OFFICE OF THE

ARIZONA STATE TREASURER

KIMBERLY YEE

TREASURER

DECEMBER 2018

Presented To:

Arizona State Board of Investment

January 29, 2019

STATE BOARD OF INVESTMENT

A G E N D A

January 29, 2019

1. Call to Order; Opening Remarks …….Kimberly Yee, Chair
2. Approval of Minutes of December 27, 2018 BOI Meeting
3. Investment Outlook and Summary Review of Treasurer's Monthly Reports
   A. State Agency Earnings Distributions ……... Dennis Stevenson, CIO
      State Agency Operating Average Invested Balances
      State Agency Investments and Performance Reports
   B. LGIP Yield Analysis …… Jake Richardson, Portfolio Manager
      LGIP Pools Investments and Performance Reports
   C. Endowment Earnings Distributions …….Tim White, Director of Endowments
      Land Sales Monthly Proceeds Endowment Funds
      Endowment Investments and Performance Reports
      Broker Activity Report
4. Approval of December 2018 Report
5. Discussion of Approval of New Broker Dealers……..……Dennis Stevenson
6. Adoption of Fy2020 Endowment Distributions…. Michael Leslein, Accounting Manager
7. Review and Adoption of Policy Statement ……Mark Swenson, Deputy Treasurer
8. Treasurer's Report …….. Kimberly Yee, Chair
9. Market Outlook.....Harry Papp, Board Member
10. Call to the Public
11. Notice of Next Meeting
12. Adjournment

REPORT OF THE STATE TREASURER

FOR

January 29, 2019

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Minutes of
BOARD OF INVESTMENT MEETING

The regular meeting of the State Board of Investment was held on December 27, 2018 in the Office of the State Treasurer, 1700 West Washington, State Capitol, West Wing, Treasurer's Conference Room, Phoenix, Arizona. Treasurer Klein called the meeting to order at approximately 1:30 p.m.

Members Present:

Eileen I. Klein, Chair, State Treasurer
Harry A. Papp, CFA & Managing Partner, L. Roy Papp & Associate

Designee Present:

Clark Partridge, Comptroller, Arizona Department of Administration

Members Absent:

Gilbert Davidson, Interim Director, Arizona Department of Administration
Beth Ford, Treasurer, Pima County
Robert Charlton, Superintendent, Department of Financial Institutions

1. **Call to Order; Opening Remarks:**
   Treasurer Klein called the December 27, 2018 BOI meeting to order at approximately 1:30 p.m.

2. **Approval of Minutes:**
   Mr. Partridge made a motion to approve the November 30, 2018 minutes. Mr. Papp seconded the motion. Motion carried.

3. **Investment Outlook and Summary Review of Treasurer's Monthly Reports:**

   A. **State Agency Earnings Distributions, Operating Average Invested Balances, Investments and Performance Reports**
   Chief Investment Officer, Dennis Stevenson, distributed his outlook and highlighted the results of the State Agency performance for the month of November 2018. See memo.

   B. **LGIP Yield Analysis, Pools Investments and Performance Reports**
   Portfolio Manager, Jake Richardson, distributed his outlook and highlighted the results for the Local Government Investment Pools performance for the month of November 2018. See memo.

   C. **Endowment Earnings Distributions, Land Sales Monthly Proceeds, Investment and Performance Reports**
   Director of Endowments, Tim White, distributed his outlook and highlighted the results for the Endowment performance for the month of November 2018. See memo.

4. **Approval of November 2018 Report:**
   Mr. Papp made a motion to approve the November 2018 Report. Mr. Partridge seconded the motion. Motion carried.

5. **Cash Flow Analysis Presentation:**
   Deputy Treasurer Mark Swenson presented the Cash Flow Analysis to the Board.

6. **Treasurers Report:**
   Treasurer Klein provided the Board with a brief Treasurer's Report which included an update on the operations of the office.

7. **Market Outlook:**
   Mr. Papp provided the Board with a brief Market Outlook.

9. **Call to the Public:**
   There was no Public comment.

10. **Notice of Next Meeting:**
    Treasurer Klein advised the Board that the next regular meeting of the Board of Investment will be Tuesday, January 29, 2019 at 1:30 p.m. at 1700 West Washington, State Capitol, West Wing, Treasurer's Conference Room, Phoenix, Arizona.

11. **Adjournment:**
    Mr. Partridge made a motion to adjourn the BOI meeting. Mr. Papp seconded the motion. Upon unanimous approval the BOI Meeting was adjourned at 2:51 p.m.

Respectfully Submitted by:

_____
Deborah Gomez
Executive Assistant

Approved by:

_____ _____
Kimberly Yee Date
Chair

OFFICE OF THE
ARIZONA STATE TREASURER

KIMBERLY YEE
TREASURER

Investment Summary | December 2018

Overall Performance – Where We Are Now |

- State Agency Pools:
  - Total assets: $6,477,128,935
  - November earnings distributed: $12,427,254 (+85.9% YoY)
  - Fiscal YTD earnings distributed: $63,233,188 (+74%YoY)

Outlook |

The Federal Reserve has announced they are data dependent to raise interest rates this year. It is unlikely they will be able to raise rates more than once in a very low inflationary environment. We expect that there will only be a 25bps move in 2019 and that is unlikely to occur until at least mid-year. On January 24th, 2019 the European Central Bank announced, "a significant amount of monetary stimulus is still needed." I interpret this to mean the European Union will not begin to raise interest rates in the near future. The same can be said for the major Asian economies.

Strategy: Monthly Commentary |

We have already added some duration since the Federal Reserve last increased interest rates 25bps. We will continue to do so when the opportunity and price makes it advantageous. The yield curve has flattened to such an extent that we have minimal costs due to having a relatively short duration. We intend to continue this course of action and retain the ability to pivot to longer duration if the Federal Reserve policy or a significant spike in real inflation should dictate a change.

Alternative Scenarios |

There are several scenarios we continue to monitor which could change our expectations:

- Failure of Congress to raise the debt ceiling.
- The Chinese trade war escalates.
- A massive jolt to inflation due to rising world food or crude oil costs.
- Federal Government shutdown continues for a unusually long time.

Dennis Stevenson, CIO

State Agency Investment Pool Balances |

	December 31, 2018	December 31, 2017	FY Change
Pool 2 FF&C	$1,174,444,903	$1,131,365,852	$43,079,051
Pool 3 Internal	$2,047,106,020	$1,412,000,027	$635,105,993
Pool 3 External	$106,609,955	$104,830,781	$1,779,174
Pool 4 Gov.	$1,221,372,236	$1,201,658,771	$19,713,465
Pool 10 Internal	$1,094,527,918	$946,462,713	$148,065,205
Pool 10 External	$88,521,561	$216,326,227	-$127,804,666
Pool 12 CAWCD	$416,021,145	$398,983,583	$17,037,562
Pool 16 ECDHB	$328,525,195	$348,707,486	-$20,182,291
TOTAL STATE AGENCY	**$6,477,128,935**	**$5,760,335,441**	**$716,793,494**

Dennis Stevenson, CIO

Local Government Investment Pools (LGIP) Summary

Overall Performance – Where We Are Now |

- Local Government Investment Pools:
  - Total assets: $3,380,195,903
  - Total earnings: $6,882,405; +$3.3MM over December 2017
  - Total fiscal year yields:
    - Pool 5: 2.18%; 108bps higher than December 2017
    - Pool 7: 2.03%; 104bps higher than December 2017
    - Pool 500: 2.34%; 64bps higher than December 2017
    - Pool 700: 2.07%; 56bps higher than December 2017

Strategy: Short-term Pools 5 & 7 |

Leading into the new year, the Federal Reserve is sounding more dovish and forecasting only two interest rate hikes in 2019. The market is more pessimistic and anticipates that the Fed will leave interest rates unchanged through the year. Earnings continue to benefit from the nine rate hikes that started in December 2015. Pools 5 and 7, our short-term investment pools, will look to slightly extend duration. Both Pools will continue to keep a daily liquidity target of 10% to 15% for participant cash needs. Pool 5 will be investing in high quality liquid assets, managing maturities to our daily liquidity target. Pool 7, our full faith and credit fund, will continue to ladder out U.S. Treasury bills. We will be adding more weight toward 6-month and 1-year T-bills.

Strategy: Intermediate Pools 500 & 700 |

The intermediate LGIP pools will remain defensive with the uncertainty of the next Fed move. We intend to patiently extend duration through 2019 as funds come available. Both Pools will aim to put more emphasis on fixed coupon, bullet structured bonds. Pool 500 continues to maintain its 5% monthly liquidity target for participant cash needs. Pool 500 will be able to take advantage of yields during the first half of 2019 as securities mature, looking to reinvest them in high quality assets. This will also include us increasing our U.S. Treasury note allocation throughout the year. Pool 700 will maintain its goal of 10% to 15% monthly liquidity for participants. Throughout 2019 we look to start laddering U.S. Treasury bills and notes with the goal to start extending duration.

LGIP Investment Pool Balances |

	December 31, 2018	December 31, 2017	FY Change
Pool 5 LGIP	$1,566,802,316	$1,326,835,164	$239,967,152
Pool 7 LGIP FF&C	$1,322,408,266	$1,425,466,342	-$103,058,076
Pool 500 LGIP Med.	$353,925,698	$351,149,262	$2,776,436
Pool 700 LGIP Med FF&C	$137,059,624	$152,056,484	-$14,996,860
TOTAL LGIP	**$3,380,195,903**	**$3,255,507,252**	**$124,688,651**

Jake Richardson, Portfolio Manager

Endowment Summary

Overall Performance – Where Are We Now |

- Highlights:
  - PLETF 10-year annualized total return now 8.68%
  - PLETF 1-year annualized total return beats benchmark by 40bps
  - Prop 123 monthly distributions highest ever

Big Picture:

- PLETF fair market value at $5,526,910,754
- Monthly distributions continue at record levels of $28.8MM
- FYTD2019 distribution increased from $143.9MM to $172.7MM MoM; up $13.6MM vs FYTD2018
- PLETF outperforming benchmark by +8bps FYTD; +40bps for the trailing 12 months
- Total annualized 1-Year return was -3.49% vs Benchmark -3.89% – better by +40bps overall
- Annualized 10-Year total return through December is 8.68% versus November at 9.59%
- Fair Market Value down $330.5MM MoM; Down $357MM YoY
- Unrealized Gains: $2.7B (Down $288MM or 9.61% YoY)
- December Realized Gains: $721K; FYTD +$60.3MM
- December TRR PLETF -5.61% vs Benchmark -5.43%; -18bps vs benchmark MoM
- Pool 205 lagged the FTSE BIG Index by 57bps; **+114bps** YTD
- Four out of five PLETF investment pools outperformed benchmarks in December

Equity Strategy: Stay the Course; Long-Term Horizon |

We continue to view our equity exposure as a long-term driver of returns for the PLETF. Exposure to U.S. equities has been a tremendous value-add over time and though markets periodically move through market correction phases, long-term equilibrium has rewarded patient investors with positive returns that outpace inflation and build trust value in *real* terms. The period beginning in early October clearly dealt investors with increased volatility into December. SmallCaps and MidCaps fell into official bear market status (-20% from peak); however, as equity prices dropped, valuation multiples are making them appear cheaper on price/earnings (P/E) basis, which historically entice investors to return and reward those that stayed the course as witnessed by the rally which began on December 26. Our equity exposure was 57.76% at month-end. SmallCaps have historically outperformed the asset classes we hold. As the PLETF is invested in perpetuity, our goal is to take advantage of this historic outperformance over time. Since inception, our SmallCap exposure has returned 10.35% (-194bps MoM), still outperforming the MidCap exposure at 8.55% (-80bps MoM), our LargeCap exposure at 4.65% (-53bps MoM), and our fixed income return of 4.54% (+4bp MoM). We will continue to passively invest in the individual components of the various indices per our investment policy on a market capitalization-weighted basis, although we are examining the merits of other strategies including equal capitalization-weighted and low-volatility index components.

Fixed Income Strategy: Add UST Duration; Continue to Lighten Corporates |

With the recent inversion of the 2/5's portion of the yield curve and market concern about fed actions, trade tensions, global slowing, and seemingly benign inflation, bonds have rallied significantly hence better relative performance by the benchmark for December. While our significant YTD outperformance (+114bps) has come from defensive positioning against rising rates with shorter durations, we will likely reduce our relatively short duration position versus our benchmark. Our portfolio is extending as Prop 123 distributions are being met and could extend

Tim White, Director of Endowments

much greater should we need to rebalance by selling fixed income for rebalancing purposes. We will continue our strategy of lightening up corporate exposure and increasing UST exposures by letting corporate bonds mature and moving into short cash equivalents within Pool 123. We now hold four months of liquidity in that pool for timely school payments. Credit default spreads did widen under stress as we anticipated but then rallied as sentiment began to improve in the last week of December.

Bearing this in mind, we think interest rates may still eventually rise modestly but the curve will stay flat in line with Wall Street economists' consensus. We feel it is prudent to have room for duration extension from possible sale of shorter bonds in Pool 205 should we trigger 42.5% fixed income exposure. Our duration is currently shorter than the benchmark by 2.25 years at 3.51 years (-0.09 MoM) versus 5.76 (-0.08MOM) for the SBBIG Index; +0.01 net change MoM. Note the forward-looking Bloomberg Bond Yield Forecast compiled by averaging 56 Wall Street economists' forecasts:

95) Chart 96) Export Page 1/3 Bond Yield Forecasts

Region G7 Spread 2 Year - 10 Year

	Rate	Market Yld	Q1 19	Q2 19	Q3 19	Q4 19	Q1 20	Q2 20	Q3 20	Q4 20	Q1 21	Q2 21
	United States											
1)	US 30-Year	3.03	3.12	3.26	3.32	3.36	3.45	3.47	3.46	3.44	3.40	3.45
2)	US 10-Year	2.71	2.88	3.01	3.07	3.10	3.14	3.16	3.16	3.15	3.13	3.18
3)	US 5-Year	2.55	2.78	2.91	2.95	2.98	3.02	3.05	3.05	3.02	2.89	2.86
4)	US 2-Year	2.56	2.73	2.87	2.91	2.93	2.96	2.97	2.97	2.93	2.80	2.83
5)	US 3-Month Libor	2.77	2.81	2.96	3.04	3.09	3.12	3.14	3.13	3.08	2.96	2.98
6)	Fed Funds Rate - Upper Bound	2.50	2.55	2.75	2.85	2.90	2.90	2.85	2.85	2.80	2.70	2.75
7)	Fed Funds Rate - Lower Bound	2.25	2.30	2.51	2.59	2.66	2.63	2.61	2.58	2.56	2.47	2.49
	2 Year - 10 Year Spread	0.15	0.15	0.13	0.16	0.17	0.19	0.19	0.19	0.23	0.33	0.35

Endowment Monthly Land Sale Proceeds |

- +$2.3 MM in December.
- -$40 MM vs November.
- +$59 MM FYoY

Endowment Prop 123 Distributions |

- $28.8 MM total/$26.8 MM for K-12 successfully distributed on time from Pool 123
- FYTD K-12 distribution $160.6MM; up $12.7MM YoY
- Pool 123 mechanism working well (increased to 3-4 months laddered liquidity)

Pool Performance |

Portfolio 3Yr standard deviation was 7.17 versus benchmark at 7.25; Portfolio is less risky/volatile versus benchmark.

Equity/Fixed Income Pools:

- Pool 201 LargeCap Equity outperformed the S&P 500 by 4bps MoM at -8.99% vs -9.03%.
- Pool 203 MidCap Equity outperformed the S&P 400 by 7bps MOM at -11.25% vs -11.32%.
- Pool 204 SmallCap Equity outperformed the S&P 600 by 11bps MOM at -11.96% vs -12.07%.
- Pool 205 underperformed the SBBIG Index by 57bps MOM; continues to outperform by +114bps YTD.
- Pool 123 returned +0.27% for December, outperforming benchmark by 7bps.

Tim White, Director of Endowments

EARNINGS DISTRIBUTION - INVESTMENT POOLS
DECEMBER 2018

Recipient	Earnings Distributed DECEMBER 2018	Fiscal YTD 18/19	Fiscal YTD 17/18	Change from Previous Year	Fiscal YTD Investment Management Fees Received
General Fund *	$4,031,317	$19,248,577	$9,648,374	99.5%	
2 State Agencies - Full Faith & Credit	1,818,060	9,191,299	4,905,163	87.4%	257,258
3 State Agencies - Diversified (Combined) **	2,058,949	11,155,228	7,160,521	55.8%	454,972
4 State Agencies - Gov	2,082,902	10,078,546	5,017,908	100.9%	304,947
5 LGIP	3,241,044	16,198,378	6,896,351	134.9%	407,113
7 LGIP Gov	2,545,137	12,112,224	6,358,316	90.5%	337,739
9A Public School Credit Enhancement ***	0	0	0	0	27,675
10 Restricted Operating	849,309	4,725,080	3,076,687	53.6%	328,098
12 CAWCD Medium-Term	870,476	4,729,901	3,184,455	48.5%	111,165
16 ECDH Medium-Term	716,242	4,104,556	3,343,637	22.8%	102,772
Subtotal	**$18,213,435**	**$91,543,790**	**$49,591,412**	**84.6%**	**$2,331,738**
NAV POOL					
500 LGIP - Med Term	735,446	4,094,688	2,836,991	44.3%	96,285
700 LGIP - FF&C Med Term	234,934	1,134,248	1,107,144	2.4%	36,936
Total	**$19,183,815**	**$96,772,726**	**$53,535,547**	**80.8%**	**$2,464,959**
DECEMBER 2017 TOTALS	**$10,264,796**				**$2,279,416**

* Note: Pool 15 AHCCCS Operating Earnings are reported in General Fund
** Note: Pool 15 AHCCCS Operating Management Fees are reported in Pool 3 State Agencies Diversified (Combined)
*** Note: Pool 9A represents $80 million invested in School Funding Obligations; earnings on this investment revert to the General Fund

OPERATING MONIES
AVERAGE INVESTED BALANCE
Through December 31, 2018
(in millions)

Month	Fiscal Year 2016/2017	Fiscal Year 2017/2018	Fiscal Year 2018/2019
JULY	$2,012	$1,635	$1,824
AUGUST	1,504	1,303	1,495
SEPTEMBER	1,694	1,455	1,594
OCTOBER	1,672	1,473	1,813
NOVEMBER	1,633	1,417	1,912
DECEMBER	1,693	1,400	2,007
JANUARY	2,255	2,140	
FEBRUARY	2,306	2,244	
MARCH	1,968	1,937	
APRIL	1,961	1,980	
MAY	2,215	2,279	
JUNE	2,147	2,407	
Y-T-D Average	**$1,701**	**$1,447**	**$1,774**
Full Year Average	**$1,922**	**$1,806**	

STATE AGENCY POOLS
PORTFOLIO EARNINGS ANALYSIS
DECEMBER 2018

FUND	DESCRIPTION	Current Month 12/31/18	Prior Month 11/30/18	Prior Year 12/31/17	Net Asset Value Per Share
2	STATE AGENCIES - FULL FAITH & CREDIT	1,979,455	1,825,365	1,040,230	0.9940
3	STATE AGENCIES - DIVERSIFIED				
	INTERNAL MANAGERS	3,507,469	2,880,748	1,456,646	0.9966
	EXTERNAL MANAGERS	205,252	193,694	142,297	0.9951
	FUND 3 TOTAL	3,712,721	3,074,441	1,598,943	0.9965
4	STATE AGENCIES - GOV	2,459,523	2,406,575	1,242,398	0.9976
9A	PUBLIC SCHOOL CREDIT ENHANCEMENT	195,804	185,834	106,417	0.9940
10	RESTRICTED OPERATING				
	INTERNAL MANAGERS	2,200,136	2,005,266	1,265,196	0.9948
	EXTERNAL MANAGERS	121,936	126,239	212,898	1.0022
	FUND 10 TOTAL	2,322,072	2,131,505	1,478,094	0.9989
12	CAWCD MEDIUM-TERM	870,476	797,293	577,687	0.9965
15	AHCCCS OPERATING	45,118	62,660	32,865	N/A
16	ECDH MEDIUM-TERM	716,242	683,393	578,919	0.9903
	TOTAL STATE AGENCIES	12,301,410	11,167,066	6,655,554	

STATE AGENCY POOLS
PORTFOLIO YIELD ANALYSIS
DECEMBER 2018

FUND	DESCRIPTION	Current Month 12/31/18	Prior Month 11/30/18	Prior Year 12/31/17
2	**STATE AGENCIES - FULL FAITH & CREDIT**	2.31%	2.20%	**1.34%**
	50% Trailing 3-mo T-bill /	2.52%	2.56%	**1.53%**
	50% Bloomberg Barclays 1-3 year UST			
3	**STATE AGENCIES - DIVERSIFIED**			
	INTERNAL MANAGERS	2.51%	2.37%	**1.54%**
	EXTERNAL MANAGERS	2.26%	2.20%	**1.60%**
	COMBINED	2.49%	2.36%	**1.54%**
	50% 1 month T-bill /	2.63%	2.63%	**1.59%**
	50% Bloomberg Barclays 1-3 year US Agg			
4	**STATE AGENCIES - GOV**	2.43%	2.34%	**1.41%**
	50% Trailing 3-mo T-bill /	2.52%	2.56%	**1.53%**
	50% Bloomberg Barclays 1-3 year US Gov			
9A	**PUBLIC SCHOOL CREDIT ENHANCEMENT**	2.31%	2.20%	**1.34%**
10	**RESTRICTED OPERATING**			
	INTERNAL MANAGERS	2.38%	2.26%	**1.57%**
	EXTERNAL MANAGERS	1.47%	1.42%	**1.17%**
	COMBINED	2.31%	2.19%	**1.50%**
	50% Trailing 3-mo T-bill /	2.63%	2.66%	**1.61%**
	50% Bloomberg Barclays 1-3 year US Agg			
12	**CAWCD MEDIUM-TERM**	2.45%	2.39%	**1.74%**
	25% S&P LGIP Index /	2.76%	2.84%	**1.79%**
	75% Bloomber Barclays 1-3 year US Agg			
15	**AHCCCS OPERATING**	0.41%	0.61%	**0.30%**
16	**ECDH MEDIUM-TERM**	2.54%	2.51%	**1.95%**
	25% S&P LGIP Index /	2.76%	2.84%	**1.79%**
	75% Bloomber Barclays 1-3 year US Agg			

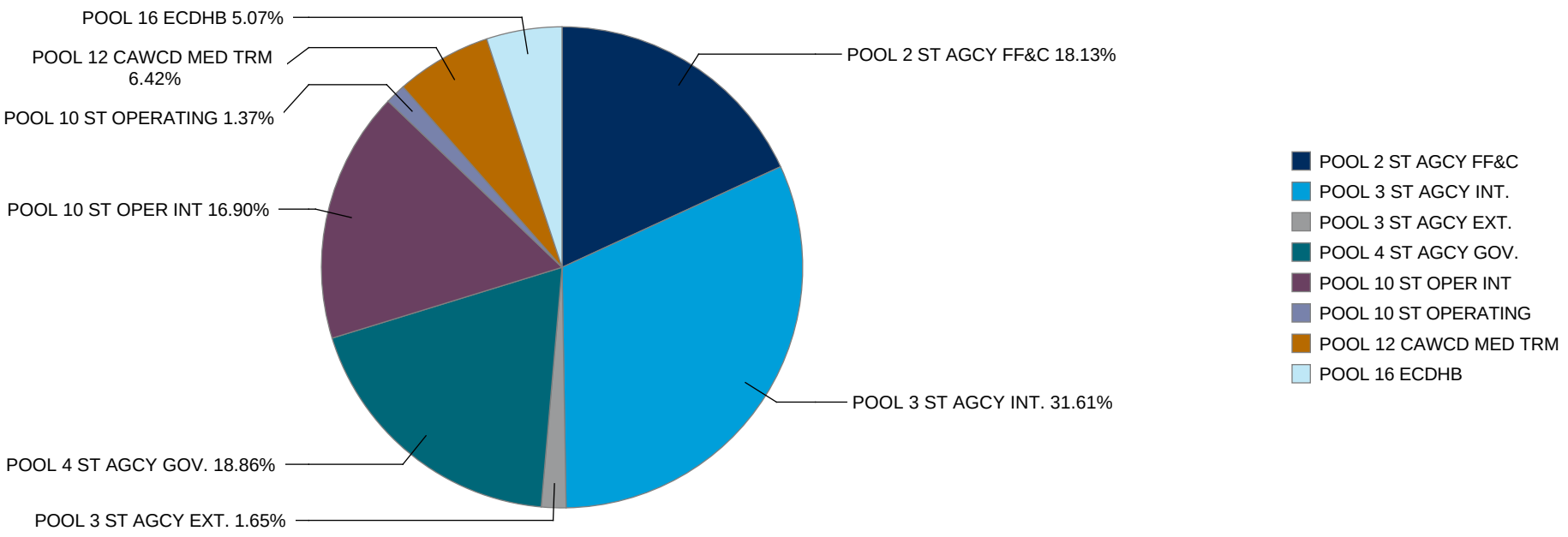
NOTE - all benchmark measurements were revised in October 2018; prior period benchmarks were also changed to reflect the revised measures

OFFICE OF THE ARIZONA STATE TREASURER

December 31, 2018

STATE AGENCY

Manager Allocation



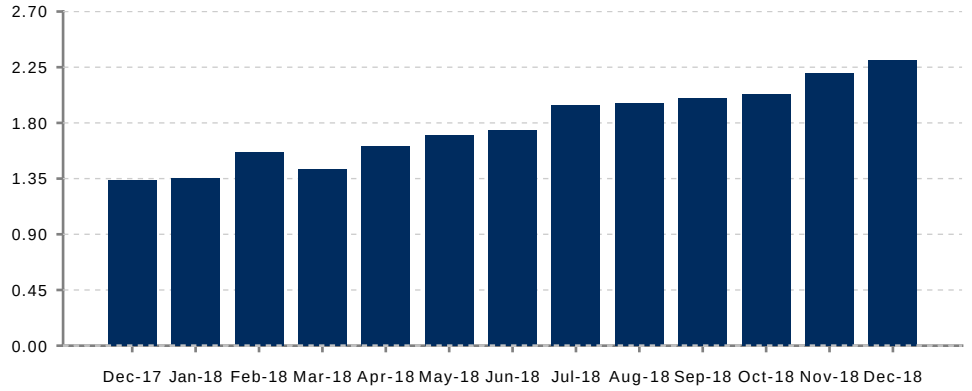
	Market Value	% of Portfolio
POOL 2 ST AGCY FF&C	1,174,444,903	18.1
POOL 3 ST AGCY INT.	2,047,106,020	31.6
POOL 3 ST AGCY EXT.	106,609,955	1.6
POOL 4 ST AGCY GOV.	1,221,372,236	18.9
POOL 10 ST OPER INT	1,094,527,918	16.9
POOL 10 ST OPERATING	88,521,561	1.4
POOL 12 CAWCD MED TRM	416,021,145	6.4
POOL 16 ECDHB	328,525,195	5.1
TOTAL STATE AGENCY	6,477,128,935	100.0

OFFICE OF THE ARIZONA STATE TREASURER

December 31, 2018

POOL 2 ST AGCY FF&C

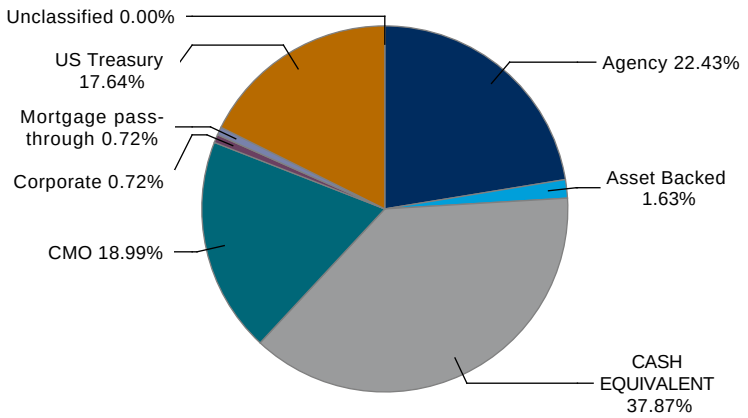
Net Yield



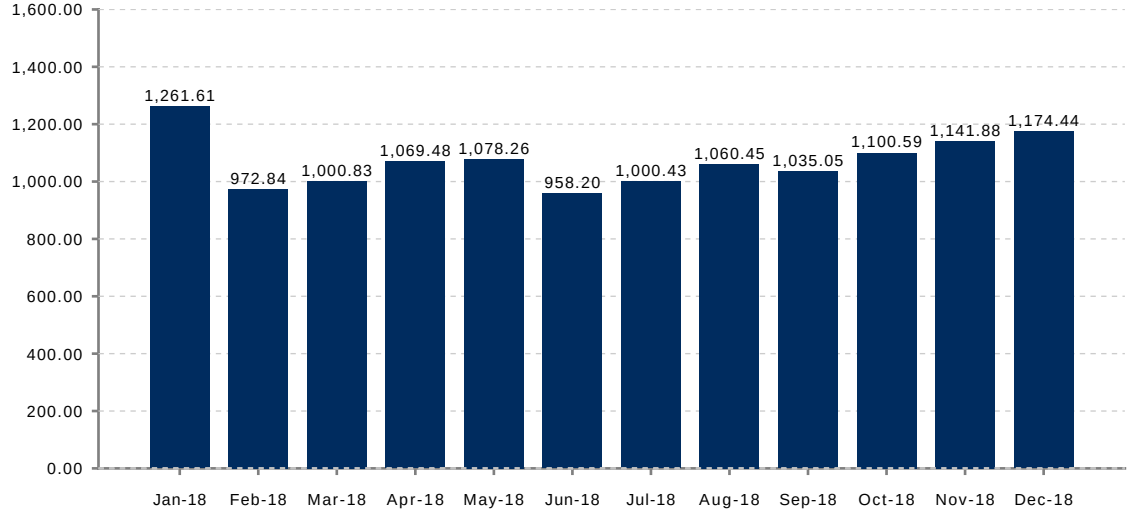
	Current Mth	Prior Mth	1 Year Ago
POOL 2 ST AGCY FF&C	2.31	2.20	1.34

Asset Allocation

	Ending Market Value
POOL 2 ST AGCY FF&C	1,174,444,903



Net Asset Values over Time ($MM)



Top 10 Holdings

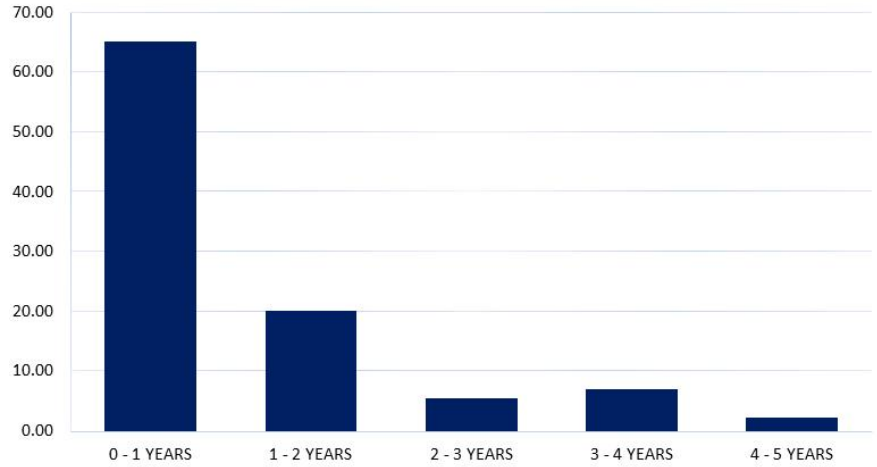
Security Name	Ending Market Value	% of Portfolio
POOL 2 ST AGCY FF&C		
DAIWA CAPITAL MARKETS	200,016,389	17.03
RBC CAPITAL MARKETS R	144,548,985	12.31
US TREASURY N/B	80,819,786	6.88
TREASURY BILL	69,348,368	5.90
WELLS FARGO REPO	55,022,550	4.68
UNITED STATES TREAS BI	44,594,521	3.80
WI TREASURY SEC	39,588,050	3.37
TREASURY BILL	39,474,883	3.36
OVERSEAS PRIVATE INV C	25,027,742	2.13
US TREASURY N/B	24,982,195	2.13

OFFICE OF THE ARIZONA STATE TREASURER

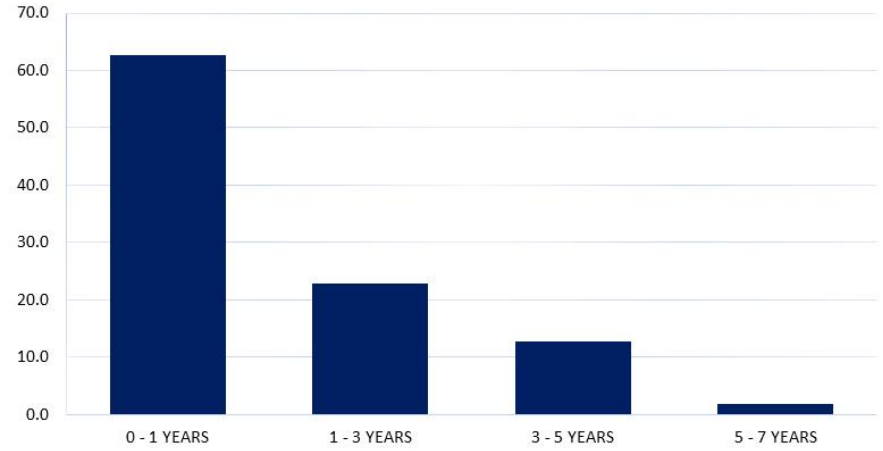
December 31, 2018

POOL 2 ST AGCY FF&C

Duration Distribution



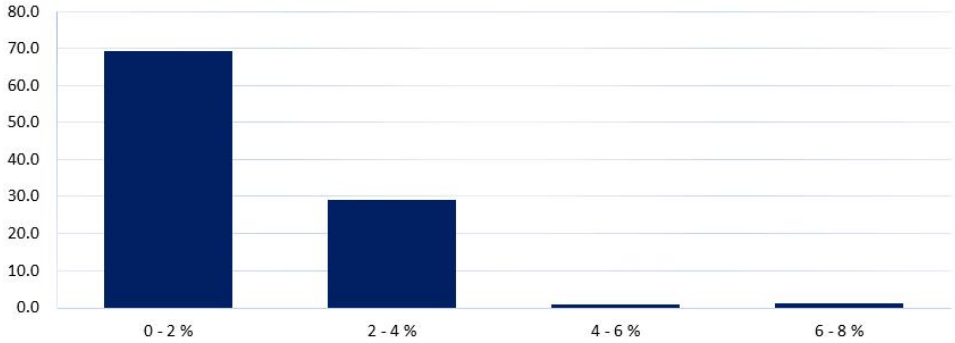
Expected Maturity Distribution



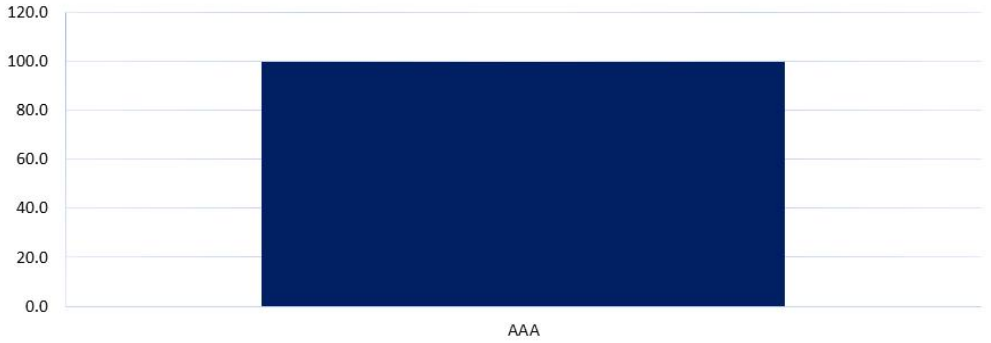
Portfolio Level Characteristics

	POOL 2 ST AGCY FF&C
Effective Maturity	1.09
Coupon	1.08
Effective Duration	0.92
Quality Rating (Moody's)	AAA

Coupon Distribution



Rating Distribution



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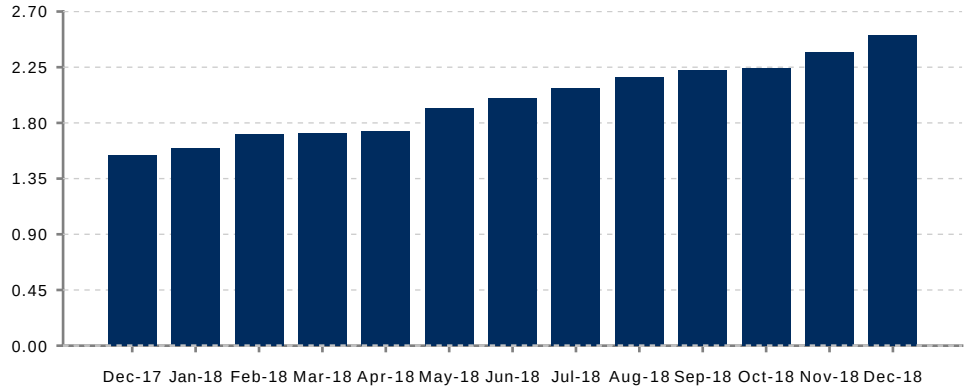
POOL 3 ST AGCY INT.

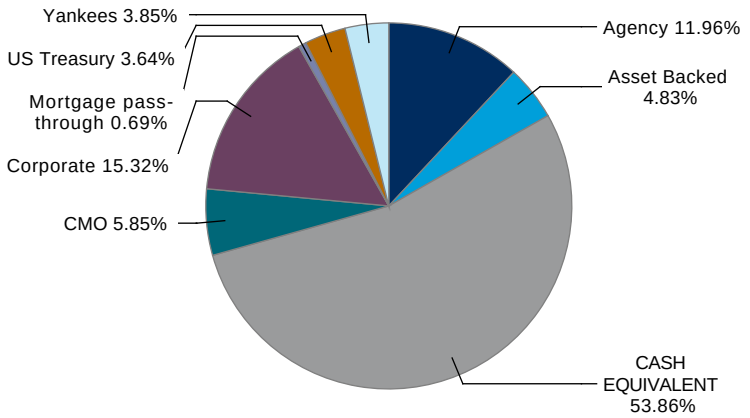
Net Yield



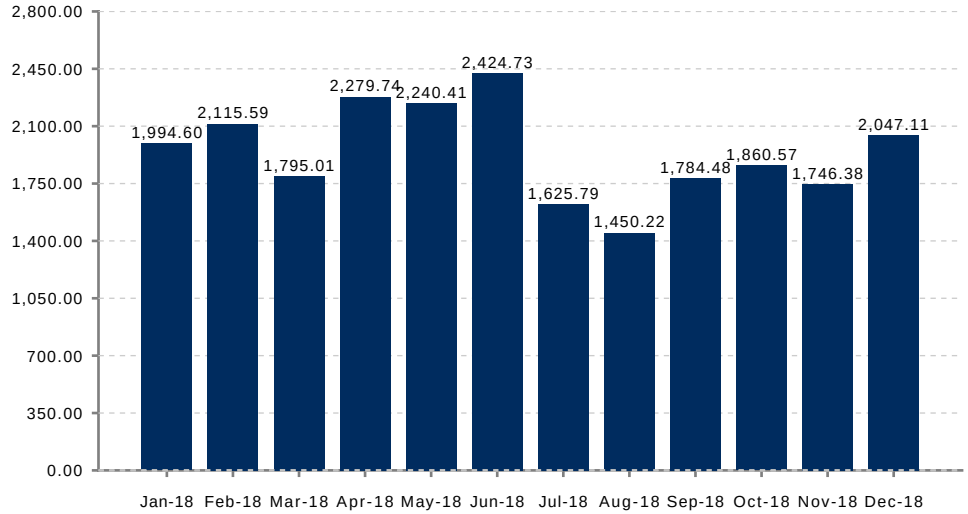
	Current Mth	Prior Mth	1 Year Ago
POOL 3 ST AGCY INT.	2.51	2.37	1.54

Asset Allocation

	Ending Market Value
POOL 3 ST AGCY INT.	2,047,106,020



Net Asset Values over Time ($MM)



Top 10 Holdings

Security Name	Ending Market Value	% of Portfolio
POOL 3 ST AGCY INT.		
SOUTH STREET REPO	525,051,042	25.65
AMHERST PIERPONT	350,032,569	17.10
TREASURY BILL	79,100,266	3.86
US TREASURY N/B	40,431,044	1.98
WI TREASURY SEC.	39,532,361	1.93
IBM CORP	30,104,330	1.47
COCA-COLA COMPANY	24,996,847	1.22
INSTITUTIONAL SECURED	24,994,708	1.22
USAA CAPITAL CORP	24,975,833	1.22
FEDERAL FARM CREDIT BANK	24,963,097	1.22

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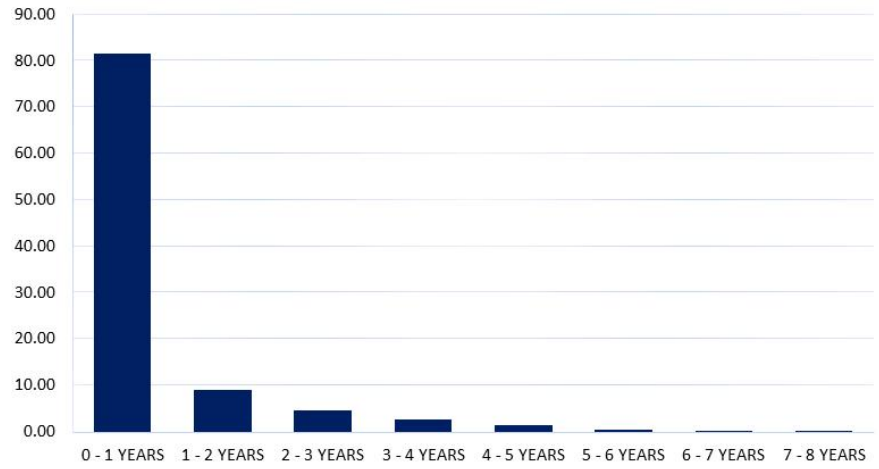
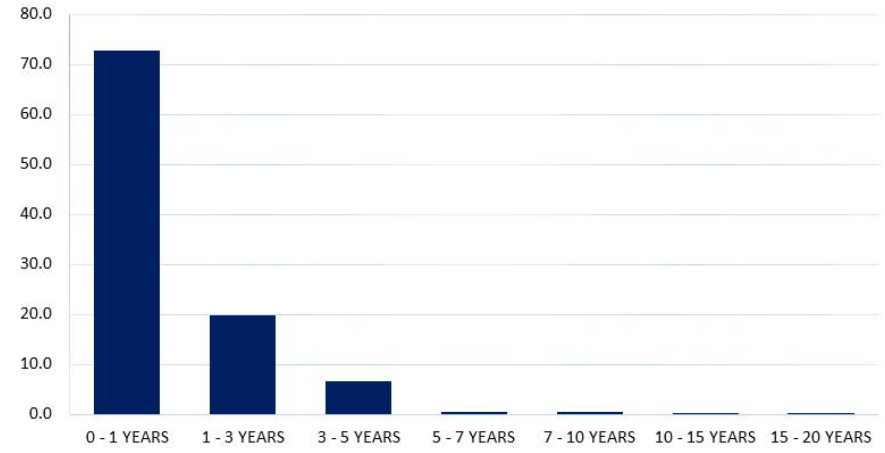
POOL 3 ST AGCY INT

Duration Distribution



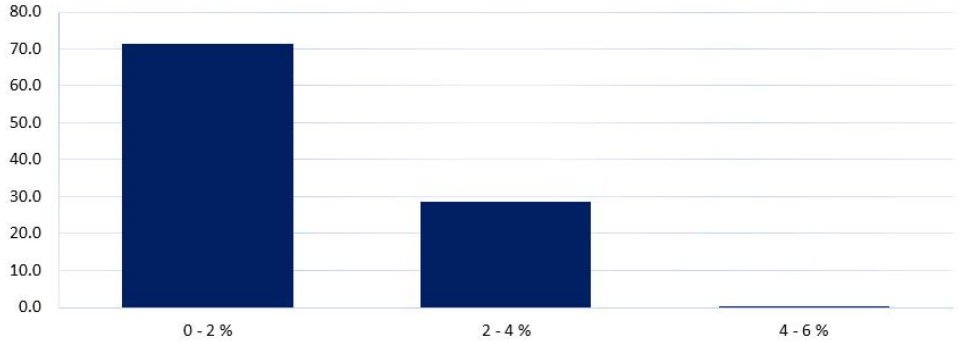
Expected Maturity Distribution



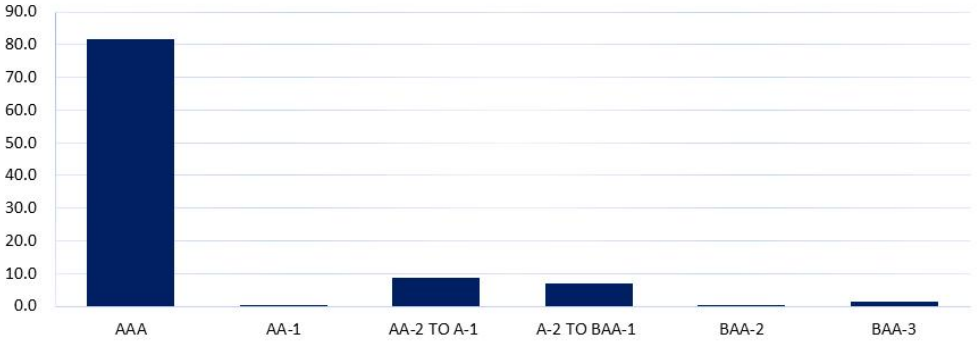
Portfolio Level Characteristics

	POOL 3 ST AGCY INT.
Effective Maturity	0.79
Coupon	1.04
Effective Duration	0.54
Quality Rating (Moody's)	AA-1

Coupon Distribution



Rating Distribution



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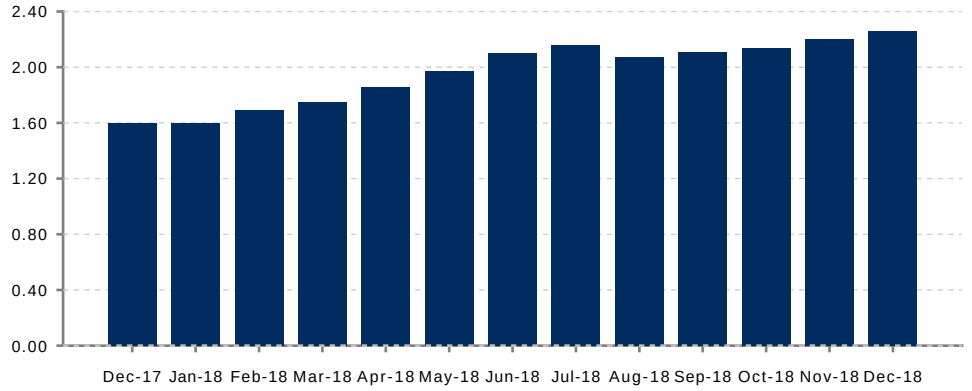
POOL 3 ST AGCY EXT.

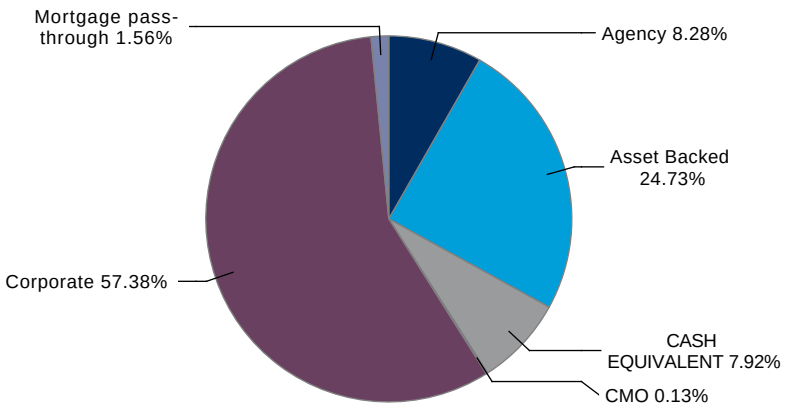
Net Yield



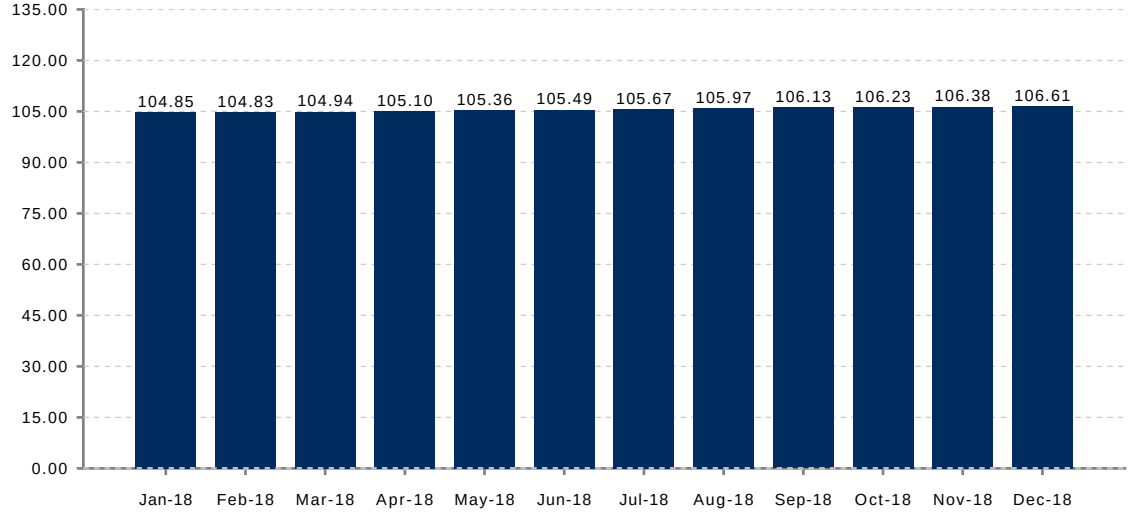
	Current Mth	Prior Mth	1 Year Ago
POOL 3 ST AGCY EXT.	2.26	2.20	1.60

Asset Allocation

	Ending Market Value
POOL 3 ST AGCY EXT.	106,609,955



Net Asset Values over Time ($MM)



Top 10 Holdings

Security Name	Ending Market Value	% of Portfolio
POOL 3 ST AGCY EXT.		
FANNIE MAE	2,987,538	2.80
FREDDIE MAC	2,767,490	2.60
DISCOVER CARD EXECUTION NOTE T	2,097,958	1.97
AUSTR & NEW ZEALND B	2,014,772	1.89
FANNIE MAE	1,991,727	1.87
CISCO SYSTEMS INC	1,991,675	1.87
BANK OF AMERICA CREDIT CARD TR	1,916,732	1.80
BRANCH BANKING + TRUST	1,860,525	1.75
MANUF + TRADERS TRUST CO	1,786,937	1.68
CITIBANK NA	1,747,202	1.64

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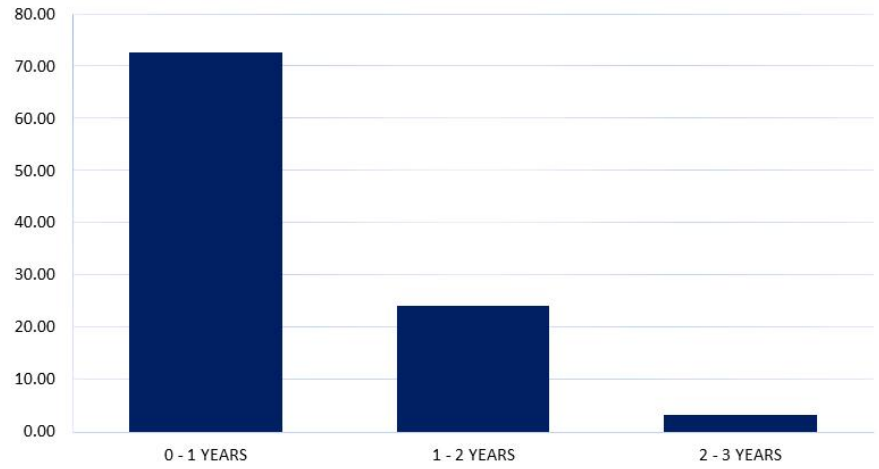
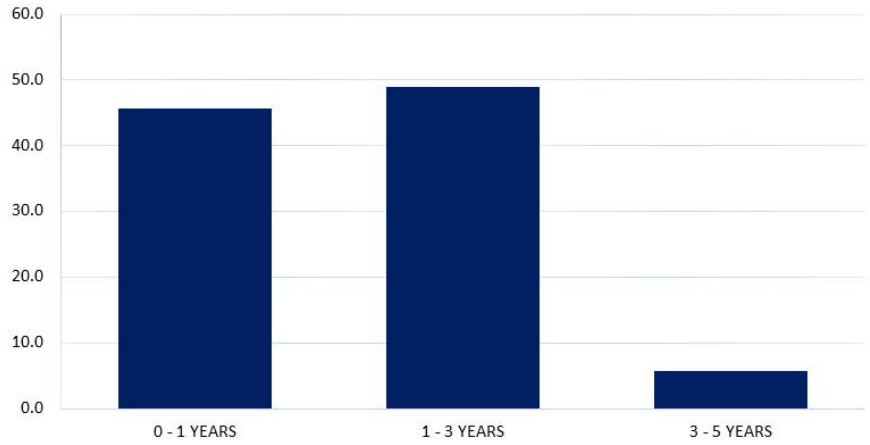
POOL 3 ST AGCY EXT

Duration Distribution



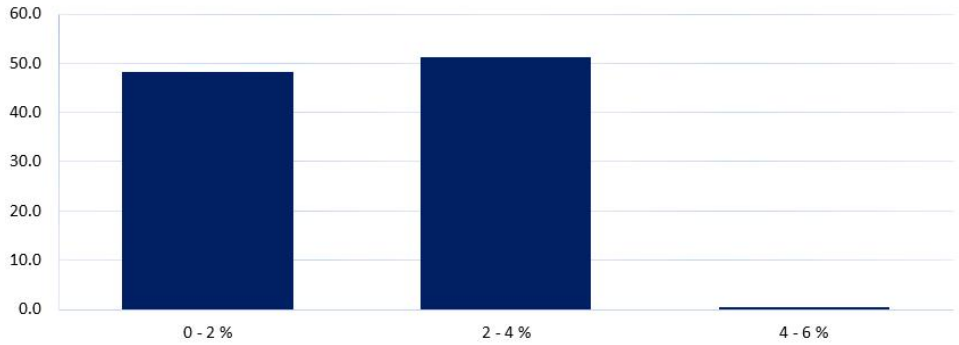
Expected Maturity Distribution



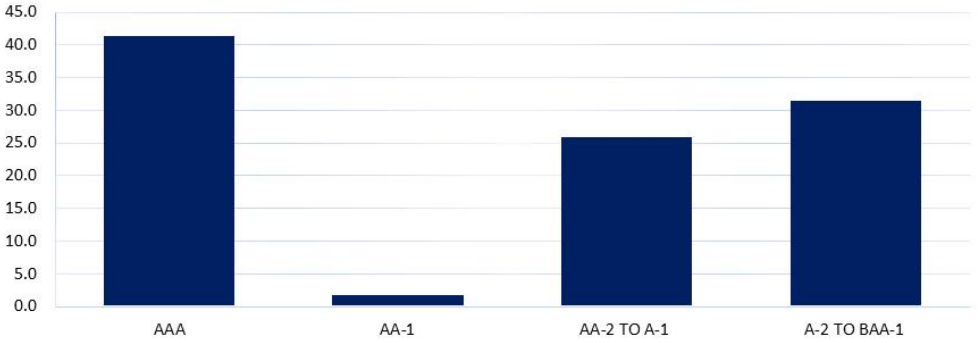
Portfolio Level Characteristics

	POOL 3 ST AGCY EXT.
Effective Maturity	1.28
Coupon	2.13
Effective Duration	0.67
Quality Rating (Moody's)	AA-3

Coupon Distribution



Rating Distribution



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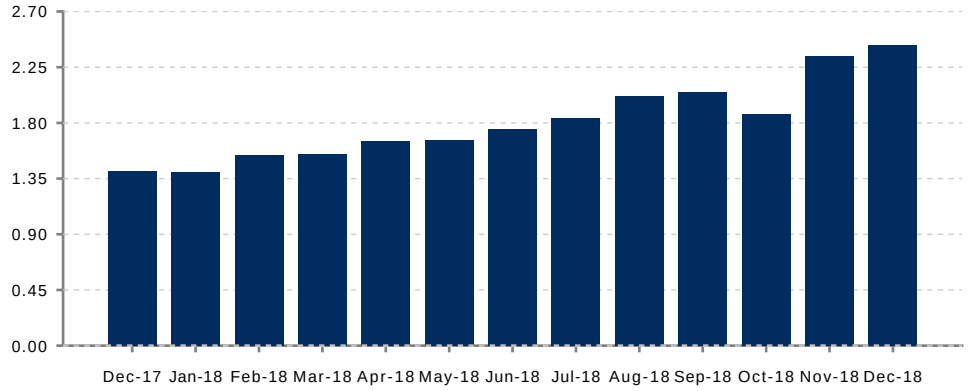
POOL 4 ST AGCY GOV.

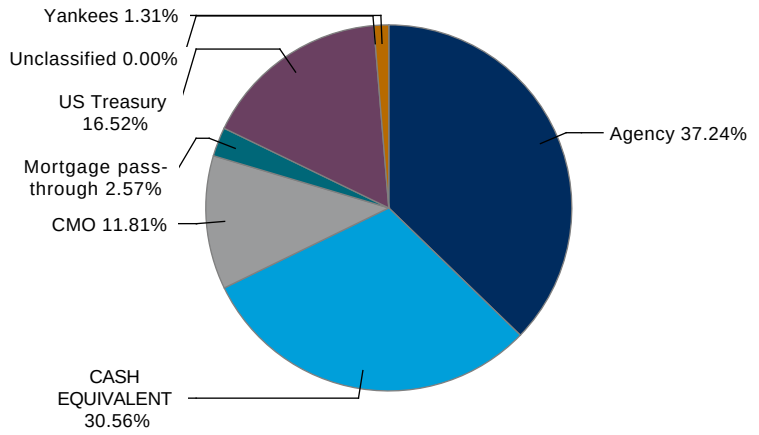
Net Yield



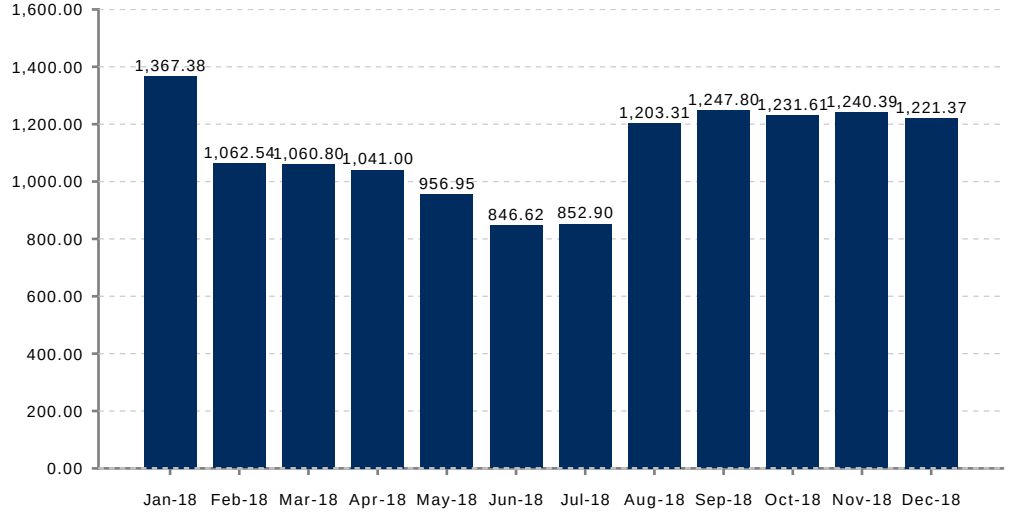
	Current Mth	Prior Mth	1 Year Ago
POOL 4 ST AGCY GOV.	2.43	2.34	1.41

Asset Allocation

	Ending Market Value
POOL 4 ST AGCY GOV.	1,221,372,236



Net Asset Values over Time ($MM)



Top 10 Holdings

Security Name	Ending Market Value	% of Portfolio
POOL 4 ST AGCY GOV.		
AMHERST PIERPONT	150,013,958	12.28
SOUTH STREET REPO	100,012,778	8.19
TREASURY BILL	98,875,333	8.10
TREASURY BILL	78,949,766	6.46
US TREASURY N/B	65,666,076	5.38
US TREASURY N/B	55,592,685	4.55
WELLS FARGO REPO	55,022,550	4.50
SUNTRUST BKS INC DTC CP GENERIC CUSIP	50,004,556	4.09
FANNIE MAE	48,050,914	3.93
WI TREASURY SEC	34,639,544	2.84

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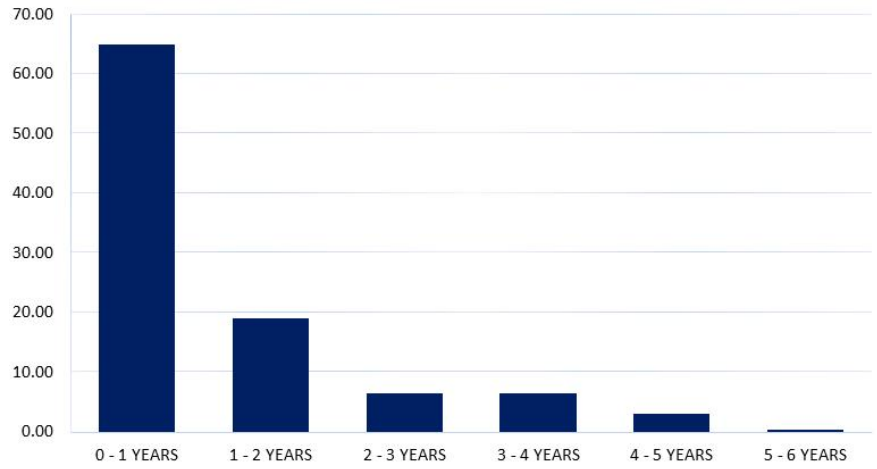
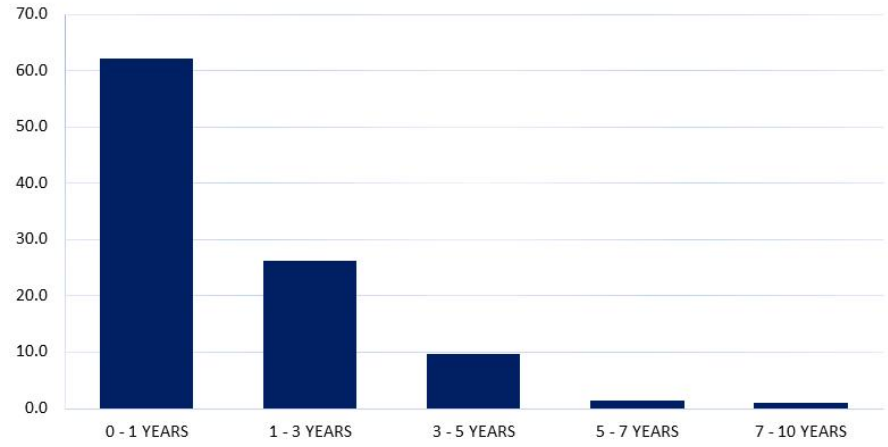
POOL 4 ST AGCY GOV

Duration Distribution



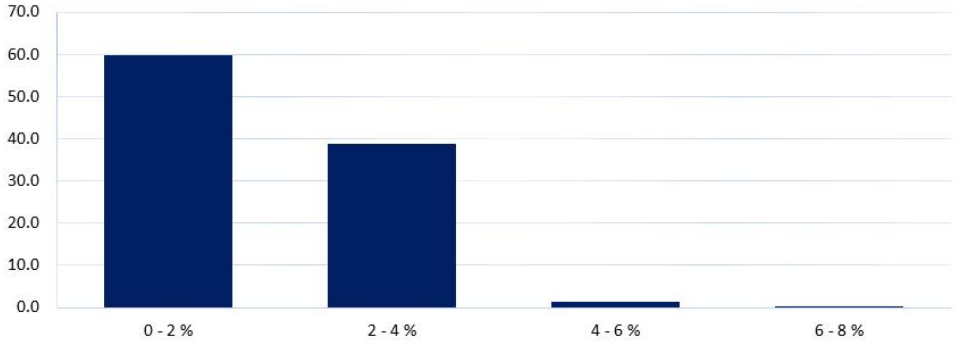
Expected Maturity Distribution



Portfolio Level Characteristics

	POOL 4 ST AGCY GOV.
Effective Maturity	1.14
Coupon	1.29
Effective Duration	0.98
Quality Rating (Moody's)	AAA

Coupon Distribution



Rating Distribution

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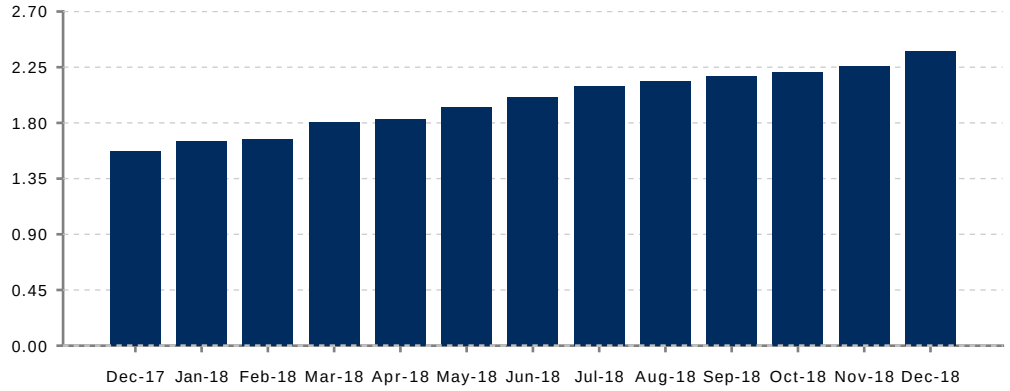
POOL 10 ST OPERATING INT

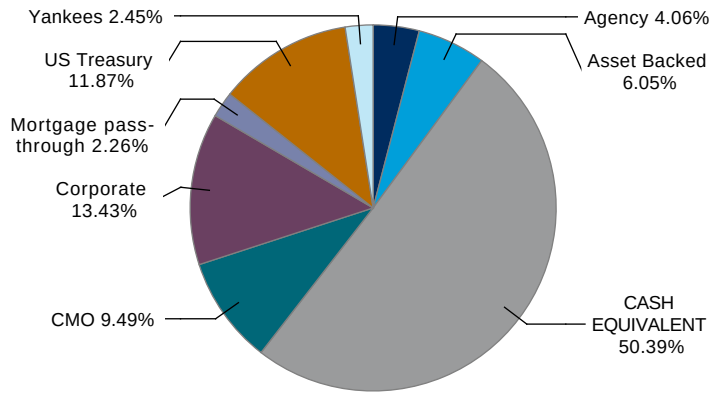
Net Yield



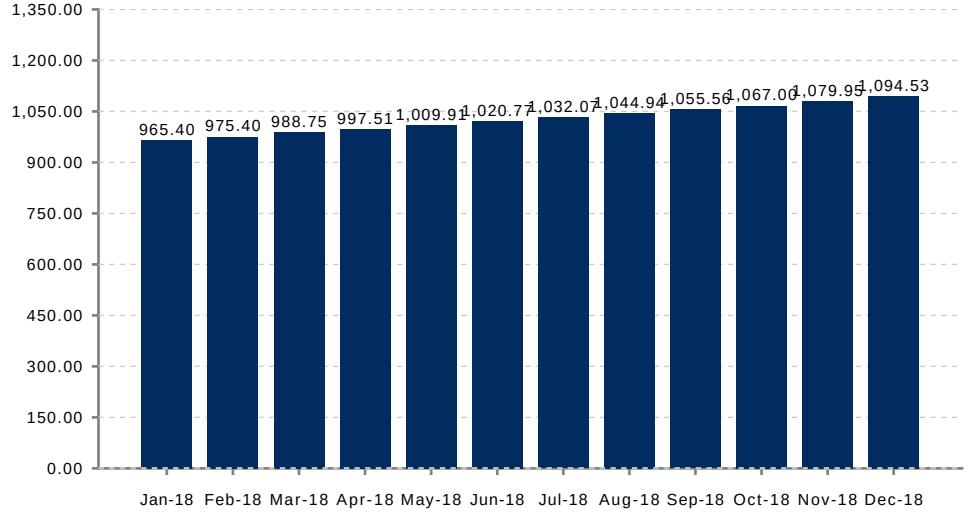
	Current Mth	Prior Mth	1 Year Ago
POOL 10 ST OPER INT	2.38	2.26	1.57

Asset Allocation

	Ending Market Value
POOL 10 ST OPER INT	1,094,527,918



Net Asset Values over Time ($MM)



Top 10 Holdings

Security Name	Ending Market Value	% of Portfolio
POOL 10 ST OPER INT		
AMHERST PIERPONT	42,005,250	3.84
US TREASURY N/B	29,967,595	2.74
COCA-COLA COMPANY	24,986,556	2.28
GOTHAM FDG CORP	24,851,167	2.27
CRC FUNDING LLC	24,847,222	2.27
INSTITUTIONAL SECURED	19,970,017	1.82
BEDFORD ROW FDG CORP	19,957,667	1.82
MOUNTCLIFF	19,957,000	1.82
SWEDBANK	19,945,561	1.82
US TREASURY N/B	19,945,124	1.82

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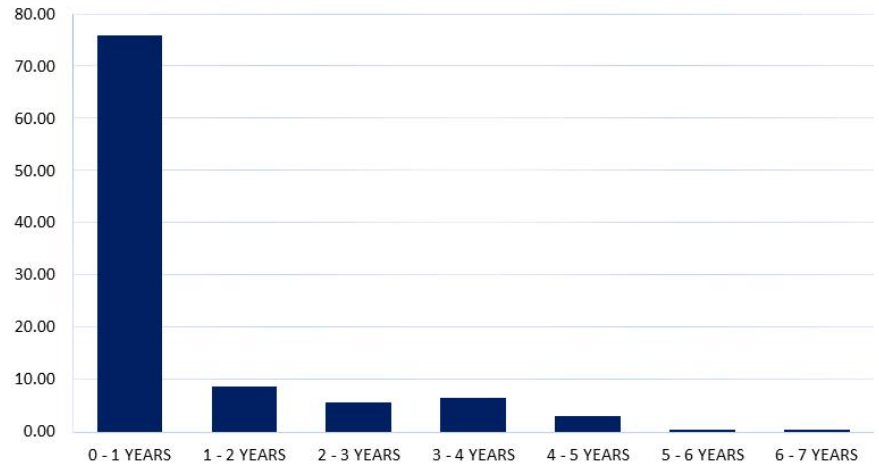
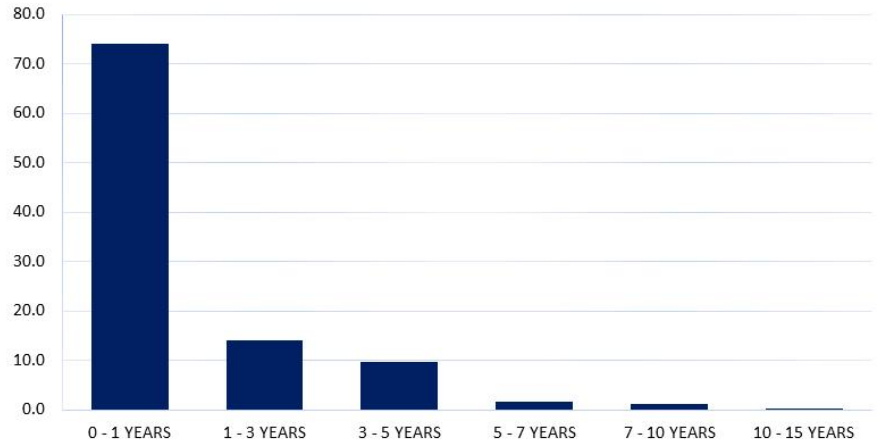
POOL 10 ST OPERATING INT

Duration Distribution



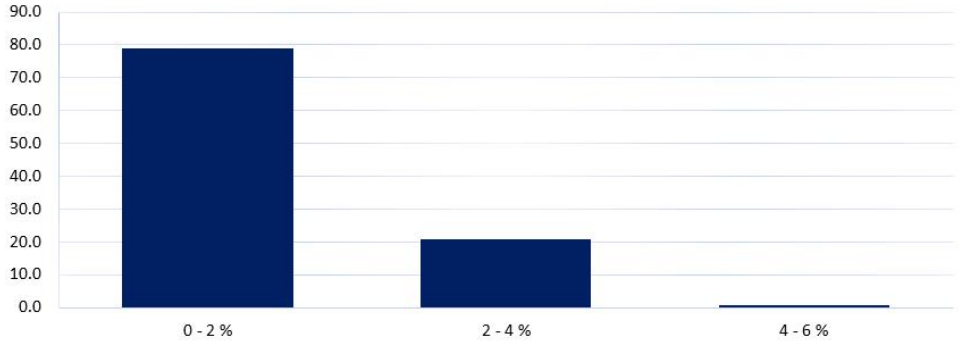
Expected Maturity Distribution



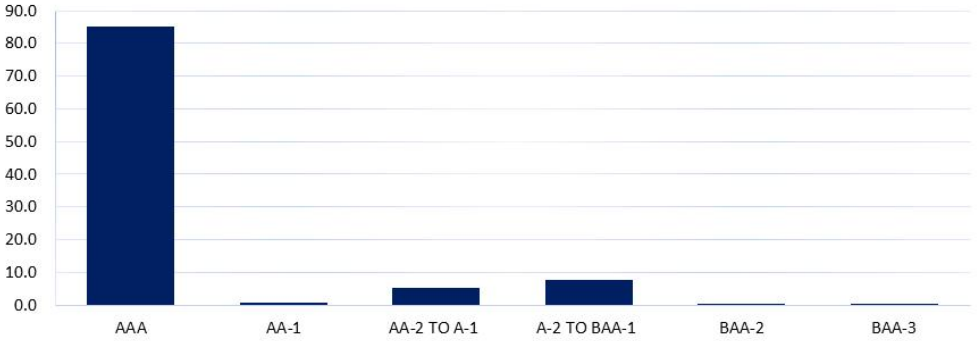
Portfolio Level Characteristics

	POOL 10 ST OPERATING INT
Effective Maturity	0.98
Coupon	0.99
Effective Duration	0.86
Quality Rating (Moody's)	AA-1

Coupon Distribution



Rating Distribution



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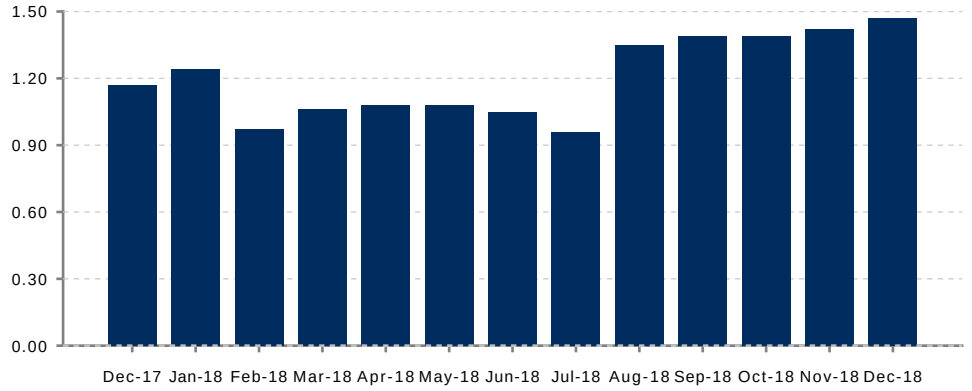
POOL 10 ST OPERATING Ext

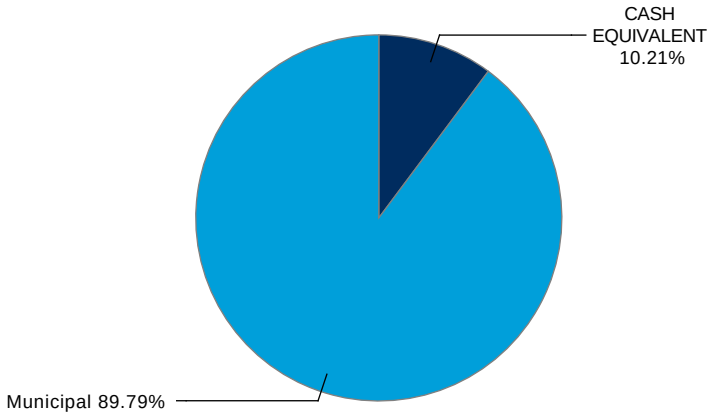
Net Yield



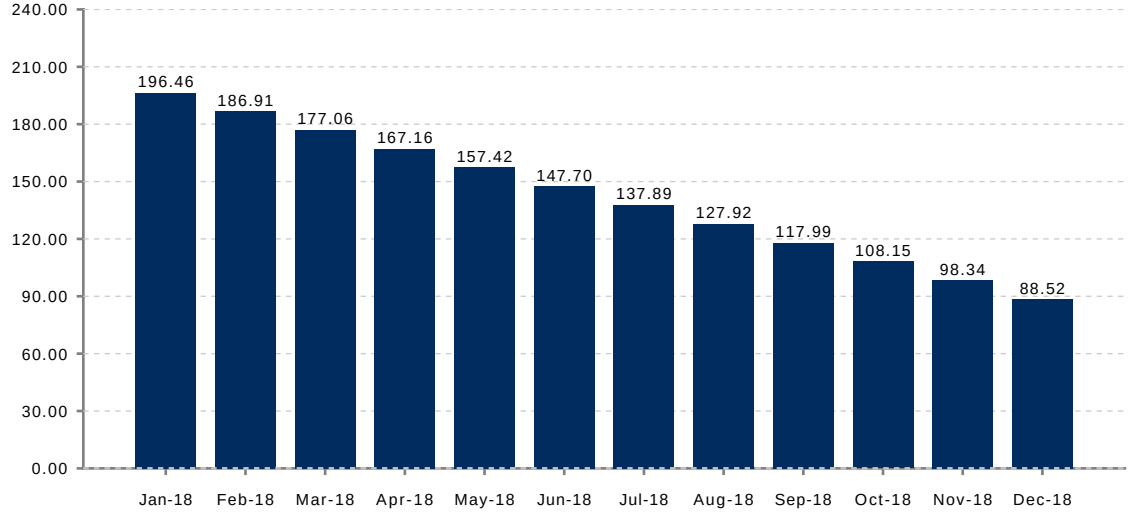
	Current Mth	Prior Mth	1 Year Ago
POOL 10 ST OPERATING	1.47	1.42	1.17

Asset Allocation

	Ending Market Value
POOL 10 ST OPERATING	88,521,561



Net Asset Values over Time ($MM)



Top 10 Holdings

Security Name	Ending Market Value	% of Portfolio
POOL 10 ST OPERATING		
ALPINE UT SCH DIST	10,265,946	11.60
PRINCE GEORGES CNTY	10,248,805	11.58
DREYFUS TAX EXEMPT CA	10,069,409	11.38
SHELBY CNTY TN	9,675,737	10.93
WISCONSIN ST PETROLEU	8,825,189	9.97
GEORGIA ST ROAD TOLL	8,023,963	9.06
ROUND ROCK TX INDEP S	5,415,733	6.12
MARYLAND ST	5,146,357	5.81
CONNECTICUT ST HLTH	3,704,586	4.18
PLANO TX INDEP SCH DIS	3,681,813	4.16

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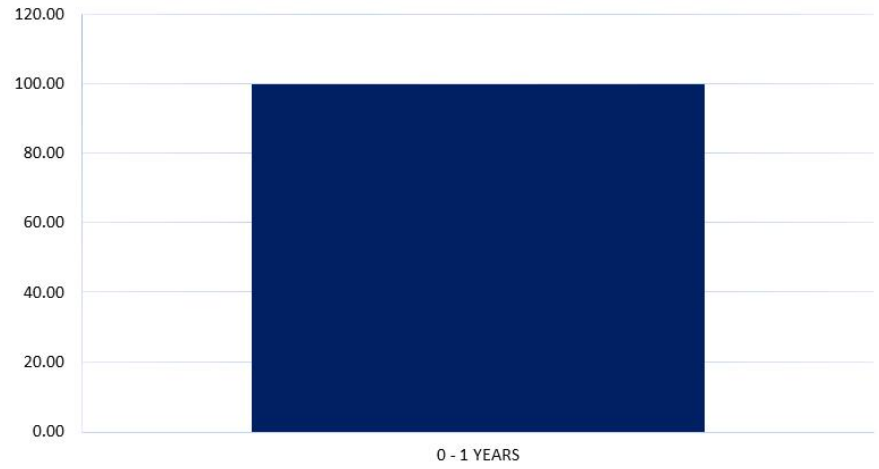
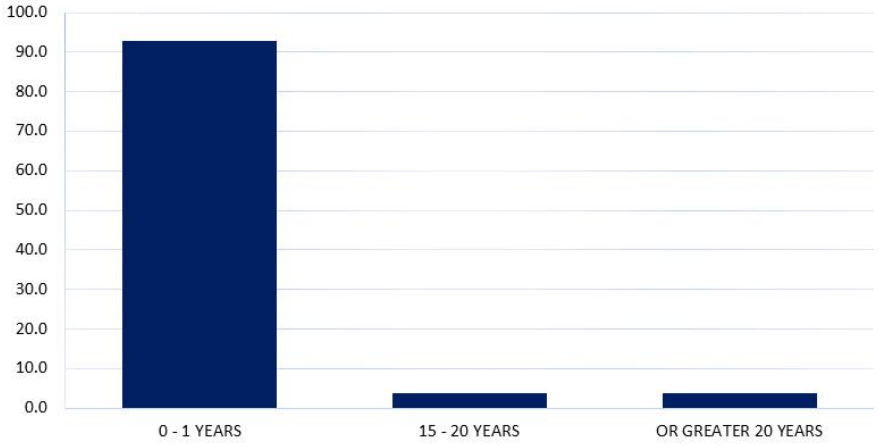
POOL 10 ST OPERATING Ext

Duration Distribution



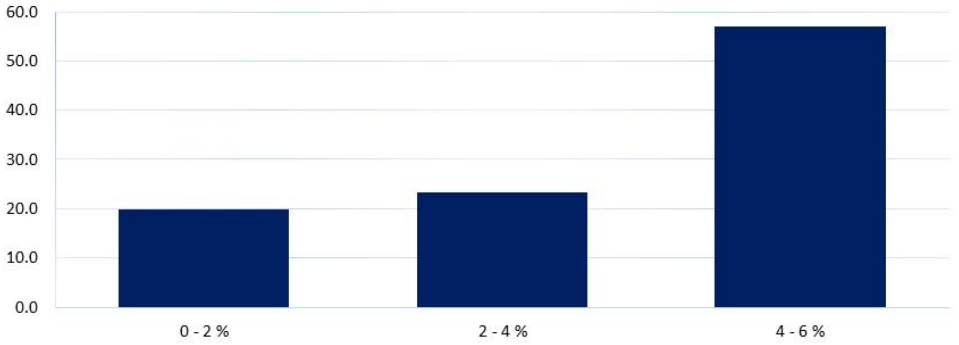
Expected Maturity Distribution



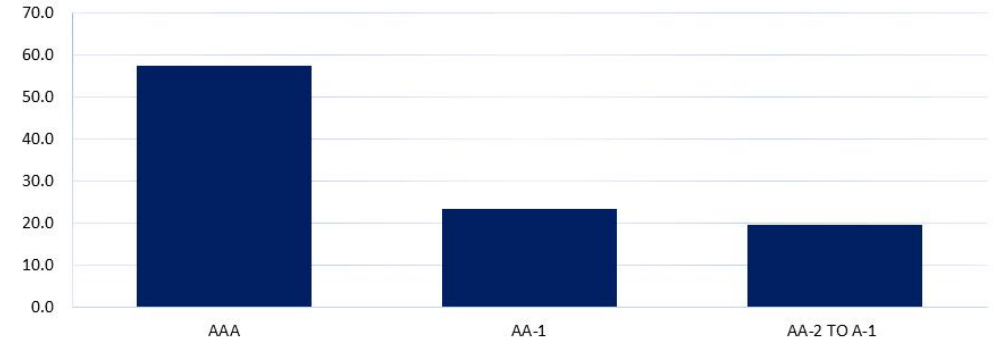
Portfolio Level Characteristics

	POOL 10 ST OPERATING
Effective Maturity	1.68
Coupon	4.23
Effective Duration	0.24
Quality Rating (Moody's)	AA-1

Coupon Distribution



Rating Distribution



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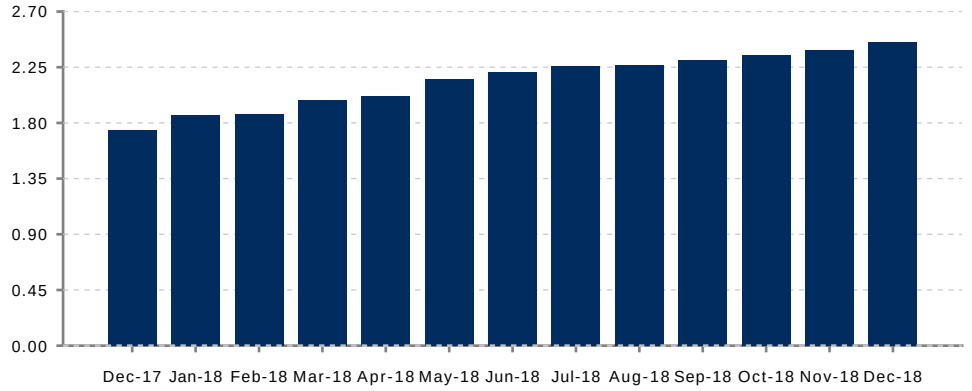
POOL 12 CAWCD MED TRM

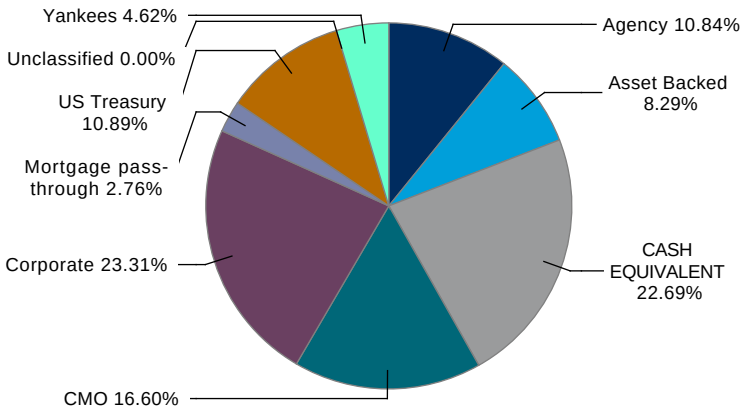
Net Yield



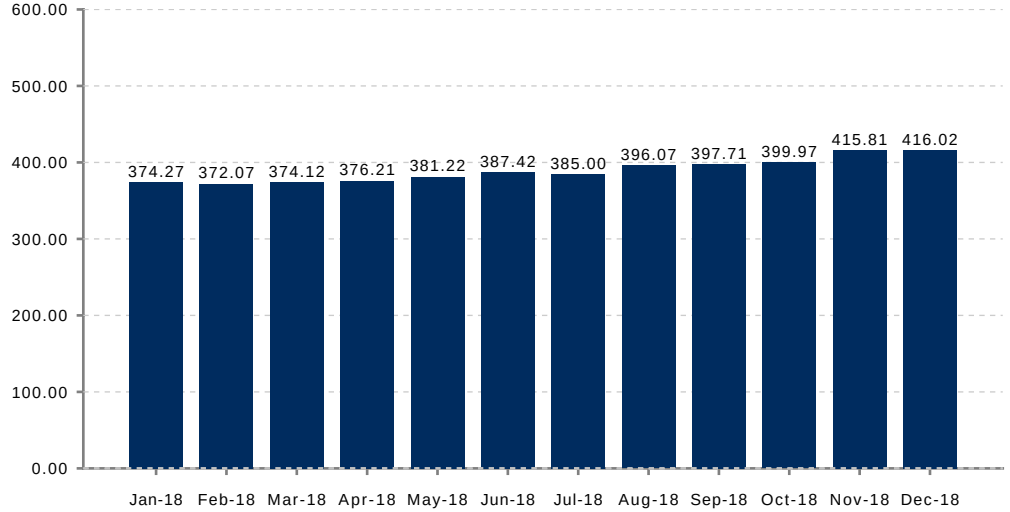
	Current Mth	Prior Mth	1 Year Ago
POOL 12 CAWCD MED TRM	2.45	2.39	1.74

Asset Allocation

	Ending Market Value
POOL 12 CAWCD MED TRM	416,021,145



Net Asset Values over Time ($MM)



Top 10 Holdings

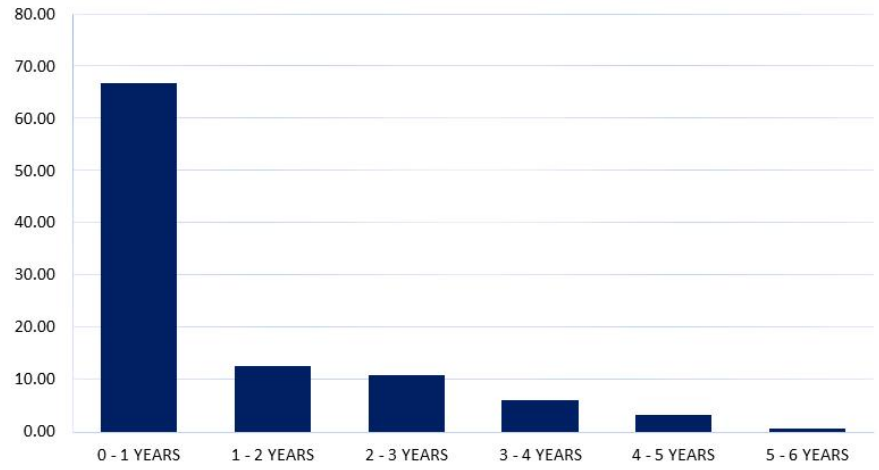
Security Name	Ending Market Value	% of Portfolio
POOL 12 CAWCD MED TRM		
SOUTH STREET REPO	35,429,150	8.52
TREASURY BILL	9,925,994	2.39
TREASURY BILL	9,868,721	2.37
AMHERST PIERPONT	9,046,499	2.17
GOVERNMENT NATIONAL MORTGAGE A	6,252,950	1.50
FANNIE MAE	5,393,561	1.30
FANNIE MAE	5,367,362	1.29
FREDDIE MAC	5,291,453	1.27
FREDDIE MAC	5,183,938	1.25
US TREASURY N/B	5,122,758	1.23

OFFICE OF THE ARIZONA STATE TREASURER

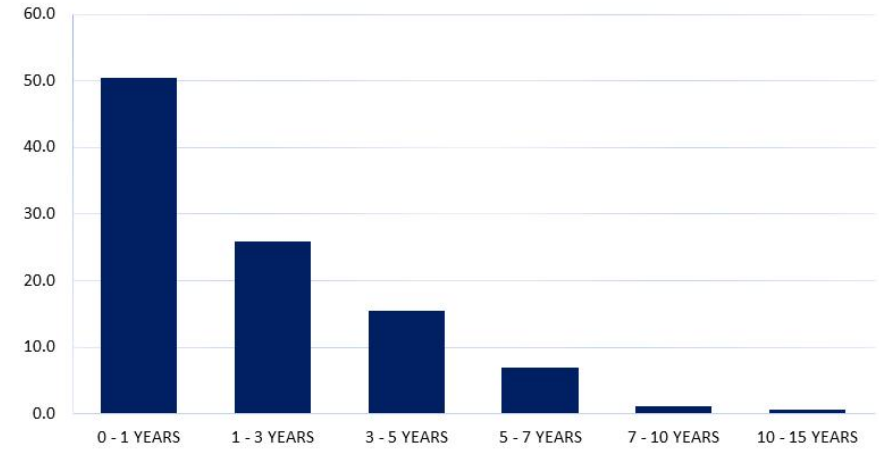
December 31, 2018

POOL 12 CAWCD MED TRM

Duration Distribution



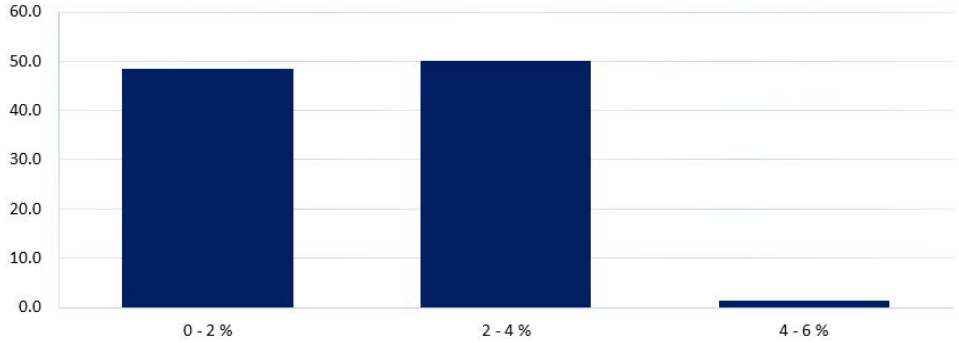
Expected Maturity Distribution



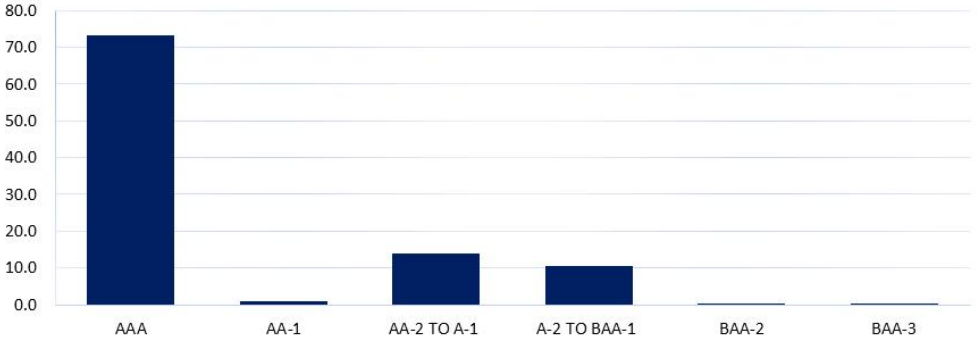
Portfolio Level Characteristics

	POOL 12 CAWCD MED TRM
Effective Maturity	1.69
Coupon	1.92
Effective Duration	0.98
Quality Rating (Moody's)	AA-1

Coupon Distribution



Rating Distribution



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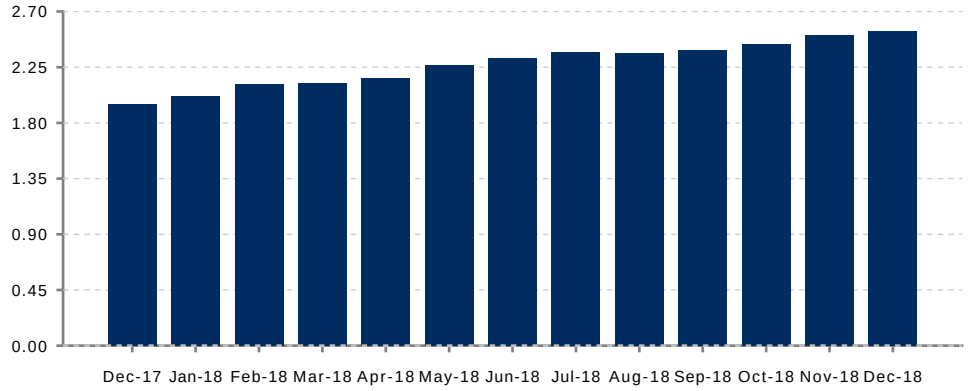
December 31, 2018

POOL 16 ECDHB

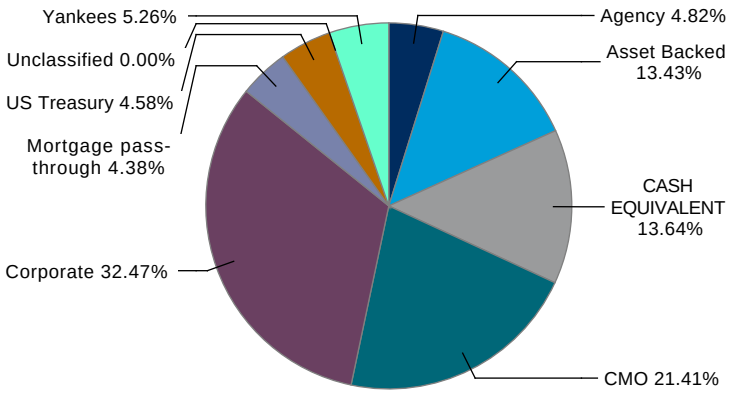
Net Yield



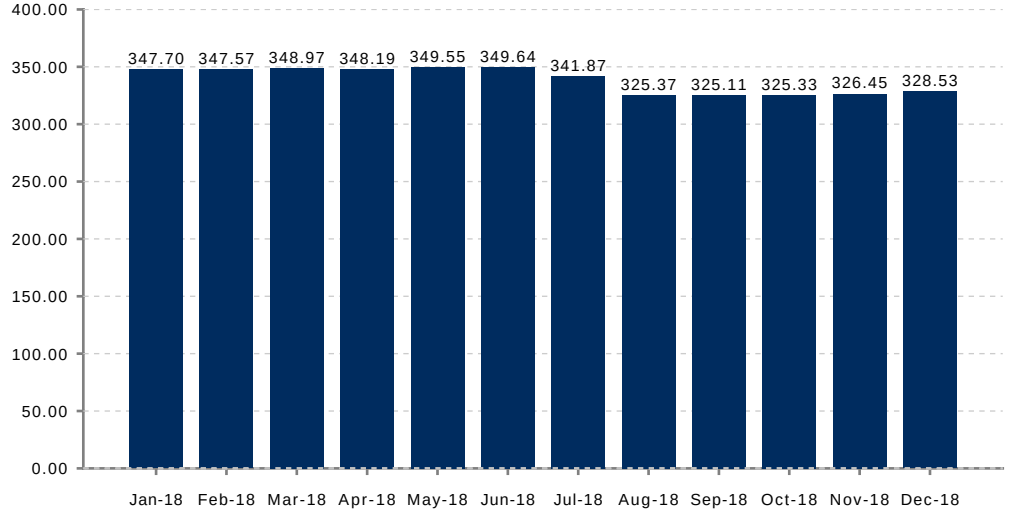
	Current Mth	Prior Mth	1 Year Ago
POOL 16 ECDHB	2.54	2.51	1.95

Asset Allocation

	Ending Market Value
POOL 16 ECDHB	328,525,195



Net Asset Values over Time ($MM)



Top 10 Holdings

Security Name	Ending Market Value	% of Portfolio
POOL 16 ECDHB		
BMW VEHICLE LEASE TRUST	6,252,489	1.90
FANNIE MAE	6,188,797	1.88
US TREASURY N/B	5,056,607	1.54
WI TREASURY SEC.	5,055,870	1.54
BANK OF NY MELLON CORP	5,046,254	1.54
ROYAL BANK OF CANADA	5,030,862	1.53
BRANCH BANKING + TRUST	5,028,445	1.53
FANNIE MAE	5,027,774	1.53
CROWN POINT CAP CO.	5,026,106	1.53
ANHEUSER BUSCH INBEV FIN	5,024,173	1.53

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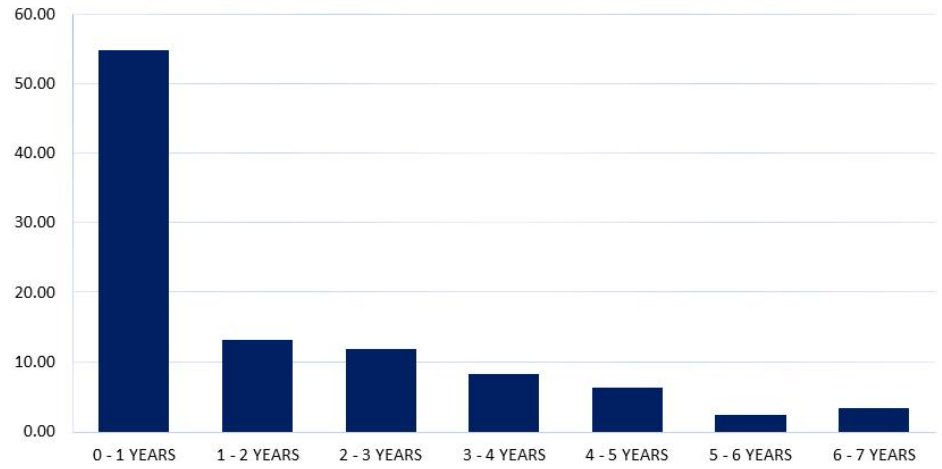
December 31, 2018

POOL 16 ECDHB

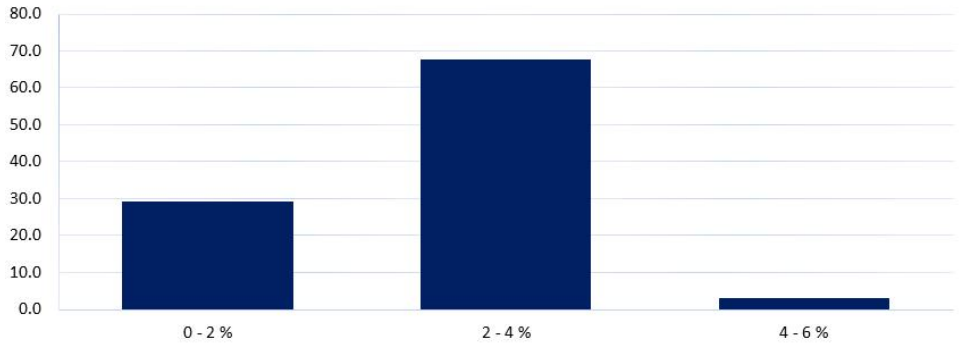
Duration Distribution



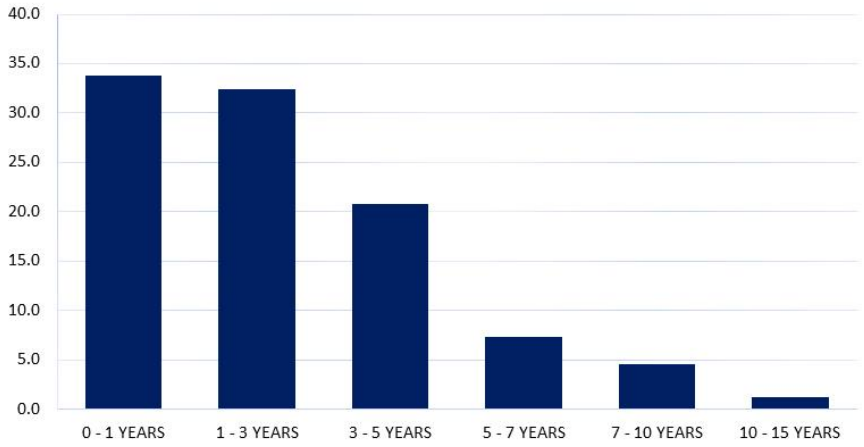
Portfolio Level Characteristics

	POOL 16 ECDHB
Effective Maturity	2.36
Coupon	2.44
Effective Duration	1.51
Quality Rating (Moody's)	AA-2

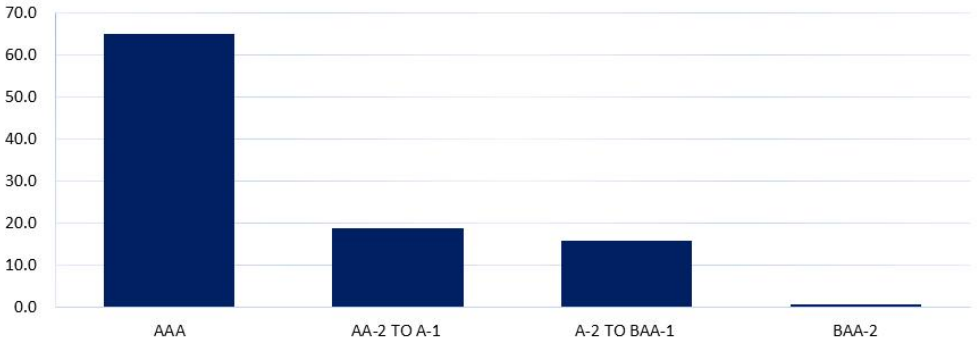
Coupon Distribution



Expected Maturity Distribution



Rating Distribution



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LGIP & LGIP- GOV
PORTFOLIO YIELD ANALYSIS
DECEMBER 2018

NET EARNINGS

FUND	DESCRIPTION	Current Month 12/31/18	Prior Month 11/30/18	Prior Year 12/31/17	Net Asset Value Per Share
5	LGIP	3,241,120	2,993,976	1,483,950	1.0000
7	LGIP - GOV *	2,604,248	2,236,248	1,382,881	1.0000
	TOTAL LGIP & LGIP-GOV	5,845,368	5,230,224	2,866,831	

YIELDS

	MONTHLY	Current Month 12/31/18	Prior Month 11/30/18	Prior Year 12/31/17
5	LGIP (NET)	2.38%	2.26%	1.24%
	S&P LGIP Index	2.23%	2.16%	1.12%
7	LGIP - GOV * (NET)	2.27%	2.17%	1.13%
	Trailing 3-mo T-bill	2.34%	2.26%	1.21%
	FISCAL YEAR TO DATE			
5	LGIP (NET)	2.18%	2.14%	1.10%
	S&P LGIP Index	2.06%	2.02%	1.03%
7	LGIP - GOV * (NET)	2.03%	1.98%	0.99%
	Trailing 3-mo T-bill	2.12%	2.07%	1.07%

NOTE - the Pool 7 benchmark measurement was revised in October 2018; prior period benchmarks were also changed to reflect the revised measure.

* The LGIP-GOV Pool consists of only securities explicitly backed by the full faith & credit of the US Government.

LGIP & LGIP- GOV MEDIUM TERM POOLS
PORTFOLIO YIELD ANALYSIS
DECEMBER 2018

NET EARNINGS

FUND	DESCRIPTION	Current Month 12/31/18	Prior Month 11/30/18	Prior Year 12/31/17	Net Asset Value Per Share
500	LGIP - MED TERM POOL	735,446	681,487	516,529	1.0221
700	LGIP - FF&C MED TERM POOL	301,591	246,808	225,882	0.9969
	TOTAL LGIP MEDIUM TERM POOLS	1,037,037	928,295	742,411	

YIELDS

	MONTHLY	Current Month 12/31/18	Prior Month 11/30/18	Prior Year 12/31/17
500	LGIP - MED TERM (NET)	2.45%	2.38%	1.74%
	20% S&P LGIP Index /	2.79%	2.88%	1.61%
	80% Bloomberg Barclays 1-3 year US Agg			
700	LGIP - FF&C MED TERM (NET)	2.60%	2.21%	1.78%
	20% Trailing 3-mo T-bill /	2.62%	2.74%	1.73%
	80% Barclay 1-3 year UST			
	FISCAL YEAR TO DATE			
500	LGIP - MED TERM (NET)	2.34%	2.31%	1.70%
	20% S&P LGIP Index /	2.74%	2.73%	1.57%
	80% Bloomberg Barclays 1-3 year US Agg			
700	LGIP - FF&C MED TERM (NET)	2.07%	1.97%	1.51%
	20% Trailing 3-mo T-bill /	2.61%	2.61%	1.44%
	80% Bloomberg Barclays 1-3 year UST			

NOTE - all benchmark measurements were revised in October 2018; prior period benchmarks were also changed

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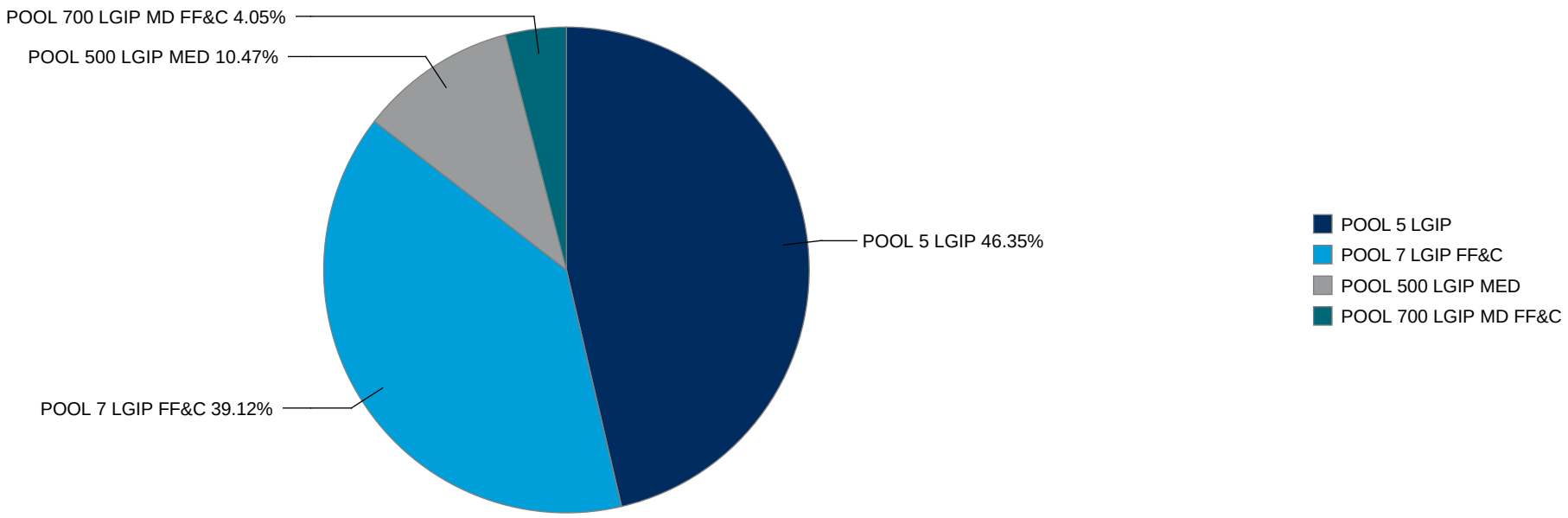
December 31, 2018

LGIP

Manager Allocation



	Market Value	% of Portfolio
POOL 5 LGIP	1,566,802,316	46.4
POOL 7 LGIP FF&C	1,322,408,266	39.1
POOL 500 LGIP MED	353,925,698	10.5
POOL 700 LGIP MD FF&C	137,059,624	4.1
TOTAL LGIP	3,380,195,903	100.0

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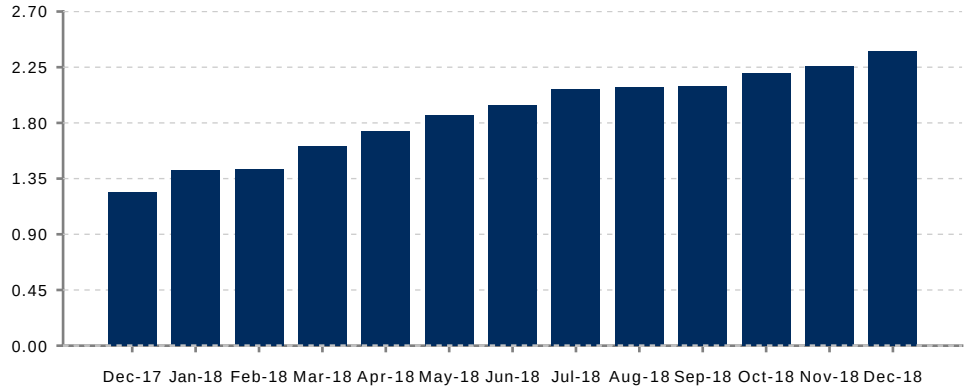
December 31, 2018

POOL 5 LGIP

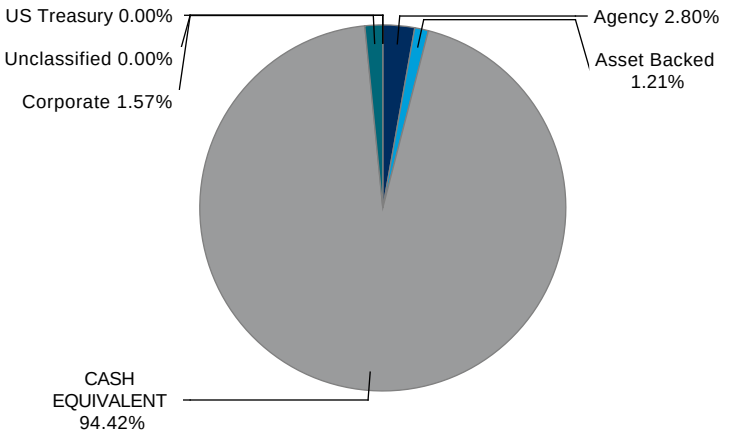
Net Yield



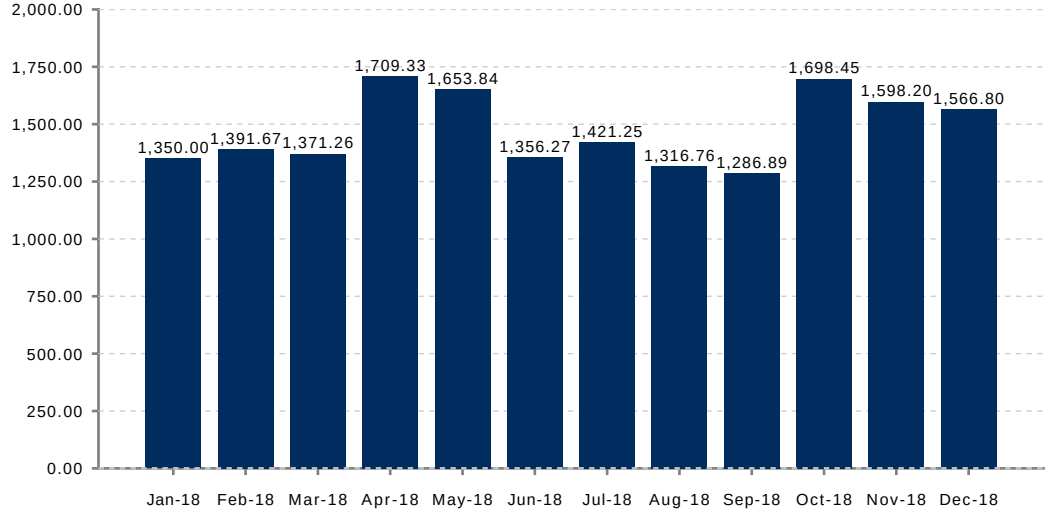
	Current Mth	Prior Mth	1 Year Ago
POOL 5 LGIP	2.38	2.26	1.24

Asset Allocation

	Ending Market Value
POOL 5 LGIP	1,566,802,316



Net Asset Values over Time ($MM)



Top 10 Holdings

Security Name	Ending Market Value	% of Portfolio
POOL 5 LGIP		
CREDIT AGRICOLE REPO	211,829,280	13.52
BANK OF AMERICA REPO	100,006,389	6.38
USAA CAPITAL CORP	29,971,250	1.91
NORTHWESTERN UNIVERS	29,942,833	1.91
INTL BK RECON + DEVELOP	25,092,868	1.60
CME GROUP INC	24,996,556	1.60
NESTLE FIN FRANCE S.	24,989,958	1.59
COCA-COLA COMPANY	24,989,833	1.59
NATIONAL SECS CLEARING	24,988,674	1.59
CUMMINS INC	24,975,792	1.59

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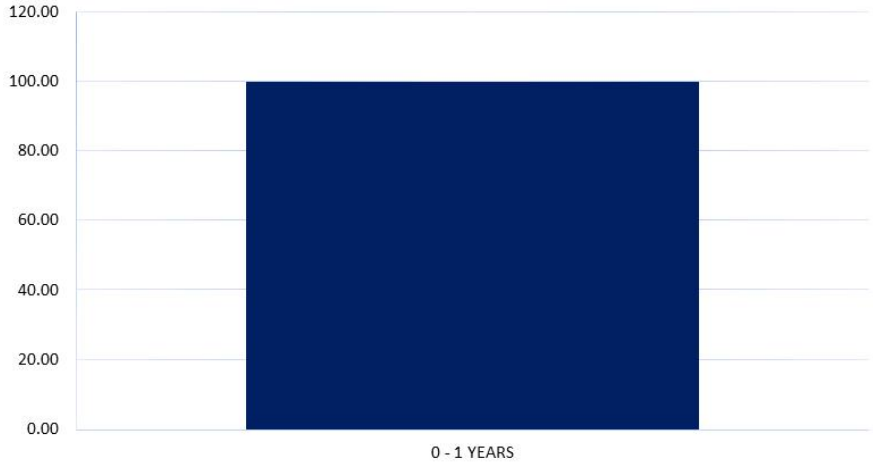
December 31, 2018

POOL 5 LGIP

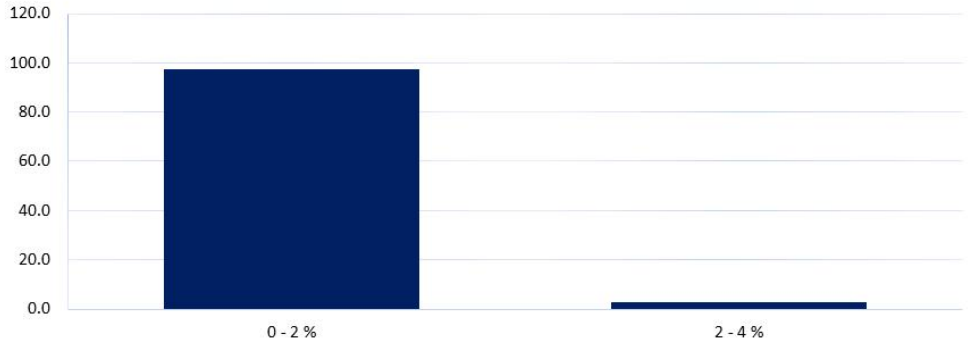
Duration Distribution



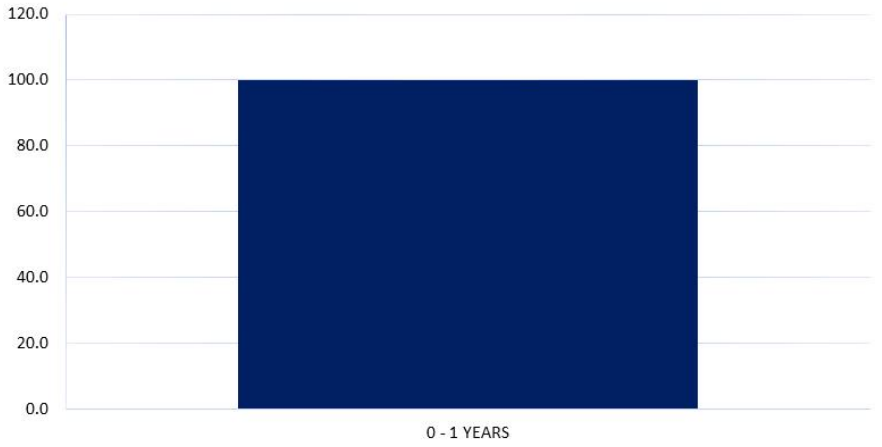
Portfolio Level Characteristics

	POOL 5 LGIP
Effective Maturity	0.06
Coupon	0.07
Effective Duration	0.06
Quality Rating (Moody's)	AAA

Coupon Distribution



Expected Maturity Distribution



Rating Distribution

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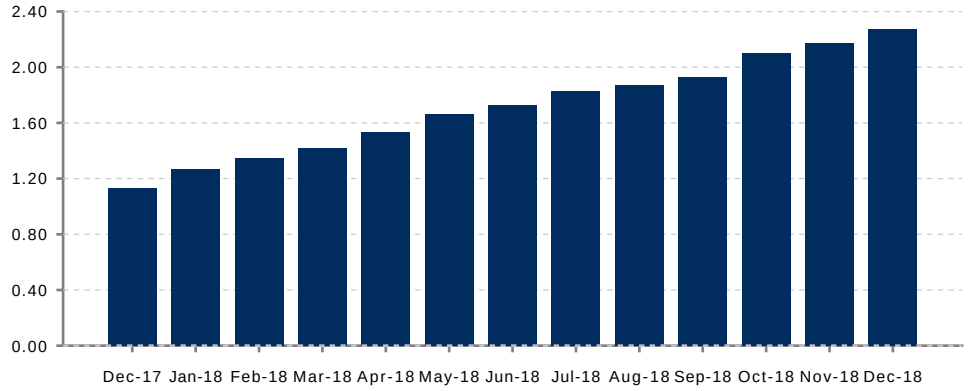
POOL 7 LGIP FF&C

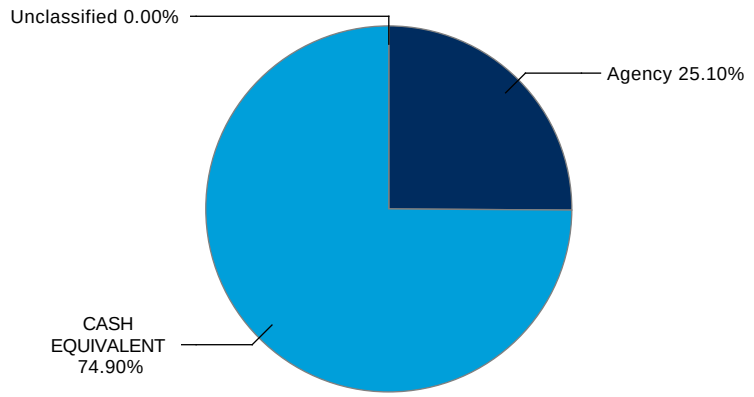
Net Yield



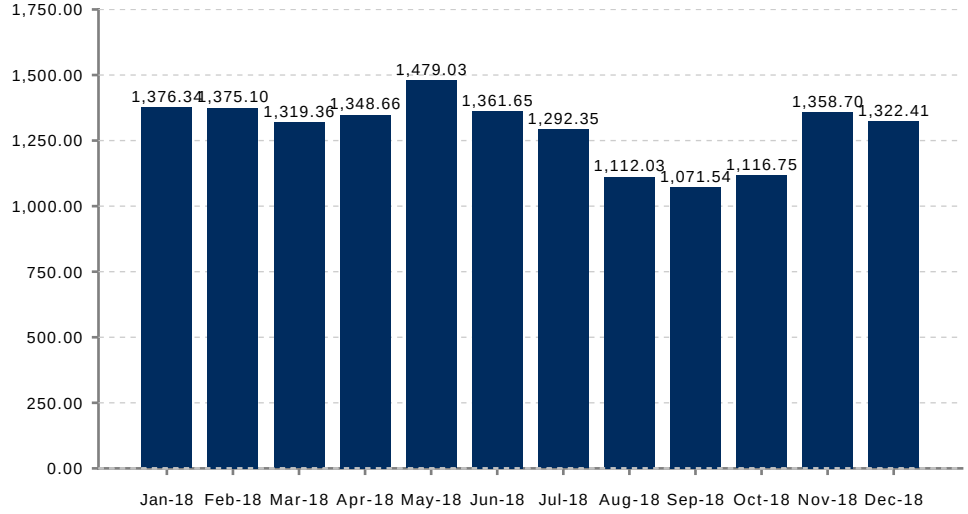
	Current Mth	Prior Mth	1 Year Ago
POOL 7 LGIP FF&C	2.27	2.17	1.13

Asset Allocation

	Ending Market Value
POOL 7 LGIP FF&C	1,322,408,266



Net Asset Values over Time ($MM)



Top 10 Holdings

Security Name	Ending Market Value	% of Portfolio
POOL 7 LGIP FF&C		
GUGGENHEIM SECURITIES REPO	250,020,833	18.91
BMO TRIPARTY MTGE CLAS/ISIT/RTRP MATU//20121224	200,015,000	15.13
WELLS FARGO REPO	110,045,100	8.32
AMHERST PIERPONT	85,163,649	6.44
US TREASURY	69,971,708	5.29
TREASURY BILL	64,632,984	4.89
TREASURY BILL	59,968,822	4.53
UNITED STATES TREAS BILLS	59,921,974	4.53
WI TREASURY BILL	59,778,625	4.52
RBC CAPITAL MARKETS REPO	55,465,737	4.19

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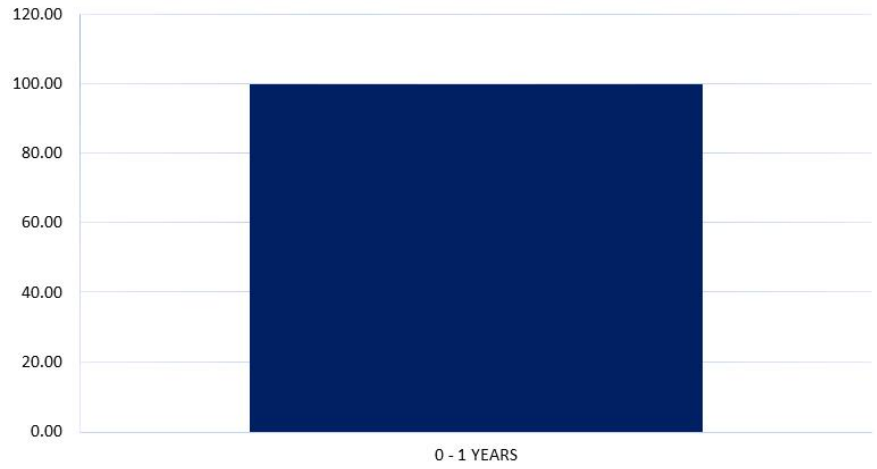
POOL 7 LGIP FF&C

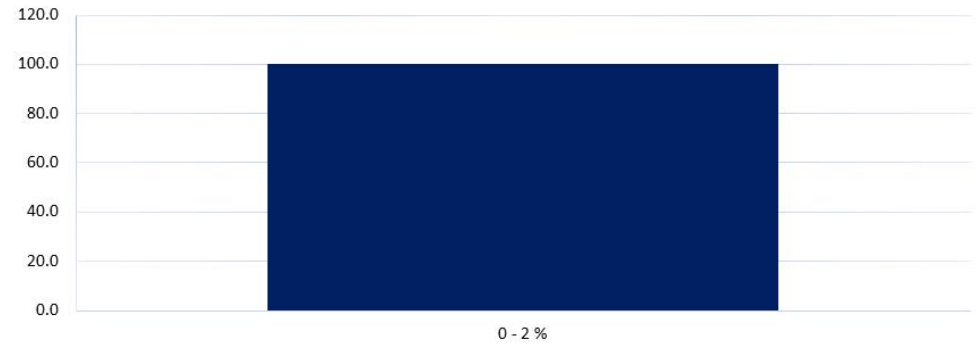
Duration Distribution



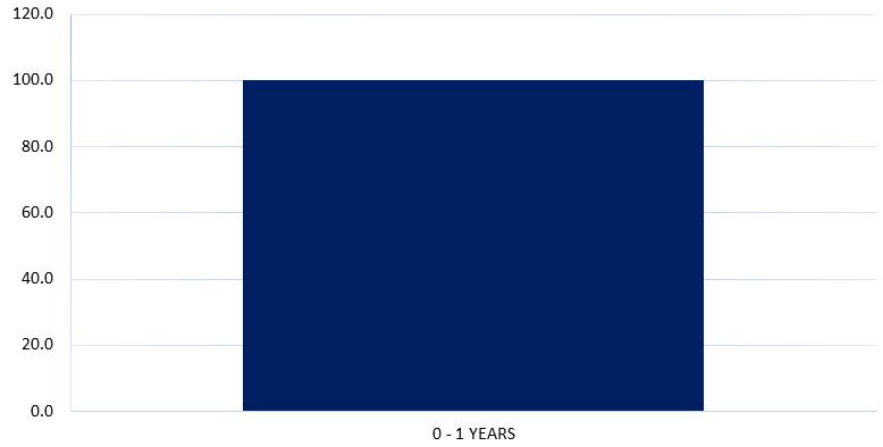
Portfolio Level Characteristics

	POOL 7 LGIP FF&C
Effective Maturity	0.05
Coupon	0.00
Effective Duration	0.05
Quality Rating (Moody's)	AAA

Coupon Distribution



Expected Maturity Distribution



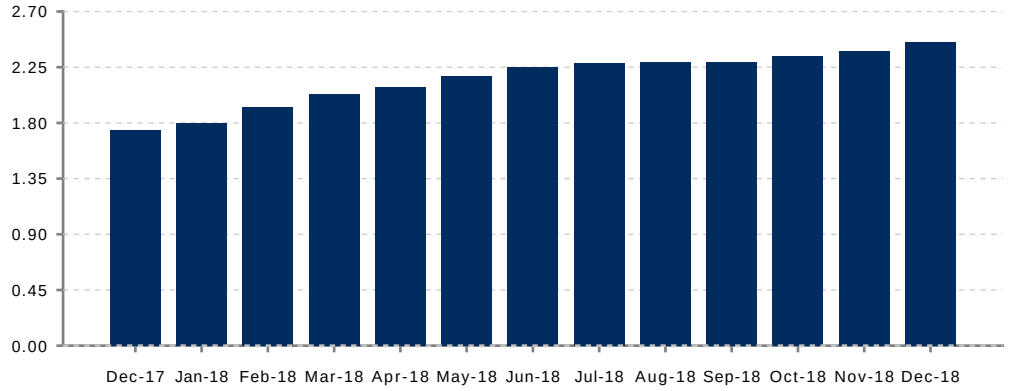
Rating Distribution

OFFICE OF THE ARIZONA STATE TREASURER

December 31, 2018

POOL 500 LGIP MED

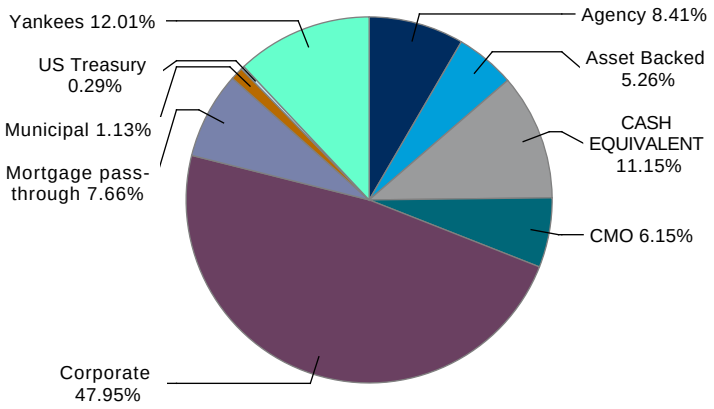
Net Yield



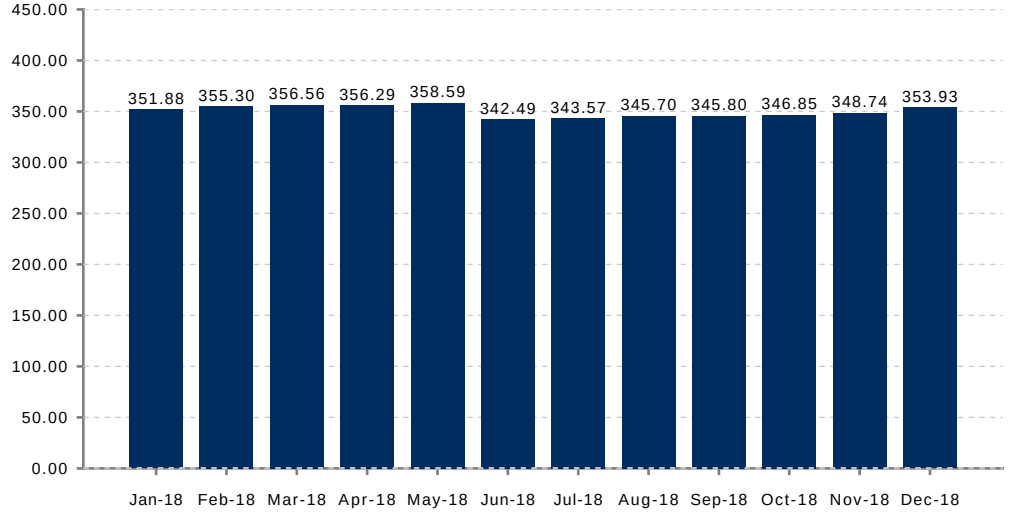
	Current Mth	Prior Mth	1 Year Ago
POOL 500 LGIP MED	2.45	2.38	1.74

Asset Allocation

	Ending Market Value
POOL 500 LGIP MED	353,925,698



Net Asset Values over Time ($MM)



Top 10 Holdings

Security Name	Ending Market Value	% of Portfolio
POOL 500 LGIP MED		
MICROSOFT CORP	7,989,055	2.26
GOLDMAN SACHS GROUP INC	7,971,053	2.25
APPLE INC	7,007,273	1.98
MANUF + TRADERS TRUST CO	6,994,205	1.98
BANK OF AMERICA CORP	5,780,110	1.63
MERCK + CO INC	5,527,203	1.56
ROYAL BANK OF CANADA	5,109,644	1.44
USAA CAPITAL CORP	5,023,433	1.42
US TREASURY FRN	5,022,430	1.42
APPLE INC	5,019,615	1.42

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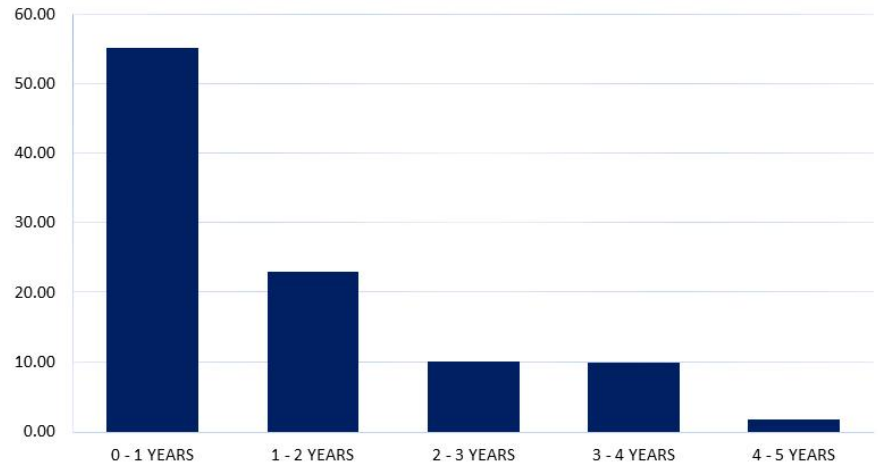
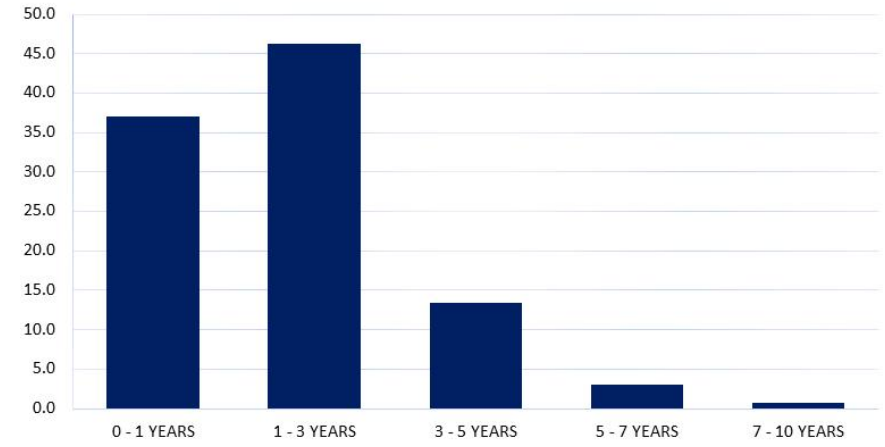
December 31, 2018

POOL 500 LGIP MED

Duration Distribution



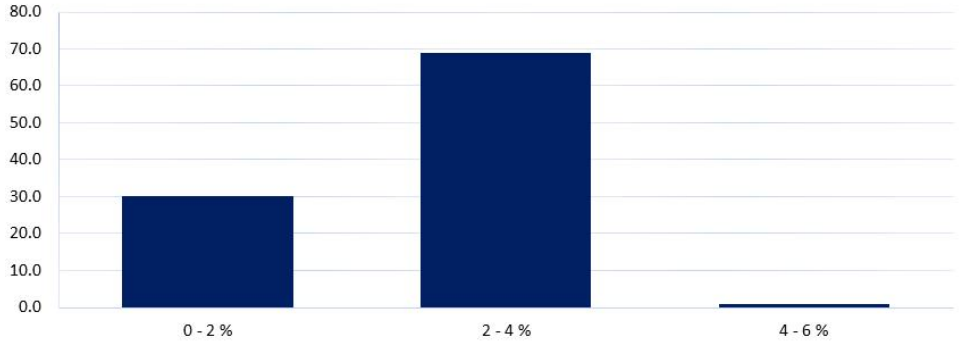
Expected Maturity Distribution



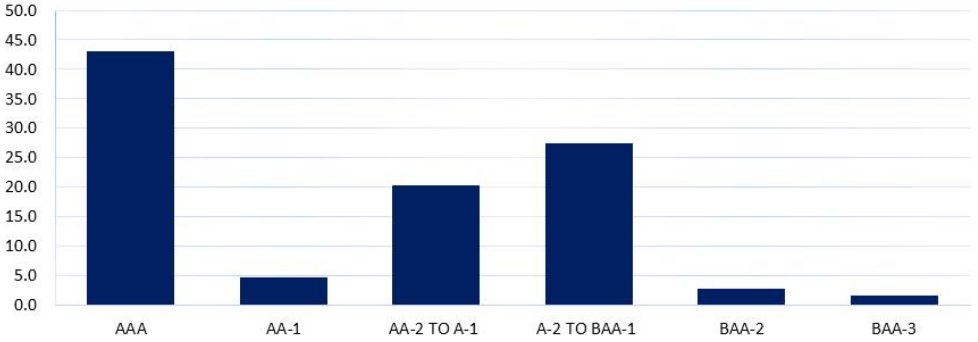
Portfolio Level Characteristics

	POOL 500 LGIP MED
Effective Maturity	1.56
Coupon	2.26
Effective Duration	1.09
Quality Rating (Moody's)	AA-3

Coupon Distribution



Rating Distribution

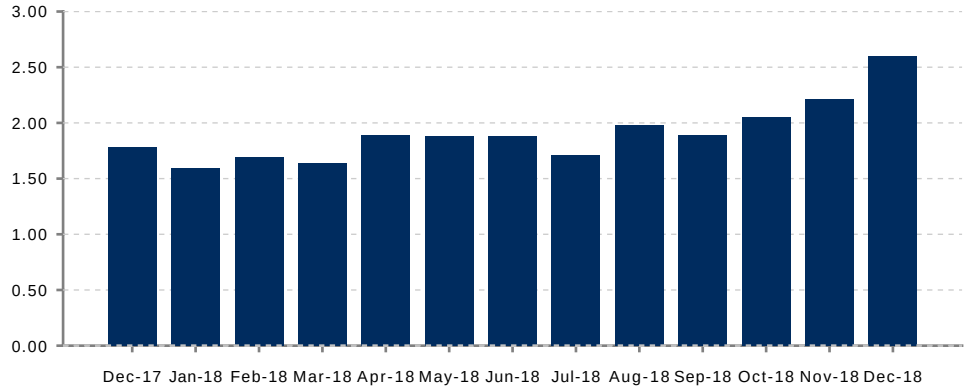


OFFICE OF THE ARIZONA STATE TREASURER

December 31, 2018

POOL 700 LGIP MD FF&C

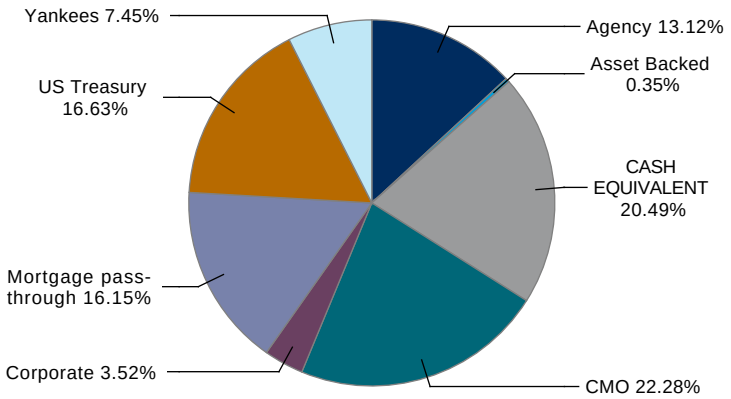
Net Yield



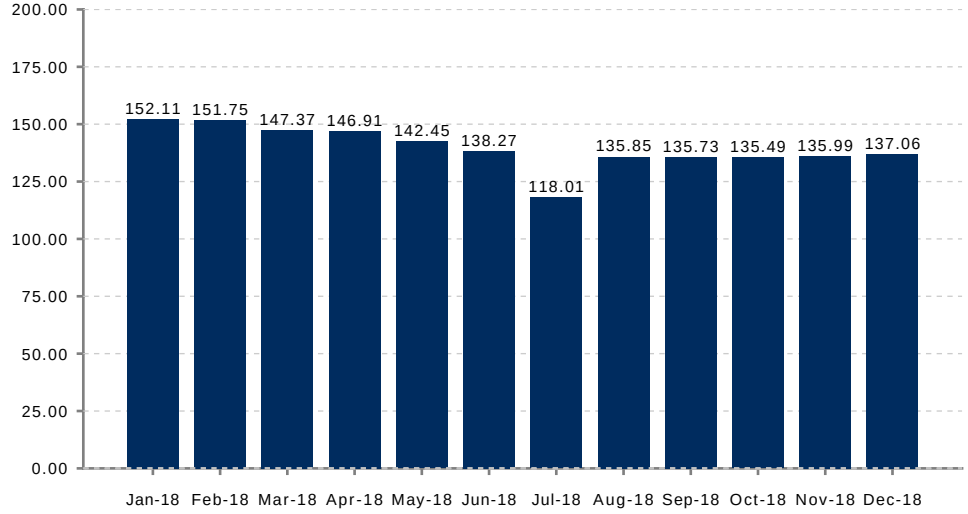
	Current Mth	Prior Mth	1 Year Ago
POOL 700 LGIP MD FF&C	2.60	2.21	1.78

Asset Allocation

	Ending Market Value
POOL 700 LGIP MD FF&C	137,059,624



Net Asset Values over Time ($MM)



Top 10 Holdings

Security Name	Ending Market Value	% of Portfolio
POOL 700 LGIP MD FF&C		
AMHERST PIERPONT	15,028,879	10.97
SOUTH STREET REPO	9,000,788	6.57
GOVERNMENT NATIONAL MORTGAGE A	6,905,696	5.04
AID JORDAN	6,289,477	4.59
OVERSEAS PRIVATE INV COR	5,087,137	3.71
US TREASURY N/B	4,966,166	3.62
US TREASURY N/B	4,943,641	3.61
US TREASURY N/B	4,941,439	3.61
US TREASURY N/B	4,929,024	3.60
GNMA II POOL MA0213	3,684,934	2.69

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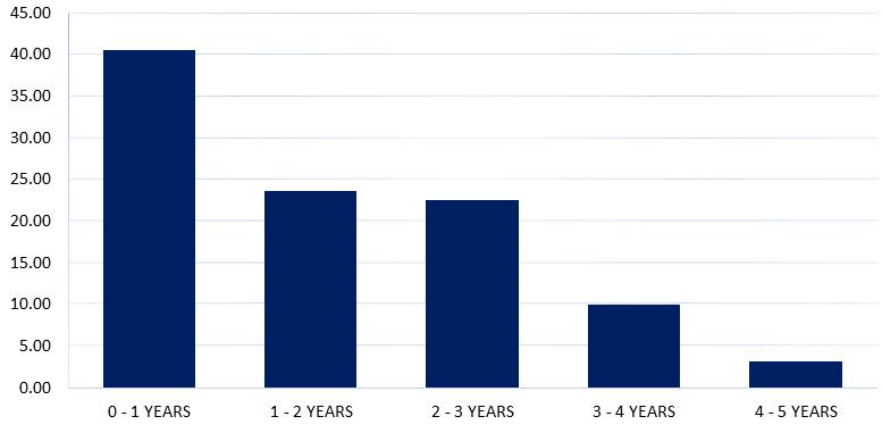
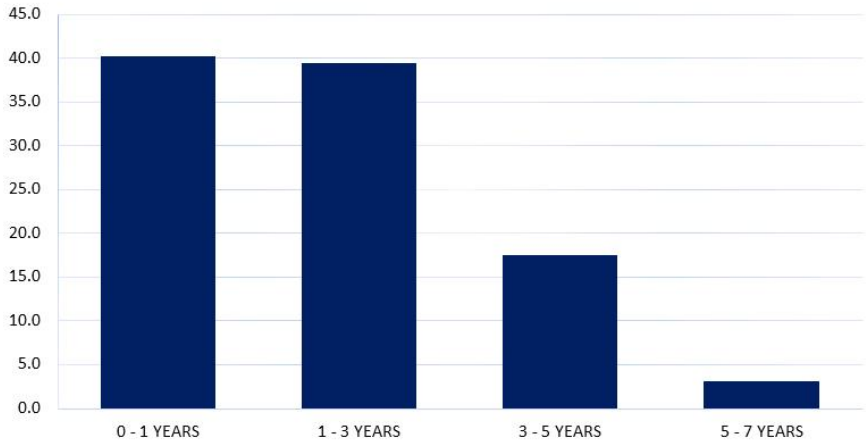
December 31, 2018

POOL 700 LGIP MD FF&C

Duration Distribution



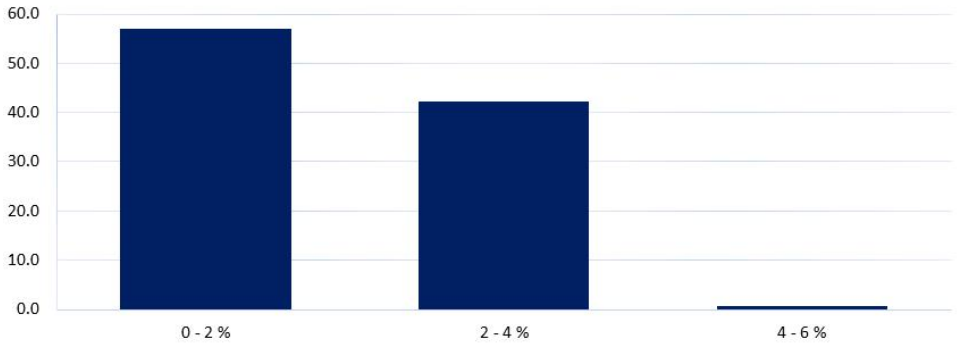
Expected Maturity Distribution



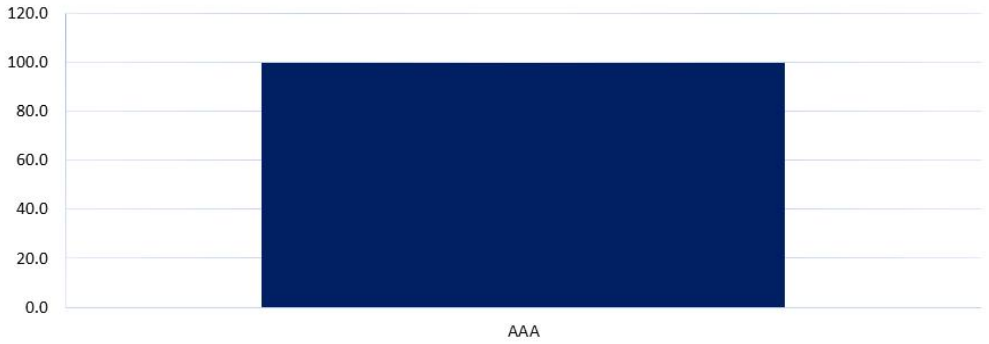
Portfolio Level Characteristics

	POOL 700 LGIP MD FF&C
Effective Maturity	1.74
Coupon	1.61
Effective Duration	1.48
Quality Rating (Moody's)	AAA

Coupon Distribution



Rating Distribution



EARNINGS DISTRIBUTED
ENDOWMENT FUNDS
DECEMBER 2018

Recipient		Distributed in Current Month DECEMBER 2018	Fiscal YTD 18/19	Fiscal YTD 17/18	Fiscal YTD Change
101	A & M Colleges	$70,405	$422,431	$398,925	$23,506
102	State Hospital	47,085	282,509	257,952	24,557
103	Leg., Exec., & Jud.	58,321	349,923	329,382	20,541
104	Military Institute	3,868	23,206	21,851	1,354
105	Miners Hospital	158,118	948,709	861,845	86,864
107	Normal School ASU/NAU	28,855	173,131	156,689	16,442
108	Penitentiaries	106,084	636,501	572,109	64,392
109	Permanent Common School	26,770,470	160,622,817	147,962,619	12,660,199
110	School for Deaf & Blind	38,606	231,637	213,569	18,068
111	School of Mines	79,866	479,195	451,641	27,554
112	State Charitable-Pioneers Home	394,116	2,364,695	2,220,868	143,827
112	State Charitable-Corrections	197,058	1,182,348	1,110,434	71,913
112	State Charitable-Youth Treatment	197,058	1,182,348	1,110,434	71,913
113	University Fund	143,386	860,318	797,978	62,340
114	U of A Land - 1881	492,037	2,952,220	2,599,102	353,118
	Total	**$28,785,331**	**$172,711,988**	**$159,065,399**	**$13,646,589**

Land Sales Monthly Proceeds
Endowment Funds

Month	2013	2014	2015	2016	2017	2018	2019
January	85,209,777	29,493,046	7,126,212	5,108,687	2,960,815	809,822	
February	24,412,865	33,969,801	2,535,244	1,083,178	1,103,303	744,295	
March	13,469,847	1,323,549	1,096,232	1,106,860	3,045,043	8,296,029	
April	4,599,024	2,252,527	1,968,281	28,981,969	78,134,289	22,707,772	
May	12,685,871	1,100,261	19,123,417	20,147,116	27,642,672	16,234,823	
June	6,493,351	4,564,719	33,179,898	31,844,678	2,451,110	6,799,100	
July	5,694,705	4,196,738	6,092,396	2,469,997	13,838,188	27,835,379	
August	2,304,138	24,838,430	1,038,971	13,094,287	5,746,802	6,932,754	
September	10,399,639	1,960,673	1,967,125	(12,580,728)	19,937,751	8,293,343	
October	1,240,497	3,150,170	2,366,519	10,614,885	480,710	24,823,636	
November	8,995,327	34,193,583	1,358,711	28,490,238	9,500,048	42,245,892	
December	3,574,631	1,136,538	4,264,354	6,127,407	3,869,818	2,283,305	
Calendar Year	179,079,672	142,180,034	82,117,360	136,488,573	168,710,549	168,006,150	-
Fiscal Year (July 1st to June 30th)	234,004,734	104,912,840	134,505,415	105,360,563	163,553,318	108,965,158	112,414,309

NET REALIZED CAPITAL GAINS / LOSSES - ENDOWMENT FUNDS

Endowment Fund	December 2018 NET GAIN(LOSS)	December 2017 NET GAIN(LOSS)
Fixed Income Pool	($317,149)	$1,715,758
500 Large-Cap Fund	5,952,087	$32,602,704
400 Mid-Cap Fund	(4,581,640)	$377,593
600 Small-Cap Fund	2,992,876	$1,118,578
Totals	$4,046,174	$35,814,633

Endowment Fund	2018/2019 FISCAL YEAR TO DATE GAINS(LOSSES)	2017/2018 FISCAL YEAR TO DATE GAINS(LOSSES)
Fixed Income Pool	($2,126,584)	($201,226)
500 Large-Cap Fund	26,441,095	49,619,711
400 Mid-Cap Fund	20,816,577	24,118,691
600 Small-Cap Fund	18,466,192	14,185,852
Totals	$63,597,280	$87,723,028

ENDOWMENT FUNDS FIXED-INCOME POOLS
PURCHASES & SALES
DECEMBER 2018

I. Endowment Funds Purchases

POOL	SECURITY DESCRIPTION	RATE	MATURITY	*WAL YEARS	PAR VALUE	PURCHASE COST	YIELD	MOODY'S RATING
123	CANCARA	0.00	04/01/2019	NA	$5,000,000	$4,961,333	2.92%	P-1
123	CONCORD	0.00	03/21/2019	NA	5,000,000	4,963,200	2.90%	P-1
123	HALKIN	0.00	04/22/2019	NA	5,000,000	4,951,539	2.89%	P-1
123	INSTITUTIONAL SECURED	0.00	01/22/2019	NA	5,350,000	5,332,158	2.62%	P-1
123	LEXINGTON PARKER	0.00	02/15/2019	NA	4,500,000	4,475,950	2.61%	P-1
123	MANHATTAN	0.00	03/21/2019	NA	4,000,000	3,968,556	2.85%	P-1
123	MOUNTCLIFF	0.00	12/21/2018	NA	5,000,000	4,995,450	2.34%	P-1
123	SHEFFIELD	0.00	03/21/2019	NA	5,000,000	4,960,833	2.84%	P-1
123	SHEFFIELD	0.00	03/21/2019	NA	5,000,000	4,961,874	2.85%	P-1
123	SHEFFIELD	0.00	04/22/2019	NA	5,000,000	4,952,713	2.94%	P-1
123	STARBIRD	0.00	03/21/2019	NA	5,000,000	4,960,301	2.85%	P-1
123	SUMITOMO	0.00	04/22/2019	NA	5,000,000	4,954,175	2.85%	P-1
	TOTAL ENDOWMENT FUNDS PURCHASES				**$58,850,000**	**$58,438,081**		

II. Endowment Funds Sales

POOL	SECURITY DESCRIPTION	RATE	MATURITY	PAR VALUE	AMORTIZED COST/PROCEEDS	SALES GAINS/(LOSSES)	MOODY'S RATING
	TOTAL ENDOWMENT FUNDS SALES			**$0**	**$0**	**$0**	

* WAL is the weighted average life of the security based on the Bloomberg calculation at the time the trade is executed. The calculation is used only with mortgage-backed pass-through/CMO securities.

EQUITY FUNDS
PURCHASES & SALES
DECEMBER 2018

I. Equity Fund Purchases

	SHARES	PURCHASE COST	COMMISSIONS
400 Mid-Cap Fund	261,271	$18,645,711	$1,826
500 Large-Cap Fund	127,685	$9,537,944	$958
600 Small-Cap Fund	442,120	4,592,822	1,562
TOTAL EQUITY PURCHASES	**831,076**	**$32,776,477**	**$4,346**

II. Equity Funds Sales

	SHARES	SALES AMOUNT	COMMISSIONS
400 Mid-Cap Fund	353,099	$13,585,498	$895
500 Large-Cap Fund	157,642	12,900,038	1,182
600 Small-Cap Fund	115,655	5,462,589	734
TOTAL EQUITY SALES	**626,396**	**$31,948,125**	**$2,811**

ENDOWMENT FUNDS
INVESTMENTS OUTSTANDING
DECEMBER 31, 2018
(In Thousands)

FUND	NAME OF FUND	SHARES OUTSTANDING	BOOK VALUE	MARKET VALUE	UNREALIZED GAINS (LOSSES)	**Mkt Value/ Book Value**
101	A & M Colleges					
	Shares in Equity Pools	381	$2,682	$7,110	$4,429	
	Shares in Fixed Income Pools	3,807	2,726	5,158	2,433	
	Total	4,189	5,407	12,269	6,861	**2.269**
102	State Hospital					
	Shares in Equity Pools	302	2,623	5,638	3,015	
	Shares in Fixed Income Pools	3,109	2,583	4,212	1,629	
	Total	3,411	5,205	9,849	4,644	**1.892**
103	Leg., Exec, & Jud					
	Shares in Equity Pools	312	2,355	5,815	3,460	
	Shares in Fixed Income Pools	3,337	2,392	4,522	2,130	
	Total	3,649	4,746	10,337	5,590	**2.178**
104	Military Institute					
	Shares in Equity Pools	21	164	392	227	
	Shares in Fixed Income Pools	230	162	311	150	
	Total	251	326	703	377	**2.155**
105	Miners Hospital					
	Shares in Equity Pools	929	8,248	17,329	9,081	
	Shares in Fixed Income Pools	9,335	8,135	12,647	4,512	
	Total	10,264	16,383	29,976	13,593	**1.830**
107	Normal School ASU/NAU					
	Shares in Equity Pools	180	1,552	3,349	1,797	
	Shares in Fixed Income Pools	1,853	1,485	2,511	1,025	
	Total	2,033	3,038	5,860	2,822	**1.929**
108	Penitentiaries					
	Shares in Equity Pools	616	5,217	11,482	6,265	
	Shares in Fixed Income Pools	6,296	5,185	8,530	3,345	
	Total	6,911	10,402	20,012	9,610	**1.924**

ENDOWMENT FUNDS
INVESTMENTS OUTSTANDING
DECEMBER 31, 2018
(In Thousands)

	NAME OF FUND	SHARES OUTSTANDING	BOOK VALUE	MARKET VALUE	UNREALIZED GAINS (LOSSES)	**Mkt Value/ Book Value**
109	Permanent Common School					
	Shares in Equity Pools	159,436	1,302,427	2,973,746	1,671,319	
	Shares in Fixed Income Pools	1,605,246	1,315,855	2,174,824	858,969	
	Total	1,764,683	2,618,282	5,148,570	2,530,288	**1.966**
110	School for Deaf & Blind					
	Shares in Equity Pools	222	1,847	4,148	2,301	
	Shares in Fixed Income Pools	2,503	1,968	3,391	1,423	
	Total	2,726	3,815	7,539	3,724	**1.976**
111	School of Mines					
	Shares in Equity Pools	431	3,238	8,045	4,807	
	Shares in Fixed Income Pools	4,434	3,292	6,007	2,715	
	Total	4,865	6,530	14,052	7,522	**2.152**
112	State Charitable					
	Shares in Equity Pools	4,541	35,558	84,701	49,143	
	Shares in Fixed Income Pools	44,160	35,595	59,830	24,234	
	Total	48,702	71,153	144,531	73,378	**2.031**
113	University Fund					
	Shares in Equity Pools	788	6,247	14,702	8,454	
	Shares in Fixed Income Pools	8,130	6,198	11,014	4,816	
	Total	8,918	12,445	25,716	13,271	**2.066**
114	U Of A Land - 1881					
	Shares in Equity Pools	2,993	29,143	55,819	26,677	
	Shares in Fixed Income Pools	30,762	26,563	41,677	15,114	
	Total	33,755	55,706	97,496	41,791	**1.750**
	TOTALS - ALL FUNDS					
	Shares in Equity Pools	171,153	1,401,301	3,192,277	1,790,975	
	Shares in Fixed Income Pools	1,723,203	1,412,139	2,334,634	922,495	
	Grand Total	$1,894,356	$2,813,440	$5,526,911	$2,713,471	
	PRIOR YEAR: DECEMBER 2017 BALANCES	**$1,948,049**	**$2,882,296**	**$5,884,225**	**$3,001,929**	

ENDOWMENT FUNDS
INVESTMENTS OUTSTANDING
DECEMBER 31, 2018

ASSET ALLOCATION PERCENTAGE

	SHARES OUTSTANDING	**BOOK VALUE**	MARKET VALUE	DECEMBER 2017 MARKET VALUE
Shares in Equity Pools	9.03%	**49.81%**	57.76%	62.25%
Shares in Fixed Income Pools	90.97%	**50.19%**	42.24%	37.75%
Total	100.00%	**100.00%**	100.00%	100.00%

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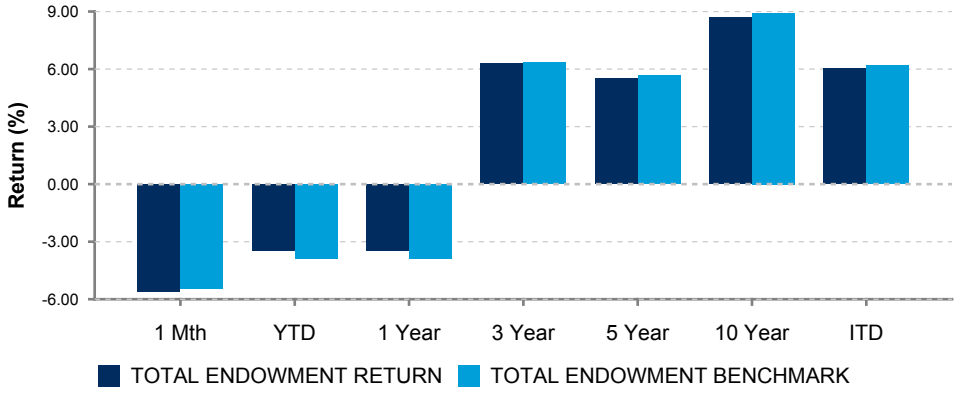
Total Endowment Summary

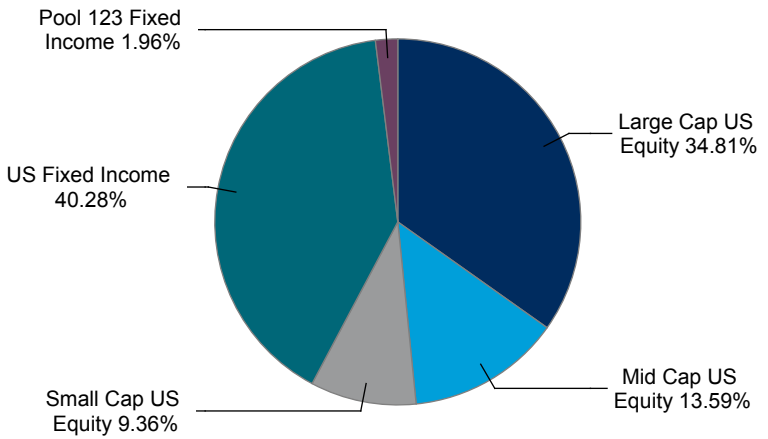
Performance



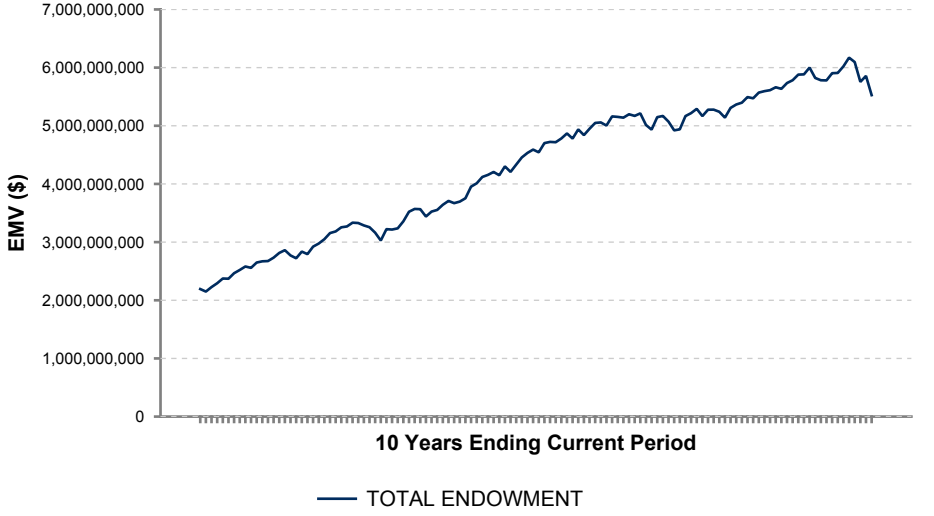
	1 Mth	YTD	1 Year	3 Year	5 Year	10 Year	ITD	Incept Date
TOTAL ENDOWMENT RETURN	-5.61	-3.49	-3.49	6.29	5.51	8.68	6.04	07/99
TOTAL ENDOWMENT BENCHMARK	-5.43	-3.89	-3.89	6.34	5.66	8.93	6.20	07/99
	-0.18	0.40	0.40	-0.05	-0.15	-0.25	-0.16	

Asset Allocation

	Ending Market Value
TOTAL ENDOWMENT RETURN	5,526,910,754

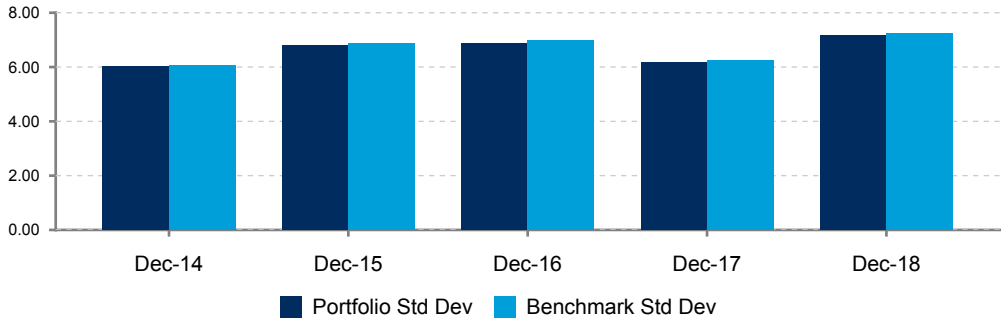


Ending Market Value



3 Year Risk Statistics

	Return	Portfolio Std Dev	Benchmark Std Dev	Sharpe Ratio	Beta	Tracking Error	Information Ratio
TOTAL ENDOWMENT RETURN	6.29	7.17	7.25	0.74	0.99	0.38	-0.13



OFFICE OF THE ARIZONA STATE TREASURER

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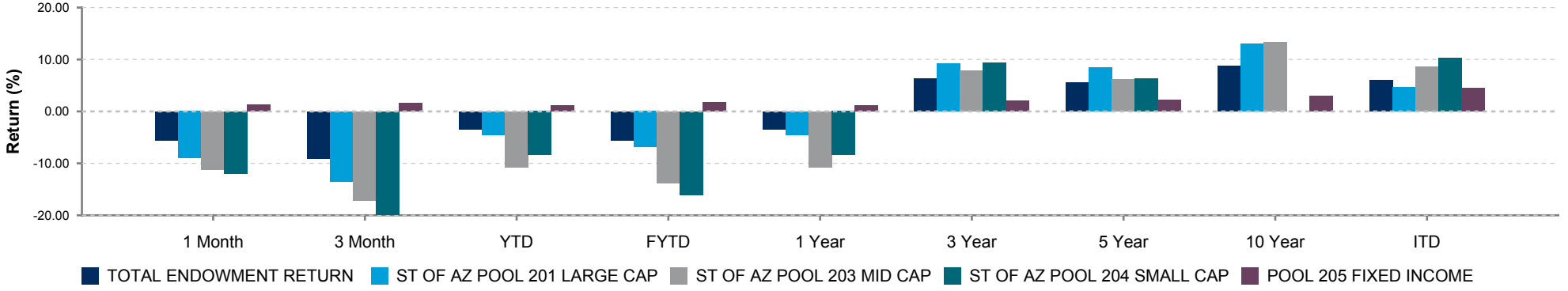
Total Returns Net Mgr

Return Comparison



	Market Value	Actual Weight	1 Mth	3 Mth	YTD	FYTD	1 Year	3 Year	5 Year	10 Year	ITD	Inc Date
TOTAL ENDOWMENT RETURN	5,526,910,754	100.00	-5.61	-9.06	-3.49	-5.53	-3.49	6.29	5.51	8.68	6.04	Jul-01-99
TOTAL ENDOWMENT BENCHMARK			-5.43	-9.07	-3.89	-5.60	-3.89	6.34	5.66	8.93	6.20	Jul-01-99
			-0.18	0.01	0.40	0.08	0.40	-0.05	-0.15	-0.25	-0.16	
ST OF AZ POOL 201 LARGE CAP	1,923,883,292	34.81	-8.99	-13.48	-4.45	-6.87	-4.45	9.17	8.42	13.09	4.65	Jul-01-99
S&P 500 INDEX (DAILY)			-9.03	-13.52	-4.38	-6.85	-4.38	9.26	8.49	13.12	5.14	Jul-01-99
			0.04	0.04	-0.07	-0.02	-0.07	-0.08	-0.07	-0.03	-0.49	
ST OF AZ POOL 203 MID CAP	751,105,449	13.59	-11.25	-17.14	-10.78	-13.75	-10.78	7.86	6.16	13.27	8.55	Aug-01-01
S&P 400 MIDCAP INDEX (DAILY)			-11.32	-17.28	-11.08	-14.08	-11.08	7.66	6.03	13.68	8.53	Aug-01-01
			0.07	0.13	0.30	0.33	0.30	0.20	0.13	-0.41	0.02	
ST OF AZ POOL 204 SMALL CAP	517,287,929	9.36	-11.96	-19.88	-8.40	-16.14	-8.40	9.39	6.39		10.35	Mar-01-11
S&P SM 600 TR			-12.07	-20.10	-8.48	-16.34	-8.48	9.46	6.34		10.32	Mar-01-11
			0.11	0.23	0.08	0.20	0.08	-0.07	0.05		0.03	
POOL 205 FIXED INCOME	2,226,043,835	40.28	1.28	1.55	1.13	1.79	1.13	2.04	2.19	3.00	4.54	Jul-01-99
FTSE BIG (DAILY)			1.86	1.64	-0.01	1.67	-0.01	2.07	2.51	3.36	4.80	Jul-01-99
			-0.57	-0.09	1.14	0.12	1.14	-0.03	-0.32	-0.36	-0.25	
POOL 123 FIXED INCOME	108,590,248	1.96	0.27	0.84	2.07	1.27	2.07				1.38	Jun-01-16
ASTO-POOL 5 BENCHMARK			0.20	0.57	1.94	1.10	1.94				1.21	Jun-01-16
			0.07	0.27	0.13	0.17	0.13				0.16	

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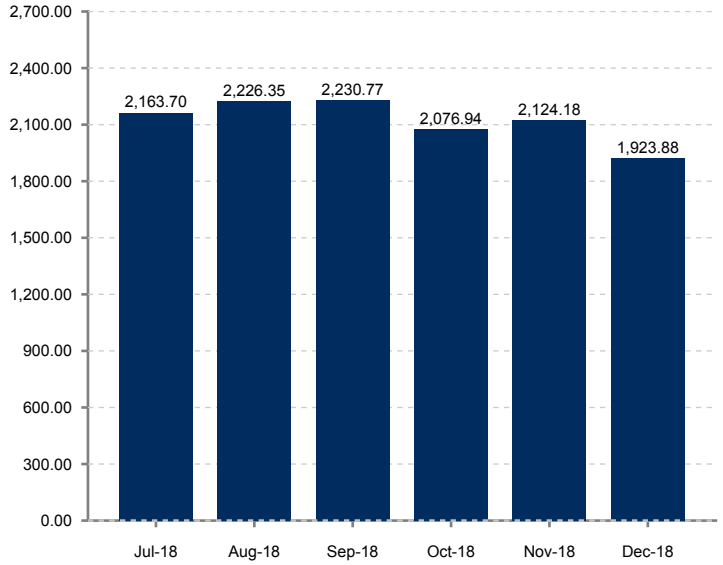
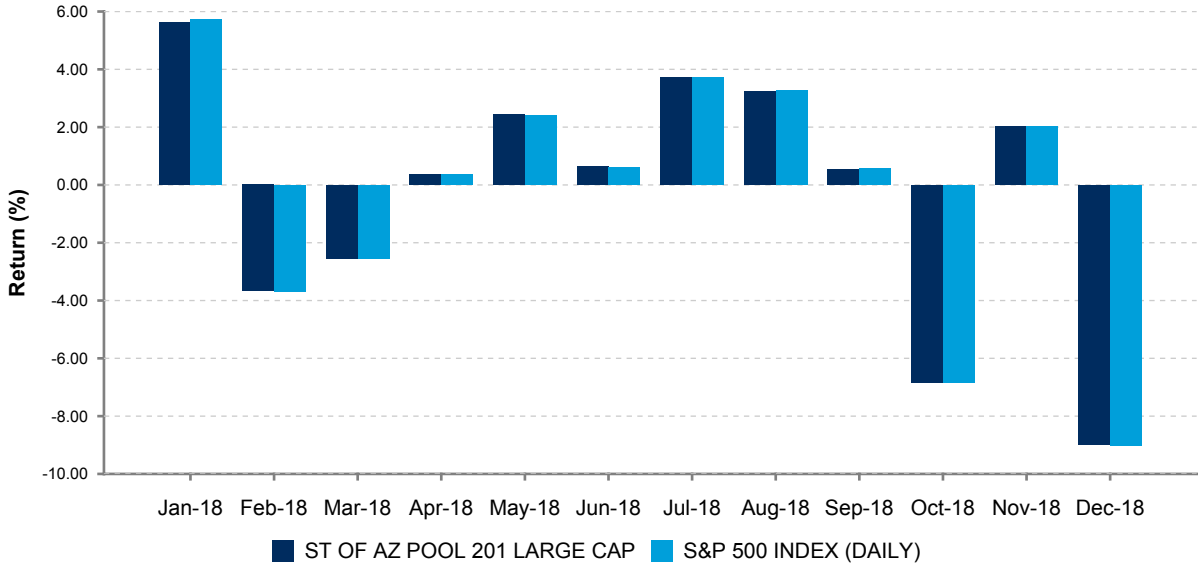
ST OF AZ POOL 201 LARGE CAP

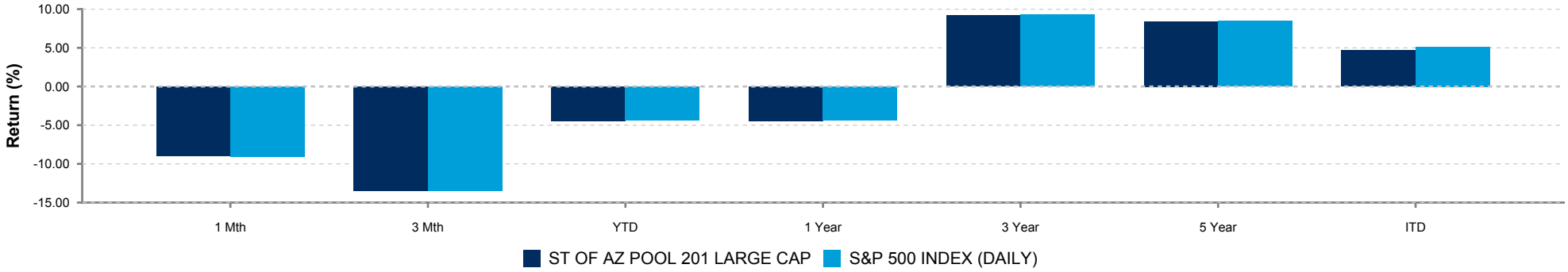
Net Asset Values over Time ($MM)



Monthly Returns



Rates of Return

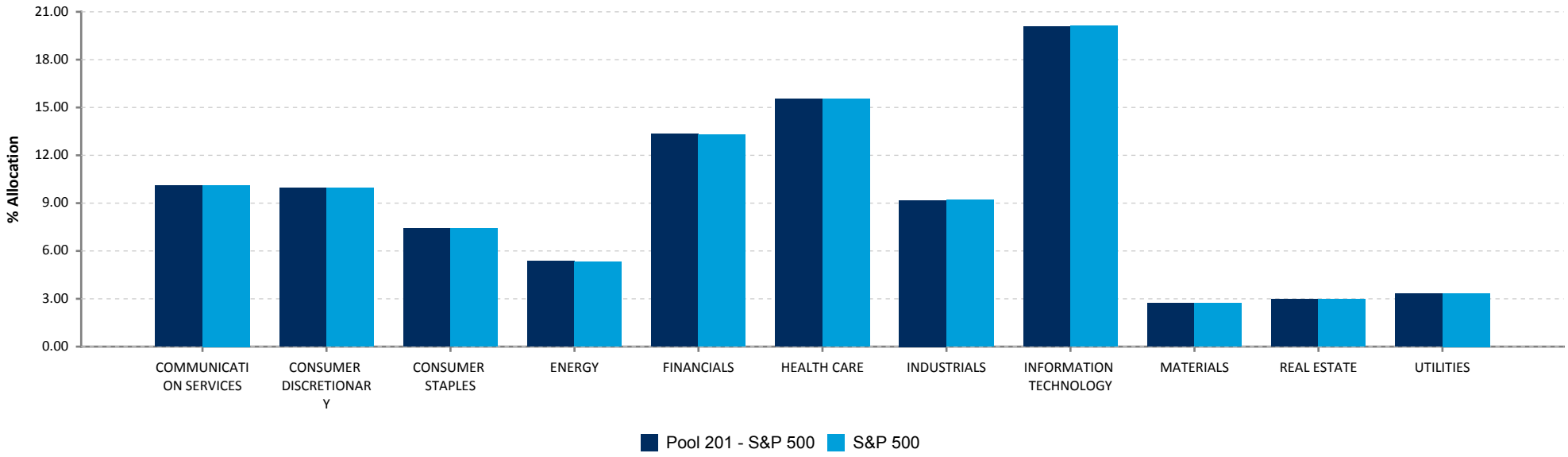


	1 Mth	3 Mth	YTD	1 Year	3 Year	5 Year	ITD	Dec 31 2016	Dec 31 2017	Dec 31 2018
ST OF AZ POOL 201 LARGE CAP	-8.99	-13.48	-4.45	-4.45	9.17	8.42	4.65	11.79	21.82	-4.45
S&P 500 INDEX (DAILY)	-9.03	-13.52	-4.38	-4.38	9.26	8.49	5.14	11.96	21.83	-4.38
	0.04	0.04	-0.07	-0.07	-0.08	-0.07	-0.49	-0.17	-0.01	-0.07

OFFICE OF THE ARIZONA STATE TREASURER

December 31, 2018

ST OF AZ POOL 201 LARGE CAP
Sector Allocation vs S&P 500



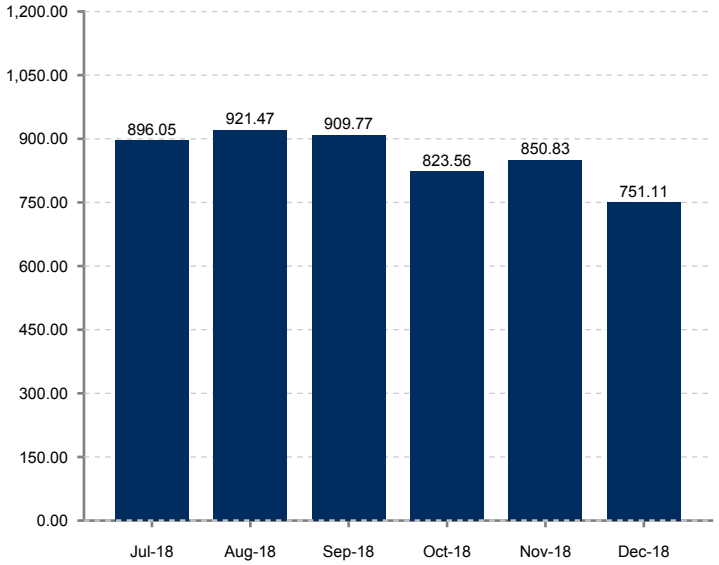
	Fund Weight	Benchmark Weight	Relative Weight
ST OF AZ POOL 201 LARGE CAP	100.00	100.00	0.00
COMMUNICATION SERVICES	9.85	9.86	-0.01
CONSUMER DISCRETIONARY	9.90	9.88	0.03
CONSUMER STAPLES	7.41	7.35	0.05
ENERGY	5.59	5.43	0.16
FINANCIALS	13.69	13.69	0.00
HEALTH CARE	15.58	15.77	-0.19
INDUSTRIALS	9.35	9.43	-0.08
INFORMATION TECHNOLOGY	19.97	19.94	0.03
MATERIALS	2.61	2.61	0.00
REAL ESTATE	2.89	2.89	0.00
UTILITIES	3.15	3.13	0.01

OFFICE OF THE ARIZONA STATE TREASURER

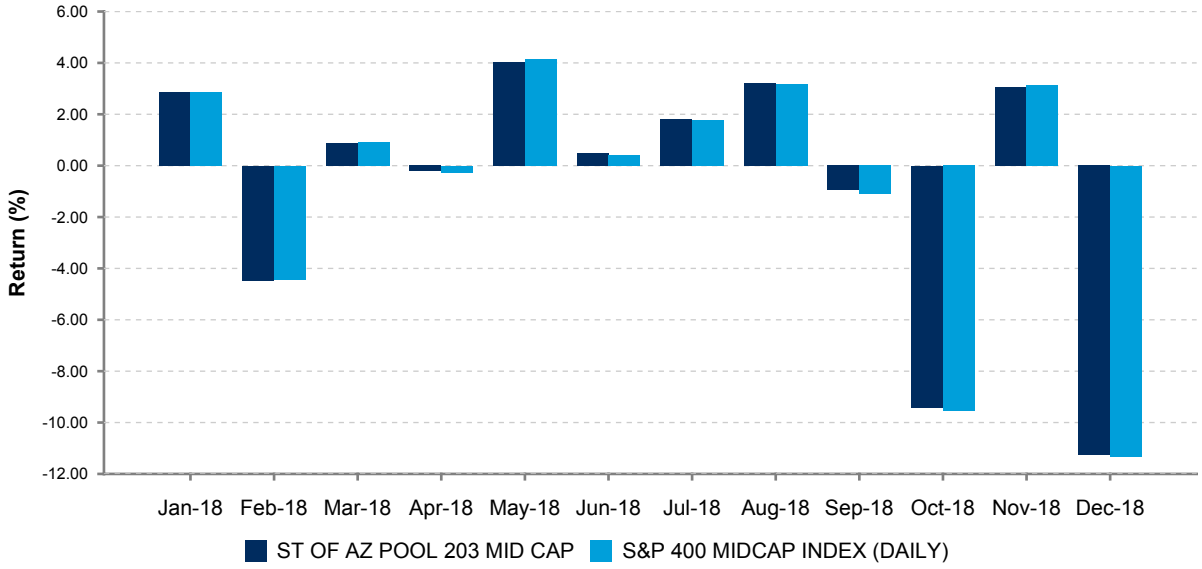
December 31, 2018

ST OF AZ POOL 203 MID CAP

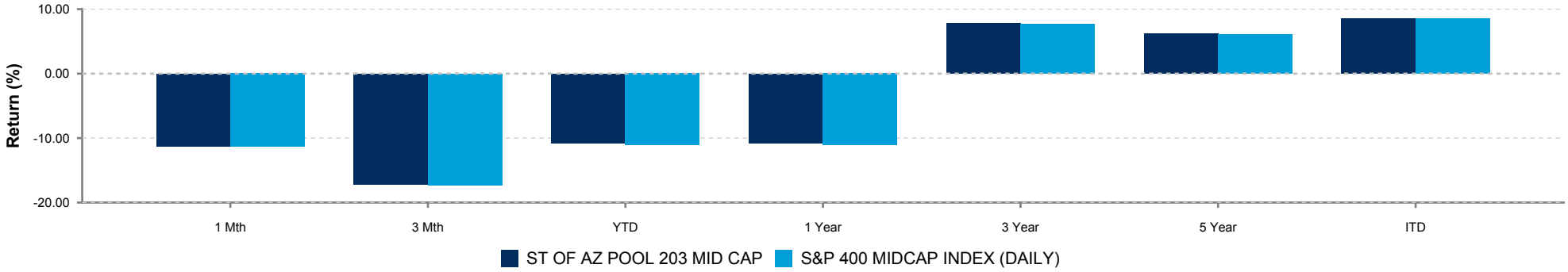
Net Asset Values over Time ($MM)



Monthly Returns



Rates of Return

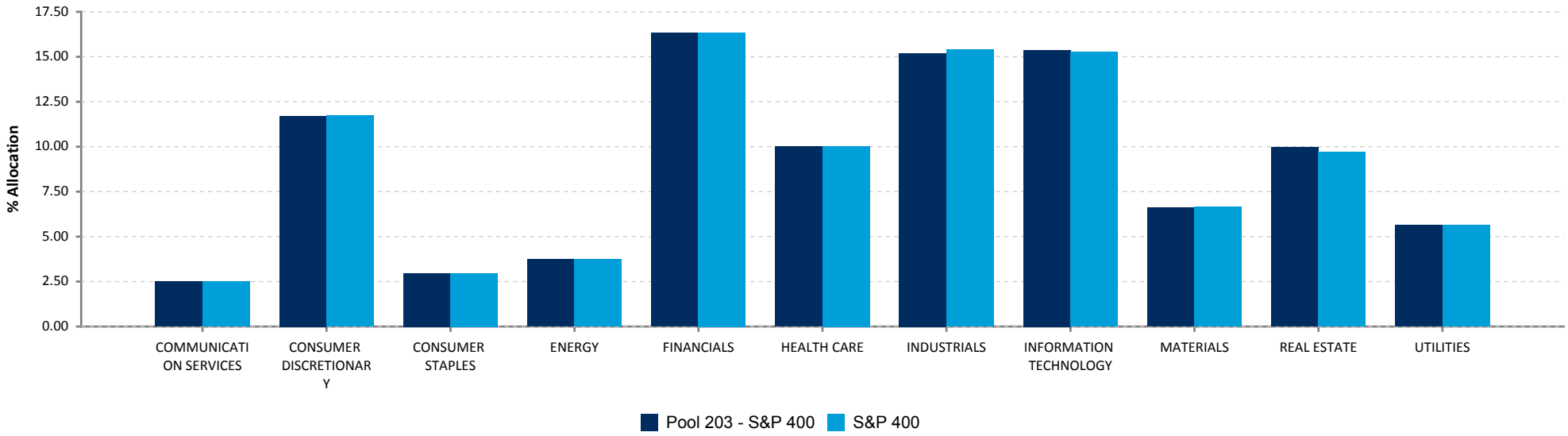


	1 Mth	3 Mth	YTD	1 Year	3 Year	5 Year	ITD	Dec 31 2016	Dec 31 2017	Dec 31 2018
ST OF AZ POOL 203 MID CAP	-11.25	-17.14	-10.78	-10.78	7.86	6.16	8.55	20.66	16.56	-10.78
S&P 400 MIDCAP INDEX (DAILY)	-11.32	-17.28	-11.08	-11.08	7.66	6.03	8.53	20.74	16.24	-11.08
	0.07	0.13	0.30	0.30	0.20	0.13	0.02	-0.07	0.32	0.30

OFFICE OF THE ARIZONA STATE TREASURER

December 31, 2018

ST OF AZ POOL 203 MID CAP
Sector Allocation vs S&P MID CAP 400



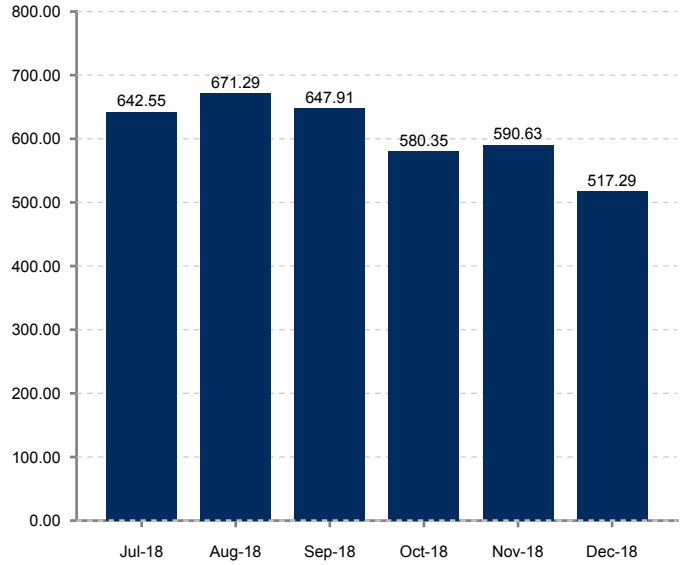
	Weight Fund	Weight Benchmark	Weight Relative
ST OF AZ POOL 203 MID CAP	100.00	100.00	0.00
COMMUNICATION SERVICES	2.30	2.30	0.01
CONSUMER DISCRETIONARY	11.91	11.86	0.05
CONSUMER STAPLES	2.84	3.49	-0.66
ENERGY	4.39	4.74	-0.36
FINANCIALS	16.48	16.42	0.06
HEALTH CARE	10.18	10.19	-0.01
INDUSTRIALS	15.45	15.34	0.11
INFORMATION TECHNOLOGY	15.12	14.48	0.64
MATERIALS	6.59	6.56	0.04
REAL ESTATE	9.54	9.45	0.09
UTILITIES	5.20	5.17	0.03

OFFICE OF THE ARIZONA STATE TREASURER

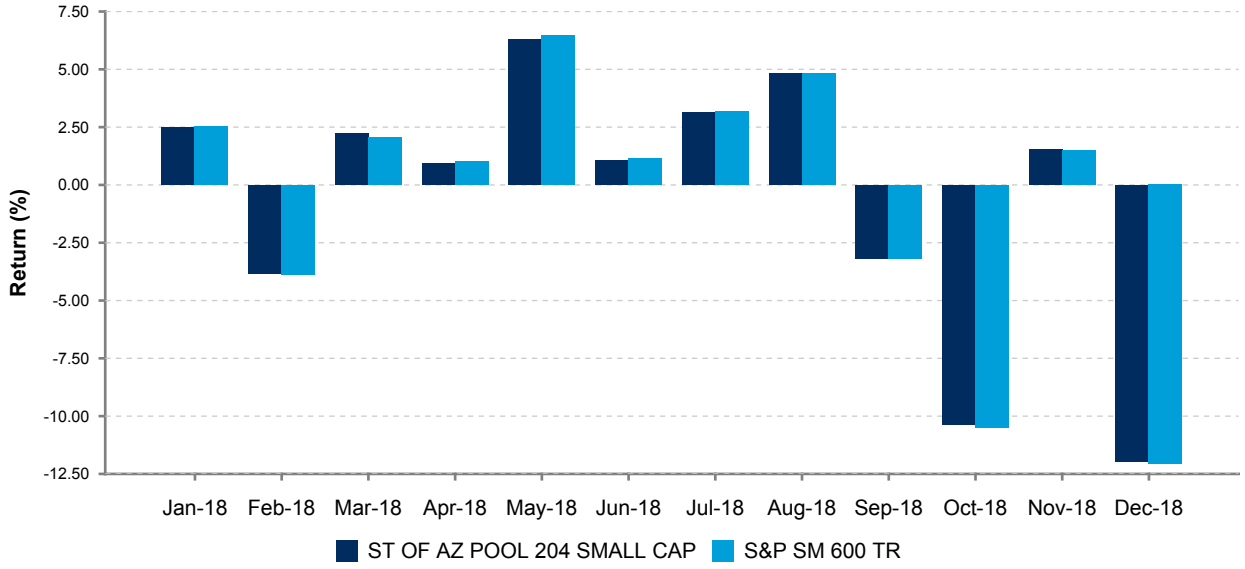
December 31, 2018

ST OF AZ POOL 204 SMALL CAP

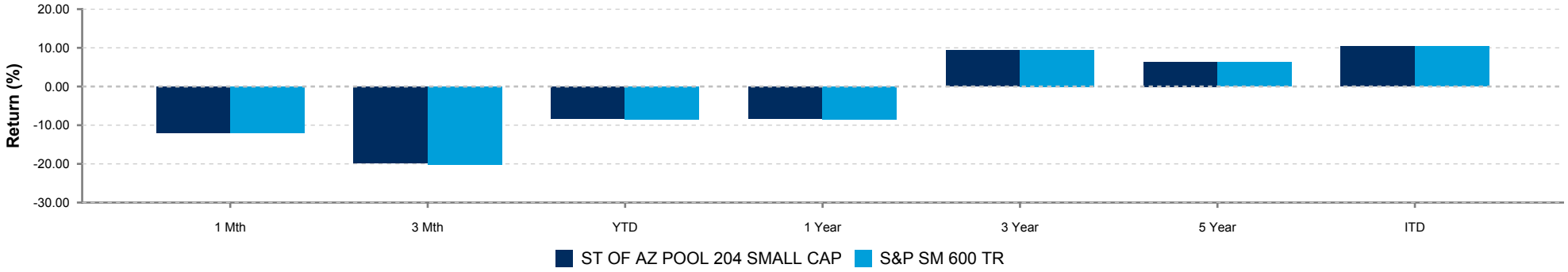
Net Asset Values over Time ($MM)



Monthly Returns



Rates of Return

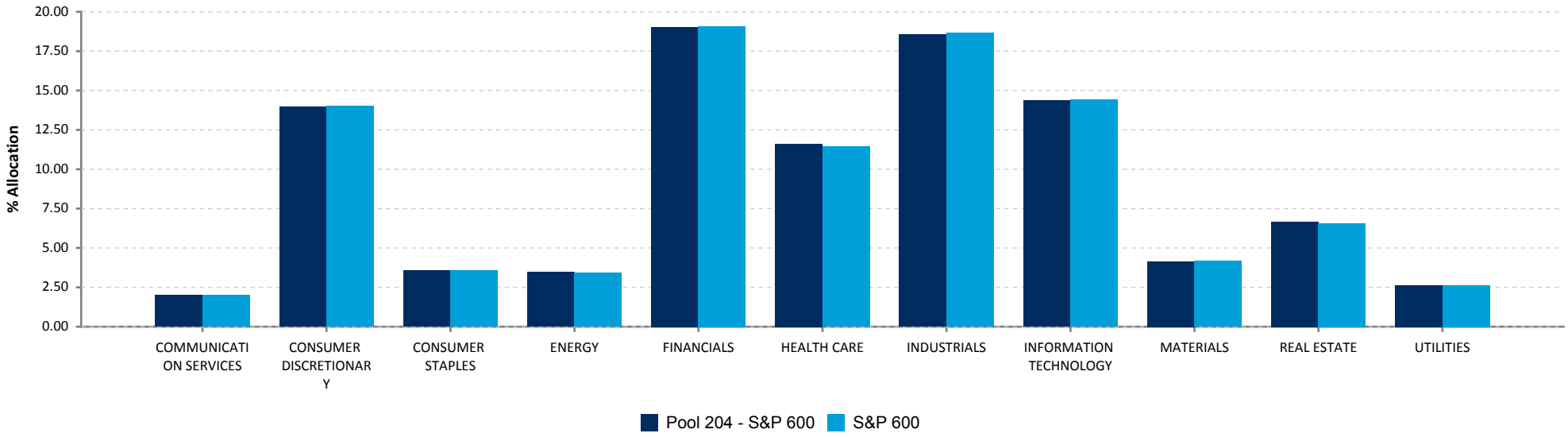


	1 Mth	3 Mth	YTD	1 Year	3 Year	5 Year	ITD	Dec 31 2016	Dec 31 2017	Dec 31 2018
ST OF AZ POOL 204 SMALL CAP	-11.96	-19.88	-8.40	-8.40	9.39	6.39	10.35	26.18	13.24	-8.40
S&P SM 600 TR	-12.07	-20.10	-8.48	-8.48	9.46	6.34	10.32	26.56	13.23	-8.48
	0.11	0.23	0.08	0.08	-0.07	0.05	0.03	-0.38	0.01	0.08

OFFICE OF THE ARIZONA STATE TREASURER

December 31, 2018

ST OF AZ POOL 204 SMALL CAP
Sector Allocation vs S&P SMALLCAP 600



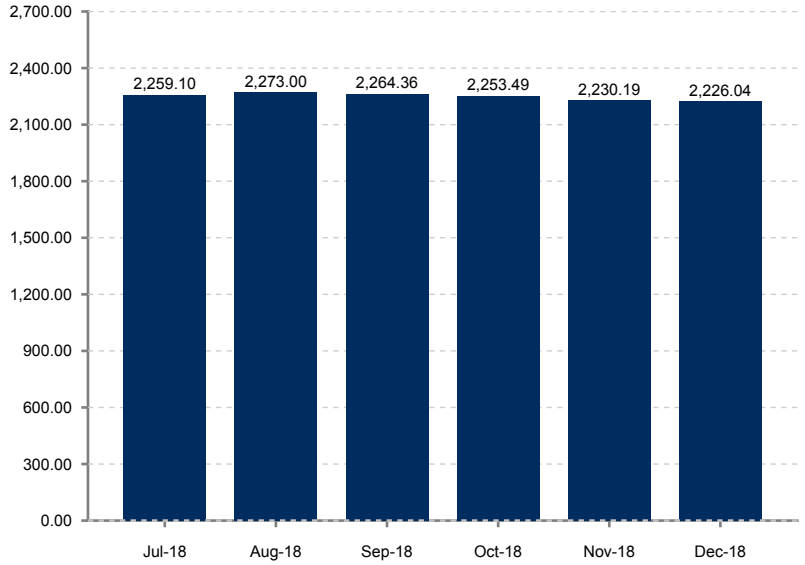
	Weight Fund	Weight Benchmark	Weight Relative
ST OF AZ POOL 204 SMALL CAP	100.00	100.00	0.00
COMMUNICATION SERVICES	2.18	2.19	-0.01
CONSUMER DISCRETIONARY	13.85	13.87	-0.02
CONSUMER STAPLES	3.54	3.55	-0.00
ENERGY	3.58	3.55	0.04
FINANCIALS	18.91	18.93	-0.02
HEALTH CARE	11.74	11.74	-0.01
INDUSTRIALS	18.47	18.48	-0.01
INFORMATION TECHNOLOGY	14.50	14.57	-0.07
MATERIALS	4.21	4.21	0.00
REAL ESTATE	6.52	6.43	0.09
UTILITIES	2.49	2.49	0.00

OFFICE OF THE ARIZONA STATE TREASURER

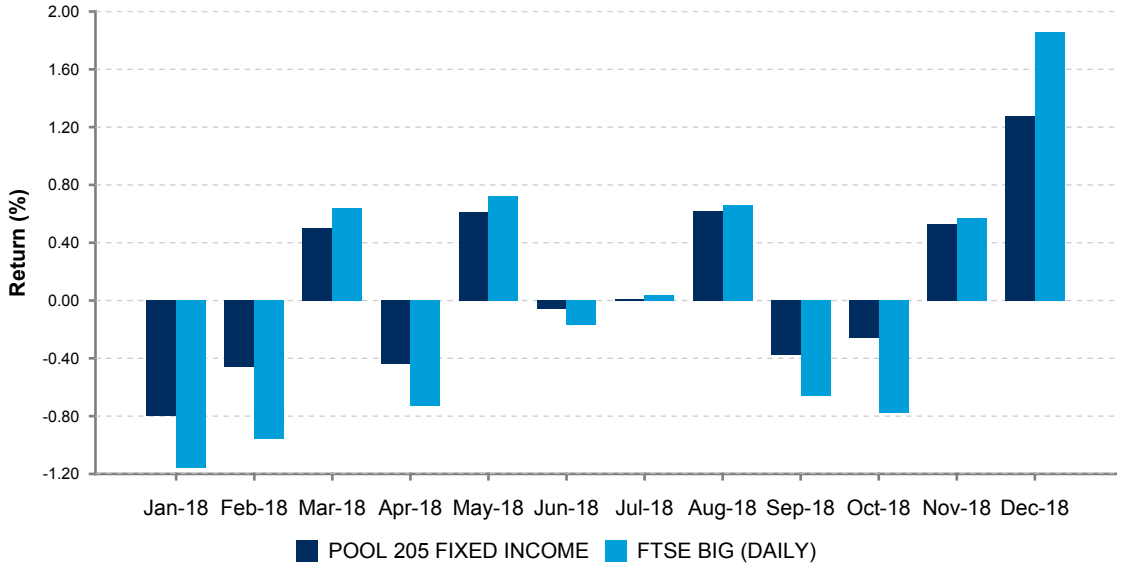
December 31, 2018

POOL 205 FIXED INCOME

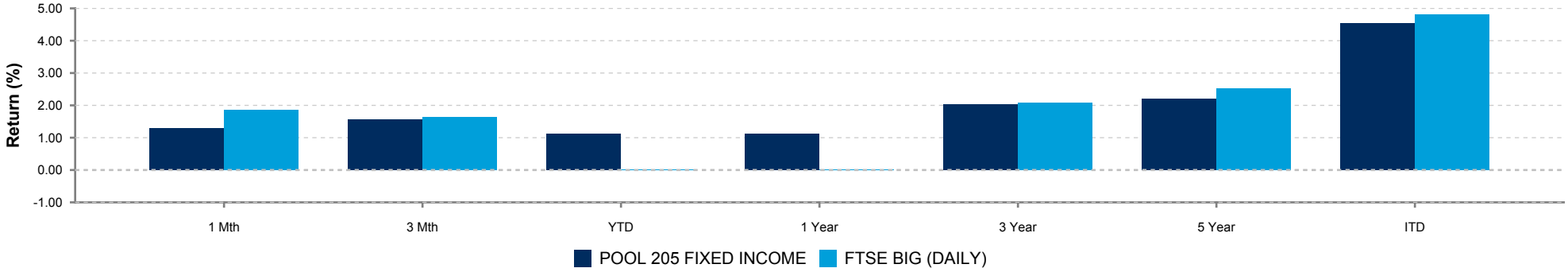
Net Asset Values over Time ($MM)



Monthly Returns



Rates of Return



	1 Mth	3 Mth	YTD	1 Year	3 Year	5 Year	ITD	Dec 31 2018	Dec 31 2017	Dec 31 2016
POOL 205 FIXED INCOME	1.28	1.55	1.13	1.13	2.04	2.19	4.54	1.13	2.56	2.45
FTSE BIG (DAILY)	1.86	1.64	-0.01	-0.01	2.07	2.51	4.80	-0.01	3.60	2.66
	-0.57	-0.09	1.14	1.14	-0.03	-0.32	-0.25	1.14	-1.04	-0.21

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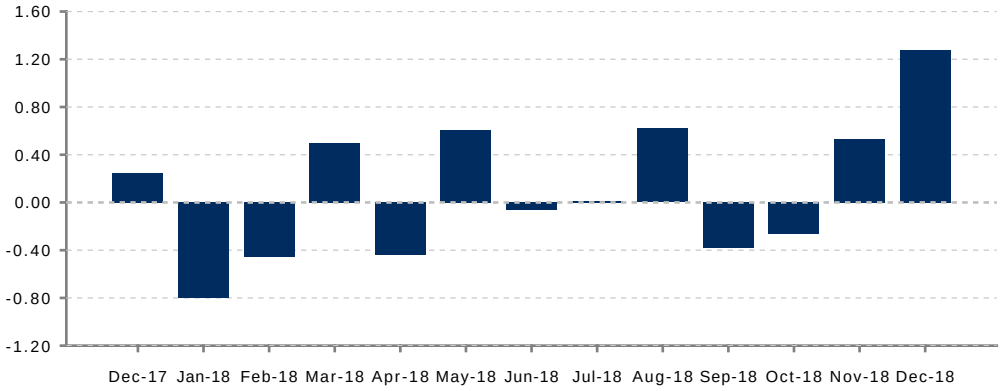
OFFICE OF THE ARIZONA STATE TREASURER

December 31, 2018

POOL 205 FIXED INCOME

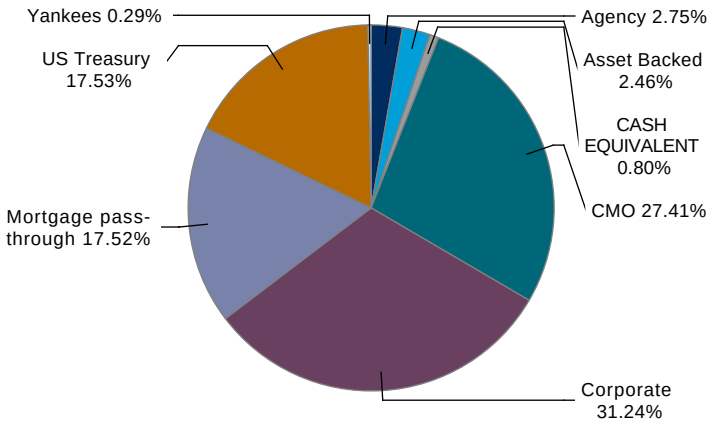
Net Mgr Return



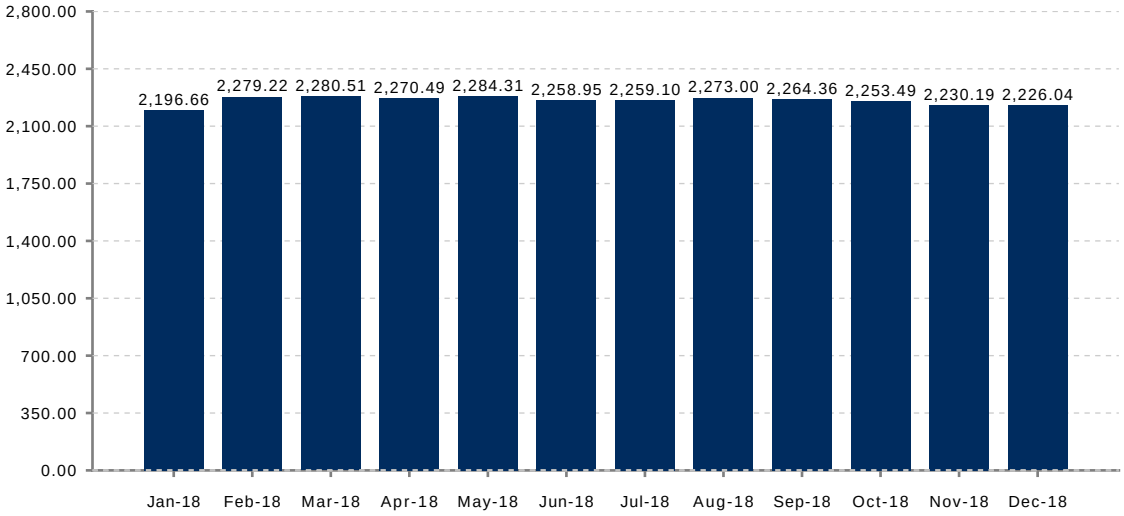
	Current Mth	Prior Mth	1 Year Ago
POOL 205 FIXED INCOME	1.28	0.53	0.25

Asset Allocation

	Ending Market Value
POOL 205 FIXED INCOME	2,226,043,835



Net Asset Values over Time ($MM)



Top 10 Holdings

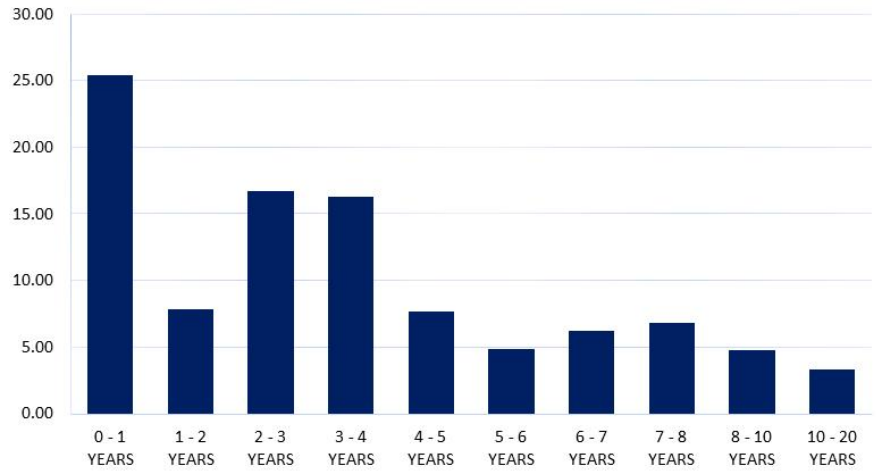
Security Name	Ending Market Value	% of Portfolio
POOL 205 FIXED INCOME		
US TREASURY N/B	34,544,540	1.55
US TREASURY N/B	26,696,298	1.20
US TREASURY N/B	26,220,075	1.18
US TREASURY N/B	24,842,697	1.12
US TREASURY N/B	23,611,830	1.06
US TREASURY N/B	21,433,738	0.96
PNC BANK NA	20,028,749	0.90
PEPSICO INC	19,947,607	0.90
FORD MOTOR CREDIT CO	19,861,511	0.89
US TREASURY N/B	19,635,020	0.88

OFFICE OF THE ARIZONA STATE TREASURER

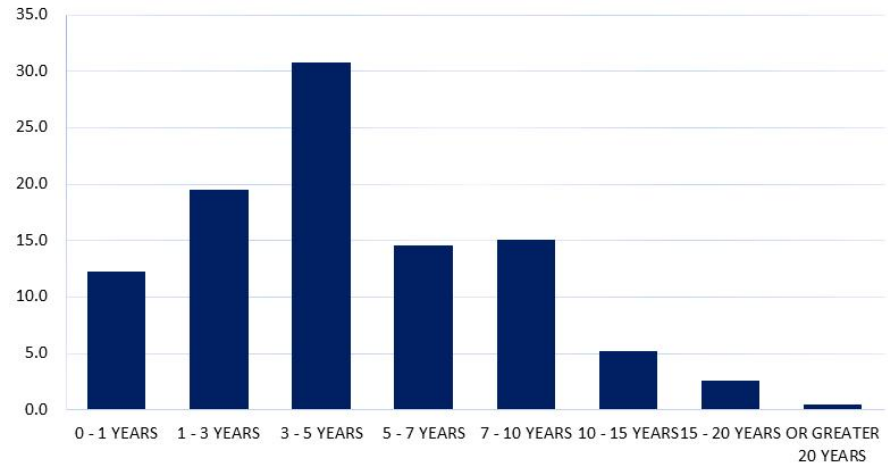
December 31, 2018

POOL 205 FIXED INCOME

Duration Distribution



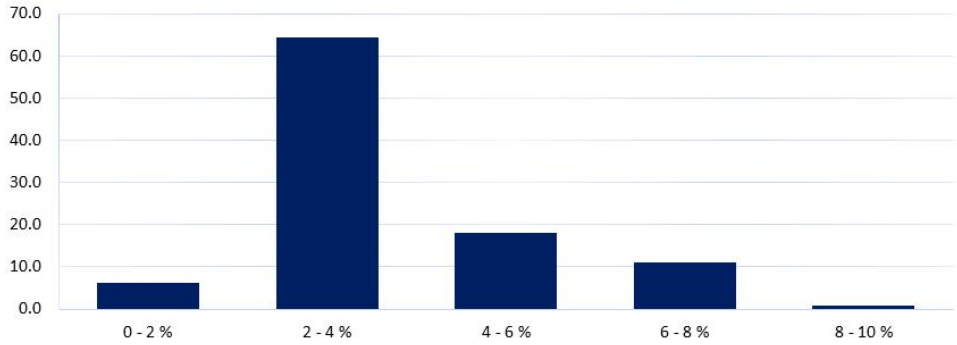
Expected Maturity Distribution



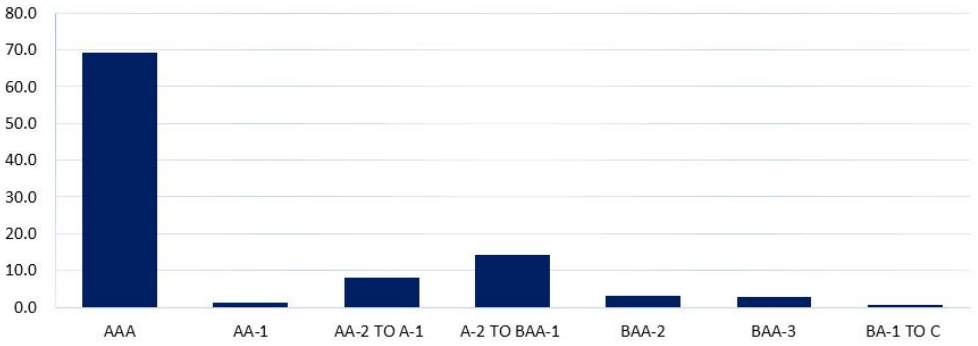
Portfolio Level Characteristics

	POOL 205 FIXED INCOME
Effective Maturity	5.00
Coupon	3.77
Effective Duration	3.51
Quality Rating (Moody's)	AA-2

Coupon Distribution



Rating Distribution

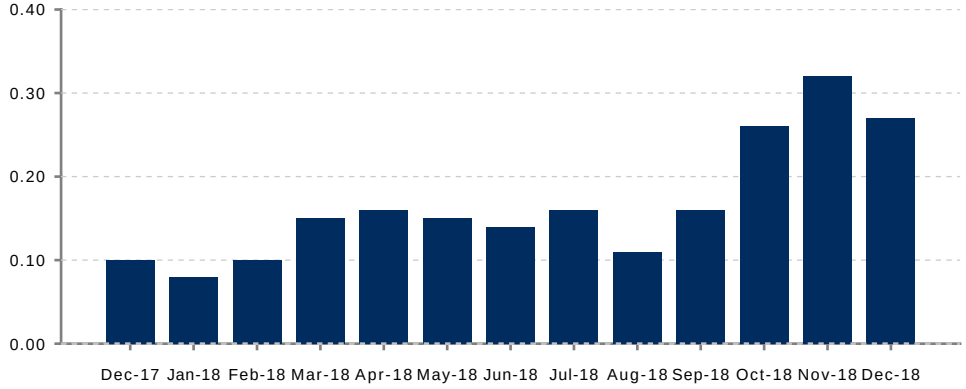


OFFICE OF THE ARIZONA STATE TREASURER

December 31, 2018

POOL 123 ST

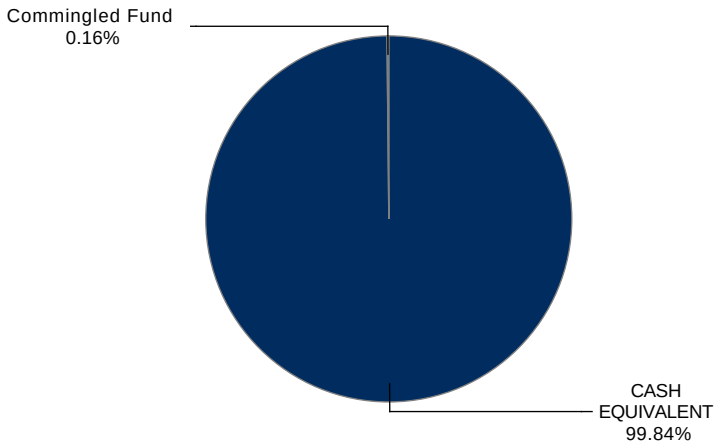
Net Yield



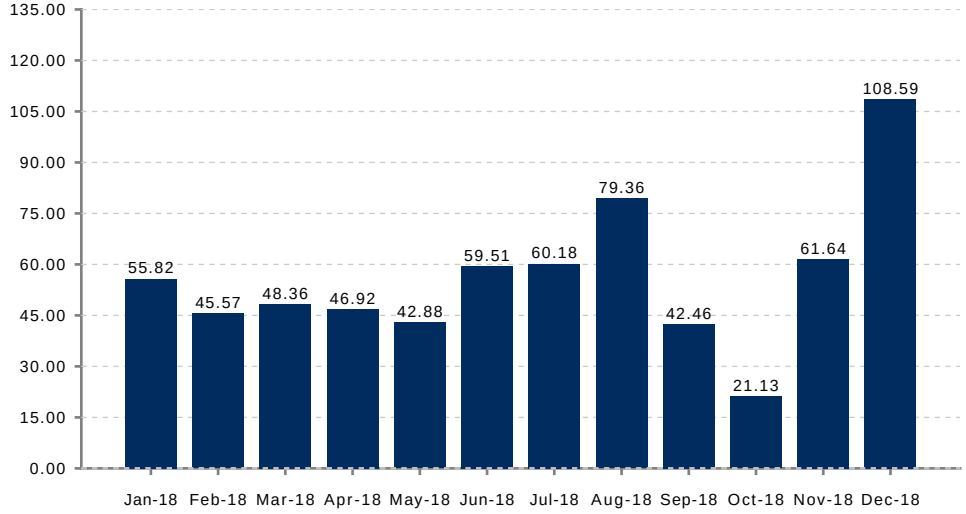
	Current Mth	Prior Mth	1 Year Ago
ST OF AZ POOL 123 ST FIXED INC	0.27	0.32	0.10

Asset Allocation

	Ending Market Value
ST OF AZ POOL 123 ST FIXED INC	108,590,248



Net Asset Values over Time ($MM)



Top 10 Holdings

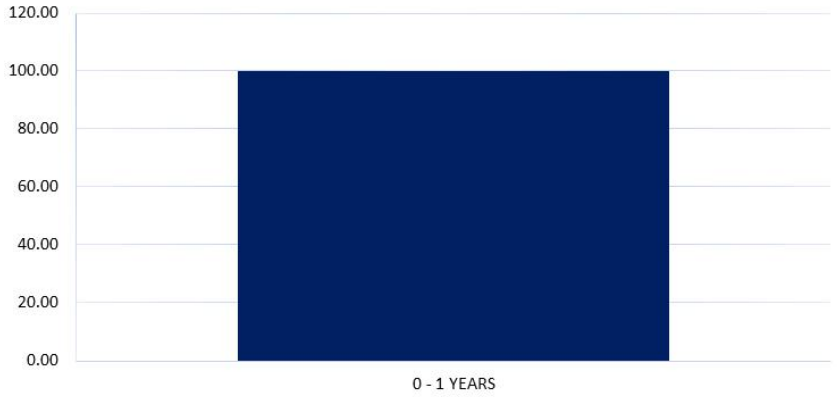
Security Name	Ending Market Value	% of Portfolio
ST OF AZ POOL 123 ST FIXED INC		
INSTITUTIONAL SECURED	5,341,855	4.92
CROWN POINT CAP CO.	5,026,106	4.63
VICTORY RECEIVABLES	4,992,361	4.60
HALKIN FINANCE LLC USC	4,992,331	4.60
INSTITUTIONAL SECURED	4,992,208	4.60
MOUNTCLIFF	4,992,117	4.60
CONCORD MIN CPTL CO	4,981,217	4.59
CEDAR SPRING CPTL CO	4,981,217	4.59
OLD LINE FUNDING LLC	4,981,150	4.59
VICTORY RECEIVABLES	4,981,042	4.59

OFFICE OF THE ARIZONA STATE TREASURER

December 31, 2018

POOL 123 ST

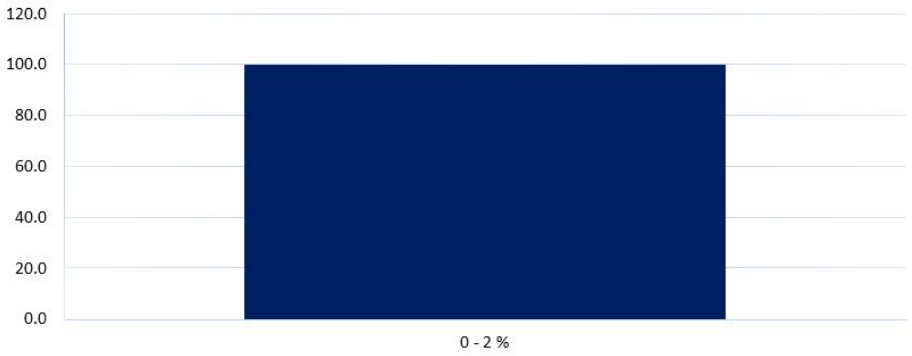
Duration Distribution



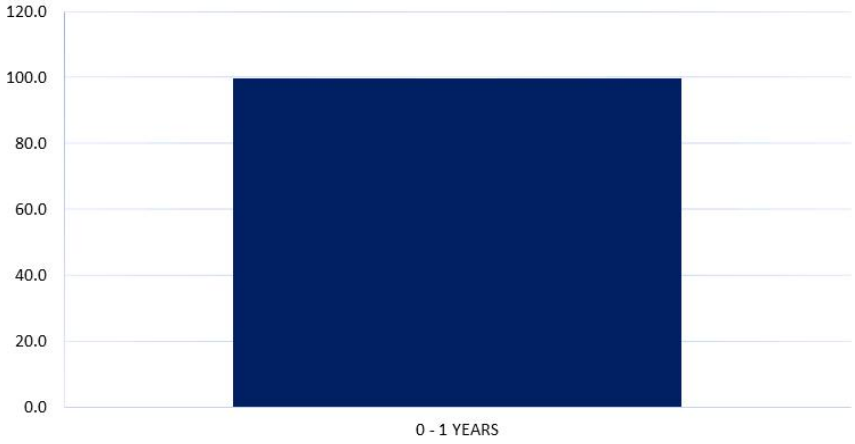
Portfolio Level Characteristics

	POOL 123 ST
Effective Maturity	0.17
Coupon	0.00
Effective Duration	0.17
Quality Rating (Moody's)	AAA

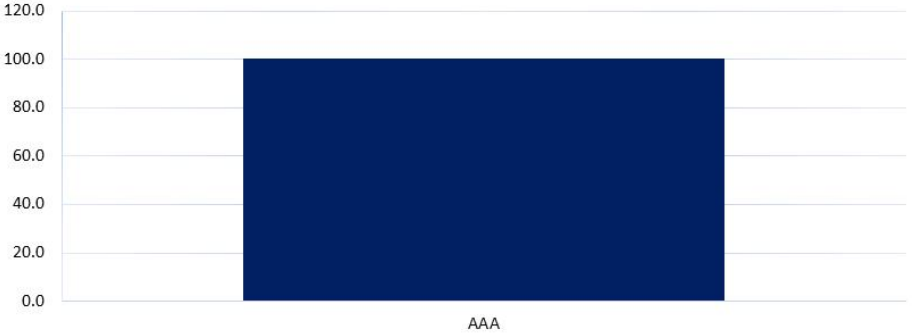
Coupon Distribution

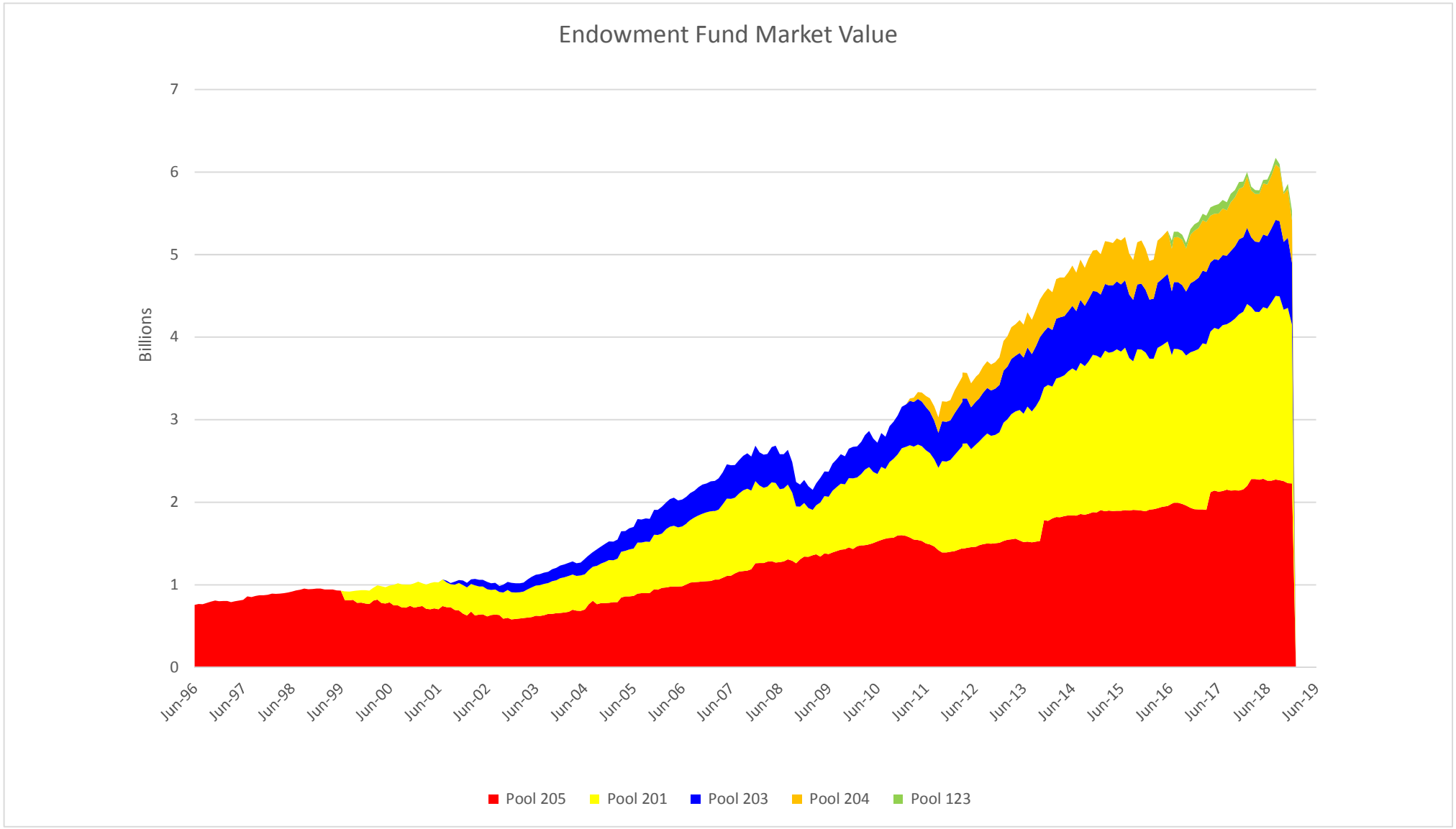


Expected Maturity Distribution



Rating Distribution




Endowment Fund Market Value
Billions
7
6
5
4
3
2
1
0
Jun-96
Jun-97
Jun-98
Jun-99
Jun-00
Jun-01
Jun-02
Jun-03
Jun-04
Jun-05
Jun-06
Jun-07
Jun-08
Jun-09
Jun-10
Jun-11
Jun-12
Jun-13
Jun-14
Jun-15
Jun-16
Jun-17
Jun-18
Jun-19
Pool 205
Pool 201
Pool 203
Pool 204
Pool 123

BROKER ACTIVITY REPORT
STATE AGENCY POOLS 2, 3 Int., 4, 10 Int.,12, 15 and 16
OCTOBER 1 - DECEMBER 31, 2018

Broker Name	Asset Group	Book Value	Pct Of Type	Pct Of Total
AMHERST SECURITIES				
	REPO	24,776,521,023	34.56%	33.64%
	US TREAS	108,152,613	13.90%	0.15%
B OF A SECURITIES INC.				
	COMMERCIAL PAPER	109,407,867	10.57%	0.15%
	CORP ABS	11,499,866	23.01%	0.02%
	US TREAS	124,139,546	15.96%	0.17%
BARCLAYS CAPITAL INC.				
	US TREAS	29,987,000	3.86%	0.04%
BMO CAPITAL MARKETS				
	REPO	1,621,034,819	2.26%	2.20%
	US TREAS	103,616,546	13.32%	0.14%
BNY MELLON				
	COMMERCIAL PAPER	24,886,500	2.40%	0.03%
BREAN				
	USA MBS	14,069,683	28.56%	0.02%
CANTOR FITZGERALD				
	COMMERCIAL PAPER	224,783,033	21.71%	0.31%
CASTLEOAK				
	COMMERCIAL PAPER	32,280,453	3.12%	0.04%
CITIGROUP				
	COMMERCIAL PAPER	123,889,879	11.97%	0.17%
CREDIT AGRICOLE				
	REPO	3,510,235,710	4.90%	4.77%
CREDIT SUISSE SECURITIES				
	COMMERCIAL PAPER	84,588,185	8.17%	0.11%
DAIWA CAPITAL MARKETS				
	REPO	12,000,000,000	16.74%	16.29%
	US TREAS	10,056,000	1.29%	0.01%
FIRST TENNESSEE				
	COMMERCIAL PAPER	24,969,306	2.41%	0.03%
	US TREAS	44,353,253	5.70%	0.06%

BROKER ACTIVITY REPORT
STATE AGENCY POOLS 2, 3 Int., 4, 10 Int.,12, 15 and 16
OCTOBER 1 - DECEMBER 31, 2018

Broker Name	Asset Group	Book Value	Pct Of Type	Pct Of Total
GUGGENHEIM SECURITIES				
	REPO	2,145,396,400	2.99%	2.91%
	COMMERCIAL PAPER	44,685,167	4.32%	0.06%
JP MORGAN CHASE				
	COMMERCIAL PAPER	174,144,911	16.82%	0.24%
	US TREAS	4,940,419	0.64%	0.01%
MITSUBISHI				
	REPO	277,405,526	0.39%	0.38%
MIZUHO SECURITIES				
	REPO	133,802,851	0.19%	0.18%
	COMMERCIAL PAPER	7,970,500	0.77%	0.01%
	US TREAS	73,114,846	9.40%	0.10%
RBC CAPITAL MARKETS				
	REPO	1,004,201,216	1.40%	1.36%
	COMMERCIAL PAPER	94,156,917	9.09%	0.13%
	CORP NOTES	51,991,000	91.23%	0.07%
	CORP ABS	12,969,724	25.96%	0.02%
	USA MBS	11,403,018	23.14%	0.02%
	US TREAS	19,995,150	2.57%	0.03%
ROBERT W. BAIRD				
	USA MBS	9,485,581	19.25%	0.01%
	US TREAS	10,000,000	1.29%	0.01%
SG AMERICAS SECURITIES LLC				
	CORP ABS	25,499,241	51.03%	0.03%
SOUTH STREET				
	REPO	24,256,138,661	33.84%	32.93%
SUNTRUST ROBINSON				
	REPO	500,000,000	0.70%	0.68%
	USA MBS	14,311,458	29.05%	0.02%
	US TREAS	5,000,000	0.64%	0.01%
WELLS FARGO				
	REPO	1,463,000,000	2.04%	1.99%
	COMMERCIAL PAPER	89,605,028	8.65%	0.12%
	CORP NOTES	4,999,450	8.77%	0.01%
	US TREAS	244,503,891	31.43%	0.33%

BROKER ACTIVITY REPORT
LGIP POOLS 5, 7, 500 and 700
OCTOBER 1 - DECEMBER 31, 2018

Broker Name	Asset Group	Book Value	Pct Of Type	Pct Of Total
AMHERST PIERPOINT SECURITIES				
	REPO	931,478,977	2.54%	2.34%
	US TREAS	224,025,815	26.12%	0.56%
B OF A SECURITIES INC.				
	REPO	6,000,000,000	16.39%	15.08%
	COMMERCIAL PAPER	325,394,435	14.28%	0.82%
	CORP ABS	13,999,959	41.18%	0.04%
	US TREAS	19,760,771	2.30%	0.05%
BARCLAYS CAPITAL INC.				
	COMMERCIAL PAPER	164,051,332	7.20%	0.41%
	US TREAS	79,692,643	9.29%	0.20%
BMO CAPITAL MARKETS				
	REPO	6,628,965,181	18.11%	16.67%
	COMMERCIAL PAPER	34,877,217	1.53%	0.09%
	US TREAS	209,404,203	24.42%	0.53%
BREAN				
	COMMERCIAL PAPER	9,956,944	0.44%	0.03%
CANTOR FITZGERALD				
	COMMERCIAL PAPER	19,981,656	0.88%	0.05%
CASTLEOAK				
	COMMERCIAL PAPER	154,611,065	6.79%	0.39%
CREDIT AGRICOLE				
	REPO	6,924,764,289	18.92%	17.41%
	COMMERCIAL PAPER	19,959,400	0.88%	0.05%
CREDIT SUISSE				
	COMMERCIAL PAPER	178,051,489	7.81%	0.45%
DAIWA CAPITAL MARKETS				
	US TREAS	99,491,468	11.60%	0.25%
FIRST TENNESSEE				
	COMMERCIAL PAPER	14,955,150	0.66%	0.04%

BROKER ACTIVITY REPORT
LGIP POOLS 5, 7, 500 and 700
OCTOBER 1 - DECEMBER 31, 2018

Broker Name	Asset Group	Book Value	Pct Of Type	Pct Of Total
GUGGENHEIM SECURITIES, LLC				
	REPO	8,671,603,600	23.69%	21.80%
	COMMERCIAL PAPER	74,774,392	3.28%	0.19%
	US TREAS	31,893,872	3.72%	0.08%
JP MORGAN CHASE				
	COMMERCIAL PAPER	532,571,526	23.38%	1.34%
LUQUIDNET				
	COMMERCIAL PAPER	24,889,556	1.09%	0.06%
MITSUBISHI				
	REPO	322,594,473	0.88%	0.81%
	COMMERCIAL PAPER	61,484,342	2.70%	0.15%
MIZUHO SECURITIES				
	REPO	66,197,149	0.18%	0.17%
	COMMERCIAL PAPER	189,324,646	8.31%	0.48%
RBC CAPITAL MARKETS				
	REPO	4,195,798,784	11.46%	10.55%
	COMMERCIAL PAPER	361,302,729	15.86%	0.91%
	CORP NOTES	2,000,000	100.00%	0.01%
	CORP ABS	8,000,000	23.53%	0.02%
SG AMERICAS				
	CORP ABS	11,999,643	35.29%	0.03%
SOUTH STREET				
	REPO	1,425,861,338	3.90%	3.58%
SUNTRUST ROBINSON				
	COMMERCIAL PAPER	12,617,285	0.55%	0.03%
WELLS FARGO				
	REPO	1,437,000,000	3.93%	3.61%
	COMMERCIAL PAPER	99,527,385	4.37%	0.25%
	US TREAS	193,324,797	22.54%	0.49%

BROKER ACTIVITY REPORT
ENDOWMENT FIXED INCOME POOLS 123 and 205
OCTOBER 1 - DECEMBER 31, 2018

Broker Name	Asset Group	Book Value	Pct Of Type	Pct Of Total
B OF A SECURITIES INC.				
	COMMERCIAL PAPER	44,773,603	24.01%	21.61%
BARCLAYS CAPITAL INC.				
	COMMERCIAL PAPER	14,936,875	8.01%	7.21%
BREAN CAPITAL				
	USA MBS	10,731,645	68.21%	5.18%
CASTLEOAK				
	COMMERCIAL PAPER	20,237,297	10.85%	9.77%
CITIGROUP				
	COMMERCIAL PAPER	24,868,403	13.34%	12.00%
CREDIT SUISSE				
	COMMERCIAL PAPER	34,838,068	18.68%	16.81%
GUGGENHEIM				
	COMMERCIAL PAPER	4,475,950	2.40%	2.16%
JP MORGAN CHASE				
	COMMERCIAL PAPER	37,334,608	20.02%	18.02%
RBC CAPITAL MARKETS				
	COMMERCIAL PAPER	4,989,624	2.68%	2.41%
	USA MBS	5,000,588	31.79%	2.41%
SG AMERICAS				
	CORP ABS	5,000,000	100.00%	2.41%

BROKER ACTIVITY REPORT
ENDOWMENT EQUITY POOLS 201, 203, & 204
OCTOBER 1 - DECEMBER 31, 2018

Broker Name	Asset Group	Book Value	Pct Of Type	Pct Of Total
BARCLAYS CAPITAL INC.				
	LARGE CAP	24,723,113	54.54%	11.97%
	MID CAP	83,057,192	73.35%	40.22%
	SMALL CAP	42,969,281	89.66%	20.81%
LUQUIDNET				
	LARGE CAP	4,808,140	10.61%	2.33%
	MID CAP	15,417,035	13.62%	7.47%
	SMALL CAP	1,647,948	3.44%	0.80%
MKM HOLDINGS				
	LARGE CAP	5,033,886	11.10%	2.44%
	MID CAP	12,633,429	11.16%	6.12%
	SMALL CAP	3,241,427	6.76%	1.57%
SG AMERICAS SECURITIES LLC				
	LARGE CAP	10,768,042	23.75%	5.21%
	MID CAP	2,121,103	1.87%	1.03%
	SMALL CAP	65,912	0.14%	0.03%