



As of 9/30/2019



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## Executive Summary

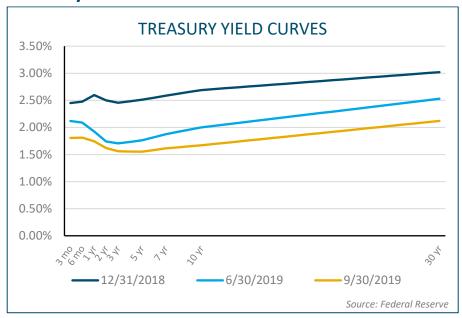
TRANSACTIONS:			
Action	Total	Comments	Average Tax- Equivalent Yield
Sales, Calls, and Maturities	\$3,795,000	Three securities in the account matured during the quarter.	0.85%
Purchases	\$3,465,830	Proceeds from maturities were used to purchase bonds that maintained the target laddered maturity structure.	1.69%

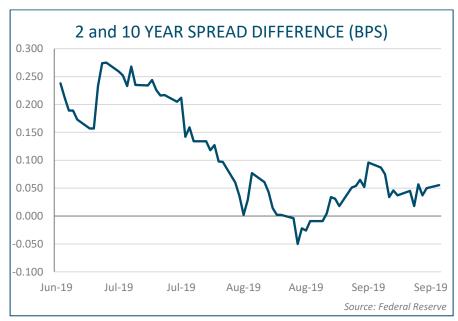
PORTFOLIO STATISTICS:											
Quarter Ending:	06/30/2019	09/30/2019									
Tax-Equivalent Book Yield	2.01%	2.01%									
Book Value	\$50,032,683	\$51,340,937									
Projected Tax-Equivalent Annual Income	\$1,006,239	\$1,033,618									
Unrealized Gain	\$358,710	\$410,232									
YTD Realized Gain	\$0	\$0									
Portfolio Duration	1.52	1.42									
Average Credit Quality	AA+	AA+									

PORTFOLIO ALLOCATION:											
Sector	06/30/2019	09/30/2019									
Treasury	100%	97%									
Agency	0%	0%									
Credit	0%	0%									
Exempt Muni	0%	0%									
Taxable Muni	0%	0%									
MPT	0%	0%									
СМО	0%	0%									
ABS	0%	0%									
CMBS	0%	0%									
Short-Term	0%	3%									

PERFORMANCE	:		
Tax-equivalent Performance	Portfolio	Target/Benchmark	Difference
YTD Booked Income	\$721,840	\$684,207	\$37,632
QTD Total Return	0.60%	0.55%	0.05%
YTD Total Return	2.86%	2.80%	0.06%

### **Treasury Yields**

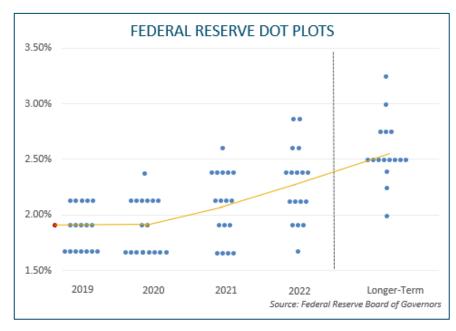




- Trade tensions and slowing global growth remained the headline driver of lower rates during the third quarter
  - o 10-year bond yield volatility remained extremely high and traded in a very wide range during the quarter
    - Yields ranged from highs of 2.14% to lows of 1.43%, finally ending the quarter at 1.67%, a sizable decline from Q2
  - While U.S. data remained relatively positive throughout the quarter, deterioration in Europe and Asia provided ample investor demand for U.S. bonds, driving bond yields to the lowest levels experienced since 2016
    - As global growth concerns intensified, markets also experienced further flattening of the yield curve
    - In mid-August, the 2/10-year Treasury yield curve inverted briefly, however finished positive at +6 basis points
      - That said, Treasury yields between 3-7 years continue to yield less than the 2-year
      - Historically, this measure has been a precursor to recession, but has been widely debated given the current unprecedented demand from foreign buyers
- With the market facing many economic and geopolitical uncertainties, volatility will remain high for the remainder of 2019
  - Trade uncertainty continues to dampen business investment and will pressure global manufacturing lower in the coming months
  - Until resolved, this headwind will continue in Q4 and possibly 2020

#### **Global Yields and Federal Reserve**





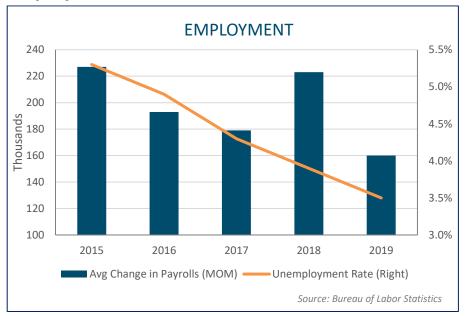
#### GLOBAL YIELDS

- Aggressive quantitative easing programs by the ECB and Bank of Japan, have resulted in a negative yield environment in many countries across
  Europe and Japan
- Negative yielding global debt reached record levels during Q3, representing roughly a quarter of global bonds outstanding
  - Negative yielding debt ended the quarter at \$14.8 trillion, after peaking at \$17.0 trillion in August

#### **FEDERAL RESERVE**

- During the quarter, the Fed reacted dovishly to ongoing global economic uncertainty
  - o As a result, they actively cut rates twice by 25 basis points at both the July and September meetings
- In September, Chairman Powell reiterated the Fed does not have a pre-determined path for rates
  - o They will "closely monitor" incoming economic data and will proactively cut rates if needed
  - o Powell pointed to the uncertainty of global trade and the decline in inflation expectations as possible need for future adjustments
- Shifting of dot plot expectations point to the uncertainty FOMC members have over the future direction of rates
  - This is one of the first times since the crisis the committee has been so divided on future moves
  - Market expectations continue to price in more aggressive rate cuts than the Fed, anticipating two additional cuts before year end 2020

### **Employment and Inflation**





#### **EMPLOYMENT**

- The U.S. labor market continues to reflect a healthy economy with the unemployment rate at 3.5%, at the 50-year low
  - o While job creation remains positive, there are signs of cooling as the market reaches "full employment"
    - Monthly nonfarm payrolls have averaged 161,000 year to date, running below 2018 average of 223,000 per month
- Despite tightness in labor markets wage inflation has increased modestly, averaging 2.9% over the past year
  - o The wage component continues to be closely monitored as a potential catalyst for higher inflation

#### **INFLATION**

- U.S. inflation levels have softened and have remained persistently below "target" for many years
  - While tariffs have increased costs, companies have struggled to push higher costs on to consumers
  - This decline is widespread as global economies foresee reduced inflation expectations for coming years
- Outside the US, central banks also extended dovish policies, implemented rate cuts and restarted quantitative easing to drive additional growth and curtail deflation
  - The decline in global bond yields YTD are a result of these dovish policies being put in place to increase monetary supply, encourage spending, in hopes of pushing inflation higher

### **Retail Sales and Economic Surprise Index**





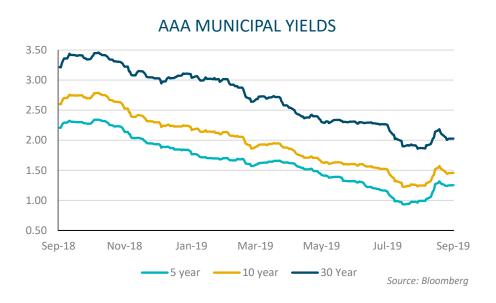
#### **RETAIL SALES**

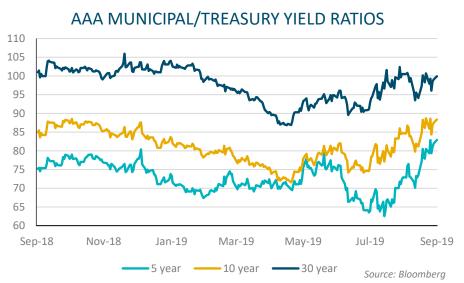
- While the market expects slowing in the U.S., growth is expected to remain positive, supported by the strong consumer and retail sales
  - Retail sales have shown upward growth of 4.1% (YOY) and remain above the 5-year average of 3.7%
  - o Consumer confidence also remains above historic averages and should help support consumer demand
  - Consumer strength has been supported by the strong employment market, growing wages, and the increased personal wealth effect given rising asset prices

#### **ECONOMIC SURPRISE INDEX**

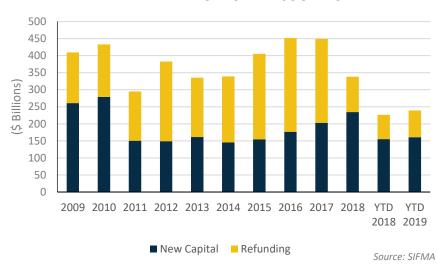
- Citibank Economic Surprise Index measures the difference between analyst forecasts and the published value of a given economic data releases
  - Since May the index has reversed its decline from previous years, moving back to the highest levels since mid-2018.
  - These readings indicate that the economic data is beating estimates by an unusually large margin
- Historically, 10-year yields have typically lagged this index by 3 months. Given the recent turn-around, it would signal that data has surprised to the high side of estimates and yields should follow suit by moving higher.
  - o However, weakness in Europe could distort this relationship as the relative value of U.S. debt continues to attract foreign demand

### **Municipals**





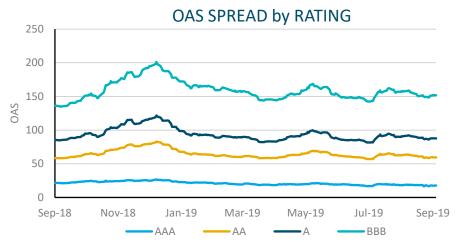
#### TAX-EXEMPT MUNICIPAL ISSUANCE



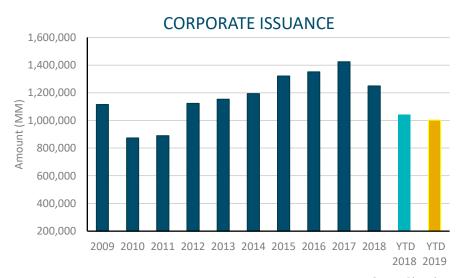
#### Comments

- During the third quarter, municipal yields touched new historic lows for longer maturity tenors, before retracing back to the previous quarter-end
- Record inflows, into municipal bond funds continued throughout the quarter, totaling \$67bn year to date
- Primary market issuance increased with the decrease in yields
  - Heavier issuance is expected to remain through year-end
- Although recording positive total returns of 1.58% over the quarter, tax-exempt municipals underperformed Treasuries
  - o Bloomberg Barclays Municipal index has returned 6.75% YTD
- Ten and thirty-year Treasury ratios have rebounded, providing a more attractive entry point for investors
- We continue to direct most institutional cash to other asset classes

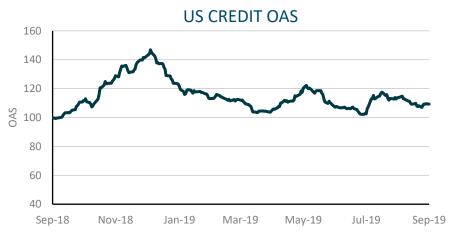
### **Corporates**



Source: Bloomberg Barclays



Source: Bloomberg

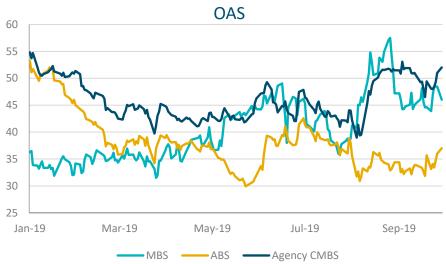


Source: Bloomberg Barclays

#### Comments

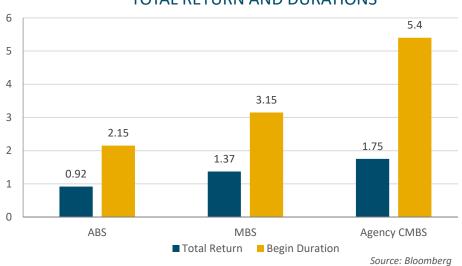
- As the inverted yield curve flashed recessionary signals, corporate credit spreads traded in a 16bps range during the third quarter
  - Spreads ranged from 102bps in late July to 118bps in August, and closed the quarter at 109
- Investment grade credit issuance surged 15% YOY in Q3 to \$353bn, bringing YTD issuance just shy of YTD 2018 levels of \$1,038bn
- September saw the largest ever IG weekly issuance at \$77bn and closed as the 3<sup>rd</sup> heaviest month on record at \$158bn
- Risks to corporate earnings remain front and center as second quarter earnings continued their slow deterioration
  - Although growth rates for revenue and EBITDA remain positive on a YOY basis (+3.4% and +3.8%), EBITDA declined for the 2<sup>nd</sup> straight quarter on a QOQ basis
- We retain our tactical overweight to corporates with a highquality bias in the current macroeconomic and monetary environment

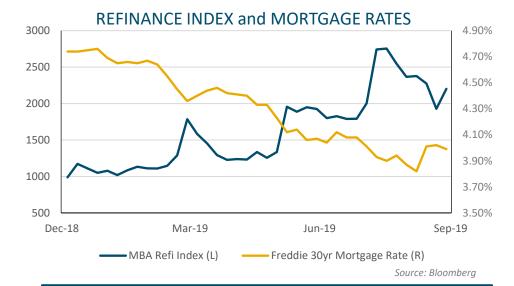
### Mortgage and Asset Backed Securities (MBS and ABS)



Source: Bloombera Barclavs

#### TOTAL RETURN AND DURATIONS





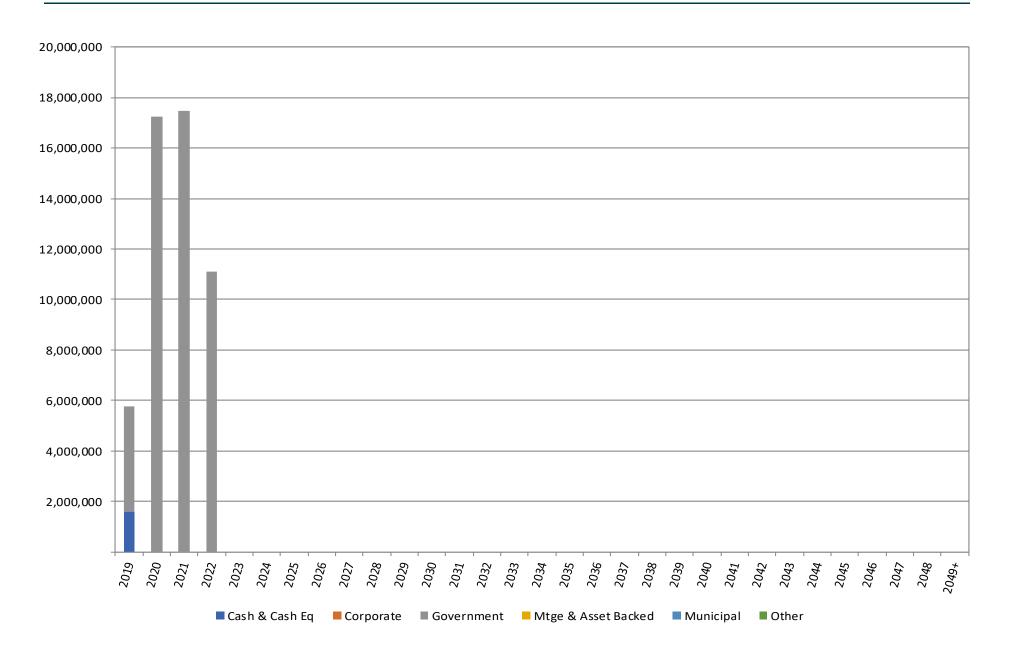
#### Comments

- The third quarter brought noticeable dispersion in structured product returns, primarily driven by duration
  - Longer duration sectors resulted in stronger performance as total return was led by price return with the fall in rates
- In addition to a divergence in return, direction of spreads also varied
  - MBS spreads spiked higher on prepay concerns with August refinances increasing to the widest levels seen since the 2013 Taper Tantrum
    - 50% of outstanding mortgages had at least a 50bp incentive to refinance
  - Agency CMBS spreads widened in sympathy with MBS, while ABS spreads tightened over the quarter, as investors chased higher yields, lower duration, and high-quality consumer debt
- We maintain our neutral to slightly overweight allocation to MBS and recommend allocations to high quality ABS and agency CMBS

## Portfolio Statistics

Security Type	Book Value	Market Value	Gain / (Loss)	Tax- Equivalent	Tax- Equivalent	Effective Duration	Convexity	Sec	urities at Gain	Sec	curities at Loss
				Book Yield	Market Yield			#	Amount	#	Amount
Fixed Income											
Treasury	49,738,790	50,149,022	410,232	2.08	1.74	1.47	0.04	27	423,015	10	(12,783)
Agency	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
Corporate	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
Taxable Municipal	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
Tax-exempt Municipal	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
Mortgage Pass-Through	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
CMOs	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
ARMs	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
Asset Backed	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
CMBS	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
Other	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
Total	49,738,790	50,149,022	410,232	2.08	1.74	1.47	0.04	27	423,015	10	(12,783)
Short Term											
Sweep Money Market	1,602,147	1,602,147	0	0.00	0.00	0.00	0.00	0	0	0	0
Commercial Paper	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
(Payable)/Receivable	0	0	0	0.00	0.00	0.00	0.00	0	0	0	0
Total	1,602,147	1,602,147	0	0.00	0.00	0.00	0.00	0	0	0	0
Total Fixed Income & Short T	erm										
Total	51,340,937	51,751,169	410,232	2.01	1.69	1.42	0.03	27	423,015	10	(12,783)
Equity											
Common Stock	0	0	0					0	0	0	0
Total	0	0	0					0	0	0	0
Grand Total											
Total	51,340,937	51,751,169	410,232					27	423,015	10	(12,783)

## Maturity Schedule By Weighted Average Life



## Effective Maturity Schedule

Year	Book Value	Tax Equiv. Book Yield	% of Total Book Value
2019	4,150,466	1.44	8%
2020	17,206,291	1.78	35%
2021	17,396,986	2.36	35%
2022	10,985,047	2.34	22%
2023+	0	0.00	0%
Subtotal	49.738.790	2.08	100%
(inc. ABS, Agcy, CMBS, Co	rp, Muni, UST)		
MBS	0	0.00	0%
TOTAL	49.738.790	2.08	100%

## **Performance**

### **Tax-Equivalent Total Return** as of 09/30/2019 **Inception Date: 07/01/2010**

	Prime	Benchmark	Difference
Quarter to Date	0.60%	0.55%	0.05%
Year to Date	2.86%	2.80%	0.06%
Since Inception	1.47%	1.24%	0.23%

**Benchmark Composition:** 

100.0% Garden State Duration Matched Treasury

## **Bond Purchases**

Trade Date	Des	scription Security 1	S&P Type Rating	Moody's Rating	Coupon	Maturity Date	Call Date	Price	Cost	Pre-Tax Book Yield	Tax-Equivalent Book Yield
07/02/2019	US TREASURY N/B	Treasury	AA+	Aaa	1.750	09/30/2022	N/A	100.08	1,050,861	1.72	1.72
07/16/2019	US TREASURY N/B	Treasury	AA+	Aaa	1.875	10/31/2022	N/A	100.07	1,025,721	1.85	1.85
09/05/2019	US TREASURY N/B	Treasury	AA+	Aaa	2.125	09/30/2021	N/A	101.14	505,723	1.56	1.56
09/05/2019	US TREASURY N/B	Treasury	AA+	Aaa	2.000	10/31/2021	N/A	100.95	504,746	1.55	1.55
09/05/2019	US TREASURY N/B	Treasury	AA+	Aaa	2.000	11/15/2021	N/A	101.01	378,779	1.53	1.53
Total	-		=	=	-				3,465,830	1.69	1.69

## Bond Sales, Calls & Maturities

Trade Date	Trade Type	Description	Security Type	S&P Rating	Moody's Rating	Coupon	Effective Maturity	Maturity Date	Price	Book Value	Realized Gain/(Loss)	Pre-Tax Book Yield	Tax- Equivalent Book Yield
07/15/2019	Maturity	US TREASURY N/B	Treasury	AA+	Aaa	0.750	07/15/2019	07/15/2019	100.00	1,000,000	0	0.77	0.77
08/31/2019	Maturity	US TREASURY N/B	Treasury	AA+	Aaa	1.000	08/31/2019	08/31/2019	100.00	1,295,000	0	0.86	0.86
09/30/2019	Maturity	US TREASURY N/B	Treasury	AA+	Aaa	1.000	09/30/2019	09/30/2019	100.00	1,500,000	0	0.89	0.89
Total										3.795.000	0	0.85	0.85

# **Appendix**

Detailed Portfolio Report

## Portfolio Holdings Report

Date Acquired		Moody's Rating	Quantity	Description	Coupon	Effective Maturity	Maturity	Original Cost	Book Value	Market Value	Unrealized Gain/(Loss)	Book Yield	Market E Yield D		Avg Life	Convexity
Money Marke	et															
09/03/2019			1,602,147 BAN	IK OF AMER/ML	0.00			1,602,147	1,602,147	1,602,147	0	0.00	0.00	0.00	0.00	
			1,602,147					1,602,147	1,602,147	1,602,147	0	0.00	0.00	0.00	0.00	
Treasury																
07/18/2017	AA+	Aaa	1,250,000 US	TREASURY N/B	1.50	07/15/2020	07/15/2020	1,249,268	1,249,804	1,246,538	(3,267)	1.52	1.85	0.78	0.79	0.00
01/05/2018	AA+	Aaa	1,650,000 US	TREASURY N/B	2.00	02/28/2021	02/28/2021	1,641,996	1,645,762	1,655,676	9,914	2.19	1.75	1.38	1.41	0.03
01/19/2018	AA+	Aaa	1,500,000 US	TREASURY N/B	2.25	03/31/2021	03/31/2021	1,499,102	1,499,573	1,511,070	11,497	2.27	1.75	1.47	1.50	0.03
05/21/2018	AA+	Aaa	1,575,000 US	TREASURY N/B	2.13	09/30/2021	09/30/2021	1,561,129	1,568,650	1,589,585	20,935	2.33	1.65	1.95	2.00	0.05
06/07/2018	AA+	Aaa	1,500,000 US	TREASURY N/B	2.00	10/31/2021	10/31/2021	1,481,621	1,490,178	1,510,545	20,367	2.32	1.66	2.01	2.08	0.05
01/30/2017	AA+	Aaa	1,500,000 US	TREASURY N/B	1.50	11/30/2019	11/30/2019	1,502,531	1,500,151	1,498,830	(1,321)	1.44	1.96	0.16	0.16	0.00
06/18/2018	AA+	Aaa	1,050,000 US	TREASURY N/B	2.13	12/31/2021	12/31/2021	1,028,836	1,036,292	1,061,403	25,111	2.73	1.63	2.18	2.25	0.06
02/17/2017	AA+	Aaa	1,250,000 US	TREASURY N/B	1.63	12/31/2019	12/31/2019	1,255,957	1,250,526	1,248,975	(1,551)	1.45	1.95	0.25	0.25	0.00
06/02/2017	AA+	Aaa	1,550,000 US	TREASURY N/B	1.38	03/31/2020	03/31/2020	1,541,867	1,546,679	1,546,311	(368)	1.81	1.86	0.49	0.50	0.00
06/16/2017	AA+	Aaa	1,500,000 US	TREASURY N/B	1.38	04/30/2020	04/30/2020	1,490,684	1,496,161	1,495,725	(436)	1.82	1.87	0.57	0.58	0.01
07/19/2017	AA+	Aaa	1,500,000 US	TREASURY N/B	1.38	08/31/2020	08/31/2020	1,485,234	1,492,988	1,493,670	682	1.89	1.84	0.90	0.92	0.01
07/02/2019	AA+	Aaa	1,050,000 US	TREASURY N/B	1.75	09/30/2022	09/30/2022	1,050,861	1,050,807	1,055,250	4,443	1.72	1.58	2.91	3.00	0.10
07/19/2017	AA+	Aaa	1,500,000 US	TREASURY N/B	1.38	09/30/2020	09/30/2020	1,485,059	1,492,493	1,493,550	1,057	1.88	1.81	0.99	1.00	0.01
07/27/2017	AA+	Aaa	1,500,000 US	TREASURY N/B	1.38	10/31/2020	10/31/2020	1,484,141	1,491,754	1,493,025	1,271	1.89	1.81	1.06	1.08	0.02
07/16/2019	AA+	Aaa	1,025,000 US	TREASURY N/B	1.88	10/31/2022	10/31/2022	1,025,721	1,025,684	1,034,051	8,367	1.85	1.58	2.96	3.08	0.10
09/05/2017	AA+	Aaa	1,500,000 US	TREASURY N/B	1.63	11/30/2020	11/30/2020	1,496,406	1,498,197	1,497,015	(1,182)	1.73	1.80	1.14	1.16	0.02
10/03/2017	AA+	Aaa	1,500,000 US	TREASURY N/B	1.75	12/31/2020	12/31/2020	1,495,020	1,496,159	1,499,175	3,016	1.96	1.79	1.23	1.25	0.02
12/01/2017	AA+	Aaa	1,250,000 US	TREASURY N/B	1.38	01/31/2021	01/31/2021	1,223,643	1,238,392	1,243,463	5,071	2.09	1.77	1.31	1.33	0.02
05/01/2018	AA+	Aaa	1,400,000 US	TREASURY N/B	2.13	08/15/2021	08/15/2021	1,375,063	1,385,559	1,411,326	25,767	2.69	1.68	1.82	1.87	0.04
06/11/2018	AA+	Aaa	1,425,000 US	TREASURY N/B	2.00	11/15/2021	11/15/2021	1,404,416	1,413,298	1,435,688	22,389	2.40	1.64	2.06	2.12	0.05
07/05/2018	AA+	Aaa	1,140,000 US	TREASURY N/B	2.00	02/15/2022	02/15/2022	1,116,478	1,124,152	1,150,511	26,358	2.61	1.60	2.31	2.38	0.07
06/24/2019	AA+	Aaa	1,000,000 US	TREASURY N/B	1.63	08/15/2022	08/15/2022	997,305	997,536	1,001,330	3,794	1.71	1.58	2.79	2.87	0.09
10/05/2016	AA+	Aaa	1,400,000 US	TREASURY N/B	1.25	10/31/2019	10/31/2019	1,403,961	1,399,789	1,399,230	(559)	1.44	1.89	0.08	0.08	0.00
02/27/2017	AA+	Aaa	1,250,000 US	TREASURY N/B	1.38	01/15/2020	01/15/2020	1,247,598	1,249,755	1,248,100	(1,655)	1.44	1.90	0.29	0.29	0.00
06/25/2018	AA+	Aaa	1,050,000 US	TREASURY N/B	1.88	01/31/2022	01/31/2022	1,020,592	1,030,628	1,055,901	25,273	2.70	1.63	2.27	2.33	0.06
03/06/2017	AA+	Aaa	1,250,000 US	TREASURY N/B	1.38	02/15/2020	02/15/2020	1,242,529	1,249,038	1,247,363	(1,675)	1.58	1.94	0.37	0.38	0.00
07/05/2018	AA+	Aaa		TREASURY N/B	1.88	03/31/2022	03/31/2022	971,367	980,552	1,006,800	26,248	2.69	1.60	2.43	2.50	0.07
01/26/2018	AA+	Aaa	1,600,000 US	TREASURY N/B	2.25	04/30/2021	04/30/2021	1,597,094	1,598,569	1,612,880	14,311	2.31	1.73	1.53	1.58	0.03
02/05/2018	AA+	Aaa	1,500,000 US	TREASURY N/B	2.00	05/31/2021	05/31/2021	1,486,953	1,492,725	1,507,035	14,310	2.30	1.71	1.62	1.66	0.03
03/05/2018	AA+	Aaa	1,390,000 US	TREASURY N/B	2.13	06/30/2021	06/30/2021	1,375,853	1,381,455	1,400,369	18,914	2.49	1.69	1.70	1.74	0.04
04/03/2018	AA+	Aaa	1,650,000 US	TREASURY N/B	2.25	07/31/2021	07/31/2021	1,643,420	1,646,533	1,666,632	20,099	2.37	1.69	1.78	1.83	0.04
07/06/2018	AA+	Aaa		TREASURY N/B			04/30/2022	1,067,430	1,077,584	1,107,480	29,896	2.70	1.61	2.49	2.58	
	AA+	Aaa		TREASURY N/B			05/15/2020	1,395,914	1,397,647	1,396,878	(769)		1.86	0.61	0.62	

## Portfolio Holdings Report

Date Acquired		Moody's Rating	Quantity	Description	Coupon	Effective Maturity	Maturity	Original Cost	Book Value	Market Value	Unrealized Gain/(Loss)	Book Yield		Effective Duration		Convexity
07/16/2018	AA+	Aaa	1,350,000 US TRI	EASURY N/B	1.88	05/31/2022	05/31/2022	1,308,287	1,320,853	1,360,017	39,165	2.72	1.59	2.57	2.66	0.08
08/20/2018	AA+	Aaa	1,325,000 US TRI	EASURY N/B	2.13	06/30/2022	06/30/2022	1,297,931	1,305,463	1,344,252	38,789	2.69	1.58	2.64	2.75	0.08
06/19/2019	AA+	Aaa	1,065,000 US TRI	EASURY N/B	2.00	07/31/2022	07/31/2022	1,072,425	1,071,788	1,077,311	5,524	1.77	1.58	2.73	2.83	0.09
06/30/2017	AA+	Aaa	1,550,000 US TRI	EASURY N/B	1.50	06/15/2020	06/15/2020	1,540,813	1,545,616	1,546,063	447	1.91	1.86	0.70	0.71	0.01
		-	49,995,000		<del>-</del>			49,564,500	49,738,790	50,149,022	410,232	2.08	1.74	1.47	1.50	0.04
			51,597,147					51,166,648	51,340,937	51,751,169	410,232	2.01	1.69	1.42	1.46	0.03

## Glossary of Terms

Adjustable Rate Mortgage (ARM)	A mortgage in which the interest rate is changed at regular intervals to reflect fluctuations in market interest rates. Because the borrower takes the risk of rising interest rates, the initial rate may be lower than that on a fixed-rate mortgage. There are often limitations on the interest rate ch from one period to the next, with a rate cap for the life of the loan.			
Agency	A fixed income security issued by a government-sponsored agency, such as Ginnie Mae, Freddie Mac, or the Tennessee Valley Authority. Depend on the issuer, these bonds may or may not be backed by the full faith and credit of the U.S. government.			
Asset-Backed Security (ABS)	A fixed income security backed by the cash flows from loans or leases. Auto loans, home equity loans, and credit card receivables are the most common assets backing these securities. Principal and interest payments made by borrowers are redirected to owners of ABS to meet the sche coupon and principal payments.			
Collateralized Mortgage Obligation (CMO)	A security similar to a mortgage-pass through. In a CMO, the principal and interest received from borrowers is split into different classes called tranches. The structure of CMO payment tranches makes the timing of cash flows more certain for owners of some tranches and less certain for owners of other tranches. More uncertain tranches typically provide higher yields.			
Commercial Mortgage- Backed Security (CMBS)	A fixed income security backed by the cash flows from commercial real estate mortgages. All principal and interest from the mortgages flow to bond holders in a defined sequence. Common types of real estate involved are apartment buildings, office and retail space, hotels, and health care facilities			
Corporate (Corp)	A fixed income security issued by a private corporation.			
Mortgage Pass-Through (MPT)	A fixed income security backed by the cash flows from residential mortgages. Monthly principal and interest payments made by borrowers are redirected to owners of MPTs as they are received. Because borrowers may prepay their mortgages (perhaps due to refinancing or selling the house), the timing of cash flows on these securities is uncertain.			
Preferred Stock (Preferred)	Capital stock having priority over a corporation's common stock in the distribution of dividends. In the event of a liquidation, preferred stock's claim on assets ranks above that of common stock but below that of bank loans or corporate bonds.			
Tax-exempt Municipal (ExMuni)	A fixed income security, issued by a state or municipality, paying interest that is exempt from federal income tax. Interest may or may not be exempt from state and local tax.			
Taxable Municipal (TaxMuni)	A fixed income security, issued by a state or municipality, paying interest that is subject to federal income tax. Typically issued much less commonly than tax-exempt municipals.			
Treasury	A marketable fixed income security issued by the U.S. Department of the Treasury and backed by the full faith and credit of the U.S. government.			

## Glossary of Terms

Average Life	The dollar-weighted average time to maturity of a stream of principal cash flows. Also referred to as "weighted average life" or "WAL".				
Basis Point (bp)	1/100 of 1% (or equivalently .0001).				
Benchmark	An index against which performance can be measured. Attributes of a good benchmark include:				
	Objective: The index should be identified ahead of the time, it should be easily understood, and the construction rules should be clearly defined.				
	Replicable: The manager should be able to replicate the returns passively.				
	Relevant: The index should represent the manager's neutral position. In other words, without the manager's input, the index should represent a reasonable portfolio the company would purchase.				
	Tax Adjusted: The benchmark should adjust for the different tax rates on various security types				
Book Income	Dollars of investment income that flow through an insurance company's income statement. This is equal to coupon received plus any accretion/ (amortization) of book value. It can also include any <u>realized</u> gains or losses in the portfolio.				
Book Value	The value of a security that is reflected on an insurance company's balance sheet. For fixed income securities on a statutory and tax basis this is the amortized value. The amortized value periodically writes up any accrual of purchase discount (or writes down amortization of premium) over the life of the security. The amortized value holds the underlying "book yield" constant and therefore does not swing with movements in the market.				
Book Yield	The average annual yield which a bond purchased and held to maturity will earn over the period it is owned. This is generally fixed at the time of purchase of the security. The book yield can be used to calculate the book value of the security at any time between purchase and maturity.				
Cash Flow	Interest and principal payments from the securities in a fixed income portfolio. A bullet (non-callable) bond will typically pay a coupon payment every 6 months, with a return of principal at maturity. For mortgage-backed securities and asset-backed securities, cash flows generally arrive monthly from both interest and principal. This principal portion contains both the planned return of principal and prepayment of principal due to reasons such as mortgage refinancing.				
Convexity	Describes the sensitivity of a bond's duration to a change in yield. As yields decrease, duration increases on bonds with positive convexity and decreases on bonds with negative convexity. This causes bonds with negative convexity to underperform when yields increase or decrease by large amounts.				
Credit Risk	The risk that the issuer of a fixed income security may default and be unable to make timely interest and principal payments on the security.				
Duration	The sensitivity of a bond's price to a change in yield. Duration generally increases for bonds with longer maturities, meaning these bonds are more sensitive to yield changes. Bond price and yield move in opposite directions. Example: A bond with a duration of 5.0 would experience a price decrease of 5% for every 1% (100 bps) increase in interest rates.				

## Glossary of Terms

DYCARR <sup>SM</sup>	A proprietary model designed specifically for P/C insurance companies to maximize investment income while managing interest rate risk (see definition. The model applies stress tests to projected operational cash flow and finds the likelihood that bonds in the portfolio will need to be liquidated in order to meet cash flow needs (such as the payment of losses). This may allow a company to invest in longer duration securities with higher yields.			
FICO Score	A generic credit score developed by Fair, Isaac and Company, Inc., designed to predict the likelihood of borrowers becoming delinquent in their crobligations.			
Gross Domestic Product (GDP)	The total market value of all final goods and services produced in a country in a given year; it is equal to total consumer, investment, and government spending, plus exports, minus imports.			
Interest Rate Risk	The risk to a bondholder that an increase in interest rates will cause bond prices to fall. Interest rates and market prices for fixed income securities generally move in opposite directions. Interest rate changes are the largest cause of changes in the market value of a bond portfolio.			
Loan to Value (LTV)	A lending risk assessment ratio used in mortgage lending. LTV is calculated by dividing the mortgage amount by the lesser of appraised value or sellir price. Residential mortgage loans conforming to agency guidelines have LTV ratios of 80% or lower at origination. Lenders will frequently require lowe LTV ratios for commercial or investment properties.			
Market Value	Estimated value of the bond based on current market price. This value fluctuates continually with interest rates and perceived risk of the issuer. Reflect the amount that could be received by selling the bond.			
Option Adjusted Spread (OAS)	The portion of a bond's yield which is attributable to the credit risk of a bond as perceived by the market. This allows for comparison between bonds wi or without embedded options such as calls, puts, and prepayment features.			
Realized Gain/(Loss)	Difference between market and book value when a bond is sold. If market is greater than book value the bond was sold at a realized capital gain. Realized capital gains/(losses) flow through an insurer's income statement.			
Tax Equivalent Yield	Yield adjusted for taxes, which allows for comparison of taxable bonds to tax-exempt bonds. Calculated by dividing after-tax yield by 0.65 (1 minus 35%)			
Total Return	The return on a security or portfolio that reflects both income and price change. Assumes that the security or portfolio is priced using fair value at the end of the evaluation period.			
Unrealized Gain/(Loss)	The difference between market value and book value on a bond. If market value is greater than book value the bond is at an unrealized gain. Under statutory accounting rules, changes in unrealized gain/(loss) do not affect income.			
Volatility Adjusted Duration	A portfolio duration which has been adjusted for the lower observed price volatility seen in tax-exempt municipal bonds. Historically municipals appear to have about 15% lower price volatility than their stated durations suggest; this measure takes that observance into account.			
Whole Loan	An original residential mortgage loan; distinct from a pooled pass-through which contains multiple loans. Non-agency CMOs use whole loans as collateral. They usually include jumbo mortgages and other mortgages which do not conform to the standards required for securitization by the agencies (GNMA, FNMA, FHLMC).			
Yield	The implied return achievable for purchasing a bond at a given price.			

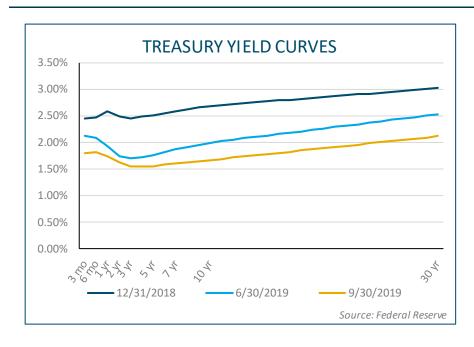
# **Appendix**

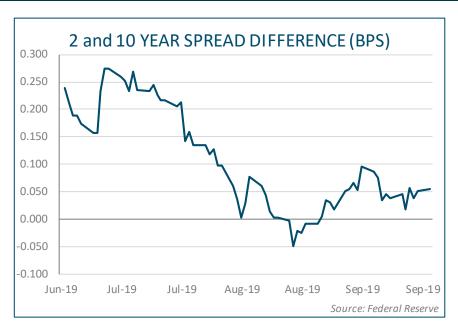
**Presentation Overview** 

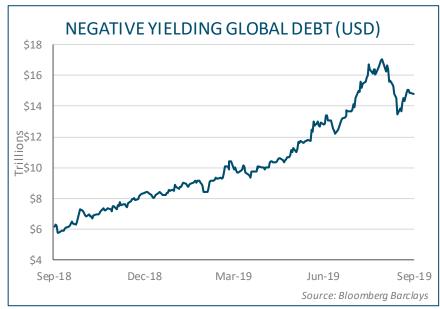
## Overview

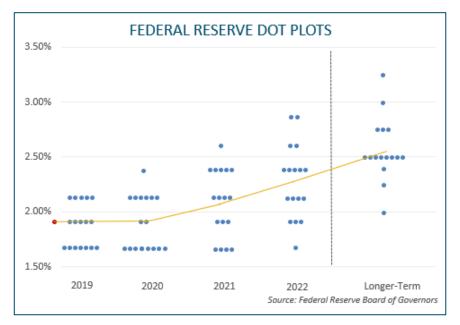
- Economic overview and market update
- Portfolio review
- Performance

## Yields and the Fed

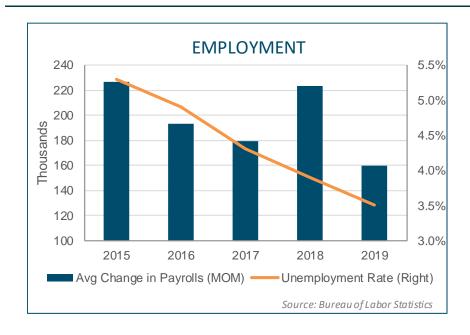


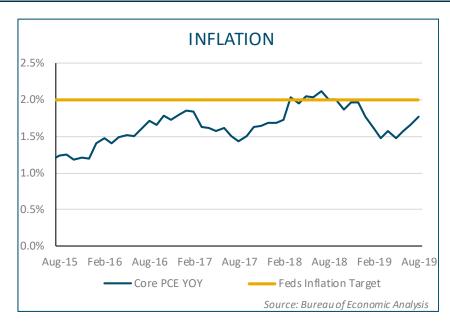


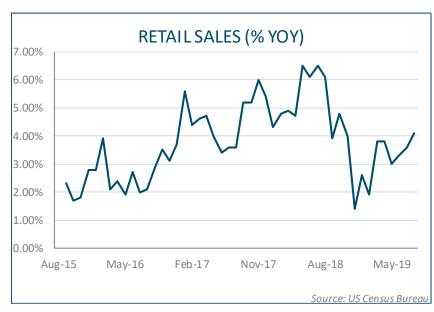


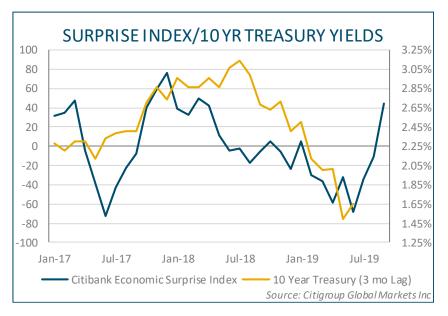


## Market Indicators





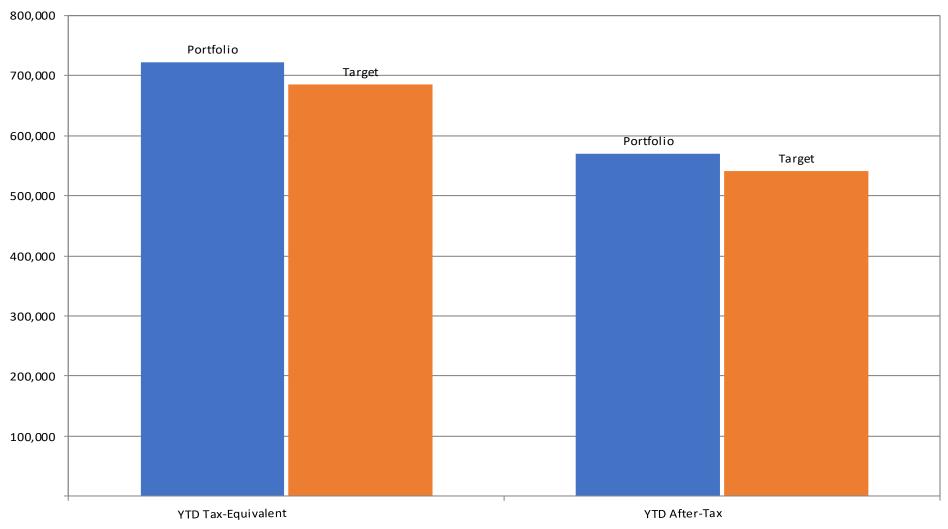




## Portfolio Changes

Garden State Muni Joint Insurance Fund	09/30/2018	12/31/2018	03/31/2019	06/30/2019	09/30/2019
Treasury Yields					
2 yr Treasury Yield	2.82%	2.50%	2.29%	1.74%	1.62%
5 yr Treasury Yield	2.95%	2.51%	2.23%	1.76%	1.55%
10 yr Treasury Yield	3.06%	2.69%	2.41%	2.00%	1.67%
Book Statistics					
Tax-Equivalent Book Yield	1.80%	1.86%	1.98%	2.01%	2.01%
Book Value (\$)	48,604,637	45,654,180	47,795,788	50,032,683	51,340,937
Projected Tax-Equivalent Income, next 12 months (\$)	876,053	850,199	946,751	1,006,239	1,033,618
Unrealized Gains/(Losses) (\$)	(641,295)	(243,042)	(20,726)	358,710	410,232
YTD Realized Gains/(Losses) (\$)	(6,508)	(18,760)	0	0	0
Portfolio Risk Statistics					
Effective Duration	1.92	1.79	1.62	1.52	1.42
Convexity	0.06	0.05	0.04	0.04	0.03
Weighted Average Life	2.01	1.85	1.68	1.56	1.46
Average Rating	AA+	AA+	AA+	AA+	AA+
Portfolio Sector Allocation					
Treasury	100%	100%	100%	100%	97%
Agency	0%	0%	0%	0%	0%
Corporate	0%	0%	0%	0%	0%
Taxable Municipal	0%	0%	0%	0%	0%
Tax-exempt Municipal	0%	0%	0%	0%	0%
Mortgage Pass-Through	0%	0%	0%	0%	0%
CMOs	0%	0%	0%	0%	0%
ARMs	0%	0%	0%	0%	0%
Asset Backed	0%	0%	0%	0%	0%
CMBS	0%	0%	0%	0%	0%
Cash & Cash Equivalents	0%	0%	0%	0%	3%

## Year to Date, as of 09/30/2019



## **Performance**

### **Tax-Equivalent Total Return** as of 09/30/2019 **Inception Date: 07/01/2010**

	Prime	Benchmark	Difference
Quarter to Date	0.60%	0.55%	0.05%
Year to Date	2.86%	2.80%	0.06%
Since Inception	1.47%	1.24%	0.23%

**Benchmark Composition:** 

100.0% Garden State Duration Matched Treasury