
SALT LAKE COUNTY

Debt Review Committee

Debt Review Committee Meeting – MINUTES (approved)

Wednesday, February 22, 2017, 2pm - Auditor's Office Conference Room N3-300
Salt Lake County Government Center
2001 South State Street, Salt Lake City, Utah 84190

ATTENDEES

Committee Members Present:

Scott Tingley (Auditor), member, chair
Jon Bronson (Zion's Bank), ex-officio member
Darrin Casper (Mayor's Finance), member
Ralph Chamness (District Attorney), member
K. Wayne Cushing (Treasurer), member
David Delquadro (County Council), member
Cherylann Johnson (Auditor), member
Javaid Majid (Mayor's Finance), member

Other Attendees:

Steve Barnes (District Attorney)
Shanell Beecher (Mayor's Finance)
Brad Kendrick (County Council)
Rod Kitchens (Mayor's Finance)
Jana Ostler (Auditor)
Eric Pehrson (Zion's Bank)
Craig Wangsgard (District Attorney)

Committee Members Absent:

Jason Rose (County Council), member

AGENDA ITEMS

The meeting was called to order by Chairman Tingley at 2:00pm.

1. Public Comment

No public comment.

2. Approval of Minutes – January 25, 2017

Ralph Chamness moved to approve the minutes of the January 25, 2017 minutes as written.
Javaid Majid seconded the motion and all voted in favor.

3. Open Meetings Act Training with Craig Wangsgard

Craig Wangsgard presented a Power Point Presentation outlining the rules for holding, noticing and documenting an open public meeting. It was pointed out that just attending a public meeting does not grant permission to speak to the body. Senate Bill 97 currently under consideration in the Utah legislature would make changes to the open meetings rules, specifically in regard to audio recordings and written minutes.

4. Discuss calendar, structure, distribution list, parameters, etc. for General Obligation Bonds, Series 2017

Jon Bronson discussed revisions made to the Draft Calendar for the General Obligation (Parks and Open Space) Bonds. A draft calendar was distributed as well as a report including the Debt

Service Schedule. A discussion ensued regarding the timing of the initial bond payment and the length of amortization. Darrin Casper and Wayne Cushing affirmed that the County would prefer to schedule principal payments for December 15th rather than June 15th, and would also like to shorten the bond period from 12 years to closer to 10 years. Jon Bronson will work with Eric Pehrson on getting the schedule re-worked according to how the County would like it, taking into consideration the election question language. Jon Bronson also suggested that Blake Wade from Gilmore & Bell (Bond Counsel for this issuance) be invited to the next Debt Review Committee meeting to discuss these issues.

5. Discuss calendar, structure, distribution list, parameters, etc. for Sales Tax Revenue (TRCC) Bonds, Series 2017

Jon Bronson discussed the Sales Tax Revenue (TRCC) Bonds which are a new indenture collateralized by the TRCC revenues. This would not be like any other sales tax revenue bonds that the County has issued. Mr. Bronson reviewed changes made to the calendar since last DRC meeting. The due date for underwriter proposals was changed to March 6. The underwriter selection committee will meet on March 27 at 3:00pm in room 4600. Members to serve on that committee were discussed and those chosen are listed in item 6 below.

The rating presentation will take place in San Francisco on May 10, 11, and 12. These are the same dates as the General Obligation Bond rating presentation. Darrin Casper and Dave Delquadro will let Mr. Bronson know who will be attending those presentations. The negotiated sale will be on June 22, with the closing on July 11th. The Bond Counsel for this bond is Chapman and Cutler. Jon Bronson presented a proposed debt service schedule showing the first interest payment due in February of 2018 and the first principal payment due in August of 2018. The bond is structured with level amortization for 20 years, but this could be adjusted. There was a short discussion regarding what to do with the premium. Eric Pehrson will need information regarding tax revenue from Mayor's Finance staff to do research. Jon Bronson addressed the need to decide on coverage covenants and Additional Bonds Test covenants. 2 times coverage is strong and enhances our credit. Darrin Casper feels that 2 times would be appropriate. It was suggested that coverage would probably be more like 8 times, which would warrant a AAA rating rather than AA+, which is the rating that Mr. Bronson originally had it set as.

Jon Bronson reviewed the draft calendar for the Tax Anticipation Notes. The calendar has been accelerated by about 1 month. Darrin Casper has a conflict with the Due Diligence meeting date. Jon Bronson will adjust the dates and Shanell Beecher indicated that her staff would be able to provide March cashflow numbers and possibly April numbers by about May 24. The Note Counsel is still to be decided.

6. Underwriter Selection Committee for TRCC Bonds chosen from Debt Review Committee membership

The following were asked or volunteered to serve on the Underwriter Selection Committee for the TRCC Bond; Scott Tingley, Darrin Casper, Wayne Cushing, David Delquadro, Javaid Majid, and Steve Barnes (from the DA's office serving as a non-scoring member).

7. Update from District Attorney's Office regarding IS contracts discussed on January 25, 2017. Recommendations for Policy clarifications regarding criteria for contracts requiring Debt Review Committee review

Craig Wangsgard from the DA's office gave a follow up report about the IS contracts discussed at the previous DRC meeting. The contract that triggered the discussion was the Key Bank financing statement. IS and their attorney went back to Key Bank to discuss a non-funding provision. Key Bank's position is that the financing was subject to a master agreement that had a non-funding agreement in it. The two other IS contracts discussed were procured pursuant to a state contract. One of those contracts has a non-funding provision in it. There were a couple of problems with the way the contract ended up, so the DA will work with Darrin Casper to develop a process that will prevent those problems in the future. The other contract has a termination for convenience provision, which is not perfect, but is sufficient for our purposes. Dave Delquadro asked if, in regard to the first contract, there is a "reclama" (defined by Merriam-Webster as "to request the reconsideration of a decision or a change in policy") in terms of the fact that they have monetized and sold it. Craig Wangsgard responded that the County signed the financing agreement after the supplier monetized it and sold it, and that the contract is subject to the non-funding agreement in the master agreement.

8. Financial Advisor Updates

Jon Bronson presented the pricing booklet for the Sales Tax Revenue Bonds that were sold on February 15, 2017. Raymond James and Robert W Baird & Co were low-bid winners on 2017A and 2017B respectively. Compared to other comparable deals, the County deals were excellent, due in part to the County's AAA ratings. The sale was good overall. It is recommended that we keep this booklet for referencing all needed information about these bonds.

Jon Bronson shared handouts containing market information. Market Outlook and rate sheets show that there has been a strong movement upward in rates over the past 6 months. Rates are moving up but the market is handling the volume. Comments by Chairwoman Yellen and better-than-expected economic data prompted the market to predict a rate hike in May.

Jon Bronson reviewed Utah legislation progress. HB 55 would capture certain entities to follow Open Meetings Act rules that don't currently have to follow them. This would affect some county affiliated entities. HB 314 Election Law revisions affects absentee ballots. This would likely be disliked by the clerk. HB 324 would require government entities using social media to post notices of budget hearings on that media site. HB 364 is being called the "Gary Ott" bill because it allows for removal of local elected officials from office.

9. Other

Dave Delquadro is interested in exploring how Pay For Success money could be invested better. It currently is making a very low interest rate. He was unsure of where to bring up this issue besides in Debt Review Committee.

A motion to adjourn was made and seconded. All were in favor and the meeting adjourned at 3:27pm.

Salt Lake County, Utah
Debt Review Committee Meeting
February 22, 2017

Calendaring and Structuring Discussion

General Obligation (Parks and Open Space) Bonds

1. First issuance from 2016 authorization
2. Review Draft Calendar:
 - a. Eliminated public hearing on April 4th (still need one for TRCC issue)
 - b. Rating presentation May 10, 11, 12 in SF
 - c. Closing could be anywhere from June 15-21 (12 yr amortization)
 - d. Bond Counsel is Gilmore & Bell
3. Parameters Resolution:
 - a. Delegated Officers: Mayor, CFO, Treasurer
 - b. \$45 million; 5.5%, 2% discount, 12 year max maturity (from election question)
4. Structure:
 - a. First interest payment date = December 15, 2017
 - b. First principal payment date = June 15, 2018
 - c. Final principal payment date = June 15, 2029 (almost exactly 12 years from closing)
 - d. What to do with \$4.8 million premium

Sales Tax (TRCC) Revenue Bonds

1. New Indenture
2. Review Draft Calendar:
 - a. Changed due date for underwriter proposals to March 6th
 - b. Underwriter selection committee to meet on March 27th (Members?)
 - c. Rating presentation May 10, 11, 12 in SF
 - d. Negotiated sale on June 22nd (keeping an eye on the State of Utah GO Sale)
 - e. Closing on July 11th
 - f. Bond Counsel is Chapman and Cutler
3. Structure:
 - a. Level amortization
 - b. First interest payment date = February 1, 2018
 - c. First principal payment date = August 1, 2018
 - d. Final principal payment date = August 1, 2037 (20 years and 20 days from closing)
 - e. What to do with premium
 - f. Coverage covenants and Additional Bonds Test covenants

Tax Anticipation Notes

1. Review Draft Calendar:

- a. Accelerated calendar by 1 month (22 days)
- b. Cash Flows produced by May 31st
- c. Plan presented to County Council at regular June 13th Council meeting
- d. Due diligence meeting on June 14 (not a regular DRC date)
- e. Rating conference call the week of June 26th
- f. Closing on August 2nd (last year was August 24th)
- g. Note Counsel TBD

Calendar of Events

Salt Lake County, Utah General Obligation Bonds, Series 2017

\$45,000,000*
as of February 22, 2017

January 2017

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

February 2017

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March 2017

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19	20	21	22	23	24	25
26	27	28	29	30	31	

Day	Date	Event	Responsibility
Wednesday	January 25	Draft Calendar of Events is distributed to working group.	MA
Wednesday	February 15	Bond Counsel distributes draft Parameters Resolution to the working group.	BC
Wednesday	February 22	Regular DRC Meeting –discuss calendar, structure, distribution list, parameters, etc. (2:00 p.m. – location TBD)	DRC, DDA, MA, BC
Wednesday	March 1	Parameters Resolution is placed on Council Agenda for March 7th meeting.	BC, CL
Tuesday	March 7	County Council Meeting to consider Adoption of Parameters Resolution. (Council Chambers – 4:00 p.m.).	ALL
Monday	March 13	“Notice of Bonds to be Issued” is published in <i>The Salt Lake Tribune</i> and <i>The Deseret News</i> .	BC
Monday	March 20	Second publication of the “Notice of Bonds to be Issued” in <i>The Salt Lake Tribune</i> and <i>The Deseret News</i> . (Begins 30-day contest period.)	BC
Monday	April 17	Draft Preliminary Official Statement is distributed to the working group for review.	MA
Thursday	April 20	30-day contest period expires.	NA
Wednesday	April 26	Due Diligence meeting to review POS. (2:00 pm – Utah time)	DRC, BC, MA
Tuesday	May 2	Revised POS is distributed to working group.	MA
Tuesday	May 2	Rating package is sent to rating agencies.	MA

* Preliminary; subject to change

April 2017

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May 2017

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21	22	23	24	25	26	27
28	29	30	31			

June 2017

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				1	2	3
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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Day	Date	Event	Responsibility
Friday	May 5	Rating rehearsal meeting. (2:00 pm – Darrin Casper's office)	By Invitation
Week of	May 8	Rating presentations in San Francisco (11 th & 12 th)	By Invitation
Friday	May 19	Receive ratings.	MA
Friday	May 19	POS distributed to the market.	MA
Wednesday	May 31	Competitive Bond Sale - 9:30 am (Office of Zions Public Finance).	DRC, MA
Wednesday	May 31	Award by delegated authority. (No later than 2:30 p.m.)	CFO
Wednesday	June 7	Bond Counsel distributes draft final bond documents.	BC
Monday	June 12	Pre-closing (Time and location TBD)	By Invitation
Wednesday	June 21	Bond closing; delivery of bond proceeds. (Offices of Bond Counsel – 9:00 a.m.)	ALL

LEGEND

AU	County Auditor	Scott Tingley
BC	Bond Counsel.....	Gilmore & Bell
CC	County Council.....	Steve DeBry, Chair
CFO	Chief Financial Officer/Deputy Mayor.....	Darrin Casper
CL	County Clerk	Sherrie Swensen
CAO	Chief Administrative Officer.....	Erin Litvak
CT	County Treasurer	Wayne Cushing
DDA	Deputy District Attorney	Ralph Chamness, Craig Wangsgard
DRC	Debt Review Committee	Scott Tingley, Chair
M	Mayor	Ben McAdams
MA	Financial Advisor.....	Zions Public Finance, Inc.
U	Underwriters.....	TBD

Salt Lake County, Utah

\$45,000,000 General Obligation Bonds

Series June 21, 2017

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Salt Lake County, Utah

\$45,000,000 General Obligation Bonds

Series June 21, 2017

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	Fiscal Total
06/21/2017	-	-	-	-	-
12/15/2017	-	-	754,604.17	754,604.17	754,604.17
06/15/2018	3,205,000.00	2.000%	780,625.00	3,985,625.00	-
12/15/2018	-	-	748,575.00	748,575.00	4,734,200.00
06/15/2019	3,270,000.00	2.000%	748,575.00	4,018,575.00	-
12/15/2019	-	-	715,875.00	715,875.00	4,734,450.00
06/15/2020	3,335,000.00	2.000%	715,875.00	4,050,875.00	-
12/15/2020	-	-	682,525.00	682,525.00	4,733,400.00
06/15/2021	3,405,000.00	2.000%	682,525.00	4,087,525.00	-
12/15/2021	-	-	648,475.00	648,475.00	4,736,000.00
06/15/2022	3,490,000.00	3.000%	648,475.00	4,138,475.00	-
12/15/2022	-	-	596,125.00	596,125.00	4,734,600.00
06/15/2023	3,600,000.00	3.000%	596,125.00	4,196,125.00	-
12/15/2023	-	-	542,125.00	542,125.00	4,738,250.00
06/15/2024	3,705,000.00	3.000%	542,125.00	4,247,125.00	-
12/15/2024	-	-	486,550.00	486,550.00	4,733,675.00
06/15/2025	3,820,000.00	3.000%	486,550.00	4,306,550.00	-
12/15/2025	-	-	429,250.00	429,250.00	4,735,800.00
06/15/2026	3,975,000.00	5.000%	429,250.00	4,404,250.00	-
12/15/2026	-	-	329,875.00	329,875.00	4,734,125.00
06/15/2027	4,180,000.00	5.000%	329,875.00	4,509,875.00	-
12/15/2027	-	-	225,375.00	225,375.00	4,735,250.00
06/15/2028	4,395,000.00	5.000%	225,375.00	4,620,375.00	-
12/15/2028	-	-	115,500.00	115,500.00	4,735,875.00
06/15/2029	4,620,000.00	5.000%	115,500.00	4,735,500.00	-
12/15/2029	-	-	-	-	4,735,500.00
Total	\$45,000,000.00	-	\$12,575,729.17	\$57,575,729.17	-

Yield Statistics

Bond Year Dollars	\$309,525.00
Average Life	6.878 Years
Average Coupon	4.0629123%
Net Interest Cost (NIC)	2.5787992%
True Interest Cost (TIC)	2.3791331%
Bond Yield for Arbitrage Purposes	2.1994694%
All Inclusive Cost (AIC)	2.4355109%

IRS Form 8038

Net Interest Cost	2.1797783%
Weighted Average Maturity	7.119 Years

Salt Lake County, Utah

\$45,000,000 General Obligation Bonds

Series June 21, 2017

Pricing Summary

Maturity	Type of Bond	Coupon	Yield	Maturity Value	Price	YTM	Call Date	Call Price	Dollar Price
06/15/2018	Serial Coupon	2.000%	0.890%	3,205,000.00	101.084%	-	-	-	3,239,742.20
06/15/2019	Serial Coupon	2.000%	1.060%	3,270,000.00	101.839%	-	-	-	3,330,135.30
06/15/2020	Serial Coupon	2.000%	1.220%	3,335,000.00	102.278%	-	-	-	3,410,971.30
06/15/2021	Serial Coupon	2.000%	1.410%	3,405,000.00	102.277%	-	-	-	3,482,531.85
06/15/2022	Serial Coupon	3.000%	1.620%	3,490,000.00	106.580%	-	-	-	3,719,642.00
06/15/2023	Serial Coupon	3.000%	1.820%	3,600,000.00	106.660%	-	-	-	3,839,760.00
06/15/2024	Serial Coupon	3.000%	2.010%	3,705,000.00	106.419%	-	-	-	3,942,823.95
06/15/2025	Serial Coupon	3.000%	2.230%	3,820,000.00	105.602%	-	-	-	4,033,996.40
06/15/2026	Serial Coupon	5.000%	2.370%	3,975,000.00	121.167%	-	-	-	4,816,388.25
06/15/2027	Serial Coupon	5.000%	2.470%	4,180,000.00	122.263%	-	-	-	5,110,593.40
06/15/2028	Serial Coupon	5.000%	2.550%	4,395,000.00	121.473%	c 2.725%	06/15/2027	100.000%	5,338,738.35
06/15/2029	Serial Coupon	5.000%	2.630%	4,620,000.00	120.690%	c 2.939%	06/15/2027	100.000%	5,575,878.00
Total	-	-	-	\$45,000,000.00	-	-	-	-	\$49,841,201.00

Bid Information

Par Amount of Bonds	\$45,000,000.00
Reoffering Premium or (Discount)	4,841,201.00
Gross Production	\$49,841,201.00
Total Underwriter's Discount (0.550%)	\$(247,500.00)
Bid (110.208%)	49,593,701.00
Total Purchase Price	\$49,593,701.00
Bond Year Dollars	\$309,525.00
Average Life	6.878 Years
Average Coupon	4.0629123%
Net Interest Cost (NIC)	2.5787992%
True Interest Cost (TIC)	2.3791331%

Salt Lake County, Utah

\$45,000,000 General Obligation Bonds

Series June 21, 2017

Sources & Uses

Dated 06/21/2017 | Delivered 06/21/2017

Sources Of Funds

Par Amount of Bonds	\$45,000,000.00
Reoffering Premium	4,841,201.00
Total Sources	\$49,841,201.00

Uses Of Funds

Total Underwriter's Discount (0.550%)	247,500.00
Costs of Issuance	170,000.00
Deposit to Project Construction Fund	49,423,701.00
Total Uses	\$49,841,201.00

Calendar of Events

Salt Lake County, Utah Sale Tax Revenue (TRCC) Bonds, Series 2017

\$53,000,000*
as of February 22, 2017

January 2017

S	M	T	W	T	F	S
1	2	3	4	5	6	7
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February 2017

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March 2017

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12	13	14	15	16	17	18
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26	27	28	29	30	31	

Day	Date	Event	Responsibility
Wednesday	January 25	Draft Calendar of Events is distributed to working group.	MA
Monday	February 6	Bond Counsel is selected by DA's office.	DA
Monday	February 13	Procurement Office distributes Underwriter RFP.	PO, MA
Wednesday	February 15	Bond Counsel distributes draft Parameters Resolution to the working group.	BC
Wednesday	February 22	Regular DRC Meeting –discuss calendar, structure, distribution list, parameters, etc. (2:00 p.m. – location TBD)	DRC, DDA, MA, BC
Wednesday	March 6	Proposals from Underwriters are due. (4:00 pm)	U, PO
Wednesday	March 1	Parameters Resolution is placed on Council Agenda for March 7th meeting.	BC, CL
Tuesday	March 7	County Council Meeting to consider Adoption of Parameters Resolution. (Council Chambers – 4:00 p.m.).	ALL
Monday	March 13	"Notice of Bonds to be Issued and Public Hearing" is published in <i>The Salt Lake Tribune</i> and <i>The Deseret News</i> .	BC
Monday	March 20	Second publication of the "Notice of Bonds to be Issued and Public Hearing" in <i>The Salt Lake Tribune</i> and <i>The Deseret News</i> . (Begins 30-day contest period.)	BC
Monday	March 27	Underwriter selection committee meets to score underwriter proposals and select underwriter. (3:00 pm – Room N4-600)	By Invitation
Tuesday	April 4	Public Hearing during regular Council meeting. (Council Chambers - 4:00 p.m.)	CC, FA, BC

* Preliminary; subject to change

April 2017

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May 2017

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14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

June 2017

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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Day	Date	Event	Responsibility
Monday	April 17	Draft Preliminary Official Statement is distributed to the working group for review.	MA
Thursday	April 20	30-day contest period expires.	NA
Wednesday	April 26	Due Diligence meeting to review POS (3:00 pm – Utah time).	MA
Tuesday	May 2	Revised POS is distributed to working group.	MA
Tuesday	May 2	Rating package is sent to rating agencies.	MA
Friday	May 5	Rating rehearsal meeting. (2:00 pm – Darrin Casper’s office)	By Invitation
Week of	May 8	Rating presentations in San Francisco (11 th & 12 th)	By Invitation
Friday	May 19	Receive ratings.	MA
Tuesday	May 30	POS distributed to the underwriter.	MA
Wednesday	June 21	Pre-Pricing call. (2:30 pm)	By Invitation
Thursday	June 22	Bond Pricing.	All
Thursday	June 22	Award by delegated authority. (No later than 2:30 p.m.)	CFO
Thursday	June 29	Final Official Statement is delivered to the Underwriter.	MA
Thursday	June 29	Bond Counsel distributes draft final bond documents.	BC
Wednesday	July 5	Pre-closing (Time and location TBD)	By Invitation
Tuesday	July 11	Bond closing; delivery of bond proceeds. (Offices of Bond Counsel – 9:00 a.m.)	ALL

LEGEND

AU	County Auditor	Scott Tingley
BC	Bond Counsel.....	Chapman and Cutler
CC	County Council.....	Steve DeBry, Chair
CFO	Chief Financial Officer/Deputy Mayor.....	Darrin Casper
CL	County Clerk	Sherrie Swensen
CAO	Chief Administrative Officer.....	Erin Litvak
CT	County Treasurer	Wayne Cushing
DDA	Deputy District Attorney	Ralph Chamness, Craig Wangsgard
DRC	Debt Review Committee	Scott Tingley, Chair
FA	Financial Advisor.....	Zions Public Finance
M	Mayor.....	Ben McAdams
MA	Municipal Advisor	Zions Public Finance, Inc.
U	Underwriter.....	TBD

Salt Lake County, Utah

\$53,000,000 Sales Tax Revenue (TRCC) Bonds

Series July 11, 2017

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Salt Lake County, Utah

\$53,000,000 Sales Tax Revenue (TRCC) Bonds

Series July 11, 2017

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	Fiscal Total
07/11/2017	-	-	-	-	-
02/01/2018	-	-	1,082,803.47	1,082,803.47	-
08/01/2018	1,775,000.00	2.000%	974,523.13	2,749,523.13	3,832,326.60
02/01/2019	-	-	956,773.13	956,773.13	-
08/01/2019	1,920,000.00	2.000%	956,773.13	2,876,773.13	3,833,546.26
02/01/2020	-	-	937,573.13	937,573.13	-
08/01/2020	1,960,000.00	2.000%	937,573.13	2,897,573.13	3,835,146.26
02/01/2021	-	-	917,973.13	917,973.13	-
08/01/2021	2,000,000.00	3.000%	917,973.13	2,917,973.13	3,835,946.26
02/01/2022	-	-	887,973.13	887,973.13	-
08/01/2022	2,060,000.00	3.000%	887,973.13	2,947,973.13	3,835,946.26
02/01/2023	-	-	857,073.13	857,073.13	-
08/01/2023	2,120,000.00	3.000%	857,073.13	2,977,073.13	3,834,146.26
02/01/2024	-	-	825,273.13	825,273.13	-
08/01/2024	2,185,000.00	5.000%	825,273.13	3,010,273.13	3,835,546.26
02/01/2025	-	-	770,648.13	770,648.13	-
08/01/2025	2,295,000.00	5.000%	770,648.13	3,065,648.13	3,836,296.26
02/01/2026	-	-	713,273.13	713,273.13	-
08/01/2026	2,410,000.00	5.000%	713,273.13	3,123,273.13	3,836,546.26
02/01/2027	-	-	653,023.13	653,023.13	-
08/01/2027	2,530,000.00	5.000%	653,023.13	3,183,023.13	3,836,046.26
02/01/2028	-	-	589,773.13	589,773.13	-
08/01/2028	2,655,000.00	5.000%	589,773.13	3,244,773.13	3,834,546.26
02/01/2029	-	-	523,398.13	523,398.13	-
08/01/2029	2,785,000.00	5.000%	523,398.13	3,308,398.13	3,831,796.26
02/01/2030	-	-	453,773.13	453,773.13	-
08/01/2030	2,925,000.00	3.000%	453,773.13	3,378,773.13	3,832,546.26
02/01/2031	-	-	409,898.13	409,898.13	-
08/01/2031	3,015,000.00	3.125%	409,898.13	3,424,898.13	3,834,796.26
02/01/2032	-	-	362,788.75	362,788.75	-
08/01/2032	3,110,000.00	3.500%	362,788.75	3,472,788.75	3,835,577.50
02/01/2033	-	-	308,363.75	308,363.75	-
08/01/2033	3,220,000.00	3.500%	308,363.75	3,528,363.75	3,836,727.50
02/01/2034	-	-	252,013.75	252,013.75	-
08/01/2034	3,330,000.00	3.500%	252,013.75	3,582,013.75	3,834,027.50
02/01/2035	-	-	193,738.75	193,738.75	-
08/01/2035	3,445,000.00	3.500%	193,738.75	3,638,738.75	3,832,477.50
02/01/2036	-	-	133,451.25	133,451.25	-
08/01/2036	3,565,000.00	3.600%	133,451.25	3,698,451.25	3,831,902.50
02/01/2037	-	-	69,281.25	69,281.25	-
08/01/2037	3,695,000.00	3.750%	69,281.25	3,764,281.25	3,833,562.50
Total	\$53,000,000.00	-	\$23,689,452.98	\$76,689,452.98	-

Yield Statistics

Bond Year Dollars	\$627,389.44
Average Life	11.838 Years
Average Coupon	3.7758769%
Net Interest Cost (NIC)	3.2688670%
True Interest Cost (TIC)	3.1515020%
Bond Yield for Arbitrage Purposes	3.0692924%
All Inclusive Cost (AIC)	3.1938019%

IRS Form 8038

Net Interest Cost	3.0577098%
Weighted Average Maturity	11.687 Years

\$53 STRB (TRCC) 2/22/17 | SINGLE PURPOSE | 2/22/2017 | 10:47 AM

Salt Lake County, Utah

\$53,000,000 Sales Tax Revenue (TRCC) Bonds

Series July 11, 2017

Pricing Summary

Maturity	Type of Bond	Coupon	Yield	Maturity Value	Price	YTM	Call Date	Call Price	Dollar Price
08/01/2018	Serial Coupon	2.000%	1.060%	1,775,000.00	100.983%	-	-	-	1,792,448.25
08/01/2019	Serial Coupon	2.000%	1.230%	1,920,000.00	101.557%	-	-	-	1,949,894.40
08/01/2020	Serial Coupon	2.000%	1.390%	1,960,000.00	101.818%	-	-	-	1,995,632.80
08/01/2021	Serial Coupon	3.000%	1.560%	2,000,000.00	105.637%	-	-	-	2,112,740.00
08/01/2022	Serial Coupon	3.000%	1.770%	2,060,000.00	105.922%	-	-	-	2,181,993.20
08/01/2023	Serial Coupon	3.000%	1.970%	2,120,000.00	105.851%	-	-	-	2,244,041.20
08/01/2024	Serial Coupon	5.000%	2.210%	2,185,000.00	118.133%	-	-	-	2,581,206.05
08/01/2025	Serial Coupon	5.000%	2.380%	2,295,000.00	119.101%	-	-	-	2,733,367.95
08/01/2026	Serial Coupon	5.000%	2.520%	2,410,000.00	119.966%	-	-	-	2,891,180.60
08/01/2027	Serial Coupon	5.000%	2.620%	2,530,000.00	120.918%	-	-	-	3,059,225.40
08/01/2028	Serial Coupon	5.000%	2.700%	2,655,000.00	120.134%	c 2.862%	08/01/2027	100.000%	3,189,557.70
08/01/2029	Serial Coupon	5.000%	2.830%	2,785,000.00	118.873%	c 3.110%	08/01/2027	100.000%	3,310,613.05
08/01/2030	Serial Coupon	3.000%	3.060%	2,925,000.00	99.357%	-	-	-	2,906,192.25
08/01/2031	Serial Coupon	3.125%	3.140%	3,015,000.00	99.829%	-	-	-	3,009,844.35
08/01/2032	Serial Coupon	3.500%	3.270%	3,110,000.00	101.956%	c 3.334%	08/01/2027	100.000%	3,170,831.60
08/01/2033	Serial Coupon	3.500%	3.330%	3,220,000.00	101.441%	c 3.383%	08/01/2027	100.000%	3,266,400.20
08/01/2034	Serial Coupon	3.500%	3.440%	3,330,000.00	100.504%	c 3.461%	08/01/2027	100.000%	3,346,783.20
08/01/2035	Serial Coupon	3.500%	3.490%	3,445,000.00	100.082%	c 3.494%	08/01/2027	100.000%	3,447,824.90
08/01/2036	Serial Coupon	3.600%	3.580%	3,565,000.00	100.166%	c 3.588%	08/01/2027	100.000%	3,570,917.90
08/01/2037	Serial Coupon	3.750%	3.610%	3,695,000.00	101.170%	c 3.667%	08/01/2027	100.000%	3,738,231.50
Total	-	-	-	\$53,000,000.00	-	-	-	-	\$56,498,926.50

Bid Information

Par Amount of Bonds	\$53,000,000.00
Reoffering Premium or (Discount)	3,498,926.50
Gross Production	\$56,498,926.50
Total Underwriter's Discount (0.600%)	\$(318,000.00)
Bid (106.002%)	56,180,926.50
Total Purchase Price	\$56,180,926.50
Bond Year Dollars	\$627,389.44
Average Life	11.838 Years
Average Coupon	3.7758769%
Net Interest Cost (NIC)	3.2688670%
True Interest Cost (TIC)	3.1515020%

Salt Lake County, Utah

\$53,000,000 Sales Tax Revenue (TRCC) Bonds

Series July 11, 2017

Sources & Uses

Dated 07/11/2017 | Delivered 07/11/2017

Sources Of Funds

Par Amount of Bonds	\$53,000,000.00
Reoffering Premium	3,498,926.50
Total Sources	\$56,498,926.50

Uses Of Funds

Total Underwriter's Discount (0.600%)	318,000.00
Costs of Issuance	220,000.00
Deposit to Project Construction Fund	55,960,926.50
Total Uses	\$56,498,926.50

Salt Lake County, Utah
Tax and Revenue Anticipation Notes, Series 2017

Calendar of Events

\$45,000,000*

as of February 22, 2017



May 2017

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

June 2017

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

July 2017

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Day	Date	Event	Responsibility
Wednesday	April 26	Calendar of Events is distributed.	DRC, MA
Monday	May 8	Note Counsel is selected by DA's office.	DA
Wednesday	May 31	Plan of Finance is presented to DRC.	DRC, MA
Wednesday	May 31	Cash flow projections are prepared and the size of the Tax Notes is determined.	MA, DRC
Wednesday	June 7	Plan of Finance with delegated authority is placed on County Council Agenda for June 13th meeting.	NC, CL
Wednesday	June 7	Draft Preliminary Official Statement is distributed to the working group.	MA
Tuesday	June 13	County Council adopts Plan of Finance document with delegated authority.	CC, NC, MA
Wednesday	June 14	Due diligence meeting. (2:00 p.m. – County Offices)	DRC, NC, MA
Friday	June 16	Rating package is sent to Moody's	MA
Week of	June 26th	Rating call with Moody's (2:00 pm – Darrin Casper's Office)	By Invitation
Friday	June 30	Rating is received.	MA
Thursday	July 6	Revised POS is distributed to the market.	MA
Wednesday	July 19	Competitive Sale. (9:30 am – Offices of Zions Public Finance)	DRC, U, MA
Wednesday	July 19	Award made via delegated authority – (by 2:00 p.m.)	CFO, NC, MA

June 2017

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

July 2017

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

August 2017

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Day	Date	Event	Responsibility
Wednesday	July 26	Draft Closing documents are distributed by Note Counsel.	NC
Wednesday	July 26	Final Official Statement is distributed.	MA
Monday	July 31	Pre-closing. (Time and place TBD)	By Invitation
Wednesday	August 2	Closing. (Offices of Note Counsel – 9:00 a.m.)	All

LEGEND

AU	County Auditor	Scott Tingley
CC	County Council.....	Salt Lake County Council Members
CL	County Clerk	Sherrie Swensen
CT	County Treasurer	K. Wayne Cushing
DRC	County Debt Review Committee	Scott Tingley (Chair), Wayne Cushing, Darrin Casper, Ralph Chamness, David Delquadro, Jason Rose, Cherylann Johnson, Javaid Majid
FA	Financial Advisor.....	Zions Bank Public Finance
MA	Mayor's Staff	Shanell Beecher, Rod Kitchens, John Pectol
NC	Note Counsel	TBD
U	Underwriter.....	TBD

Market Commentary

- Treasury yields increased early in the week amid higher than expected levels of inflation and hawkish congressional testimony from Fed Chair Janet Yellen, then fell on Thursday and Friday following stronger than anticipated economic data, ending the week only slightly higher than the previous week^{1,2}
- On Tuesday morning, monthly changes in PPI ex. Food and Energy were reported to be 0.4% against expectations of 0.2% ahead of Janet Yellen's testimony before Congress¹
- Yellen's testimony was generally hawkish as she discussed in loose terms the timeline for deleveraging the Fed's balance sheet and suggested that a delay in removing accommodation may require the FOMC to quickly raise rates³
- The 30-year UST yield climbed as high as 3.11% on the back of Yellen's testimony on Tuesday and Wednesday, only to decline to 3.03% by the end of the week following the highest reported Philadelphia Fed Business Outlook since 1984 on Thursday morning⁴
- Throughout the week, 30-year MMD yields moved in sympathy with 30-year UST yields to end the week 4 bps higher⁵
- Following the firming inflation data and Yellen's testimony, J.P. Morgan Research now calls for a May Fed funds rate hike, moving the expectation for the next hike forward by one month³
- Long-term municipal supply last week was \$5.6 billion as issuance continues to remain below the 2016 weekly average of \$8 billion¹
- This week's long-term municipal supply is expected to be \$3.9 billion during the President's Day holiday shortened week¹
- Municipal bond funds experienced inflows of \$548 million for the period ending February 15, as net inflows over the last five weeks have totaled more than \$3.5 billion following nine weeks of outflows⁶
- This week market participants will receive February FOMC meeting minutes and a few inflation data points including the University of Michigan forward inflation expectation survey result¹

¹Bloomberg

²J.P. Morgan Research, *US Treasury Market Daily*, 2/15/2017, jpmm.com

³J.P. Morgan Research, *Pulling forward our Fed Call*, 2/15/2017, jpmm.com

⁴J.P. Morgan Research, *US: Philadelphia Fed survey hits its highest level since 1984*, 2/16/2017, jpmm.com

⁵Thomson Reuters Municipal Market Data

⁶Lipper iMoneyNet, as of 2/15/2017

Recent J.P. Morgan Transactions

Issuer	Verbal Award Date	Size (\$mm)	Rating	Final Coupon	Final Spread	Final Yield	Final Mty
Lamar Consolidated Independent School District, TX	14-Feb	93.0	Aaa/AAA/NR	4.000%	80	3.89%	2049
Scottsdale Municipal Property Corp, AZ	14-Feb	80.0	Aa1/AAA/AAA	5.000%	30	3.26%	2036
Orange Regional Medical Center, NY	7-Feb	237.1	Baa3/NR/BB+	5.000%	140	4.38%	2037
Tri-County Metropolitan Transportation District	7-Feb	97.4	Aaa/AAA/NR	5.000%	15	3.17%	2041

Source: J.P. Morgan, Thomson Reuters Municipal Market Data

Market Monitor

Short Term Municipal Market	2/17/2017	2/10/2017	10Y Average
SIFMA Index	0.65%	0.65%	0.71%
1-Month LIBOR	0.78%	0.77%	0.94%
SIFMA / 1-Month LIBOR Ratio	83.39%	84.29%	75.24%
Tax-exempt MMF Flows 4-week Avg. ¹	\$132 mm	\$94 mm	--

Long Term Municipal Market	2/17/2017	2/10/2017	10Y Average
AAA MMD (30-Year)	3.11%	3.07%	3.74%
AA MMD (30-Year)	3.37%	3.33%	3.94%
A MMD (30-Year)	3.75%	3.71%	4.39%
BBB MMD (30-Year)	4.11%	4.07%	4.97%
AAA MMD (30 - 2 Year)	2.08%	2.05%	2.77%
30-Year SIFMA Swap Rate ²	2.34%	2.29%	3.06%
30-Year 3M LIBOR Swap Rate ²	2.65%	2.60%	3.52%
All Muni Fund Flows 4-week Avg. ³	\$637 mm	\$781 mm	--

Corporate Spreads to UST (bps)	2/17/2017	2/10/2017	10Y Average
J.P. Morgan JULI Index	143	146	201
J.P. Morgan Domestic HY Index	457	462	657

Equities	2/17/2017	1-week Δ	YTD Δ	5-day trend
S&P 500	2,351	1.51%	4.13%	
DJIA	20,624	1.75%	3.73%	
NASDAQ 100	5,325	1.88%	8.42%	

Energy (\$)	2/17/2017	1-week Δ	YTD Δ	5-day trend
WTI Crude Oil (per bbl.)	53.40	-0.46	1.07	
Brent Crude Oil (per bbl.)	55.81	-0.89	0.34	

Source: J.P. Morgan, Bloomberg, Thomson Reuters Municipal Market Data, The Bond Buyer, Lipper FMI, iMoneyNet

¹MMF: Money Market Fund

²Direct swaps-related questions to Dave Hand (212) 834-4686

³Reflects all tax-exempt mutual funds reporting on a weekly or monthly basis, excluding tax-exempt money market funds

Yield Curve Rates and Ratios

Benchmark / Maturity	1-Year	5-Year	10-Year	30-Year
MMD	0.86%	1.57%	2.37%	3.11%
UST	0.88%	1.91%	2.42%	3.03%
MMD / UST Ratio	97.35%	82.24%	97.75%	102.63%

Source: J.P. Morgan, Thomson Reuters Municipal Market Data

Interest Rate Forecast

MMD Yields	2/17/17	1m ahead	1Q17	2Q17	3Q17	4Q17
2-Year	1.03%	1.01%	1.10%	1.30%	1.55%	1.70%
5-Year	1.57%	1.60%	1.65%	1.80%	2.05%	2.05%
10-Year	2.37%	2.30%	2.45%	2.55%	2.80%	2.70%
30-Year	3.11%	3.10%	3.20%	3.25%	3.55%	3.45%
Taxable Yields	2/17/17	1m ahead	1Q17	2Q17	3Q17	4Q17
Fed Funds	0.66%	0.65%	0.65%	0.90%	0.90%	1.15%
3-Month LIBOR	1.05%	1.05%	1.05%	1.25%	1.50%	1.50%
2-Year T Note	1.20%	1.20%	1.30%	1.55%	1.75%	1.95%
5-Year T Note	1.91%	1.90%	2.10%	2.35%	2.55%	2.70%
10-Year T Note	2.42%	2.40%	2.55%	2.70%	2.85%	3.00%
30-Year T Bond	3.03%	3.00%	3.05%	3.15%	3.30%	3.40%

Source: J.P. Morgan Research, *US Fixed Income Markets Weekly - Municipals*, 2/10/2017, jpmm.com; J.P. Morgan Research, *US Fixed Income Markets: Weekly - US Interest Rate Forecast*, 2/16/2017, jpmm.com; Thomson Reuters Municipal Market Data

For additional market information and commentary, please go to J.P. Morgan Markets at jpmm.com

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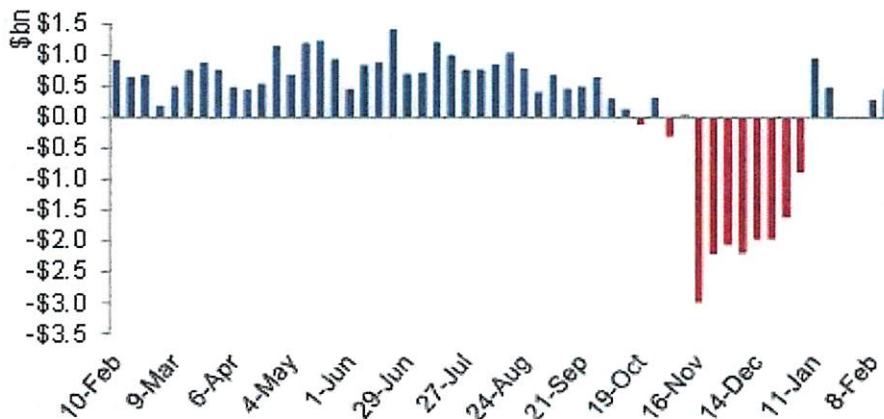
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Municipal Market Commentary

It was an eventful week, as increased risk appetite characterized Monday through Wednesday before markets took a pause Thursday and Friday. Rumors that details would soon emerge regarding tax reform buoyed markets to start the week. On Tuesday and Wednesday in her semi-annual testimony in front of Congress, Chairwoman Yellen struck a more hawkish tone, noting that waiting too long to raise rates could hurt the economy. In addition, the economy continues to exhibit signs of strength, as measures of producer and consumer inflation, manufacturing data, and retail sales all exceeded expectations. Better than expected economic data and Yellen's comments pushed the market implied probability of a March hike higher from 28% to 36% according to Fed Fund Futures. The market is now predicting a hike in May (versus June before her comments). The risk-on mentality fizzled to end the week, as the tone of President Trump's Thursday press conference and polls showing Marine LePen leading the French Presidential race took markets by surprise. Still, equities moved higher for the 4th straight week, finishing the week up another 1.5%, and treasury rates moved higher by 2-3bp across the yield curve. Increased risk appetite impacted municipal rates, and MMD was higher across the board this week -- 5y, 10y, and 30y rates rose by 4bp, 7bp, and 4bp, respectively. Despite higher rates, municipal market tone remains constructive. New issue supply last week was just \$5.9 billion, and the forward calendar remains relatively light heading into March. Bond funds experienced a 6th straight week of inflows (\$480 million this week, the largest in over a month). This week's relatively sparse new issue calendar (just \$3.8 billion expected) should bode well for the market, especially with municipals looking more attractive on a MMD / UST ratio basis after a week of underperformance.

Source: Bloomberg, LIPPER, Thomson Reuters

Municipal bond funds reported **inflows** of **\$480.1 million**, marking the sixth consecutive week of inflows in 2017 YTD.



Municipal Market Outlook

February 16, 2017

RATE DATA

	Today	Week Prior	Month Prior	Year Prior
MMD AAA GO				
3 Year	1.23	1.18	0.59	0.88
5 Year	1.62	1.51	0.85	1.37
10 Year	2.43	2.25	1.41	2.19
15 Year	2.83	2.69	1.77	2.65
20 Year	3.07	2.93	2.02	2.90
30 Year	3.17	3.03	2.15	3.13
US Treasury				
2 Year	1.27	1.15	1.18	0.74
5 Year	2.01	1.81	1.87	1.26
10 Year	2.51	2.34	2.36	1.81
30 Year	3.09	2.96	3.01	2.68
Federal Funds	0.66	0.66	0.66	0.37
Prime Rate	3.75	3.75	3.75	3.50
SIFMA 7 Day	0.65	0.65	0.66	0.01

BOND BUYER AND SHORT TERM INDEXES

20 Bond GO ¹	3.94	3.88	3.72	3.27
25 Bond REV ²	4.11	4.03	3.83	3.76
Jefferies ST	0.65	0.63	0.46	0.01

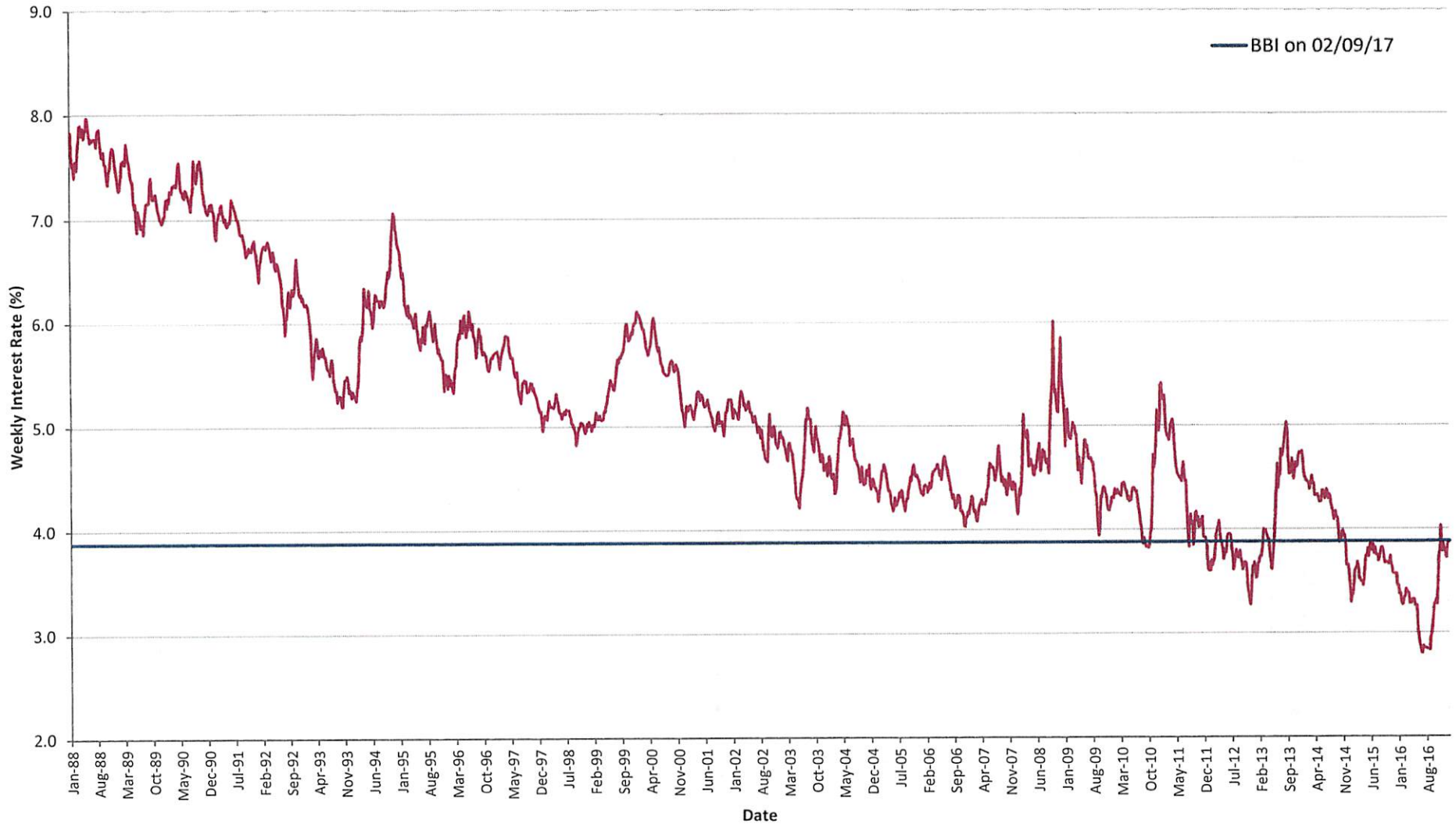
¹GO bonds maturing in 20 years, avg. rating equivalent to Moody's Aa2 & S&P's AA

²Revenue bonds maturing in 30 years, avg. rating equivalent to Moody's A1 & S&P A+

Interest Rate Trend

20 Year 20 Bond Buyer Index

January 1988 to February 2017



Since January 1988:

Interest rates have been higher than the current BBI 88.07% of the time.

Interest rates have been lower than the current BBI 11.93% of the time.

ZIONS PUBLIC FINANCE – MMD Muni Bond Yields – 02/21/2017 EOD

		General Obligations						"AAA" Coupon Range	
		"AAA"	PRE-RE	INSURED	"AA"	"A"	"BAA"	"LOW"	"HIGH"
1	2018	0.86	0.86	0.96	0.88	1.05	1.32	5.00	5.00
2	2019	1.03	1.04	1.21	1.07	1.29	1.59	5.00	5.00
3	2020	1.19	1.20	1.40	1.25	1.50	1.82	5.00	5.00
4	2021	1.36	1.38	1.63	1.44	1.72	2.04	5.00	5.00
5	2022	1.57	1.59	1.89	1.68	1.98	2.29	5.00	5.00
6	2023	1.77	1.80	2.13	1.91	2.22	2.56	5.00	5.00
7	2024	1.96	1.99	2.38	2.12	2.47	2.79	5.00	5.00
8	2025	2.13	2.17	2.59	2.32	2.68	3.02	5.00	5.00
9	2026	2.27		2.77	2.48	2.86	3.21	5.00	5.00
10	2027	2.37		2.89	2.59	2.98	3.34	5.00	5.00
11	2028	2.45		3.00	2.69	3.09	3.46	5.00	5.00
12	2029	2.53		3.09	2.78	3.18	3.55	5.00	5.00
13	2030	2.61		3.17	2.87	3.26	3.63	5.00	5.00
14	2031	2.69		3.25	2.95	3.34	3.71	5.00	5.00
15	2032	2.77		3.33	3.03	3.42	3.79	5.00	5.00
16	2033	2.83		3.39	3.09	3.48	3.85	5.00	5.00
17	2034	2.89		3.45	3.15	3.54	3.90	5.00	5.00
18	2035	2.94		3.48	3.20	3.58	3.94	5.00	5.00
19	2036	2.98		3.52	3.24	3.62	3.98	5.00	5.00
20	2037	3.01		3.54	3.27	3.65	4.01	5.00	5.00
21	2038	3.02		3.55	3.28	3.66	4.02	5.00	5.00
22	2039	3.03		3.56	3.29	3.67	4.03	5.00	5.00
23	2040	3.04		3.57	3.30	3.68	4.04	5.00	5.00
24	2041	3.05		3.58	3.31	3.69	4.05	5.00	5.00
25	2042	3.06		3.59	3.32	3.70	4.06	5.00	5.00
26	2043	3.07		3.60	3.33	3.71	4.07	5.00	5.00
27	2044	3.08		3.61	3.34	3.72	4.08	5.00	5.00
28	2045	3.09		3.62	3.35	3.73	4.09	5.00	5.00
29	2046	3.10		3.63	3.36	3.74	4.10	5.00	5.00
30	2047	3.11		3.64	3.37	3.75	4.11	5.00	5.00

Interpolated AAA Yields

Yr	Mat	11 Mo JAN	12 Mo FEB	13 Mo MAR	14 Mo APR	15 Mo MAY	16 Mo JUN	17 Mo JUL	18 Mo AUG	19 Mo SEP	20 Mo OCT	21 Mo NOV	22 Mo DEC
1	2018	0.85	0.86	0.88	0.89	0.91	0.92	0.93	0.95	0.96	0.97	0.99	1.00
2	2019	1.02	1.03	1.04	1.06	1.07	1.08	1.09	1.11	1.12	1.13	1.15	1.16
3	2020	1.18	1.19	1.21	1.22	1.24	1.25	1.26	1.28	1.29	1.30	1.32	1.33
4	2021	1.35	1.36	1.38	1.39	1.41	1.42	1.44	1.45	1.47	1.48	1.50	1.51
5	2022	1.56	1.57	1.58	1.60	1.61	1.62	1.63	1.64	1.66	1.67	1.68	1.69
6	2023	1.76	1.77	1.78	1.80	1.81	1.82	1.83	1.84	1.86	1.87	1.88	1.89
7	2024	1.95	1.96	1.97	1.98	1.99	2.00	2.01	2.02	2.03	2.04	2.05	2.06
8	2025	2.12	2.13	2.14	2.15	2.15	2.16	2.17	2.18	2.19	2.20	2.21	2.22
9	2026	2.26	2.27	2.28	2.29	2.29	2.30	2.31	2.31	2.32	2.33	2.33	2.34
10	2027	2.36	2.37	2.38	2.38	2.39	2.39	2.40	2.40	2.41	2.42	2.42	2.43
11	2028	2.44	2.45	2.46	2.46	2.47	2.47	2.48	2.48	2.49	2.49	2.50	2.50
12	2029	2.52	2.53	2.54	2.54	2.55	2.55	2.56	2.56	2.57	2.58	2.58	2.59
13	2030	2.61	2.61	2.61	2.62	2.62	2.62	2.62	2.62	2.63	2.63	2.63	2.63

"AAA" Muni Yields as percent of US Treas Yields

Muni/Treas	CURR %	11/23/2016 to 02/21/2017				02/23/2016 to 02/21/2017			
		AVG %	# SD	MAX %	MIN %	AVG %	# SD	MAX %	MIN %
1 yr/1 yr	108.4	113.6	-1.19	122.1	104.4	104.6	0.26	137.3	59.8
2 yr/2 yr	85.3	94.8	-1.40	109.0	82.9	88.6	-	109.9	65.1
3 yr/3 yr	80.2	91.5	-1.49	107.9	78.7	86.1	-	107.9	65.5
5 yr/5 yr	82	88.8	-1.15	104.4	81.0	83.3	-	104.4	68.9
7 yr/7 yr	88	89.0	-0.29	99.1	83.6	84.1	0.84	99.1	70.4
10yr/10yr	97.7	96.0	0.42	106.9	90.4	93.8	0.97	106.9	85.1
15yr/10yr	114.1	111.5	0.65	121.7	105.6	114.4	-	129.8	103.
20yr/10yr	124	121.7	0.56	133.1	115.7	128.2	-	146.9	115.
30yr/10yr	128.1	126.9	0.28	139.7	121.2	137.2	-	163.4	121.
15yr/30yr	91.2	89.0	0.84	95.3	84.5	81.8	1.62	95.3	69.7
20yr/30yr	99.1	97.2	0.76	103.6	93.0	91.6	1.47	103.6	79.2
30yr/30yr	102.4	101.3	0.41	108.8	97.4	97.9	0.90	108.8	85.8

Taxable Municipal Scale

Yr.	Mat	AAA Spread	AAA Yld	AA Spread	AA Yld	A Spread	A Yld	BAA Spread	BAA Yld	Tsy Comp	Tsy Bid
2018	1	17	0.97	22	1.02	45	1.25	84	1.64	1.00	0.80
2019	2	18	1.39	23	1.44	50	1.71	106	2.27	2.00	1.21
2020	3	20	1.69	30	1.79	60	2.09	110	2.59	3.00	1.49
2021	4	45	1.94	56	2.05	80	2.29	137	2.86	3.00	1.49
2022	5	35	2.27	48	2.40	77	2.69	135	3.27	5.00	1.92
2023	6	60	2.52	75	2.67	99	2.91	158	3.50	5.00	1.92
2024	7	45	2.68	60	2.83	84	3.07	147	3.70	7.00	2.23
2025	8	55	2.78	70	2.93	95	3.18	163	3.86	7.00	2.23
2026	9	49	2.92	64	3.07	89	3.32	156	3.99	10.00	2.43
2027	10	70	3.13	85	3.28	111	3.54	174	4.17	10.00	2.43
2028	11	80	3.23	90	3.33	124	3.67	197	4.40	10.00	2.43
2029	12	85	3.28	100	3.43	141	3.84	220	4.63	10.00	2.43
2030	13	96	3.39	111	3.54	147	3.90	224	4.67	10.00	2.43
2031	14	108	3.51	123	3.66	157	4.00	225	4.68	10.00	2.43
2032	15	118	3.61	133	3.76	162	4.05	226	4.69	10.00	2.43
2033	16	61	3.65	75	3.79	104	4.08	168	4.72	30.00	3.04
2034	17	63	3.67	77	3.81	104	4.08	169	4.73	30.00	3.04
2035	18	64	3.68	78	3.82	104	4.08	170	4.74	30.00	3.04
2036	19	65	3.69	79	3.83	104	4.08	171	4.75	30.00	3.04
2037	20	66	3.70	80	3.84	105	4.09	172	4.76	30.00	3.04
2038	21	67	3.71	81	3.85	106	4.10	173	4.77	30.00	3.04
2039	22	67	3.71	81	3.85	107	4.11	174	4.78	30.00	3.04
2040	23	68	3.72	82	3.86	108	4.12	175	4.79	30.00	3.04
2041	24	68	3.72	82	3.86	109	4.13	176	4.80	30.00	3.04
2042	25	69	3.73	83	3.87	110	4.14	177	4.81	30.00	3.04
2043	26	69	3.73	83	3.87	111	4.15	178	4.82	30.00	3.04
2044	27	70	3.74	84	3.88	112	4.16	179	4.83	30.00	3.04
2045	28	70	3.74	84	3.88	113	4.17	180	4.84	30.00	3.04
2046	29	71	3.75	85	3.89	114	4.18	181	4.85	30.00	3.04
2047	30	71	3.75	85	3.89	115	4.19	182	4.86	30.00	3.04

Revenue Yield Curves

Yr	Mat	"A" HOS	HOS Ins	"A" ELEC	ELEC Ins	"A" HSG	HSG Ins
1	2018	1.13	1.01	1.00	0.95	1.25	0.98
2	2019	1.36	1.23	1.22	1.16	1.52	1.18
3	2020	1.55	1.42	1.43	1.36	1.72	1.36
4	2021	1.79	1.74	1.66	1.58	2.00	1.67
5	2022	2.10	1.95	1.92	1.84	2.31	1.95
6	2023	2.37	2.24	2.13	2.03	2.62	2.17
7	2024	2.62	2.47	2.39	2.29	2.87	2.43
8	2025	2.87	2.73	2.64	2.55	3.12	2.67
9	2026	3.05	2.92	2.84	2.76	3.33	2.87
10	2027	3.21	3.09	2.96	2.89	3.49	3.04
11	2028	3.33	3.21	3.07	3.00	3.63	3.18
12	2029	3.43	3.33	3.17	3.09	3.75	3.33
13	2030	3.52	3.42	3.25	3.17	3.85	3.43
14	2031	3.60	3.50	3.33	3.25	3.95	3.54
15	2032	3.68	3.58	3.41	3.33	4.05	3.64
16	2033	3.74	3.64	3.47	3.39	4.14	3.73
17	2034	3.80	3.70	3.53	3.45	4.21	3.80
18	2035	3.85	3.75	3.58	3.50	4.26	3.85
19	2036	3.89	3.79	3.62	3.54	4.34	3.90
20	2037	3.92	3.82	3.65	3.57	4.38	3.94
21	2038	3.93	3.83	3.66	3.58	4.40	3.96
22	2039	3.94	3.84	3.67	3.59	4.41	3.97
23	2040	3.95	3.85	3.68	3.60	4.42	3.98
24	2041	3.96	3.86	3.69	3.61	4.44	4.00
25	2042	3.97	3.87	3.70	3.62	4.46	4.02
26	2043	3.98	3.88	3.71	3.63	4.48	4.04
27	2044	3.99	3.89	3.72	3.64	4.50	4.06
28	2045	4.00	3.90	3.73	3.65	4.52	4.08
29	2046	4.01	3.91	3.74	3.66	4.53	4.09
30	2047	4.02	3.92	3.75	3.67	4.54	4.10