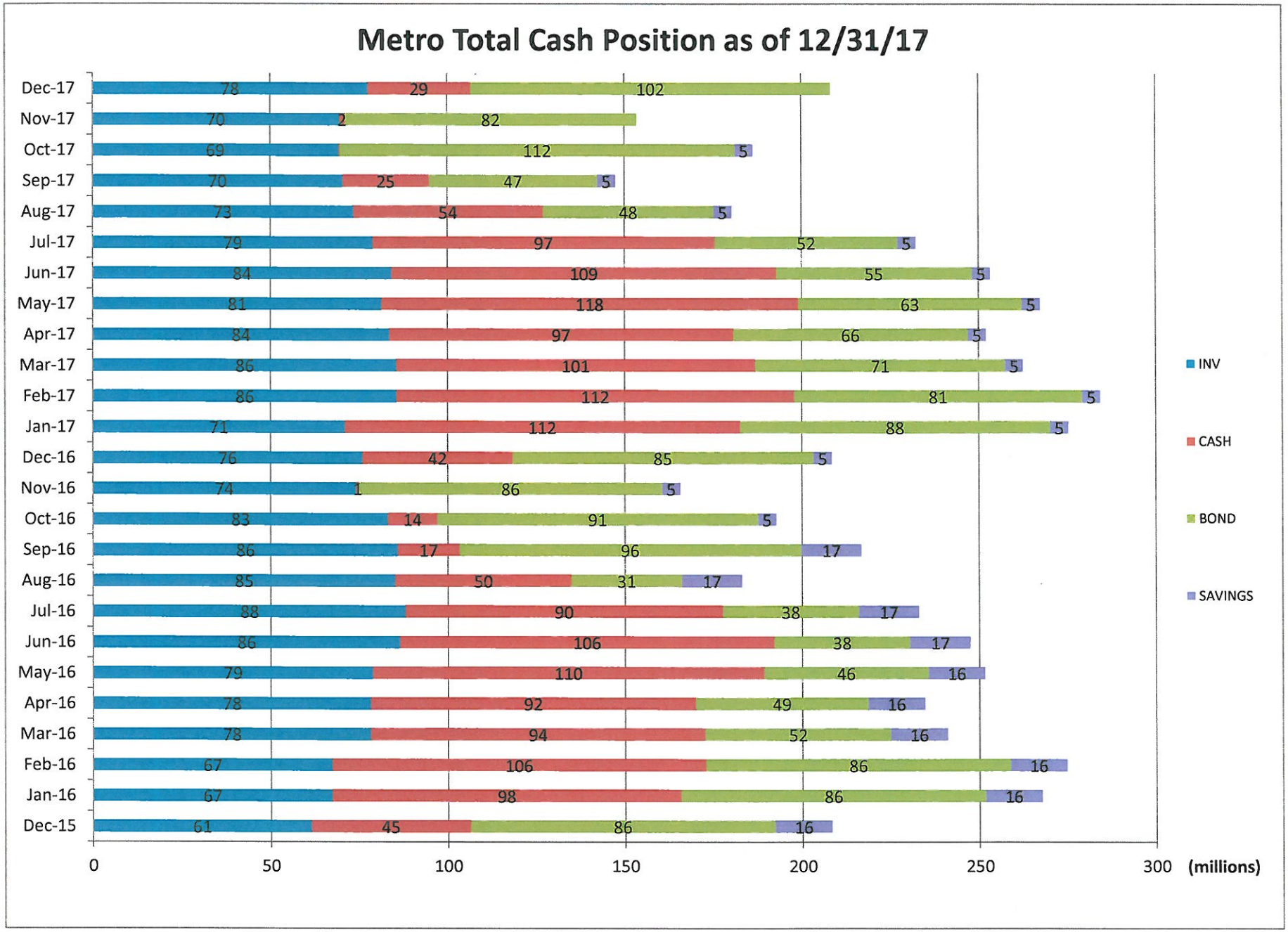
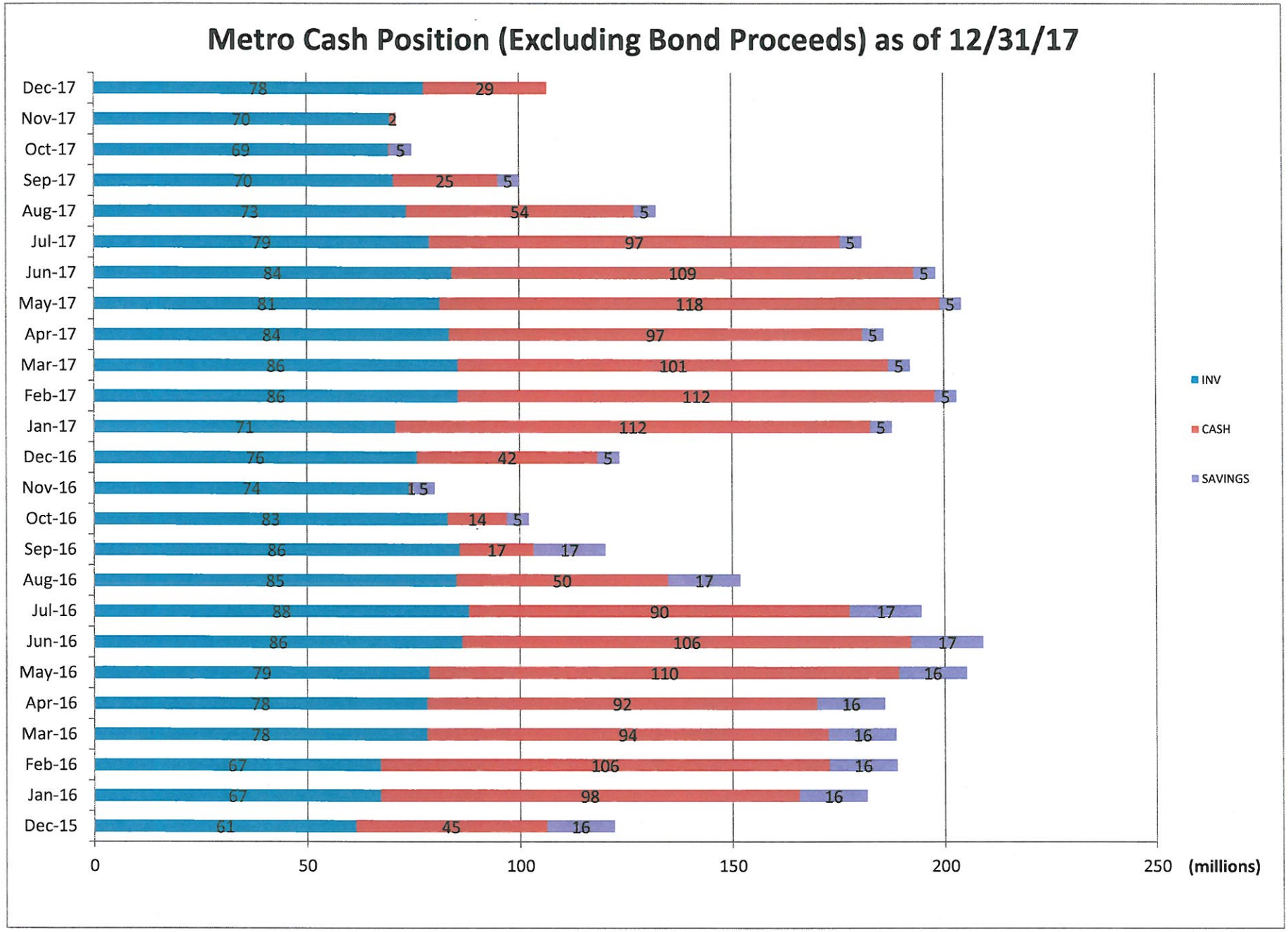
Louisville Metro Investment Council

Louisville METRO

January 5, 2018

PORTFOLIO COMPOSITION


Metro Total Cash Position as of 12/31/17
Dec-17 78 29 102
Nov-17 70 2 82
Oct-17 69 112 5
Sep-17 70 25 47 5
Aug-17 73 54 48 5
Jul-17 79 97 52 5
Jun-17 84 109 55 5
May-17 81 118 63 5
Apr-17 84 97 66 5
Mar-17 86 101 71 5
Feb-17 86 112 81 5
Jan-17 71 112 88 5
Dec-16 76 42 85 5
Nov-16 74 1 86 5
Oct-16 83 14 91 5
Sep-16 86 17 96 17
Aug-16 85 50 31 17
Jul-16 88 90 38 17
Jun-16 86 106 38 17
May-16 79 110 46 16
Apr-16 78 92 49 16
Mar-16 78 94 52 16
Feb-16 67 106 86 16
Jan-16 67 98 86 16
Dec-15 61 45 86 16
0
50
100
150
200
250
300
(millions)
INV
CASH
BOND
SAVINGS


Metro Cash Position (Excluding Bond Proceeds) as of 12/31/17
Dec-17 78 29
Nov-17 70 2
Oct-17 69 5
Sep-17 70 25 5
Aug-17 73 54 5
Jul-17 79 97 5
Jun-17 84 109 5
May-17 81 118 5
Apr-17 84 97 5
Mar-17 86 101 5
Feb-17 86 112 5
Jan-17 71 112 5
Dec-16 76 42 5
Nov-16 74 15
Oct-16 83 14 5
Sep-16 86 17 17
Aug-16 85 50 17
Jul-16 88 90 17
Jun-16 86 106 17
May-16 79 110 16
Apr-16 78 92 16
Mar-16 78 94 16
Feb-16 67 106 16
Jan-16 67 98 16
Dec-15 61 45 16
0
50
100
150
200
250
(millions)
INV
CASH
SAVINGS

Acc Int / Amort / Mkt Val

Lou / Jeff Cty Metro Finance

Effective Interest - Callable Life

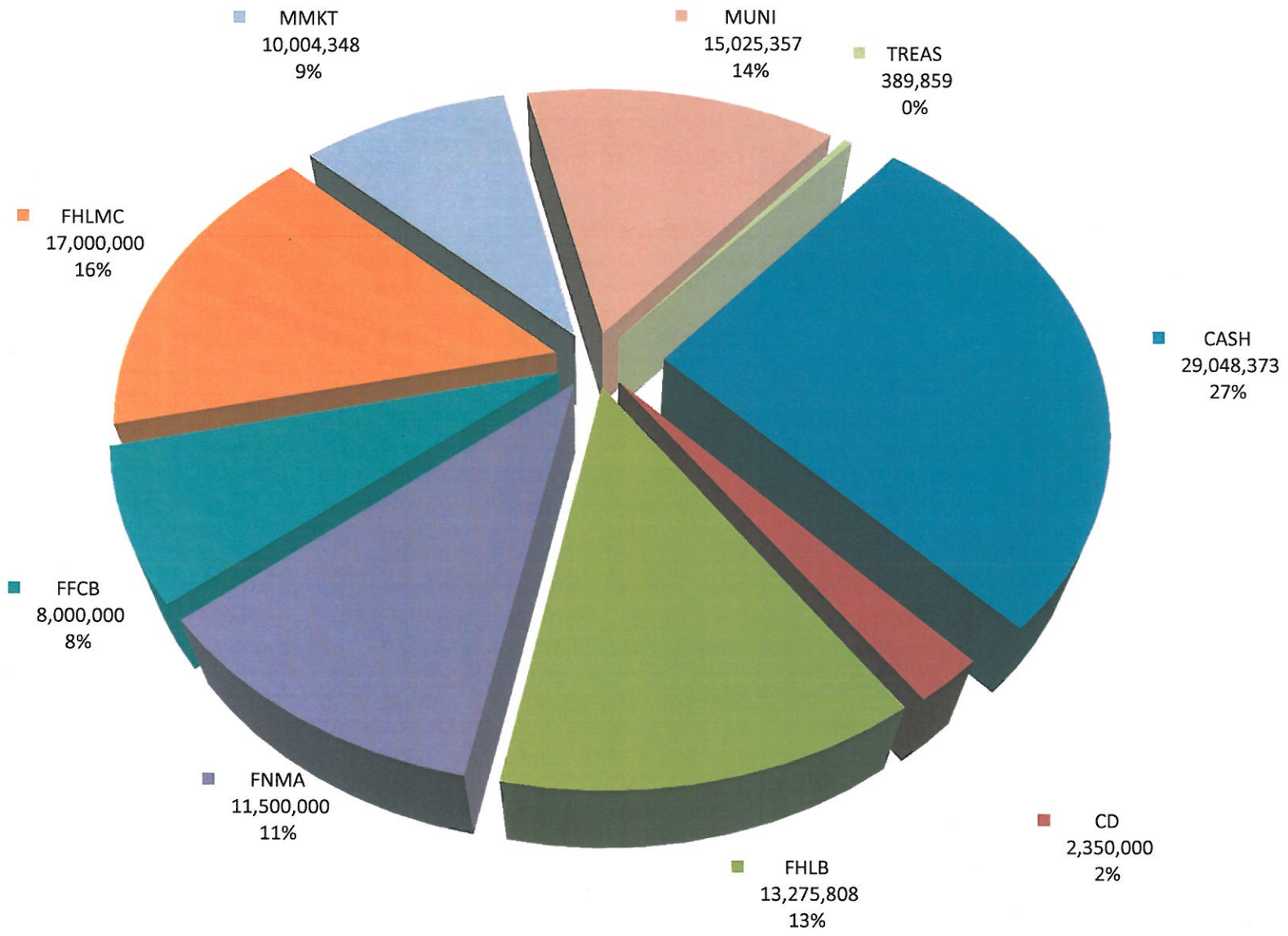
Receipts in Period

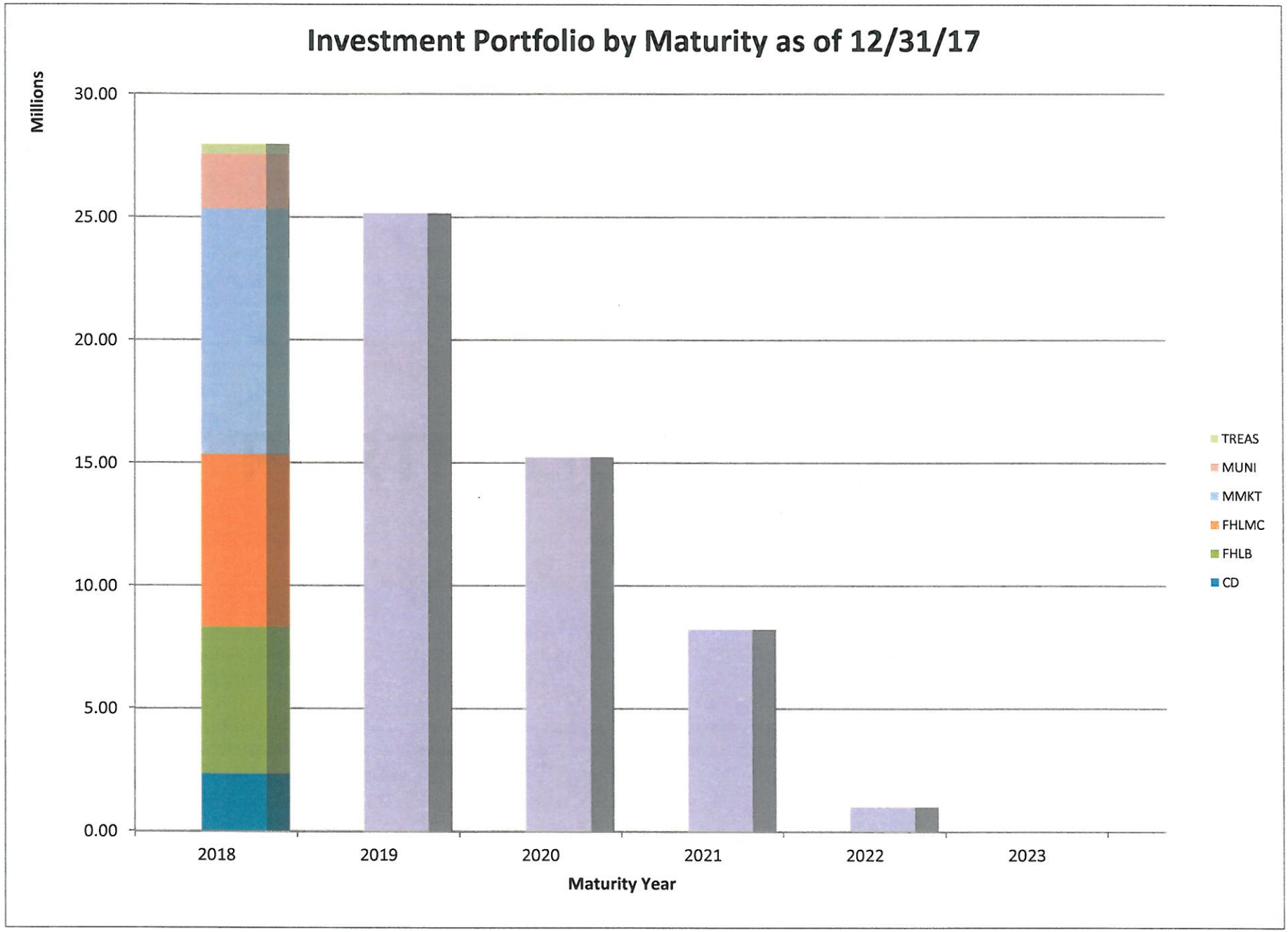
12/31/2017

	Invest Number	CUSIP	Security Description	Call Date	Purchase Date	Ending Par Val/Shares	Ending Amor Val/Cost	Ending Market Val	Amortization Purch/Date	PTD Purch Received	Int/Div Rec Purch/Date	Int/Div Accrued Purch/Date	Purch Int + Acc Int
Cash	AR-0035	TARC OPS FED - 4537544	Cash Account	Open	04/02/03	3,347,165.00	3,347,165.00	3,347,165.00	0.00	0.00	0.00	0.00	0.00
	AR-0043	INV CLEAR JPM - 707637716	Cash Account	Open	07/01/06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AR-0046	METRO CONC 53- 714868609	Cash Account	Open	09/22/08	23,045,587.68	23,045,587.68	23,045,587.68	0.00	0.00	712,110.31	0.00	0.00
	AR-0047	LAGIT 53 - 714868674	Cash Account	Open	10/01/08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AR-0049	REVCOM 53- 7141868757	Cash Account	Open	11/01/08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AR-0052	METRO CHASE SAV 2950930897	Cash Account	Open	09/22/10	0.00	0.00	0.00	0.00	0.00	375,896.73	0.05	0.05
	AR-0053	REVCOM CHASE SAV 2950930772	Cash Account	Open	09/14/10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AR-0054	METRO SAFEKEEPING - 1050996303	Cash Account	Open	12/30/16	2,655,619.85	2,655,619.85	2,655,619.85	0.00	0.00	0.00	0.00	0.00
	Cash Total					**29,048,372.53**	**29,048,372.53**	**29,048,372.53**	**0.00**	**0.00**	**1,088,007.04**	**0.05**	**0.05**
Certificate of Deposit	17-0071	CD423	METRO 0.75 05/07/18	Open	05/07/17	1,000,000.00	1,000,000.00	1,000,000.00	0.00	0.00	4,397.28	479.17	479.17
	17-0074	CD075	METRO 0.75 06/07/18	Open	06/07/17	1,000,000.00	1,000,000.00	1,000,000.00	0.00	0.00	3,760.29	500.00	500.00
	18-0050	772	METRO 1.05 10/07/18	Open	10/06/17	100,000.00	100,000.00	100,000.00	0.00	0.00	175.48	70.00	70.00
	18-0051	YCB 1499	YCB 0.1499 10/23/18	Open	11/23/17	250,000.00	250,000.00	250,000.00	0.00	0.00	30.80	8.33	8.33
	Certificate of Deposit Total					**2,350,000.00**	**2,350,000.00**	**2,350,000.00**	**0.00**	**0.00**	**8,363.85**	**1,057.50**	**1,057.50**
FFCB	17-0010	3133EGNK7	FFCB 1.32 07/27/20	07/27/17	07/27/16	3,000,000.00	3,000,000.00	2,941,590.00	0.00	0.00	39,600.00	16,940.00	16,940.00
	17-0022	3133EGVJ1	FFCB 1.16 09/26/19	09/26/17	09/27/16	3,000,000.00	3,000,000.00	2,956,890.00	0.00	96.67	34,800.00	9,183.33	9,280.00
	17-0077	3133EHMG5	FFCB 1.80 03/12/21	09/12/17	06/22/17	2,000,000.00	2,000,000.00	1,971,780.00	1,400.00	5,000.00	9,000.00	10,900.00	11,900.00
	FFCB Total					**8,000,000.00**	**8,000,000.00**	**7,870,260.00**	**1,400.00**	**5,096.67**	**83,400.00**	**37,023.33**	**38,120.00**
FHLB	16-0063	313383EP2	FHLB 1.25 06/20/18	09/20/16	06/20/16	2,975,776.00	2,975,776.00	2,967,711.65	-5,951.55	0.00	55,795.76	1,136.58	1,136.58
	16-0071	3130A8JZ7	FHLB 1.22 12/30/19	06/30/17	06/30/16	2,900,000.00	2,900,000.00	2,854,876.00	0.00	0.00	35,380.00	17,788.28	17,788.28
	17-0034	3130A8RP0	FHLB 1.05 10/26/18	10/26/16	10/11/16	2,000,000.00	2,000,000.00	1,987,600.00	400.00	4,812.50	26,250.00	3,791.67	8,166.67
	17-0046	3130AAQV3	FHLB 1.67 04/30/20	01/30/18	02/02/17	2,400,000.00	2,400,000.00	2,380,416.00	0.00	6,828.44	20,040.00	16,811.33	17,034.00
	17-0049	3130A4Z54	FHLB 0.95 04/27/18	Open	02/06/17	1,000,000.00	1,000,032.40	998,340.00	-87.60	2,612.50	9,500.00	1,688.89	4,301.39
	17-0066	3130AAQB7	FHLB 2.00 08/16/21	02/16/18	02/16/17	2,000,000.00	2,000,000.00	1,980,440.00	0.00	0.00	20,000.00	15,000.00	15,000.00
	FHLB Total					**13,275,776.00**	**13,275,808.40**	**13,169,383.65**	**-5,639.15**	**14,253.44**	**166,965.76**	**56,216.75**	**63,426.92**
FHLMC	16-0051	3134G9JT5	FHLMC 1.35 11/26/19	08/26/16	05/26/16	1,500,000.00	1,500,000.00	1,477,215.00	525.00	0.00	30,375.00	1,968.75	1,968.75
	16-0052	3134G9KW6	FHLMC 1.35 11/26/19	08/26/16	05/26/16	2,000,000.00	2,000,000.00	1,976,420.00	2,200.00	0.00	40,500.00	2,625.00	2,625.00
	16-0053	3134G9NL7	FHLMC 1.18 05/24/19	05/24/17	05/31/16	2,000,000.00	2,000,000.00	1,979,200.00	0.00	63.37	35,006.66	2,425.56	2,425.56
	16-0059	3134G9NE3	FHLMC 1.20 06/14/19	06/14/17	06/14/16	2,000,000.00	2,000,000.00	1,980,920.00	0.00	0.00	36,000.00	1,133.33	1,133.33
	16-0066	3134G9XB8	FHLMC 1.00 12/28/18	12/28/16	06/28/16	2,000,000.00	2,000,000.00	1,984,400.00	500.00	0.00	30,000.00	166.67	166.67
	16-0068	3134G9VS3	FHLMC 1.00 12/28/18	12/28/16	06/28/16	1,000,000.00	1,000,000.00	992,410.00	0.00	0.00	15,000.00	83.33	83.33
	16-0070	3134G9WJ2	FHLMC 1.20 09/30/19	09/30/16	06/30/16	1,000,000.00	1,000,000.00	982,810.00	0.00	0.00	15,000.00	3,033.33	3,033.33
	16-0072	3134G9YA9	FHLMC 1.01 09/28/18	12/28/16	06/30/16	2,000,000.00	2,000,000.00	1,989,840.00	0.00	2,581.11	25,250.00	5,218.33	5,274.44
	17-0016	3134G9W37	FHLMC 1.45 08/10/20	11/10/16	08/10/16	1,500,000.00	1,500,000.00	1,473,240.00	0.00	0.00	21,750.00	8,518.75	8,518.75
	17-0035	3134GAPV0	FHLMC 1.03 10/12/18	01/12/17	10/12/16	2,000,000.00	2,000,000.00	1,988,260.00	0.00	0.00	20,600.00	4,520.56	4,520.56
	FHLMC Total					**17,000,000.00**	**17,000,000.00**	**16,824,715.00**	**3,225.00**	**2,644.48**	**269,481.66**	**29,693.61**	**29,749.72**
FNMA	16-0046	3135G0J95	FNMA 1.35 10/28/19	10/28/16	05/19/16	1,000,000.00	1,000,000.00	987,250.00	1,000.00	787.50	20,250.00	2,362.50	3,150.00
	16-0048	3136G3MQ5	FNMA 1.30 11/25/19	11/25/16	05/25/16	2,000,000.00	2,000,000.00	1,971,540.00	0.00	0.00	39,000.00	2,600.00	2,600.00
	16-0067	3136G3TR6	FNMA 1.05 06/28/19	06/28/17	06/28/16	2,000,000.00	2,000,000.00	1,976,040.00	0.00	0.00	31,500.00	175.00	175.00
	17-0011	3136G3L37	FNMA 1.125 10/28/19	07/28/17	07/28/16	2,000,000.00	2,000,000.00	1,971,400.00	0.00	0.00	22,500.00	9,562.50	9,562.50
	17-0025	3136G34K8	FNMA 1.125 09/09/19	03/09/17	09/28/16	2,500,000.00	2,500,000.00	2,464,600.00	1,250.00	1,484.38	28,125.00	8,750.00	10,234.38
	17-0048	3136G4KD4	FNMA 1.75 06/29/20	06/29/17	02/03/17	2,000,000.00	2,000,000.00	1,982,300.00	0.00	3,305.56	35,000.00	194.44	3,500.00
	FNMA Total					**11,500,000.00**	**11,500,000.00**	**11,353,130.00**	**2,250.00**	**5,577.44**	**176,375.00**	**23,644.44**	**29,221.88**
Money Market	AR-0001	MMKT FED - 5000638	Money Market	Open	07/01/99	158.35	158.35	158.35	0.00	0.00	1,652,552.68	0.07	0.07
	AR-0006	TARC FED - 4485281	Money Market	Open	07/01/99	0.00	0.00	0.00	0.00	0.00	30.61	0.00	0.00
	AR-0058	MMKT 5/3	Money Market	Open	12/19/17	10,004,189.29	10,004,189.29	10,004,189.29	0.00	0.00	4,189.29	0.00	0.00
	Money Market Total					**10,004,347.64**	**10,004,347.64**	**10,004,347.64**	**0.00**	**0.00**	**1,656,772.58**	**0.07**	**0.07**
Municipal Bond	15-0023	468714EA4	JACEDU 1.693 03/01/18	Open	02/26/15	1,000,000.00	1,000,317.27	999,690.00	-5,312.73	0.00	43,077.38	5,643.33	5,643.33
	15-0025	581760AC9	MCLAREN CNTY MI 1.964 05/15/18	Open	04/02/15	730,000.00	731,242.94	728,284.50	-8,977.06	0.00	37,635.15	1,831.98	1,911.63
	15-0045	613357AF9	MONTG CO 2.44 11/01/19	Open	06/25/15	500,000.00	505,711.65	504,210.00	-7,538.35	1,830.00	30,500.00	2,033.33	3,863.33
	16-0007	650035J58	NY URBAN DEV TXBL 1.65 03/15/18	Open	12/08/15	500,000.00	500,254.33	500,015.00	-2,515.67	1,902.08	16,500.00	2,429.17	4,331.25
	16-0065	64971WF39	NYC TRAN FIN AUTH-SUB 1.69 02/01/21	Open	06/23/16	1,350,000.00	1,355,664.49	1,323,675.00	-2,692.01	4,999.58	29,152.49	9,506.25	13,435.50
	17-0004	047681NZ0	ATLANTA ETC REC 2.41 12/01/19	Open	07/22/16	720,000.00	734,390.38	720,878.40	-10,579.22	2,440.96	25,967.17	1,446.00	3,904.20
	17-0012	555542LS6	MACON-BIBB CNTY GA 3.00 12/01/20	Open	08/01/16	425,000.00	443,744.78	432,458.75	-8,820.72	2,104.72	19,064.17	1,062.50	3,187.50
	17-0027	64990E4G9	NY DORM AUTH C-TXBL 1.10 02/15/20	Open	09/30/16	1,000,000.00	1,000,000.00	979,210.00	0.00	1,138.20	10,052.78	4,155.56	4,583.34
	17-0028	64990EEL7	NYS DORM AUTH C-TXBL 2.12 03/15/21	Open	09/30/16	2,000,000.00	2,035,497.10	1,991,780.00	-13,402.90	1,766.67	42,400.00	12,484.44	14,251.11
	17-0029	64971WN97	NY TRANSITION TXBL 1.35 08/01/20	Open	09/30/16	2,625,000.00	2,638,324.01	2,568,142.50	-6,310.99	4,162.27	30,417.19	14,765.63	15,553.13

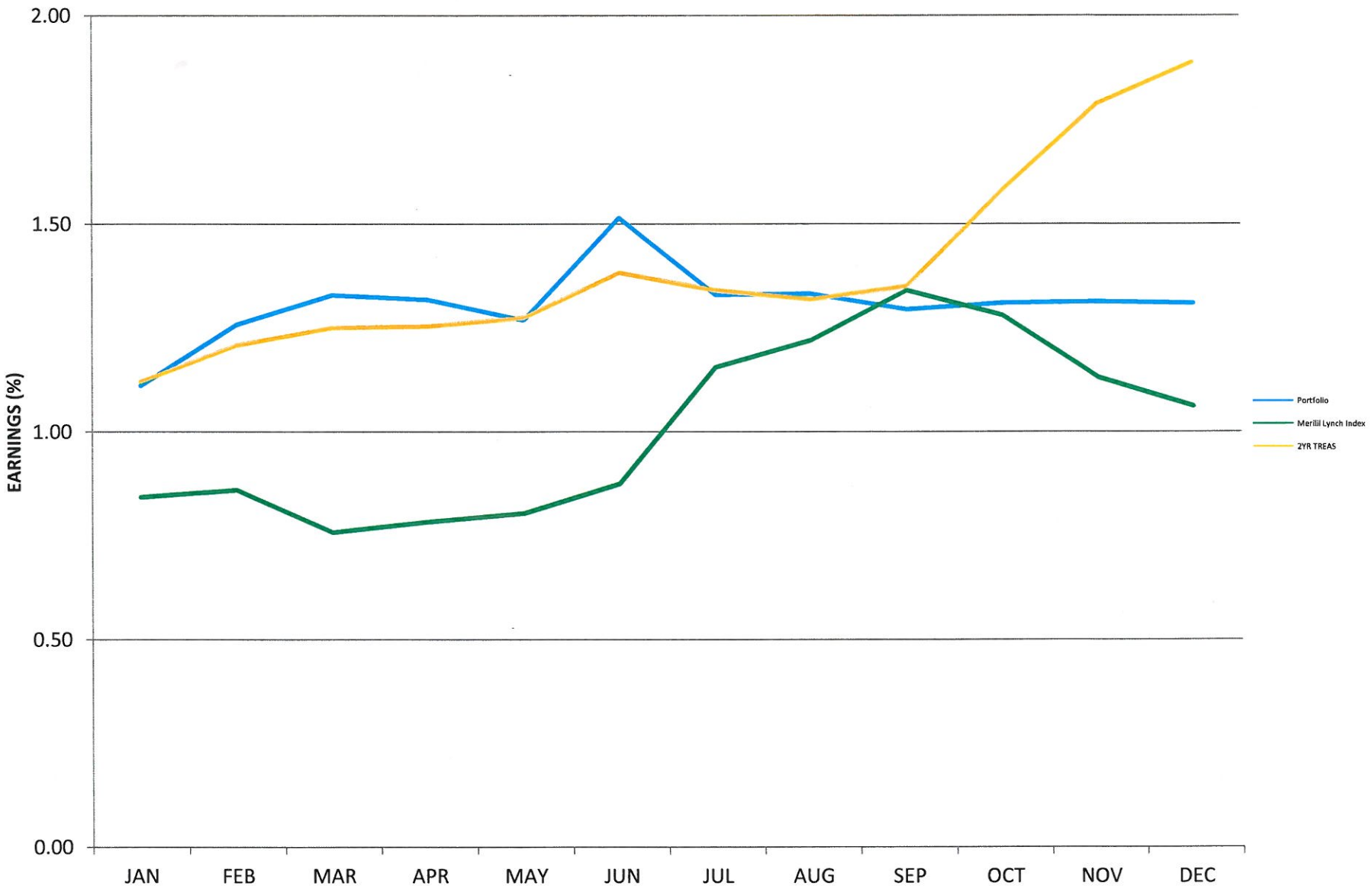
	17-0032	597137GZ5	MIDDLETOWN OH 2.053 12/01/20	Open	10/07/16	400,000.00	406,862.37	397,876.00	-2,813.63	2,831.62	12,257.17	684.33	3,376.04
	17-0051	696624AV7	CA PDTDEV 2.75 10/01/22	Open	02/06/17	1,000,000.00	997,788.94	992,460.00	408.94	3,235.92	18,409.72	6,875.00	7,333.33
	17-0059	485429Y32	KANSAS ST DEV AUTH 2.608 04/15/20	Open	02/08/17	775,000.00	787,228.04	777,131.25	-4,643.71	6,344.32	20,212.00	4,266.98	10,611.30
	17-0075	041042ZV7	ARKANSAS ST 2.875 06/01/21	Open	06/09/17	800,000.00	827,624.55	816,648.00	-4,375.45	511.11	11,500.00	1,916.67	2,427.78
	17-0076	64966HYC8	NEW YORK GO 4.774 03/01/20	Open	06/27/17	1,000,000.00	1,060,706.59	1,056,130.00	-13,953.41	15,382.89	23,870.00	15,913.33	31,296.22
	Municipal Bond Total					**14,825,000.00**	**15,025,357.44**	**14,788,589.40**	**-91,526.91**	**48,650.34**	**371,015.22**	**85,014.50**	**125,708.99**
Treasury Note	14-0020	912828VK3	Treasury Note 1.375 06/30/18	Open	04/29/14	390,000.00	389,858.57	389,758.20	1,016.38	1,762.81	18,768.75	2,696.06	4,458.87
	Treasury Note Total					**390,000.00**	**389,858.57**	**389,758.20**	**1,016.38**	**1,762.81**	**18,768.75**	**2,696.06**	**4,458.87**
	Investment Total					**106,393,496.17**	**106,593,744.58**	**105,798,556.42**	**-89,274.68**	**77,985.18**	**3,839,149.86**	**235,346.31**	**291,744.00**

Total Portfolio Asset Allocation as of 12/31/2017




Investment Portfolio by Maturity as of 12/31/17
Millions
30.00
25.00
20.00
15.00
10.00
5.00
0.00
2018
2019
2020
2021
2022
2023
Maturity Year
TREAS
MUNI
MMKT
FHLMC
FHLB
CD

Portfolio Performance as of 12/31/17



DATA ANALYSIS

Metro Cash Position

We saw an increase in the overall cash position over last month. This is the result of a new round of bonds being issued as well as the first receipt of property tax payments for the fiscal year. As previously stated, the savings account has been closed due to favorable rates being found elsewhere. Given the favorable rates being found in the market right now, particularly in the short end of the curve, you could expect the size of the investment portfolio to grow in the coming months as Metro receives future payments related to both occupational and property taxes.

Asset Allocation

The largest change to report here is the addition of funds to the money market sector. This new allocation of funds along with roughly $2 million in maturities resulted in a 2-3% drop in the allocation of other securities. Given current market conditions, any excess cash should be allocated elsewhere and put to better use.

Maturity Distribution

The only change to note is the addition of $10 million to the 2018 range as a result of the additional funds placed in the money market account. All other ranges remained unchanged in their balance. Any additional funds should be placed in the 2-4 year range as that's where the best value is at this point in time and it helps to create a more balanced portfolio structure.

Portfolio Performance

Performance remains steady but continues to lag behind the 2-yr TREAS benchmark. Unfortunately as the Fed has raised rates in the closing months of 2017, Metro has not been in a position to capitalize on these rate increases and purchase higher yielding investments. Additional funds should be put to use to as they come available and should result in an increase in yield. Under current market conditions, I believe it's reasonable to expect an 8-9bp increase in yield for a modest investment of $10 million in securities in the 2-4 year range. This is something to watch but should improve over the next few months.

ECONOMIC UPDATE

ECONOMIC UPDATE

The numbers are in for December and some left a bit to be desired. Nonfarm payrolls came in lower than expected down roughly 40,000. The good news is that the November number was revised about 24,000 higher so the two-month span is closer to a push. The unemployment rate remained unchanged at 4.1% and year-over-year average hourly earnings remained steady at a 2.5% increase. All in all, the numbers show solid labor growth with a little more inflation associated with near full employment.

And that's where it gets interesting. The yield curve continues to flatten with the spread between the 2-year and 10-year tightening to 49 basis points, this is all due to inflation. Inflation continues to fall short of the 2% goal and despite its best efforts; the Fed has made little progress in achieving that goal. The Fed continues to keep a bias towards tightening as evident by the three rate increases projected for 2018. The chart below outlines the projected rate hikes and the probability of when they will occur. Currently, there is an 85% chance of rates to be raised in March with the next coming in June.

World Interest Rate Probability

United States | Instrument | Futures: Fed Funds - Effective | Fed Effective Rate 1.42

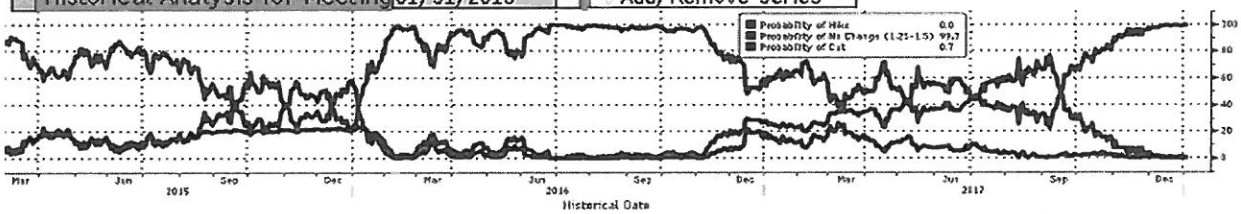
1) Overview | 2) Future Implied Probability

Current Implied Probabilities | 3) Add/Remove Rates

Dates ◉ Meeting ○ Calculation | Calculated 01/03/2018 | Based on rate 1.25-1.50

Meeting	Hike Prob	Cut Prob	0.75-1	1-1.25	1.25-1.5	1.5-1.75	1.75-2	2-2.25	2.25-2.5
01/31/2018	0.0%	0.7%	0.0%	0.7%	99.3%	0.0%	0.0%	0.0%	0.0%
03/21/2018	69.1%	0.2%	0.0%	0.2%	30.7%	69.1%	0.0%	0.0%	0.0%
05/02/2018	70.6%	0.2%	0.0%	0.2%	29.2%	67.2%	3.4%	0.0%	0.0%
06/13/2018	88.1%	0.1%	0.0%	0.1%	11.8%	44.5%	41.6%	2.0%	0.0%
08/01/2018	89.0%	0.1%	0.0%	0.1%	10.9%	41.9%	41.8%	5.2%	0.2%
09/26/2018	93.1%	0.0%	0.0%	0.0%	6.9%	30.3%	41.8%	18.8%	2.0%
11/08/2018	93.5%	0.0%	0.0%	0.0%	6.5%	29.0%	41.2%	20.1%	3.0%
12/19/2018	95.5%	0.0%	0.0%	0.0%	4.5%	22.0%	37.4%	26.7%	8.3%
01/30/2019	95.5%	0.0%	0.0%	0.0%	4.5%	22.0%	37.4%	26.6%	8.3%

Historical Analysis for Meeting 01/31/2018 | 4) Add/Remove Series



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 2018 Bloomberg Finance L.P.
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Long-term buyers don't believe we'll see destructive inflation and believe there is still value in a 2.45% 10-year note when you compare it to other 10-year notes (German Bund at 0.42%, Spanish at 1.48%, and Japanese at 0.047%). This will likely keep the funds from foreign investors coming in for a while longer or at least until inflation really does begin to emerge. Having said that, there is some value to be seen in the 2-4 year part of the curve. Yields in this area are well over 2% at this point in time and speaks volumes to the yield that municipalities can enjoy by investing in this range despite policy restrictions they are typically hampered by. In short, the numbers support a stable economy but not much has occurred to change investors positions.

Total Portfolio Shock Table

Lou / Jeff Cty Metro Finance

Effective Interest - Actual Life

Receipts in Period

12/31/2017

Data Category	*Down 300*	*Down 200*	*Down 100*	*Current*	*Up 100*	*Up 200*	*Up 300*
Current Par	77,345,123.64	77,345,123.64	77,345,123.64	77,345,123.64	77,345,123.64	77,345,123.64	77,345,123.64
Amor. Cost	77,542,478.54	77,542,478.54	77,542,478.54	77,542,478.54	77,542,478.54	77,542,478.54	77,542,478.54
Market Value	76,548,161.56	76,615,502.34	76,682,843.11	76,750,183.89	76,817,524.66	76,884,865.44	76,952,206.22
% Change	-0.26 (0.09)	-0.18 (0.09)	-0.09 (0.09)	0.00 (0.09)	0.09 (0.09)	0.18 (0.09)	0.26 (0.09)
Market Price	98.97	99.06	99.14	99.23	99.32	99.4	99.49
Market Yield	1.9544	1.8819	1.8095	1.7372	1.665	1.593	1.5211
Gain / Loss	-994,316.98	-926,976.20	-859,635.43	-792,294.65	-724,953.88	-657,613.10	-590,272.32

The table above represents the interest rate risk of the investment portfolio of individual fixed incomesecurities. By adjusting current market rates and by using the matrix pricing technique, the portfolio wassubjected to an immediate interest rate shock of plus or minus 300 basis points. The results in weightedaverage total is presented above which details the projected market value, market price, total unrealizedgain (loss) and percentage market value change from the current interest rate environment.