstanding issue of bonds 90+ days prior to the date on which the bonds become due or are callable
- Relationship of Taxable vs. Tax-Exempt interest rates is dynamic

- **Federal Tax Credit programs**

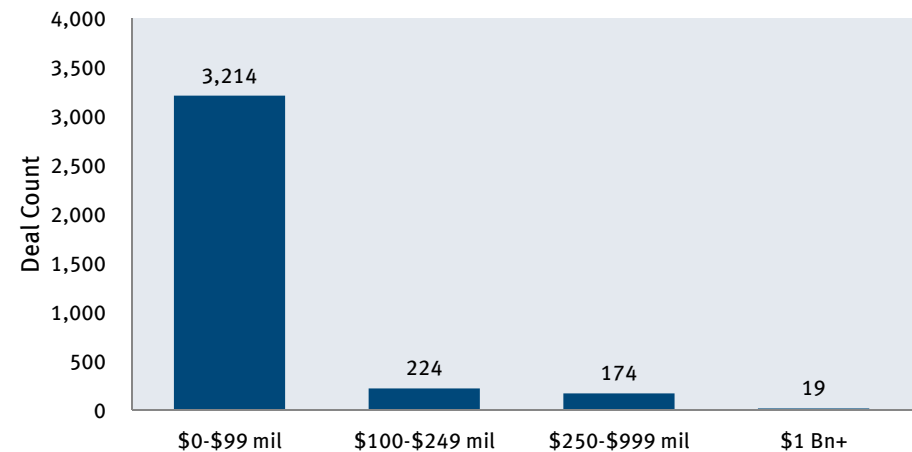
- BABs
- RZEDBs
- CREBs



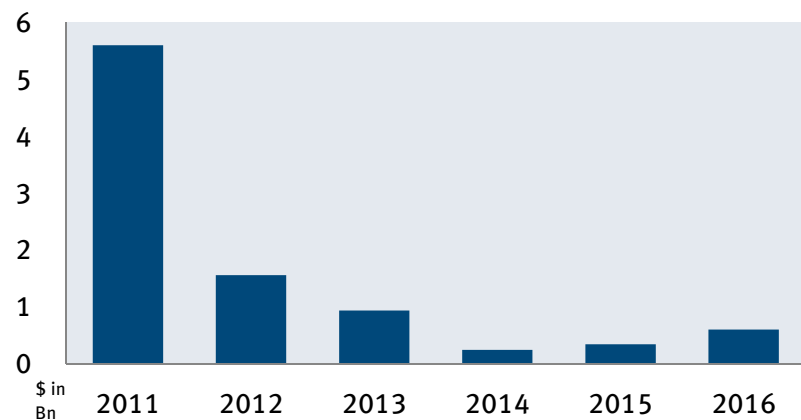
## Overview of Tax Credit Bonds During ARRA

- **Direct subsidy bonds (BABs and RZEDBs) in 2009 and 2010 were arguably the most successful type of tax credit bonds**
- **During ARRA, California issuers proved to be the predominant issuers of tax credit bonds nationally – 230 issues totaling \$40.6 billion**
  - Widespread use of direct subsidy bonds among large and small issuers
  - State of California represented 33% of total CA tax credit bond par volume
  - Majority of CA issues (70%) were under \$100 million
- **Tax credit bond market is still operative but faces challenges**
  - Smaller size, illiquid market and investor uncertainty over tax credits

National Tax Credit Bond Deal Count by Issue Size (2009-2010)



Tax Credit Bond Volume (2011-2016)



## Primary Market: How are Municipal Bonds Sold?

### • Competitive

- Auction of Bonds
- Highest price, lowest yield wins
- Underwriter not involved until bid
- No pre-marketing to investors
- Underwriter(s) liable for unsold balance

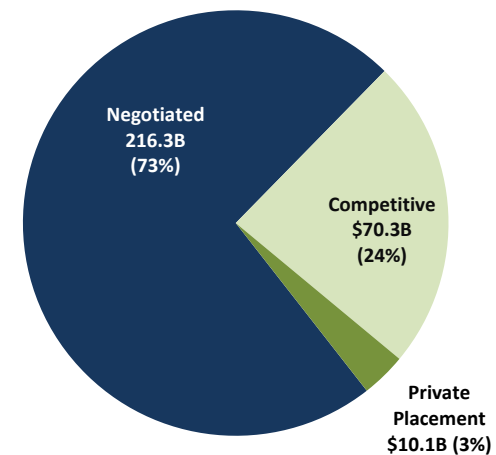
### • Negotiated

- Terms negotiated
- Underwriter involved early in the process
- High due diligence standard
- Pre-marketing to investors
- Underwriter(s) liable for unsold balance

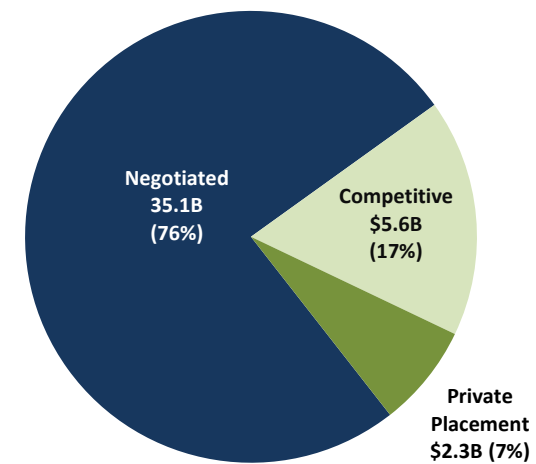
### • Private Placement

- Entire issuer is brought by a single investor
- Purchaser is typically a bank
- Rate may be higher but staff work lower

**2016 National Market**  
(By Type of Sale)



**2016 Taxable National Market**  
(By Type of Sale)



## Who Buys Municipal Bonds?

- **Retail investors**

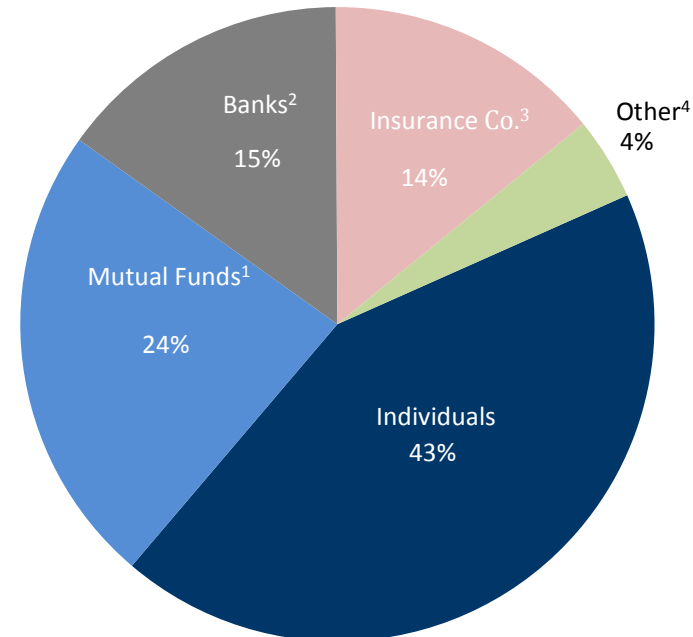
- High net-worth individuals
- Often older, high tax bracket

- **Institutional Investors**

- Bond funds, mutual funds
- Investment advisors
- Commercial banks
- Bank trust departments
- Insurance companies
- “Other” – includes Municipalities

- ***Are there any participants in the room that do buy munis?***

**Holders of Municipal Debt  
As of Q4 2016**



Source: [www.sifma.org](http://www.sifma.org).

1) Includes mutual funds, money market funds and close-end funds.

2) Includes commercial banks, savings institutions and brokers and dealers.

3) Includes property-casualty and life insurance companies.

4) Includes non-financial corporate business, non-farm non-corporate business, state and local governments and retirement funds and government-sponsored enterprises.

## Recent Large, “AA,” California, Taxable Municipal Offerings

- **As of April 3, 2017 only 5 primary market issues of +\$100mm, “AA” category, taxable in California over the last year**
  - Nationally 38 issues fit these parameters
- **Variety of sub sectors**
  - 2 Tax Allocation
  - Higher Ed
  - Utility
  - Airport

Sale Date	Issuer	Use of Proceeds	Issue Description	Par Amount	Moody's	S&P	Lead Manager(s)
01/19/17	San Diego Successor Redev Agy	Economic Dev.	Tax Allocation Refunding Bonds	\$155.40	---	AA	Stifel
11/15/16	Los Angeles Dept of Airports	Airports	Senior Refunding Revenue Bonds	226.41	Aa3	AA	RBC
09/13/16	California DWR	Elec. Pub. Power	Power Supply Revenue Bonds	567.23	Aa1	AA	Goldman / Stifel
08/04/16	Los Angeles Co Redev Ref Auth	Economic Dev.	Tax Allocation Revenue Ref Bonds	251.29	Aa3	AA	Stifel
04/07/16	Regents of the Univ of California	Education	General Revenue Bonds	173.36	Aa3	AA	Wells Fargo / Barclays

- *How do you become aware of these taxable issues?*



## Primary Market: Day of Sale

- **Underwriter evaluates market conditions at the open of the market**
  - Tone of market – investor demand; comparable new issue sales; secondary market activity
- **Finalizes “release” scale of coupons and yields**
  - Large taxable issues marketed with spreads to “on the run” US Treasury
- **Order period commences, pricing “wire” sent out**
- **Underwriter keeps master list of all orders from all salespeople and co-managers**
- **Online Order Entry System – allows underwriter and issuer to view orders as entered**
- **At conclusion of order period, a “pricing call” is typically held**
  - Conference call between issuer, banker and underwriter to discuss sale status/adjustments
- **Treasury rates locked and yields determined (applicable for large taxable munis)**
- **Allocation of orders**



# Example: County of Los Angeles Redevelopment Refunding Authority **STIFEL**

54465AGM Muni **92) Report** **93) Alert** **97) Settings** Page 1/11 Security Description: Muni

LOS ANGELES CNTY CA REDEV REFUNDING AUTH TAX ALLOCATION REV **94) Notes**

TXBL -SUB-REF-CRA LA PROJECT-SER A **CUSIP** 54465AGM8

91) SEE DES NOTES Ticker LDRDEV Cpn 1.500 Maturity 09/01/2021 Dated 08/25/2016 State CA

**25) Municipal Bond** **26) Series** **27) Issuer Description**

Pages	Municipal Bond Information	Trading Information
11) Bond Info	Issue Type TAX ALLOCATION	1st Settle Dt 08/25/2016
12) Addtl Info	Ult Borrower Los Angeles County Redevel	Next Settle Dt 04/03/2017
13) Involved Parties	Maturity Type NON-CALLABLE	Int Accrual Dt 08/25/2016
14) Adj Cpn Info	Ext Redemption YES (Type: MANDATORY)	1st Coupon Dt 03/01/2017
15) Credit Enhance	Coupon 1.500 FIXED, OID	Week of Sale 08/01/2016
16) Credit Ratings	Prc/Yld @ Iss 99.051/1.698	Award 08/04/2016 9:19 PM (
17) Call Sched & ERP	Coupon Freq SEMI-ANNUAL	First Trade 08/05/2016 12:00 PM
18) Put Schedule	Tax Provision FED TAXABLE/ST TAX-EXEMP	
19) Sink & Est Sink	Credit Enhancement	
20) Refunding Info		
21) DES Notes		
Quick Links	Bond Ratings	
31) TDH <b>MSRB Trade</b>	Moody's(Undl) Aa3	
32) CACS Material Evt	S&P AA STA	
33) CF Filings		
34) CN Sec News		
35) HDS Holders		
66) Send Bond		

Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 :  
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2017 Bloomberg Fin  
SN 596565 6946-2605-0 29-Mar-17

**NEW ISSUES - BOOK-ENTRY ONLY** **RATINGS:**  
Series 2016 Bonds: "AA" (S&P) "Aa3" (Moody's)  
See "RATING" herein.

*In the opinion of Stridling Yocum Carlson & Bush, a Professional Corporation, Newport Beach, California ("Bond Counsel"), under existing statutes, regulations, rulings and judicial decisions, the interest with respect to the Series 2016 Bonds is not excluded from gross income for federal income tax purposes, in the further opinion of Bond Counsel, the interest (and original issue discount) due with respect to the Series 2016 Bonds is exempt from State of California personal income tax. See "TAX MATTERS" herein.*

**8251,285,000**  
**COUNTY OF LOS ANGELES REDEVELOPMENT REFUNDING AUTHORITY**  
Tax Allocation Revenue Refunding Bonds, Series 2016A (Federally Taxable)  
CRLA Project Areas

Date: Date of Delivery Date: As Shown on the Inside Cover Pages

The County of Los Angeles Redevelopment Refunding Authority (the "Authority") will issue its Tax Allocation Revenue Refunding Bonds, Series 2016A (Federally Taxable) (the "Series 2016 Bonds") pursuant to a Trust Agreement, dated as of August 1, 2016 (the "Trust Agreement"), by and between the Authority and U.S. Bank National Association, as trustee (the "Trustee"). Concurrently with the issuance of the Series 2016 Bonds, CRLA, a Designated Local Authority and Successor Agency to The Community Redevelopment Agency of the City of Los Angeles (the "Agency Participant"), will issue a series of federally taxable tax allocation refunding bonds (the "Local Obligations") for the Project Areas (the "Project Areas") pursuant to an Indenture of Trust, dated as of August 1, 2016 (the "Agency Indenture"), by and between the Agency Participant and U.S. Bank National Association (the "Agency Trustee"), the proceeds of which will be used to refund all or portion of certain bonds and obligations of the Agency Participant as more fully described herein. Proceeds of the Series 2016 Bonds will be used to purchase the Local Obligations.

The Series 2016 Bonds will be special, limited obligations of the Authority, payable from and secured by Revenue (as defined herein) of the Authority, consisting primarily of payments on the Local Obligations to be purchased by the Authority under the Trust Agreement and received by the Authority from the Agency Participant. The Local Obligations will be payable from and secured by designated property tax revenues (net of tax increment revenue) related to the Project Areas of the Agency Participant, which will include money deposited, from time to time, in the Redevelopment Property Tax Trust Fund for the benefit of the Agency Participant as provided in the California Health and Safety Code as more fully described herein. Collectively, such designated property tax (subject to certain statutory and contractual deductions specified in the Agency Indenture) as deposited under the Agency Indenture is referred to herein as "Tax Revenues." Debt service on the Local Obligations will be subordinate to the payment of debt service on the Senior Bonds, Prior Agreements, Pass Through Agreements, 2017A Antenna and Secondary Pass Through Agreements (as described herein). Payments on the Local Obligations to be purchased by the Authority under the Trust Agreement are calculated to be sufficient to permit the Authority to pay the principal of, premium (if any) and interest on the Series 2016 Bonds when due. The Local Obligations will be registered in the name of the Trustee under the Trust Agreement and payments on the Local Obligations will be paid to the Trustee. See "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2016 BONDS."



The Series 2016 Bonds will be issued in Authorized Denominations of \$5,000 and any integral multiple thereof. The Series 2016 Bonds will be delivered in fully-registered form only, and when delivered, will be registered in the name of Code & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository for the Series 2016 Bonds. Ownership interests in the Series 2016 Bonds may be purchased in book-entry form only. Principal of and interest and redemption premium (if any) on the Series 2016 Bonds will be paid by the Trustee to DTC on its nominee, which will in turn make such payments to its Participants (defined herein) for subsequent forwarding to the Owners of the Series 2016 Bonds. See APPENDIX G - "BOOK-ENTRY ONLY SYSTEM" attached hereto.

The Series 2016 Bonds will be subject to redemption prior to maturity, as described herein. See "THE SERIES 2016 BONDS - Redemption" herein.

**THE SERIES 2016 BONDS WILL BE SPECIAL LIMITED OBLIGATIONS OF THE AUTHORITY, PAYABLE FROM AND SECURED AS TO THE PAYMENT OF THE PRINCIPAL THEREOF AND THE REDEMPTION PREMIUM, IF ANY, AND THE INTEREST THEREON IN ACCORDANCE WITH THE TERMS AND THE TERMS OF THE TRUST AGREEMENT, SOLELY FROM THE TRUST ESTATE ESTABLISHED UNDER THE TRUST AGREEMENT. THE SERIES 2016 BONDS SHALL NOT CONSTITUTE A CHANGE IN THE GENERAL CREDIT OF THE AUTHORITY OR ANY OF ITS MEMBERS, AND UNDER NO CIRCUMSTANCES SHALL THE AUTHORITY BE OBLIGATED TO PAY PRINCIPAL OF OR REDEMPTION PREMIUM, IF ANY, OR INTEREST ON ANY SERIES 2016 BONDS EXCEPT FROM THE TRUST ESTATE. NEITHER THE STATE NOR ANY PUBLIC AGENCY (OTHER THAN THE AUTHORITY) NOR ANY MEMBER OF THE AUTHORITY IS OBLIGATED TO PAY THE PRINCIPAL OF OR REDEMPTION PREMIUM, IF ANY, OR INTEREST ON THE SERIES 2016 BONDS, AND NEITHER THE FAITH AND CREDIT NOR THE TAKING POWER OF THE STATE OR ANY PUBLIC AGENCY THEREOF OR ANY MEMBER OF THE AUTHORITY IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF OR REDEMPTION PREMIUM, IF ANY, OR INTEREST ON THE SERIES 2016 BONDS. THE PAYMENT OF THE PRINCIPAL OF OR REDEMPTION PREMIUM, IF ANY, OR INTEREST ON THE SERIES 2016 BONDS DOES NOT CONSTITUTE A DEBT, LIABILITY OR OBLIGATION OF THE STATE OR ANY PUBLIC AGENCY (OTHER THAN THE AUTHORITY) OR ANY MEMBER OF THE AUTHORITY.**

This cover page contains information for quick reference only. It is not a summary of this issue. Potential purchasers must read the entire Official Statement to obtain information essential to making an informed investment decision.

The Series 2016 Bonds are offered solely, as and if issued, subject to the approval of their legality by Stridling Yocum Carlson & Bush, a Professional Corporation, Newport Beach, California, Bond Counsel and Disclosure Counsel to the Authority. Certain legal matters will be passed upon for the Authority by County Counsel as Counsel to the Authority. Certain legal matters will be passed upon for the Agency Participant by general counsel of the Agency Participant. Certain legal matters will be passed upon for the Underwriters by their counsel, Jones Hall, A Professional Law Corporation, San Francisco, California. It is anticipated that the Series 2016 Bonds will be available for delivery through the facilities of DTC in New York, New York on or about August 25, 2016.

**STIFEL**  

08/25/2016

Source: Bloomberg

# Example: Yield Analysis at Sale Date

- As of August 4, 2016 – “Sale Date”



- Bloomberg’s YAS function

54465AGM Muni
Settings
Yield and Spread Analysis

95 Buy
96 Sell

1) Yield & Spread
2) Yields
3) Graphs
4) Pricing
5) Custom

LOS ANGELES CO R (CA) LDRDEV 1.5 09/01/21

Spread	67.00 bp	vs	5y T 1 1/8	07/31/21			
Price	99.051			↕	100-15		
Yield	1.698	Wst			1.028	S/A	
Wkout	09/01/2021	@	100.00		Yld	3	3
Settle	08/25/16				08/05/16		
Trade	08/04/16				Retro (Using input price)		

<b>Risk</b>		
Workout	OAS	
M.Dur	Dur	4.850
Risk		4.764
Convexity		0.260
DV	01 on 1MM	476
Benchmark Risk		4.861
Risk Hedge		980 M
Proceeds Hedge		986 M

<b>Spreads</b>	<b>Yield Calculations</b>	
11) G-Sprd	65.7	Street Convention 1.698
12) I-Sprd	60.8	Equiv 1 /Yr 1.705
Basis	N.A.	Mmkt (Act/ 365 )
14) Z-Sprd	60.7	True Yield 1.698
15) ASW	59.3	Current Yield 1.514
16) OAS	66.8	

<b>Invoice</b>	
Face	1,000 M
Principal	990,510.00
Concession	0.00
Prin less Conc	990,510.00
Accrued (0 Days)	0.00
<b>Total (USD)</b>	<b>990,510.00</b>

After Tax (Inc 43.400 % CG 23.800 %) 0.961

Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000  
 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2017 Bloomberg Finance L.P.  
 SW 596565 6599-1253-0 31-Mar-17 9:44:15 PDT GMT-7:00

Source: Bloomberg

## Example: Interest Rate Sensitivity at Sale Date

- As of August 4, 2016 – “Sale Date”

**Shock Analysis for** LDRDEV 1 1/2 21

Settlement 8/25/16 Price 99.051 Yield 1.698000 to 9/ 1/21 @ 100

YLD SHFT	S/A Reinv	Pricing at 8/25/16			HORIZON			%Prc. Change		
		Traded to	SPRD*	Yield	Price		Bond	5 YR	%PROB	
-150	0.20	MTY 9/ 1/21 100	- 26.2	0.198	106.5		7.52	7.42		
-100	0.70	MTY 9/ 1/21 100	- 26.2	0.698	103.95		4.94	4.88		
-50	1.20	MTY 9/ 1/21 100	- 26.2	1.198	101.47		2.44	2.41		
0	1.70	MTY 9/ 1/21 100	- 26.2	1.698	99.051			-0.00		
50	2.20	MTY 9/ 1/21 100	- 26.2	2.198	96.701		-2.37	-2.34		
100	2.70	MTY 9/ 1/21 100	- 26.2	2.698	94.413		-4.68	-4.62		
150	3.20	MTY 9/ 1/21 100	- 26.2	3.198	92.187		-6.93	-6.85		

ExVal

Mode:  Traditional Bnchmrk:  (Muni/Govt) Fixed Yld Convention?

BMK TSY YLD 12:44

5 YR 1.958  
3 YR 1.527

Probabilities V  
C-Custom  
V-Yld Std Dev at 18 bp/year Log?Y  
10.0

SHOCK OPTION  
View  Total Return

\* SPRDS done to interpolated BMRK Curve

Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000  
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2017 Bloomberg Finance L.P.  
SN 596565 6599-1253-0 31-Mar-17 9:46:49 PDT GMT-7:00

- Bloomberg’s TRA function

# Primary Market: Pricing Comparables



Par Value	\$252,965,000				\$25,270,000				\$21,520,000				\$31,645,000			
Issuer	County of Los Angeles				Successor Agency to the Santa Fe Springs				Successor Agency to the Roseville				Imperial Irrigation District			
Issue	Taxable Tax Allocation Refunding Bonds				Taxable Tax Allocation Refunding Bonds				Taxable Tax Allocation Refunding Bonds				Taxable Refunding Revenue Bonds			
Callable	9/1/2026 @ 100				N/C				9/1/2026 @ 100				Make Whole Call @ +20bps			
Rating	-/AA/Aa3				-/A+/-				-/A+/-				-/AA/-			
Insurance	N/A				N/A				BAM (AA)				N/A			
Manager	Stifel/ Citi				Stifel				Stifel				Citigroup			
Sale Date	Final Spreads: Wednesday, August 3, 2016				Tuesday, July 12, 2016				Wednesday, June 29, 2016				Wednesday, June 22, 2016			
	Coupon	Yield	UST	Spread (bps)	Coupon	Yield	UST	Spread (bps)	Coupon	Yield	UST	Spread (bps)	Coupon	Yield	UST	Spread (bps)
Maturity																
2016													0.945%	0.945%	2 Yr.	+20
2017	0.917%	0.917%	2 Yr.	+25	1.000%	1.050%	2 Yr.	+40	1.021%	1.021%	2 Yr.	+40	0.995%	0.995%	2 Yr.	+25
2018	1.000%	1.037%	2 Yr.	+37	1.125%	1.350%	2 Yr.	+70	1.221%	1.221%	2 Yr.	+60	1.095%	1.095%	2 Yr.	+35
2019	1.125%	1.280%	3 Yr.	+50	1.375%	1.600%	3 Yr.	+80	1.473%	1.473%	3 Yr.	+75	1.320%	1.320%	3 Yr.	+45
2020	1.250%	1.540%	5 Yr.	+47	1.625%	1.800%	5 Yr.	+75	1.500%	1.721%	5 Yr.	+70	1.649%	1.649%	5 Yr.	+45
2021	1.500%	1.750%	5 Yr.	+68	1.75%/2.00%	2.000%	5 Yr.	+95	1.921%	1.921%	5 Yr.	+90	1.899%	1.899%	5 Yr.	+70
2022	2.000%	2.023%	7 Yr.	+67	2.000%	2.200%	7 Yr.	+90	2.000%	2.129%	7 Yr.	+85	2.011%	2.061%	7 Yr.	+60
2023	2.000%	2.203%	7 Yr.	+85	2.125%	2.350%	7 Yr.	+105	2.329%	2.329%	7 Yr.	+105	2.261%	2.261%	7 Yr.	+80
2024	2.125%	2.342%	10 Yr.	+80	2.250%	2.450%	10 Yr.	+95	2.470%	2.470%	10 Yr.	+100	2.482%	2.482%	10 Yr.	+80
2025	2.250%	2.472%	10 Yr.	+93					2.620%	2.620%	10 Yr.	+115	2.632%	2.632%	10 Yr.	+95
2026	2.375%	2.612%	10 Yr.	+107					2.720%	2.720%	10 Yr.	+125	2.732%	2.732%	10 Yr.	+105
2027	2.500%	2.742%	10 Yr.	+120					2.820%	2.820%	10 Yr.	+135	2.832%	2.832%	10 Yr.	+115
2028	2.750%	2.942%	10 Yr.	+140									2.932%	2.932%	10 Yr.	+125
2029	3.000%	3.092%	10 Yr.	+155									3.032%	3.032%	10 Yr.	+135
2030	3.000%	3.192%	10 Yr.	+165												
2031	3.000%	3.292%	10 Yr.	+175					3.270%	3.270%	10 Yr.	+180				
2032																
2033																
2034																
2035	3.375%	3.521%	30 Yr.	+122												
2036									3.746%	3.746%	30 Yr.	+148				
2037																
2038																
2039																
2040	3.375%	3.581%	30 Yr.	+128					4.066%	4.066%	30 Yr.	+180				
2041																

## “AA” Taxable TAB vs. Agency Bullet

- Historical statistics as of the sale date for each issue
- Liquidity and credit risk vs. yield

Security:	Taxable TAB LA County CRA	Agency Bond
Issuer:	LA County CRRA	Fannie Mae
Sale Date:	8/4/2016	8/17/2016
Issue Size:	\$251mm	\$3.5bn
Maturity Size:	\$11.5mm	\$3.5bn
Ratings:	Aa3/AA/---	Aaa/AA+/AAA
Maturity:	9/1/2021	8/17/2021
Call Status:	Non-callable	Non-callable
Offering Yield:	1.698%	1.334%
On the Run Spread:	+67 bps	+20 bps
G-Spread:	+66 bps	+20 bps
Duration:	4.85	4.86

Source: Bloomberg

- **Liquidity**

- “5 years and in” and “ultra-high” quality remains very liquid
- Even after election and resulting volatility taxable munis did not experience same volatility as tax-exempt munis due to uncertainty
- Name recognition
- Investor behavior

- **Spreads**

- Dependent on credit quality and relative spreads for corporate and agency bonds
- State of issuer also a factor, but to a lesser extent

- **Taxable “AAA” Maryland State GO**

- \$400,000,000 First Series A BABs, Series 2010
- Mid March 2017 bid/ask spread on 590m maturity 2021 was 6 basis points
- Investors like to “buy and put it away” – may factor into perception of liquidity

- **Bond insurers overview**

- Guarantee payment of debt service to investors – “credit enhancement”
- Issuer pays premium, but benefits from lower interest rates
- Bond’s price buoyed by insurer’s rating
- In 2016, 6% of issuance insured
  - In 2005, 57% of issuance insured
- No longer any active “AAA” insurers

- **Active bond insurers**

- AGM (Assured Guaranty Municipal)
- BAM (Build America Mutual)
- National (National Public Finance Guarantee)





## References

- **US Treasury Rates & Market News: Bloomberg**  
<http://www.bloomberg.com/markets/rates-bonds/government-bonds/us>
- **California Public Finance Education: CDIAC**  
<http://www.treasurer.ca.gov/cdiac/>
- **California Municipal Treasurers Association**  
<https://cmta.site-ym.com/?page=27>
- **Municipal Securities Glossary: MSRB**  
<http://www.msrb.org/glossary.aspx>
- **Municipal Securities: EMMA**  
<http://emma.msrb.org/>

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