SST BENEFITS CONSULTING

COUNTY OF SAN BERNARDINO
ANALYSIS OF STABILIZER
DEFINED CONTRIBUTION PLANS
EXCLUDING RETIREMENT MEDICAL TRUST
3RD QUARTER 2018

	NET DIFFERENCE	ACTUAL PERFORMANCE	BENCHMARK PERFORMANCE
3Q 2017	0.27%	0.99%	0.72%
4Q 2017	0.22%	0.15%	(0.07)%
1Q 2018	(0.99)%	(1.05)%	0.06%
2Q 2018	(0.01)%	0.08%	0.09%
3Q 2018	0.29%	0.40%	0.11%
I YEAR	**0.55%**	**(0.38)%**	**(0.93)%**

The U.S. fixed income market was flat for the quarter (Bloomberg Barclays Aggregate) as interest rates increased modestly. Additionally, the yield curve continued to flatten during the quarter. The best performing sector for the quarter was High Yield Corporate Bond, returning a positive 2.4%. The worst performing sector for the quarter was TIPS, returning a negative 0.8%.

The average credit rating of the portfolio remained at AA- from the prior quarter. The benchmark is AA+, top tier of "Very Strong". Voya Investment Management (VIM) increased exposure to U.S. Treasury & Cash by 3.2% and High Yield Corporates by 0.3% and decreasing all other Asset Groups modestly.

Effective duration remained stable at 3.91 years and average yield to maturity is 3.67%, up from 3.56% at 2Q18. The crediting interest rate remained at 2.50% for the third quarter. The current crediting rate for 4Q18 is 2.50%.

Market to Book Value Ratio:

3RD QUARTER 2018	2ND QUARTER 2018	1ST QUARTER 2018	4TH QUARTER 2017	3RD QUARTER 2017
97.26%	97.60%	98.25%	99.96%	100.57%

As a reminder, Book Value is the accumulated total of all County of San Bernardino participant assets in the Stable Value Account and Market Value is the value of the underlying securities in the actual portfolio.

Quarter Ending September 30, 2018

Portfolio Review

Prepared for

County of San Bernardino

SA 891

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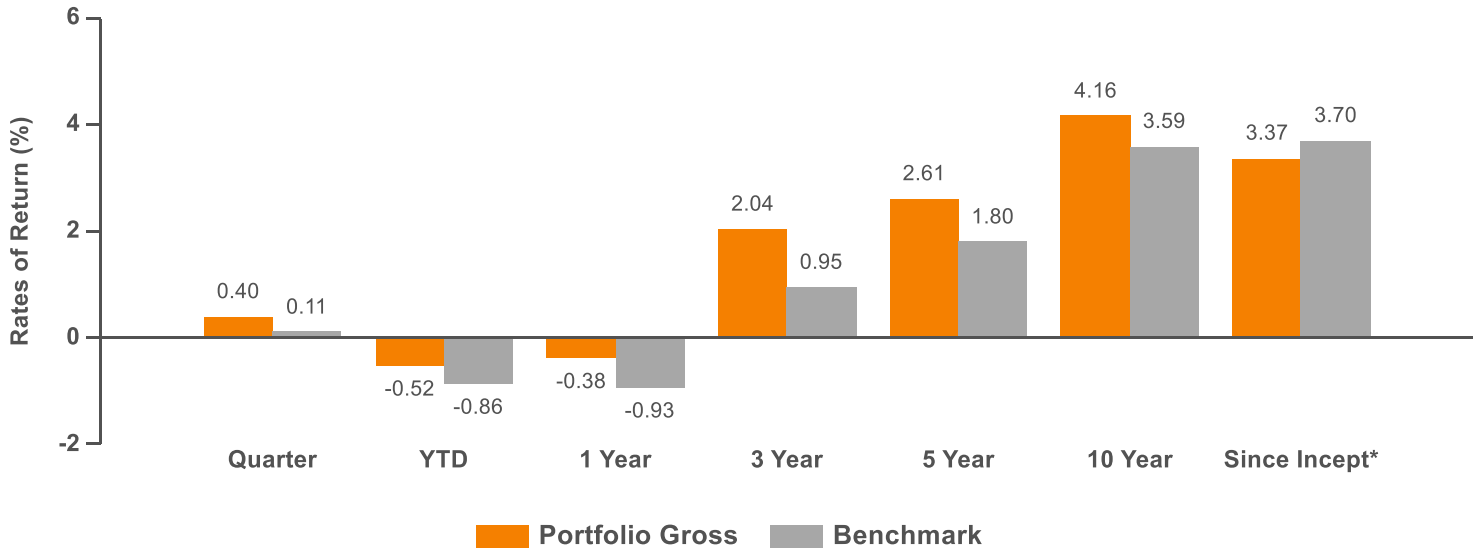
Performance Summary

Quarter Ending September 30, 2018



	Quarter	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception*
Portfolio Gross (%)	0.40	-0.52	-0.38	2.04	2.61	4.16	3.37
Benchmark (%)	0.11	-0.86	-0.93	0.95	1.80	3.59	3.70
Relative to Gross (%)	0.29	0.34	0.55	1.09	0.81	0.57	-0.33

Calendar Year Returns	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Portfolio Gross (%)	3.55	3.20	1.32	5.05	-1.38	6.60	7.70	8.89	9.63	-7.50
Benchmark (%)	2.27	1.97	1.21	4.64	-2.02	4.21	7.84	6.54	5.93	5.24

The benchmark from inception through Feb 28, 2014 was the Barclay's Capital US Aggregate. On Mar 1, 2014 the benchmark was changed to the Barclays Capital Intermediate US Aggregate.

*Performance inception date is 1/17/2007. Benchmark: Bloomberg Barclays U.S. Intermediate Aggregate

Performance returns for time periods greater than 1 year are annualized. Past performance does not guarantee future results.

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Portfolio Characteristics

Quarter Ending September 30, 2018

Top Credit Exposures	% of Portfolio
BANK OF AMERICA CORP	0.61
GOLDMAN SACHS GROUP INC/THE	0.53
JPMORGAN CHASE + CO	0.45
ENERGY TRANSFER PARTNERS LP	0.44
WELLS FARGO + CO	0.43
CITIGROUP INC	0.41
BP PLC	0.41
DELL TECHNOLOGIES INC	0.40
CVS HEALTH CORP	0.39
AT+T INC	0.39

Performance Attribution	Q1	Q2	Q3	YTD
Duration/Curve	7	6	7	20
Currency	0	0	0	0
Asset Allocation	-7	6	20	19
Security Selection	5	-13	1	-6
Total	6	-1	29	34

Holdings-Based Characteristics	Portfolio	Benchmark
Yield to Worst (%)	3.67	3.34
Effective Duration (Years)	3.91	4.37
Average Quality	AA-	AA+
Yield to Maturity (%)	3.67	3.35

Returns-Based Statistics (10 years)	Portfolio	Benchmark
Standard Deviation (%)	2.95	2.98
Tracking Error (%)	1.78	N/A
Information Ratio	0.32	N/A
Alpha (annualized %)	1.19	N/A
Beta	0.81	1.00
R-Squared	0.67	1.00
Sharpe Ratio	1.30	1.10

Benchmark: Bloomberg Barclays U.S. Intermediate Aggregate
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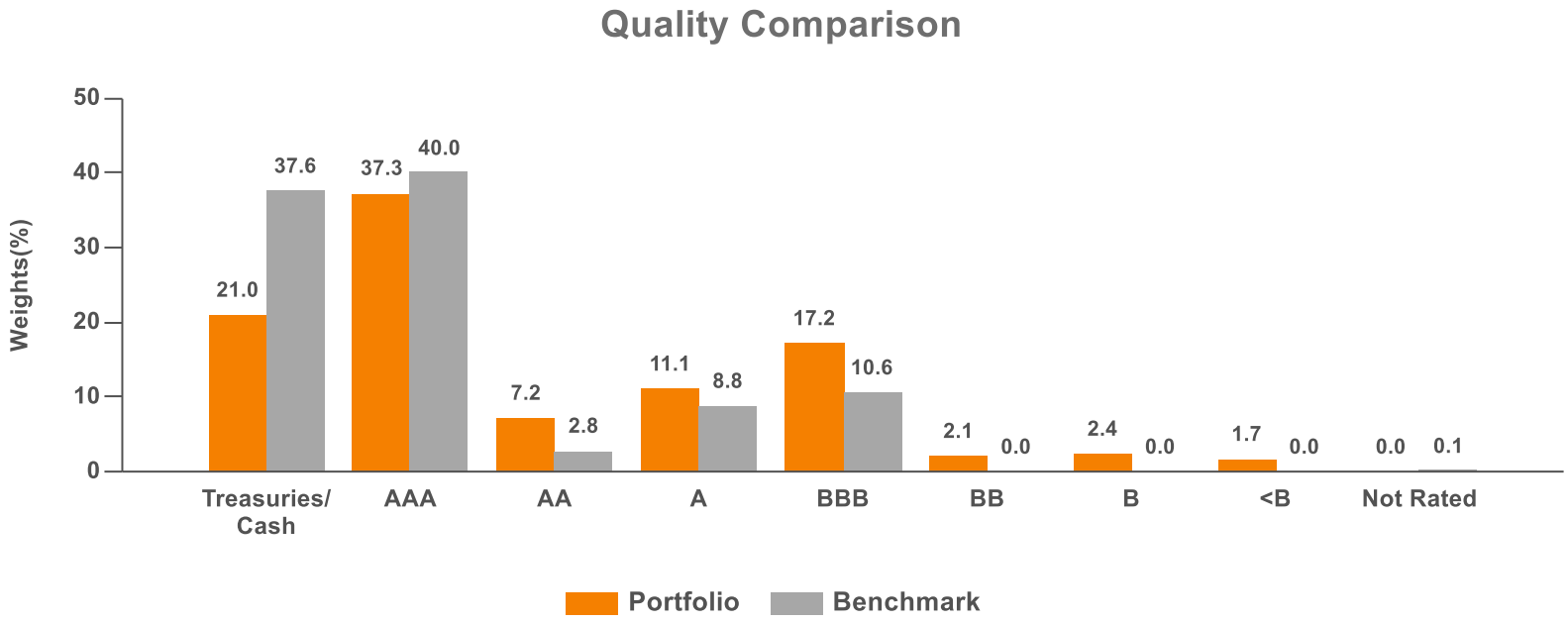
Portfolio Characteristics

Quarter Ending September 30, 2018



Key Rate Durations	Effective Duration	3 Month	1 Year	2 Year	3 Year	5 Year	7 Year	10 Year	15 Year	20 Year	25 Year	30 Year
Portfolio	3.9	0.0	0.1	0.3	0.6	0.8	0.9	0.7	0.2	0.1	0.1	0.0
Benchmark	4.4	0.0	0.1	0.4	0.7	0.9	1.0	0.7	0.3	0.2	0.1	0.0
Relative to Benchmark	-0.5	0.0	0.0	0.0	0.0	-0.2	-0.1	0.0	-0.1	-0.1	0.0	0.1

Benchmark: Bloomberg Barclays U.S. Intermediate Aggregate
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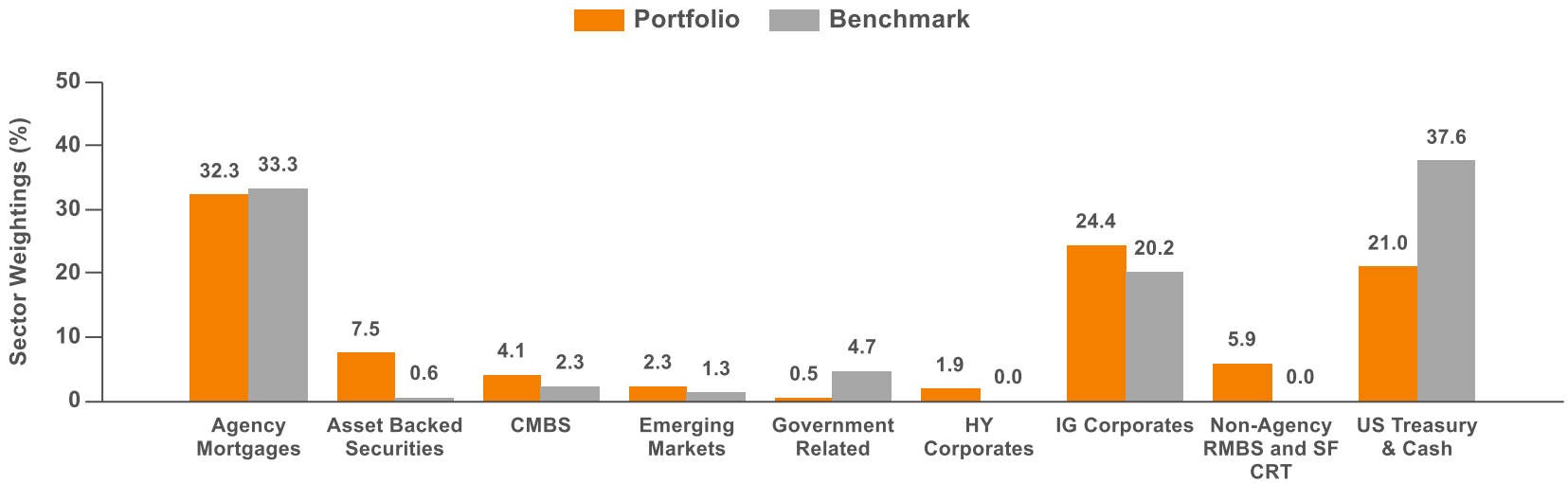
Asset Allocation

Quarter Ending September 30, 2018



	12/31/2017	3/312018	6/30/2018	7/31/2018	8/31/2018	9/30/2018			Change from prior quarter
Asset Group	Portfolio	Portfolio	Portfolio	Portfolio	Portfolio	Portfolio	Index	Active	Portfolio
Agency Mortgages	26.2%	26.3%	32.9%	32.5%	32.7%	32.3%	33.3%	-1.0%	-0.6%
Asset Backed Securities	7.9%	8.0%	8.2%	8.4%	7.8%	7.5%	0.6%	6.9%	-0.7%
CMBS	4.5%	4.4%	4.2%	4.5%	4.4%	4.1%	2.3%	1.8%	-0.1%
Emerging Markets	2.3%	2.3%	2.2%	2.2%	2.2%	2.3%	1.3%	1.0%	0.1%
Government Related	0.9%	0.9%	0.9%	0.9%	0.9%	0.5%	4.7%	-4.1%	-0.4%
HY Corporates	4.8%	4.8%	1.6%	1.7%	1.8%	1.9%	0.0%	1.9%	0.3%
IG Corporates	25.1%	25.7%	26.1%	26.0%	25.7%	24.4%	20.2%	4.3%	-1.7%
Non-Agency RMBS and SF CRT	4.6%	6.1%	6.1%	6.0%	5.9%	5.9%	0.0%	5.9%	-0.2%
US Treasury & Cash	23.6%	21.6%	17.8%	17.8%	18.7%	21.0%	37.6%	-16.7%	3.2%
Total	100%	100%	100%	100%	100%	100%	100%	0%	0%

Benchmark: Bloomberg Barclays U.S. Intermediate Aggregate

Allocations may not add to 100% due to rounding.

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