

CDIAC

CALIFORNIA
DEBT AND
INVESTMENT
ADVISORY
COMMISSION

THE PUBLIC INVESTMENT PORTFOLIO: WHEN IT MAKES SENSE TO BUY MUNICIPALS

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June 24, 2015

10:00 AM – 11:45 AM

Disclaimer

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The information presented in this webinar series is intended to assist public investment professionals. The content presented is informational and does not constitute investment advice or the recommendation to invest in any or all of the investment instruments discussed. When choosing an investment instrument for a public portfolio, the whole portfolio, investment policy, suitability, financial needs of the public agency and any associated risks should be considered. In addition, the information in each webinar is set to reflect the period in time in which it is presented and any changes that may affect any of the instruments discussed, such as legislation, reform or market conditions, or that may alter the relevancy of any of these webinars, will not be reflective in the post archival recordings. In such instances, viewers should be advised to use the information only as a reference as no updates to the recordings will be made. Please consult the California Debt and Investment Advisory Commission's publication *Local Agency Investment Guidelines* for any interpretive updates.



Introduction

LAIG* Allowable Investment Table

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Investment Type	Maximum Maturity ^C	Maximum Specified Percentage of Portfolio ^D	Minimum Quality Requirements
Local Agency Bonds✓	5 years	None	None
U.S. Treasury Obligations	5 years	None	None
State Obligations –✓ CA and Others	5 years	None	None
CA Local Agency Obligations✓	5 years	None	None
U.S. Agency Obligations	5 years	None	None
We are covering those investments listed above with the ✓ (munis). The complete table from the LAIG is available on the next slide.			

*Local Agency Investment Guidelines, CDIAC Publication, 2015

LAIG Allowable Investment Table

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□ 2015 LAIG

□ Figure 1, page 14

LAIG Allowable Investment Table

INVESTMENT TYPE	MAXIMUM MATURITY ^C	MAXIMUM SPECIFIED % OF PORTFOLIO ^D	MINIMUM QUALITY REQUIREMENTS
Local Agency Bonds	5 years	None	None
U.S. Treasury Obligations	5 years	None	None
State Obligations—CA and Others	5 years	None	None
CA Local Agency Obligations	5 years	None	None
U.S. Agency Obligations	5 years	None	None
Bankers' Acceptances	180 days	40% ^E	None
Commercial Paper— Pooled Funds ^I	270 days	40% of the agency's money ^G	"A-1" If the issuer has issued long-term debt, it must be rated "A" without regard to modifiers ^H
Commercial Paper— Non-Pooled Funds ^F	270 days	25% of the agency's money ^G	"A-1" If the issuer has issued long-term debt, it must be rated "A" without regard to modifiers ^H
Negotiable Certificates of Deposit	5 years	30% ^J (combined with placement service CDs)	None
Non-negotiable Certificates of Deposit	5 years	None	None
Placement Service Deposits	5 years	30% ^J (inclusive of placement service CDs)	None
Placement Service Certificates of Deposit	5 years	30% ^J (combined with negotiable CDs)	None
Repurchase Agreements	1 year	None	None
Reverse Repurchase Agreements and Securities Lending Agreements	92 days ^K	20% of the base value of the portfolio	None ^L
Medium-Term Notes ^M	5 years	30%	"A" Rating
Mutual Funds And Money Market Mutual Funds	N/A	20% ^N	Multiple ^{O,P}
Collateralized Bank Deposits	5 years	None	None
Mortgage Pass-Through Securities	5 years	20%	"A" Rating ^Q
County Pooled Investment Funds	N/A	None	None
Joint Powers Authority Pool	N/A	None	Multiple ^R
Local Agency Investment Fund (LAIF)	N/A	None	None
Voluntary Investment Program Fund ^S	N/A	None	None
Supranational Obligations ^T	5 years	30%	"AA" Rating

Table of Notes

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- 2015 LAIG
- Notes for Figure 1, page 15

TABLE OF NOTES FOR FIGURE 1

^A Sources: Sections 16340, 16429.1, 53601, 53601.8, 53635, 53635.2, 53635.8, and 53638.

^B Municipal Utilities Districts have the authority under the Public Utilities Code Section 12871 to invest in certain securities not addressed here.

^C Section 53601 provides that the maximum term of any investment authorized under this section, unless otherwise stated, is five years. However, the legislative body may grant express authority to make investments either specifically or as a part of an investment program approved by the legislative body that exceeds this five year maturity limit. Such approval must be issued no less than three months prior to the purchase of any security exceeding the five-year maturity limit.

^D Percentages apply to all portfolio investments regardless of source of funds. For instance, cash from a reverse repurchase agreement would be subject to the restrictions.

^E No more than 30 percent of the agency's money may be in bankers' acceptances of any one commercial bank.

^F "Select Agencies" are defined as a "city, a district, or other local agency that do[es] not pool money in deposits or investment with other local agencies, other than local agencies that have the same governing body."

^G Local agencies, other than counties or a city and county, may purchase no more than 10 percent of the outstanding commercial paper of any single issuer.

^H Issuing corporation must be organized and operating within the U.S. and have assets in excess of \$500 million.

^I "Other Agencies" are counties, a city and county, or other local agency "that pools money in deposits or investments with other local agencies, including local agencies that have the same governing body." Local agencies that pool exclusively with other local agencies that have the same governing body must adhere to the limits set for "Select Agencies," above.

^J No more than 30 percent of the agency's money may be invested in deposits, including CDs, through a placement service. No more than 30 percent of the agency's money may be invested in CDs through a placement service and negotiable CDs. Sections 53601.8, 53635.8, and 53601(i). Excluding purchases of certificates of deposit pursuant to section(s) 53601.8 and 53635.8, no more than 10 percent of the agency's money may be invested with any one private sector entity that assists in the placement of deposits.

^K Reverse repurchase agreements or securities lending agreements may exceed the 92-day term if the agreement includes a written codicil guaranteeing a minimum earning or spread for the entire

period between earning or spread for the entire period between the sale of a security using a reverse repurchase agreement or securities lending agreement and the final maturity dates of the same security.

^L Reverse repurchase agreements must be made with primary dealers of the Federal Reserve Bank of New York or with a nationally or state chartered bank that has a significant relationship with the local agency. The local agency must have held the securities used for the agreements for at least 30 days.

^M "Medium-term notes" are defined in Section 53601 as "all corporate and depository institution debt securities with a maximum remaining maturity of five years or less, issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States"

^N No more than 10 percent invested in any one mutual fund.

^O A mutual fund must receive the highest ranking by not less than two nationally recognized rating agencies or the fund must retain an investment advisor who is registered with the SEC (or exempt from registration), has assets under management in excess of \$500 million, and has at least five years experience investing in instruments authorized by Sections 53601 and 53635.

^P A money market mutual fund must receive the highest ranking by not less than two nationally recognized statistical rating organizations or retain an investment advisor registered with the SEC or exempt from registration and who has not less than five years experience investing in money market instruments with assets under management in excess of \$500 million.

^Q Issuer must be rated in category "AA", or its equivalent or better as provided by a nationally recognized rating agency.

^R A joint powers authority pool must retain an investment advisor who is registered with the SEC (or exempt from registration), has assets under management in excess of \$500 million, and has at least five years experience investing in instruments authorized by Section 53601, subdivisions (a) to (o).

^S Local entities can deposit between \$200 million and \$10 billion into the Voluntary Investment Program Fund, upon approval by their governing bodies. Deposits in the fund will be invested in the Pooled Money Investment Account.

^T Only those obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development (IBRD), International Finance Corporation (IFC), and Inter-American Development Bank (IADB).

City of Sacramento Investment Pool A

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- **Strategy...**
- The Fund seeks to maximize the level of current income consistent with the preservation of principal while meeting the liquidity needs of the City and the pooled investors. The Fund is invested pursuant to the prudent person standards and the California Code Section 53601 (GC 53601).

Investment Pool A Monthly Review-May

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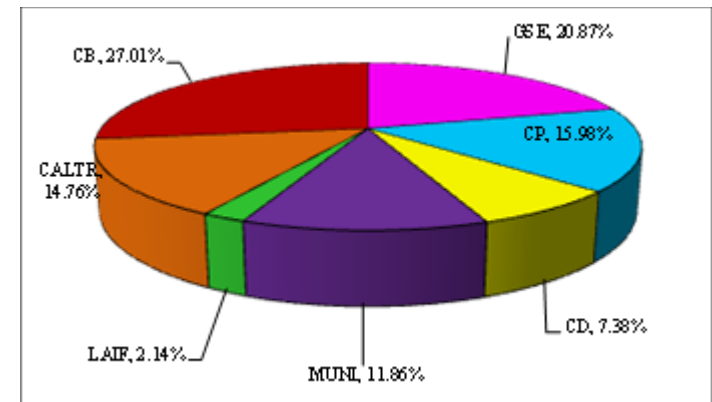
□ Portfolio Statistics

Portfolio's Beginning Balance	889,079,646
Earned Interest Yield for the Month	0.96%
Weighted Average Maturity (Yrs)	2.14
Estimated Duration (Yrs)	2.06
Historical Book Value	936,037,688
Month-End Market Value	935,430,841
Percent of Market to Book Value	99.94%
Earned Interest for the Month	751,228
Earned Interest for FYTD	8,896,072

External third party Investment Managers

State Treasurer's Office (LAIF)	20,000,000
CalTrust	133,075,082

□ Portfolio by asset class



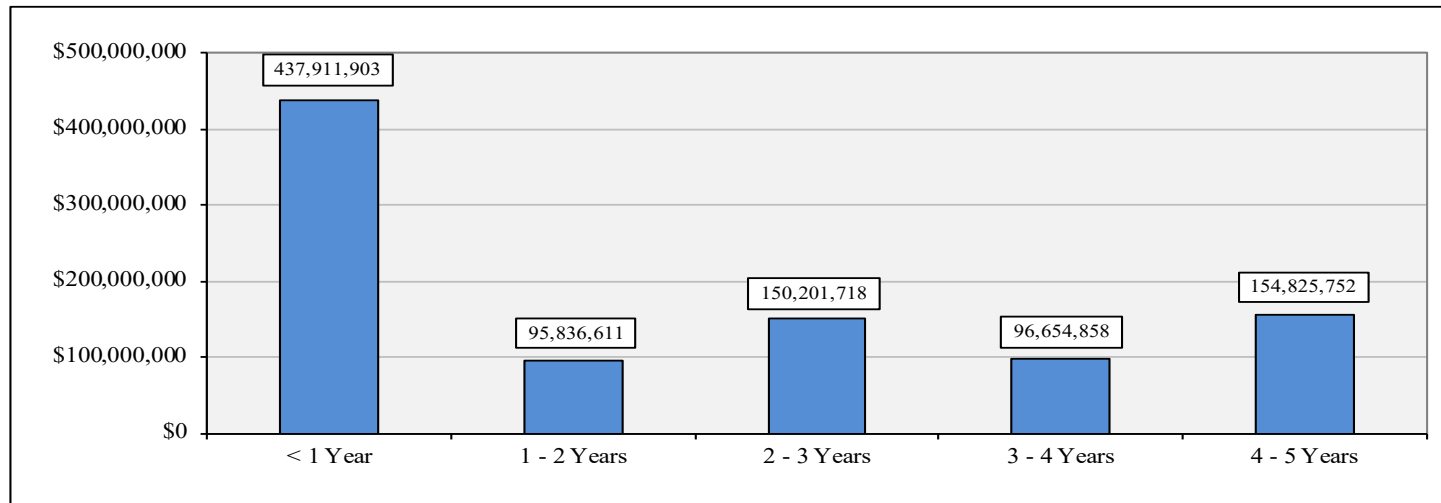
Investment Description	Portfolio at Cost	Yield at Month End
US Agency Notes (GSE)	20.87%	1.66%
Commercial Paper (CP)	15.98%	0.28%
Certificates of Deposit (CD)	7.38%	0.59%
Municipals	11.86%	2.39%
LAIF	2.14%	0.29%
CalTrust	14.76%	0.60%
Corporate Bonds (CB)	27.01%	2.03%

Investment Pool A Monthly Review-May

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□ Maturity Schedule

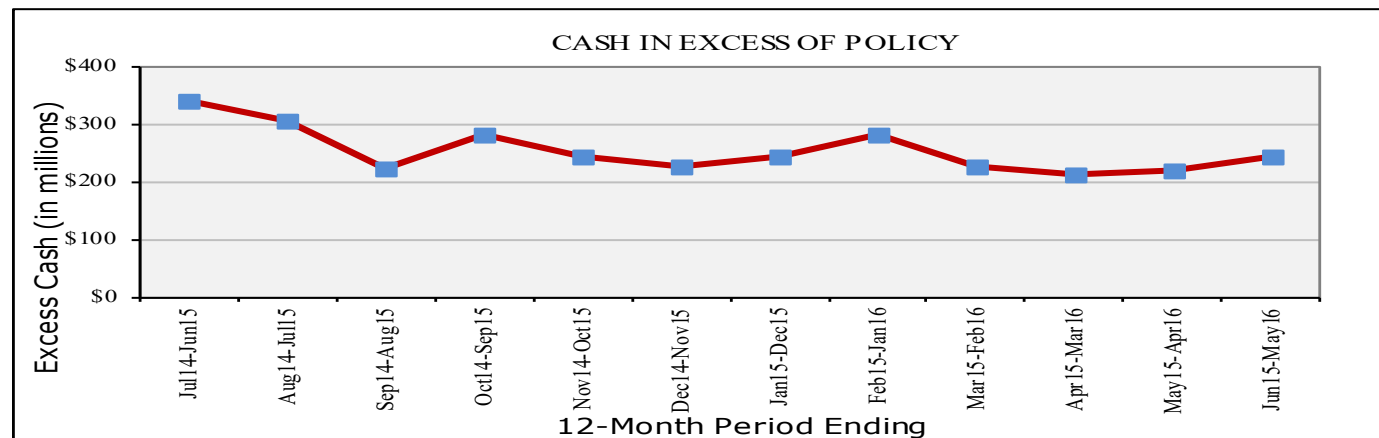
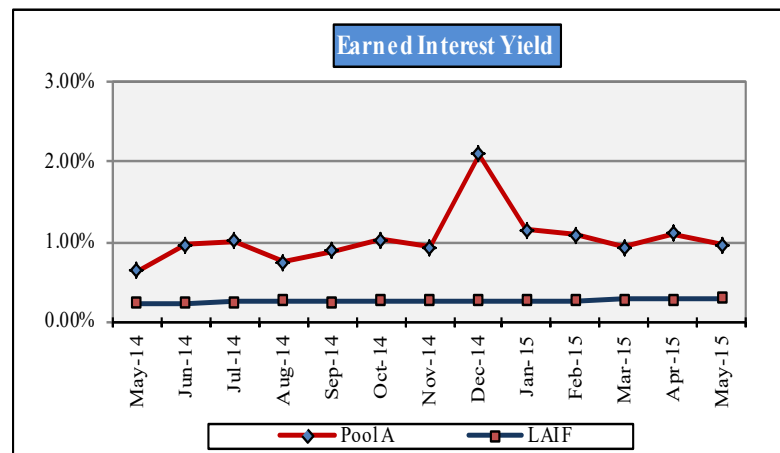
Maturity	Market Value	%
< 1 Year	437,911,903	46.81%
1 - 2 Years	95,836,611	10.25%
2 - 3 Years	150,201,718	16.06%
3 - 4 Years	96,654,858	10.33%
4 - 5 Years	154,825,752	16.55%
Total	935,430,842	100.00%



Monthly Highlights

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Earned Interest Yield		
Month	Pool A	LAIF
May-14	0.64%	0.23%
Jun-14	0.97%	0.23%
Jul-14	1.01%	0.24%
Aug-14	0.75%	0.26%
Sep-14	0.88%	0.25%
Oct-14	1.02%	0.26%
Nov-14	0.94%	0.26%
Dec-14	2.10%	0.27%
Jan-15	1.15%	0.26%
Feb-15	1.08%	0.27%
Mar-15	0.94%	0.28%
Apr-15	1.11%	0.28%
May-15	0.96%	0.29%
FYTD	1.08%	0.27%



Monthly Highlights

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- Core fixed income markets fell in May, as measured by the Barclays Citigroup Aggregate Index's -0.2% return.
- Spread sectors in the index posted mixed results. ABS and agencies posted the greatest excess returns relative to Treasuries. The U.S. Treasury yield curve steepened during May as the 30-year Treasury yield increased 10 bps to 2.9% and the 10-year yield increased 4 bps to 2.1%.
- Yields rose in response to signs of reacceleration in U.S. economic activity, as housing activity outpaced projections and employment increases rebounded in April.
- During the month the Pool received \$64 million in property tax receipts from the county. In addition \$12 million was paid out to fund city debt payments.
- We are beginning to see short term rates creep up as economic data and Fed watchers are predicting a Fed move before year end. This has translated into a bump in the yields that we are getting in our commercial paper and other short-term paper.
- Given this we are beginning to add yield in the 3 – 5 year maturity ranges that will help the Pool, specifically in the credit sectors.
- As you can see from the from the “Cash in Excess of Policy” graph on previous slide, we have slightly drawn down the available cash and invested it, to take advantage of the move in rates. As has been the case we will take a strategic approach to extending the duration of the portfolio.

City of Sacramento Investment Policy Objectives

- **II. Objectives**
- **A. Primary Objectives**
- The primary objectives of investment activities, in order of priority, are safety, liquidity, and yield:
- **1. Safety**
- Safety of principal is the foremost objective of the investment program. Investments shall be undertaken in a manner that seeks to ensure the preservation of capital in the overall portfolio. The objective is to mitigate credit risk and interest rate risk.
- **(a) Credit Risk.** Credit risk is the risk of loss due to the failure of the security issuer or backer. The City will minimize credit risk by:
 - (i) Limiting investments to the types of securities listed in Section VI of this Investment Policy
 - (ii) Re-qualifying the financial institutions, broker/dealers, intermediaries, and advisers with which the City will do business in accordance with Section IV.
 - (iii) Diversifying the investment portfolio so that the impact of potential losses from any one type of security or from any one individual issuer will be minimized.
- **(b) Interest Rate Risk.** Interest rate risk is the risk that the market value of securities in the portfolio will fall due to changes in market interest rates. The City will minimize interest rate risk by:
 - (i) Structuring the investment portfolio so that securities mature to meet cash requirements for ongoing operations, thereby avoiding the need to sell securities on the open market prior to maturity
 - (ii) Investing operating funds primarily in shorter-term securities, money market mutual funds, the Local Agency Investment Fund ("LAIF") managed by the State of California, or similar investment pools and limiting the average maturity of the portfolio in accordance with this policy.

City of Sacramento Investment Policy Objectives

- **2. *Liquidity***
- The investment portfolio shall remain sufficiently liquid to meet all operating requirements that may be reasonably anticipated. This is accomplished by structuring the portfolio so that securities mature concurrent with cash needs to meet anticipated demands (static liquidity). Furthermore, since all possible cash demands cannot be anticipated, the portfolio should consist largely of securities with active secondary or resale markets (dynamic liquidity). Alternatively, a portion of the portfolio may be placed in money market mutual funds or LAIF which offer same day liquidity for short-term funds.
- The staff of the City Treasurer's Office shall:
 - (i) monitor the City's budget formation and approval process and
 - (ii) actively engage with City staff to assess and manage cash flow needs of the City.

City of Sacramento Investment Policy Objectives

- **3. Yield**
- The investment portfolio shall be designed with the objective of attaining a market rate of return throughout budgetary and economic cycles, taking into account the investment risk constraints and liquidity needs. Return on investment is of secondary importance compared to the safety and liquidity objectives described above. The core of investments is limited to relatively low risk securities in anticipation of earning a fair return relative to the low level of risk being assumed.
- Securities shall generally be held until maturity with the following exceptions:
 - (a) A security with declining value may be sold early to minimize loss of principal.
 - (b) A security swap would improve the quality, yield, or target duration in the portfolio.
 - (c) Liquidity needs of the portfolio require that the security be sold.
 - (d) Where the sale of the security to realize capital gains is advisable in the judgment of the investment officers.


Other Risk Considerations

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- Event Risk-The risk that an issuer will not be able to make a payment because of dramatic and unexpected events like a natural disaster or industrial accident.
- Liquidity Risk-When investors look to leave funds or the market as a whole, funds are forced to liquidate their bonds to produce cash, if they own illiquid issues, the fund may be forced to sell at substantially lower prices than expected.
- Inflation Risk (Purchasing Power Risk)-This risk arises from the decline in value of securities cash flow due to inflation, which is measured in terms of purchasing power.
- Retail outflows-The municipal market is smaller than other fixed income markets and dominated by retail investors; concern over higher rates could see outflows to funds impacting liquidity and market prices.
- Call Risk - The risk to a bondholder that the bond issuer will exercise a callable bond feature and redeem the issue prior to maturity.

Local Agency Bonds

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- Government Code 53601(a) **Bonds issued by the local agency** , including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by the local agency or by a department, board, agency, or authority of the local agency.
- 5-year maximum maturity, no percentage limit.
- In 2008, both the IRS and CA Legislature amended their rules to allow you to own and hold **certain types** of your own debt. Review [CDIAC Brief No. 13-03](#), *Local Agencies Ability to Buy Their Own Debt-A Digest*.

Bonds Issued By **The** Local Agency

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CITY OF SACRAMENTO REVENUE

SACWTR 3.00% 9/1/16*

- SACWTR 3.00 9/1/16
- *Example only; Not an investment for the City of Sacramento
- Issue size: 215,195,000.00; Series 9/1/14 thru 9/1/42
- Series size: 1,645,000.00
- Purpose: Water utility imps.
- Source: Water Revenue; Industry Water & Sewer
- Industry: Water and Sewer
- S&P AA-, Fitch AA-, stable by both rating agencies
- City of Sacramento can't own from a legal standpoint; it affects the tax exempt status; it qualifies as retired debt.

GRAB

786089FY Muni		92 Report	93 Alert	Page 1/11	Description: Municipal
SACRAMENTO CA WTR REVENUE		94 Notes	97 Settings	CUSIP 786089FY3	
Ticker	SACWTR	Cpn 3.000	Maturity 09/01/2016	Dated 03/28/2013	State CA
20 Municipal Bond	22 Series	23 Issuer Description			
Pages	Municipal Bond Information		Trading Information		
1) Bond Info	Issue Type	REVENUE BONDS	1st Settle Dt	03/28/2013	
2) Addtl Info	Ult Borrower	City of Sacramento CA	Settle Dt	06/15/2015	
3) Involved Parties	Maturity Type	NON-CALLABLE	Int Accrual Dt	03/28/2013	
4) Adj Cpn Info	Ext Redemption	NONE	1st Coupon Dt	09/01/2013	
5) Credit Enhance	Coupon	3.000 FIXED	Week of Sale	03/18/2013	
6) Credit Ratings	Prc/Yld @ Iss	107.946/0.650			
7) Call Sched & ERP	Coupon Freq	SEMI-ANNUAL			
8) Put Schedule	Tax Provision	FED & ST TAX-EXEMPT			
9) Sink & Est Sink	Credit Enhancement				
10) Refunding Info					
11) DES Notes					
Quick Links	Bond Ratings				
31) TDH MSRB Trade	S&P'S	AA-	STA		
32) CACS Material Evt	FITCH	AA-	STA		
33) CF Filings					
34) CN Sec News					
35) HDS Holders					
6) Send Bond					

Australia 61 2 9277 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 2015 Bloomberg Finance L.P. SN 576259 H454-793-0 10-Jun-15 13:13:08 EDT GMT-4:00

Buying “own” Debt; Caveat Emptor

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□ Pros


- ▣ You know the politics
- ▣ You know the financials
- ▣ There is no conflict with the IRS on taxable issues

□ Cons:

- ▣ Jeopardize tax-exempt status; IRS exception expired
- ▣ Should seek legal opinion on any transaction
- ▣ Perceived conflict of interest, as issuer-goal is to minimize interest paid, as investor-goal is to maximize interest income

State Obligations-CA

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- Government Code 53601(c) **Registered state warrants or treasury notes or bonds of this state**, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by the state or by a department, board, agency, or authority of the state. 
- 5-year maximum maturity, no percentage limit.
- Current Rating:
 - Fitch A+
 - Moody's (underlying) Aa3
 - Standard & Poor's A+

Bonds of this State

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CA STATE GO

CAS 5.95% 3/1/18

- ❑ CAS 5.95 3/1/18
- ❑ Issue size: 3.4b
- ❑ Purpose: School, Rec and Water Improvements
- ❑ Source: Ad Valorem Property Tax
- ❑ Industry: General Obligation (GO); unlimited taxing authority
- ❑ Moody's (underlying) AA3, S&P A+, and Fitch A+; stable by all three rating agencies
- ❑ Purchased 10/13/13 @116.465; 1.96% yield; 0.65% spread 5y UST

GRAB

13063BFT Muni 92 Report 93 Alert Page 1/11 Description: Municipal

CALIFORNIA ST 94 Notes 97 Settings

TAXABLE-VAR PURP CUSIP 13063BFT4 98 PICK 99

91) SEE DES NOTES Ticker CAS Cpn 5.950 Maturity 03/01/2018 Dated 04/01/2010 State CA

21) Municipal Bond 22) Series 23) Issuer Description

Pages	Municipal Bond Information	Trading Information
1) Bond Info	Issue Type GENERAL OBLIGATION UNLTD	1st Settle Dt 04/01/2010
2) Addtl Info	Ult Borrower State of California	Next Settle Dt 06/04/2015
3) Involved Parties	Maturity Type M-W CALL	Int Accrual Dt 04/01/2010
4) Adj Cpn Info	Ext Redemption NONE	1st Coupon Dt 09/01/2010
5) Credit Enhance	Coupon 5.950 FIXED	Week of Sale 03/22/2010
6) Credit Ratings	Prc/Yld @ Iss 101.030/5.785	Award 03/25/2010 14:30
7) Call Sched & ERP	Coupon Freq SEMI-ANNUAL	First Trade 03/25/2010 16:30
8) Put Schedule	Tax Provision FED TAXABLE/ST TAX-EXEMPT	Make-Whole Information
9) Sink & Est Sink	Credit Enhancement	1st Call Date 04/01/2010
10) Refunding Info		Type ANYTIME
11) DES Notes		Benchmark TREASURY
		Spread (bps) 45.000

Quick Links

31) TDH MSRB Trade

32) CACS Material Evt

33) CF Filings

34) CN Sec News

35) HDS Holders

66) Send Bond


Bond Ratings (Recent Changes)

MOODY'S (Underlyi)	Aa3	STA
S&P'S	A+	POS
FITCH	A+	STA

Australia 61 2 3777 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 2015 Bloomberg Finance L.P. SN 576259 H453-4637-0 01-Jun-15 14:33:35 EDT GMT-4:00

State Obligations-CA

21

- Government Code 53601(c) Registered state warrants or treasury notes or bonds of this state, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by the state or by a department, board, agency, **or authority of the state.** 

Bonds of this State or Authority of the State

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CA STATE-CA EARTHQUAKE AUTH

CASGEN 2.805% 7/1/19

- ❑ CASGEN 2.805 7/1/19
- ❑ California Earthquake Authority (CEA) was created in 1996 by the California Legislature.
- ❑ Publicly managed, privately funded entity
- ❑ Issue Size: 350,000,000.00; Series 7/1/16-7/1/19
- ❑ Series: 250,000,000.00
- ❑ Purpose: Misc.
- ❑ Source: Revenue (misc.)
- ❑ Industry: Miscellaneous
- ❑ Moody's A3, Fitch A; stable by Moody's
- ❑ Purchased 02/27/15 @101.705; 2.3054% yield; 1.50% spread 5y UST

GRAB

13017HAE Muni 92 Report 93 Alert Page 1/11 Description: Municipal
CALIFORNIA ST EARTHQUAKE AUTH 94 Notes 97 Settings
TXBL CUSIP 13017HAE6

Ticker CASGEN Cpn 2.805 Maturity 07/01/2019 Dated 11/06/2014 State CA

21 Municipal Bond	22 Series	23 Issuer Description
Municipal Bond Information		
1) Bond Info	Issue Type	REVENUE BONDS
2) Addtl Info	Ult Borrower	California Earthquake Authority
3) Involved Parties	Maturity Type	SINK
4) Adj Cpn Info	Ext Redemption	NONE
5) Credit Enhance	Coupon	2.805 FIXED
6) Credit Ratings	Prc/Yld @ Iss	100.000/2.805
7) Call Sched & ERP	Coupon Freq	SEMI-ANNUAL
8) Put Schedule	Tax Provision	FED TAXABLE/ST TAX-EXEMPT
9) Sink & Est Sink	Credit Enhancement	
10) Refunding Info		
11) DES Notes		
Trading Information		
	1st Settle Dt	11/06/2014
	1st Coupon Dt	06/04/2015
	1st Accrual Dt	11/06/2014
	1st Coupon Dt	01/01/2015
	Next Sink	07/01/2017@Par
	For \$	40MM
	Average Life	10/03/2018
	Current Factor	1.000000000
	Week of Sale	10/27/2014
	Award	10/28/2014 14:51
	First Trade	10/29/2014 09:00
Bond Ratings		
MOODY'S	A3	STA
FITCH	A	

Quick Links


31) TDH MSRB Trade
32) CACS Material Evt
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 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2015 Bloomberg Finance L.P.
SN 576259 H453-4637-0 01-Jun-15 14:56:29 EDT GMT-4:00

State Obligations-Other States

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- Government Code 53601(d) Registered treasury notes or bonds **of any of the other 49 states in addition to California**, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by a state or by a department, board, agency, or authority of any of the other 49 states, in addition to California. 
- 5-year maximum maturity; no percentage limit.
- Due diligence is paramount.

Bonds of **any of the other** 49 States

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MICHIGAN STATE GO

MIS 0.80% 5/15/15

- ❑ MIS 0.80 5/15/15
- ❑ Issue size: 225,000,000.00; Series 5/13/15-5/15/26.
- ❑ Series size 18,415,000.00
- ❑ Purpose: refunding; school imp
- ❑ Source: Revenue (misc.);
- ❑ Industry: General Obligation (GO); unlimited taxing authority
- ❑ Moody's (underlying AA2), S&P AA-; positive outlook by Moody's and stable by S&P
- ❑ Purchased 04/20/2012 @100; 0.80% yield; 0.38% spread 3y UST

GRAB

5946107R Muni 92 Report 93 Alert Page 1/11 Description: Municipal

MICHIGAN ST 94 Notes 97 Settings

TXBL-REF-SCH LOAN-SER A CUSIP 5946107R2

MATURED Ticker MIS Cpn 0.800 Maturity 05/15/2015 Dated 04/12/2012 State MI

21) Municipal Bond 22) Series 23) Issuer Description

Pages	Municipal Bond Information	Trading Information
1) Bond Info	Issue Type GENERAL OBLIGATION UNLTD	1st Settle Dt 04/12/2012
2) Addtl Info	Ult Borrower State of Michigan	Next Settle Dt N.A.
3) Involved Parties	Maturity Type NON-CALLABLE	Int Accrual Dt 04/12/2012
4) Adj Cpn Info	Ext Redemption NONE	1st Coupon Dt 11/15/2012
5) Credit Enhance	Coupon 0.800 FIXED, OID	Sale Date 04/04/2012
6) Credit Ratings	Prc/Yld @ Iss 99.483/0.970	Award 04/04/2012 12:25
7) Call Sched & ERP	Coupon Freq SEMI-ANNUAL	First Trade 04/04/2012 14:45
8) Put Schedule	Tax Provision FED TAXABLE/ST TAXABLE	
9) Sink & Est Sink	Credit Enhancement	
10) Refunding Info		
11) DES Notes		

Quick Links

Bond Ratings (Recent Changes)
MOODY'S(Underlyi Aa2 POS
S&P'S AA- STA
FITCH NR

66) Send Bond

Australia 61 2 9277 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2877 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 319 2000 Copyright 2015 Bloomberg Finance L.P.
SN 576259 H464-5470-0 26-May-15 15:47:50 EDT GMT-4:00

Bonds of **any of the other** 49 States

25

OHIO STATE BABs

OHSGEN 4.168% 6/15/18

- ❑ OHSGEN 4.168 6/15/18
- ❑ BABs (Build America Bonds), new state infrastructure project revenue
- ❑ Issue size: 136,815,000.00; Series 6/15/15-6/15/21
- ❑ Series size 19,545,000.00
- ❑ Purpose: Public improvements
- ❑ Source: Revenue (misc.)
- ❑ Industry: Non-toll highways
- ❑ Moody's (underlying) AA2, S&P AA, & Fitch A+; stable by all three rating agencies
- ❑ Purchased 08/07/2013 @106.969; 2.625% yield; 1.26% spread 5y UST

GRAB

677581DT Muni 92 Report 93 Alert Page 1/11 Description: Municipal

OHIO ST MAJOR NEW STATE INFRASTRUCTURE PROJ REVENUE 94 Notes 97 Settings

BUILD AMERICA BONDS-TAX DIRECT CUSIP 677581DT4

91 SEE DES NOTES Ticker OHSGEN Cpn 4.168 Maturity 06/15/2018 Dated 05/25/2010 State OH

21 Municipal Bond 22 Series 23 Issuer Description

Municipal Bond Information		Trading Information	
1) Bond Info	Issue Type REVENUE BONDS	1st Settle Dt	05/25/2010
2) Addtl Info	Ult Borrower State of Ohio	Next Settle Dt	05/29/2015
3) Involved Parties	Maturity Type M-W CALL	Int Accrual Dt	05/25/2010
4) Adj Cpn Info	Ext Redemption YES (Type: OPTIONAL)	1st Coupon Dt	12/15/2010
5) Credit Enhance	Coupon 4.168 FIXED	Week of Sale	05/17/2010
6) Credit Ratings	Prc/Yld @ Iss 100.000/4.168	Award	05/18/2010 20:00
7) Call Sched & ERP	Coupon Freq SEMI-ANNUAL	First Trade	05/19/2010 13:45
8) Put Schedule	Tax Provision FED TAXABLE/ST TAX-EXEMPT	Make-Whole Information	
9) Sink & Est Sink	Credit Enhancement	1st Call Date	05/25/2010
10) Refunding Info	Bond Ratings	Type	ANYTIME
11) DES Notes	MOODY'S(Underlyi) Aa2 STA	Benchmark	TREASURY
	S&P'S AA STA	Spread (bps)	20.000
	FITCH A+ STA		

Quick Links

31) TDH MSRB Trade

32) CACS Material Evt

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 2977 6000 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2015 Bloomberg Finance L.P. SN 576259 H464-5470-0 26-May-15 15:56:34 EDT GMT-4:00

Build America Bonds (BABs)

26

- Build America Bonds (BABs) were created under the American Recovery & Reinvestment Act that Obama signed into law on 2/17/2009. They are taxable municipal bonds that carry special tax credits and federal subsidies for either the bond issuer or the bondholder.
- Three types of BABs: 1) **direct-pay, Treasury Dept. provided issuers with cash subsidy payments equal to 35% of their interest costs;** 2) tax-credit, investors received the right to a federal income tax credit equal to 35% of their interest income (all BAB issuance was direct-pay); 3) recovery zone economic development, issuer must spend 100% of the “available project proceeds” for a qualified economic development purpose & more complicated rules.
- The risk to the direct-pay is that the Federal government (through an act of Congress) could reduce or eliminate the subsidy payments at any time during the years that the direct subsidy bonds are outstanding.
- Attempts to revive the program and/or create a similar new one are ongoing.

CA State GO...OH State BABs

27

CA STATE GO

OHIO STATE BABs

GRAB

13063BFT Muni	92 Report	93 Alert	Page 1/11	Description: Municipal
CALIFORNIA ST				
TAXABLE-VAR PURP				
CUSIP 13063BFT4 98 PICK 5				
91) SEE DES NOTES Ticker CAS Cpn 5.950 Maturity 03/01/2018 Dated 04/01/2010 State CA				
21) Municipal Bond 22) Series 23) Issuer Description				
Pages				
Municipal Bond Information				
1) Bond Info	Issue Type	GENERAL OBLIGATION	UNI TD	Trading Information
2) Addtl Info	Ult Borrower	State of California		1st Settle Dt 04/01/2010
3) Involved Parties	Maturity Type	M-W CALL		Next Settle Dt 05/29/2015
4) Adj Cpn Info	Ext Redemption	NONE		Int Accrual Dt 04/01/2010
5) Credit Enhance	Coupon	5.950	FIXED	1st Coupon Dt 09/01/2010
6) Credit Ratings	Prc/Yld @ Iss	101.030/5.785		Week of Sale 03/22/2010
7) Call Sched & ERP	Coupon Freq	SEMI-ANNUAL		Award 03/25/2010 14:30
8) Put Schedule	Tax Provision	FED TAXABLE/ST TAX-EXEMPT		First Trade 03/25/2010 16:30
9) Sink & Est Sink				Make-Whole Information
10) Refunding Info	Credit Enhancement			1st Call Date 04/01/2010
11) DES Notes				Type ANYTIME
Quick Links				
31) TDH MSRB Trade	Bond Ratings (Recent Changes)			Benchmark TREASURY
32) CACS Material Evt	MOODY'S(Underlyi	Aa3	STA	Spread (bps) 45.000
33) CF Filings	S&P'S	A+		
34) CN Sec News	FITCH	A+	STA	
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 2977 6000				
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2015 Bloomberg Finance L.P.				
SN 576259 H464-5470-0 26-May-15 17:48:00 EDT GMT-4:00				

GRAB

677581DT Muni	92 Report	93 Alert	Page 1/11	Description: Municipal
OHIO ST MAJOR NEW STATE INFRASTRUCTURE PROJ REVENUE				
BUILD AMERICA BONDS-TAXABLE-SER 2-DIRECT				
CUSIP 677581DT4				
91) SEE DES NOTES Ticker OHSGEN Cpn 4.168 Maturity 06/15/2018 Dated 05/25/2010 State OH				
21) Municipal Bond 22) Series 23) Issuer Description				
Pages				
Municipal Bond Information				
1) Bond Info	Issue Type	REVENUE BONDS		Trading Information
2) Addtl Info	Ult Borrower	State of Ohio		1st Settle Dt 05/25/2010
3) Involved Parties	Maturity Type	M-W CALL		Next Settle Dt 05/29/2015
4) Adj Cpn Info	Ext Redemption	YES (Type: OPTIONAL)		Int Accrual Dt 05/25/2010
5) Credit Enhance	Coupon	4.168	FIXED	1st Coupon Dt 12/15/2010
6) Credit Ratings	Prc/Yld @ Iss	100.000/4.168		Week of Sale 05/17/2010
7) Call Sched & ERP	Coupon Freq	SEMI-ANNUAL		Award 05/18/2010 20:00
8) Put Schedule	Tax Provision	FED TAXABLE/ST TAX-EXEMPT		First Trade 05/19/2010 13:45
9) Sink & Est Sink				Make-Whole Information
10) Refunding Info	Credit Enhancement			1st Call Date 05/25/2010
11) DES Notes				Type ANYTIME
Quick Links				
31) TDH MSRB Trade	Bond Ratings (Recent Changes)			Benchmark TREASURY
32) CACS Material Evt	MOODY'S(Underlyi	Aa2	STA	Spread (bps) 20.000
33) CF Filings	S&P'S	AA	STA	
34) CN Sec News	FITCH	A+	STA	
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 2977 6000				
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2015 Bloomberg Finance L.P.				
SN 576259 H464-5470-0 26-May-15 15:56:34 EDT GMT-4:00				


CA and OH...current review

28

- CA GO Unlimited rated AA3/A+/A+; OH BABs rated AA2/AA/A+
- OH is a better rated credit and normally, the yield would be less for similar structures. Investors demand more yield to own OH vs. CA
- Purchased OH BABs on 08/07/13 for a 2.625% yield, 1.26% spread 5y UST
- Purchased CA GO on 10/13/13 for 1.96% yield, 0.65% spread 5y UST
- Out-of-state laws may vary; need to know the laws
- Need to know county and city dynamics, Ex. Detroit bankruptcy & how it affected state bond sales along with other local municipalities
- Keep pace with political dynamics that could affect other states

Local Agency Bonds within CA

29

- Government Code 53601(e) **Bonds, notes, warrants, or other evidences of indebtedness of**
 **any local agency within this state**, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by the local agency, or by a department, board, agency, or authority of the local agency.
- 5-year maximum maturity, no percentage limit.

Bonds, notes...of any local agency within this state

30

SAN DIEGO CNTY PENSION OBLG

SDGFAC 5.665% 8/15/17

- ❑ SDGFAC 5.665 8/15/17
- ❑ Issue Size: 454,112,915.70; Series 08/15/2006-08/15/2022
- ❑ Series Size: \$26,505,000.00
- ❑ Purpose: Pension funding
- ❑ Source: Revenue (misc.)
- ❑ Industry: Pension Obligation
- ❑ Moody's (underlying) AA2, Insured AA2, S&P AA+, underlying AA+, Fitch AA+, underlying AA+; stable by all three rating agencies
- ❑ Purchased 01/27/2015 @111.538; 1.052% yield; 0.50% spread 2y UST

GRAB

797398DF Muni 92 Report 93 Alert Page 1/11 Description: Municipal
SAN DIEGO CNTY CA PENS OBLG 94 Notes 97 Settings
TAXABLE-SER A CUSIP 797398DF8

91) SEE DES NOTES Ticker SDGFAC Cpn 5.665 Maturity 08/15/2017 Dated 06/29/2004 State CA

21) Municipal Bond 22) Series 23) Issuer Description

Pages	Municipal Bond Information	Trading Information
1) Bond Info	Issue Type REVENUE BONDS	1st Settle Dt 06/29/2004
2) Addtl Info	Ult Borrower County of San Diego CA	2nd Settle Dt 06/04/2015
3) Involved Parties	Maturity Type M-W CALL	Int Accrual Dt 06/29/2004
4) Adj Cpn Info	Ext Redemption NONE	1st Coupon Dt 08/15/2005
5) Credit Enhance	Coupon 5.665 FIXED	Week of Sale 06/21/2004
6) Credit Ratings	Prc/Yld @ Iss 100.000/5.664	Make-Whole Information
7) Call Sched & ERP	Coupon Freq SEMI-ANNUAL	1st Call Date 06/29/2009
8) Put Schedule	Tax Provision FED TAXABLE/ST TAX-EXEMPT	Type ANYTIME
9) Sink & Est Sink	Credit Enhancement	Benchmark TREASURY
10) Refunding Info	Insurance/Program - NATL	Spread (bps) 12.500
11) DES Notes	Bond Ratings	
	MOODY'S (Underlyi) Aa2 STA	
	Insured Aa2 STA	
	S&P'S AA+ STA	
	Underlying AA+ STA	
	FITCH AA+ STA	
	Underlying AA+ STA	

Quick Links

31) TDH MSRB Trade 32) CACS Material Evt 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 2977 6000 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2015 Bloomberg Finance L.P. SN 576259 H453-4697-0 01-Jun-15 16:15:03 EDT GMT-4:00

Municipal Characteristics

31

- Most are issued with substantially higher coupon (interest rate) than current market.
- “Retail” are the majority of the buyers; looking for tax-free cash flow in most instances.
- Review accounting practices...Do you amortize premiums or “write-off” premium-paid at maturity?
- Credit-political, state, and sector dynamics
- Liquidity varies

Municipal Sectors

32

- ❑ State GO
- ❑ Local GO
- ❑ Water & Sewer
- ❑ Public Power
- ❑ State Housing Finance Agencies
- ❑ Transportation
- ❑ Not-for-profit Hospitals
- ❑ Green Economy

Municipal Types

33

- General Obligation:
 - ▣ GO Unlimited
 - ▣ GO Limited
- Revenue
- Other Taxes:
 - ▣ Special Assessment
 - ▣ Tax Allocation
 - ▣ Special Tax
- Miscellaneous:
 - ▣ Notes: Tax Anticipation Notes (TAN), Bond Anticipation Notes (BAN), Grant Anticipation Notes (GAN) and Tax & Revenue Anticipation Notes (TRAN)
 - ▣ Certificate of Participation (COP)
 - ▣ Warrants
 - ▣ Special Obligation

Sacramento's Selection Process

34

- GOs:
 - ▣ Backed by full faith and credit
 - ▣ Evaluate taxing authority of issuer
 - ▣ Review pension obligations and OPEB status
 - ▣ Hierarchy of debt paybacks

- Financial review:
 - ▣ Official Statements
 - ▣ Rating and rating agency reports
 - ▣ Status of local economy

- Focus types...cash flows:
 - ▣ School district
 - ▣ Airport
 - ▣ Transportation
 - ▣ BABs

Municipal Market Dynamics

35

- Rates peaked in October 2008 (due to the credit crisis); record lows in late 2012 (due to QE).
- Current rates remain below historical averages.
- Redemptions from 2010 through 2014 outpaced new issuance.
- Lipper reported \$380.7 million in outflows from municipal mutual funds for the week ended June 3, the 5th consecutive week of negative flows.

Corporate vs. Municipal Characteristics

36

IBM CORPORATE NOTE

GRAB			
IBM CORP IBM7 % 10/15/18 118.578/118.578 (1.834/1.834) TRAC			
IBM 7 % 10/15/18 Corp Page 1/11 Description: Bond			
94 Notes 99 Buy 99 Sell 97 Settings			
21 Bond Description 22 Issuer Description			
Pages			
1) Bond Info 2) Addtl Info 3) Covenants 4) Guarantors 5) Bond Ratings 6) Identifiers 7) Exchanges 8) Inv Parties 9) Fees, Restrict 10) Schedules 11) Coupons			
Quick Links			
32) ALLQ Pricing 33) QRD Quote Reca 34) TDH Trade Hist 35) CAC Corp Action 36) CF Prospectus 37) CN Sec News 38) HDS Holders 39) VPR Underly Info			
6) Send Bond			
Issuer Information			
Name IBM CORP			
Industry Software & Services			
Security Information			
Mkt Iss Global			
Country US Currency USD			
Rank Sr Unsecured Series			
Coupon 7.625 Type Fixed			
Cpn Freq S/A			
Day Cnt 30/360 Iss Price 99.62800			
Maturity 10/15/2018			
MAKE WHOLE @50 until 10/15/18/BULLET			
Iss Sprd 387.50bp vs T 4 08/15/18			
Calc Type (1)STREET CONVENTION			
Announcement Date 10/09/2008			
Interest Accrual Date 10/15/2008			
1st Settle Date 10/15/2008			
1st Coupon Date 04/15/2009			
CALL @ MAKE-WHOLE +50BP.			
Identifiers			
ID Number EH5890718			
CUSIP 459200GM7			
ISIN US459200GM79			
Bond Ratings			
Moody's Aa3			
S&P AA-			
Fitch A+			
Composite A+			
Issuance & Trading			
Amt Issued/Outstanding			
USD 1,600,000.00 (M) /			
USD 1,600,000.00 (M)			
Min Piece/Increment			
100,000.00 / 1,000.00			
Par Amount 1,000.00			
Book Runner BAS,BCLY,CS,DB			
Reporting TRACE			

OH STATE BABs

GRAB			
677581DT Muni 92 Report 93 Alert Page 1/11 Description: Municipal			
OHIO ST MAJOR NEW STATE INFRASTRUCTURE PROJ REVENUE			
BUILD AMERICA BONDS-TAXABLE-SER 2-DIRECT CUSIP 677581DT4			
91) SEE DES NOTES Ticker OHSGEN Cpn 4.168 Maturity 06/15/2018 Dated 05/25/2010 State OH			
21 Municipal Bond 22 Series 23 Issuer Description			
Pages			
1) Bond Info 2) Addtl Info 3) Involved Parties 4) Adj Cpn Info 5) Credit Enhance 6) Credit Ratings 7) Call Sched & ERP 8) Put Schedule 9) Sink & Est Sink 10) Refunding Info 11) DES Notes			
Quick Links			
31) TDH MSRB Trade 32) CACS Material Evt 33) CF Filings 34) CN Sec News 35) HDS Holders			
6) Send Bond			
Municipal Bond Information			
Issue Type REVENUE BONDS			
Ult Borrower State of Ohio			
Maturity Type M-W CALL			
Ext Redemption YES (Type: OPTIONAL)			
Coupon 4.168 FIXED			
Prc/Yld @ Iss 100.000/4.168			
Coupon Freq SEMI-ANNUAL			
Tax Provision FED TAXABLE/ST TAX-EXEMPT			
Credit Enhancement			
Bond Ratings			
MOODY'S(Underly) Aa2 STA			
S&P'S AA STA			
FITCH A+ STA			
Trading Information			
1st Settle Dt 05/25/2010			
Next Settle Dt 05/29/2015			
Int Accrual Dt 05/25/2010			
1st Coupon Dt 12/15/2010			
Week of Sale 05/17/2010			
Award 05/18/2010 20:00			
First Trade 05/19/2010 13:45			
Make-Whole Information			
1st Call Date 05/25/2010			
Type ANYTIME			
Benchmark TREASURY			
Spread (bps) 20.000			

Perspective on Defaults – \$3.6 Trillion Municipal Market

Defaults have occurred, but at a very small rate relative to the overall municipal market

Payment Defaults	
2008	\$1.6 bn
2009	\$3.4 bn
2010	\$4.3 bn
2011	\$2.4 bn
2012	\$2.7 bn
2013	\$2.8 bn
2014	\$1.5 bn
2015 ³	\$0.3 bn

Comparative default rates for municipal and corporate debt

	Municipal (%)	Corporate (%)
AAA	0.00	1.24
AA	0.05	1.59
A	0.14	3.02
BBB	0.58	6.91
BB	4.58	18.91
B	12.86	31.98
CCC/C ²	41.72	59.28
Investment-Grade	0.20	4.01
Speculative-Grade	9.39	28.17

- Historically, a BBB municipal bond has a cumulative default rate less than a AAA corporate bond
- Credit fundamentals in the municipal market supports attractive risk-adjusted returns
- Credit decision is a large driver of the crossover investment decision

¹For municipal defaults, S&P's study period was Jan. 1, 1986, to Jan. 1, 2015. For corporate defaults, S&P's study period was Jan. 1, 1981 to Jan. 1, 2015.

²For U.S. corporate defaults, S&P's study calculations include all ratings in the C category, from CCC to C.

Source: S&P

³As of 5/8/15. Source: Federal Reserve, Bank of America Merrill Lynch; One of the prior sources was removed due to a methodology change.

Focus on carry and liquidity

38

- Fed expected to move sooner than later on rates
- Patience in building positions; buy on dips
- Invest now with maintain focus on carry (coupon income) and liquidity (cash)
 - ▣ High-quality with above current market coupons
 - ▣ FRNs
 - ▣ Liquid-big names, active trading on the secondary market

QUESTIONS

Public Investment Webinar Series: The Public Investment Portfolio

40

Webinar 4: Money Markets

Part 1: Banker's Acceptances, Commercial Paper

July 8

Part 2: CDs, Deposit Placement Services and
Collateralized Bank Deposits

July 22

Part 3: Repurchase Agreements, Reverse Repos
and Securities Lending

August 5

Webinar 5: Corporates

August 19

Webinar 6: Asset-Backed Securities, Mortgage-Backed Securities and Collateralized Mortgage Obligations

Sept 2

Webinar 7: Mutual Funds, Money Market Mutual Funds and Local Government Pooled Investments

Sept 16

For more information or to register, go to

<http://www.treasurer.ca.gov/cdiac/webinars/2015/portfolio/description.asp>