Clearwater Advisors, LLC

Core Fixed: Barclays Capital Aggregate Benchmark

For the month of: **August** **2020**

Manager Performance Calculations

** Annualized returns*

	Last Month	Last 3 Months	Last 1 Year	Last 3 Years*	Last 5 Years*
Clearwater Agg	-0.88%	1.66%	6.65%	5.23%	4.64%
Barclays Aggregate	-0.81%	1.31%	6.47%	5.09%	4.33%

Performance Attribution & Strategy Comments

The portfolio underperformed the benchmark by 7 bps in August. Economic activity continued to rebound at a better-than-expected pace and the summer surge in cases subsided boosting risk assets to new highs. Fixed income performance was mixed as the yield curve bear steepened offsetting July's rally. The front-end of the curve remained anchored by accommodative Fed policy while longer maturity yields rose 20-30 basis points.

The portfolio's yield curve positioning and credit exposure contributed to the modest underperformance. Deeply battered sectors (airlines, leisure, etc.) led corporate performance over the month as did most BBB-rated credits. Credit curves steepened alongside the treasury curve causing notable underperformance in longer duration sectors. Agency mortgage-backed securities outperformed as did commercial mortgage-backed securities.

The economic impact of COVID-19 has bottomed and economic data continues to beat consensus albeit at a slower pace. The Presidential Election is beginning to heat up alongside social unrest. We've likely passed the worst of this pandemic, but there will be setbacks which will provide investment opportunities. Further, developments into effective treatments and vaccine candidates should gain further clarity as the quarter progresses.

Organizational/Personnel Changes

N/A

Manager Style Summary

Clearwater manages a core Aggregate portfolio which is not expected to deviate significantly from the benchmark, although issuer concentration is expected to be much larger. They seek to add value through sector allocation and security selection rather than duration bets. Prior to January 2014, Clearwater managed a TBA mortgage portfolio. The historical returns through December 2013 reflects the performance of the TBA portfolio while performance beginning January 2014 reflects the Aggregate portfolio.

Clearwater Advisors, LLC

Core Fixed: Barclays Capital Aggregate Benchmark

Portfolio Guideline Compliance — August 2020

Portfolio Guideline:	Clearwater	BC Agg	Min	Max	Compliance
A1. The account shall consist of dollar denominated fixed income securities					ok
B2. Duration:	5.9	6.1	5.6	6.6	ok
B3. Sector Diversification:					
Treasuries	27%	37%	22%	52%	ok
Agencies	5%	3%	-12%	18%	ok
Supra/Sovereign	1%	4%	-6%	14%	ok
Corporates	34%	28%	8%	48%	ok
Industrial	19%	17%	2%	32%	ok
Financial	11%	8%	-7%	23%	ok
Utility	3%	2%	-8%	12%	ok
MBS	27%	27%	12%	42%	ok
ABS	1%	0%	-5%	5%	ok
CMBS	4%	2%	-3%	7%	ok
B4. Issuer Concentration: <=5% all corporate issuers				5%	ok
B5. Number of positions	123		100	200	ok
B6. Non-Investment Grade alloc	1%			10%	ok
B7. Out of index sector alloc	0%			10%	ok
B7. TIPS allocation	3%			20%	ok
E2. Annual Turnover (ex TBA rolls)	28%		80%	120%	check
The portfolio is in compliance with all other aspects of the Portfolio Guidelines				☑ Yes	☐ No

Manager Explanations for Deviations from Portfolio Guidelines

Annual Turnover (ex TBA rolls) — Portfolio turnover has been below expectations. We don't expect it to shift materially higher in the near-term.

Account Turnover

Gained:	Number of Accounts:	0	Total Mkt Value ($m):	$ -
Lost:	Number of Accounts:	0	Total Mkt Value ($m):	
Reason(s) for loss:	N/A			

Clearwater Cash

Cash: Merrill Lynch 0-3 Month Treasury Bill Benchmark

For the month of: **August** **2020**

Manager Performance Calculations

** Annualized returns*

	Last Month	Last 3 Months	Last 1 Year	Last 3 Years*	Last 5 Years*
Clearwater - PERSI STIF	0.03%	0.16%	1.42%	1.83%	1.45%
ML 0-3 Month T-bill	0.01%	0.04%	1.12%	1.63%	1.12%

Performance Attribution & Strategy Comments

During August markets seemed to mostly ignore the continuing spread of Covid-19 and focus more on the ongoing support from the Federal Reserve and hopes for a vaccine.

In its most recent August meeting, the Federal Reserve announced it will use a "flexible form of average inflation targeting." Meaning, rather than maintaining its prior objective of 2%, the Fed will aim for an average inflation of 2%. Therefore, since inflation has been running below 2%, some are interpreting this to mean that the Fed will keep interest rates low and let inflation run above 2% for a time in order to average out inflation.

Over the month of August, US treasury yields rose across the whole curve, with the exception of the 1-month treasury yield which remained flat at .09%. The 2-year Treasury yield rose 2 basis points (bps) to .13% from .11%. The Bloomberg All Cash Bond Index, which measures credit spreads, decreased 3bps rounding out August at 128. Both 3 Month LIBOR and SOFR decreased 1bp to .24% and .09% respectively.

Portfolio Guideline Compliance

Portfolio Guideline:	Clearwater	Min	Max	Compliance
B2a. Sector Allocations:	100%			
Treasuries	9%	0%	100%	ok
Agencies	0%	0%	100%	ok
Corporates	26%	0%	100%	ok
Mortgage Backed Securities (MBSs)	0%	0%	60%	ok
Asset Backed Securities (ABSs)	5%	0%	40%	ok
Cash	7%	0%	100%	ok
Commercial Paper	53%	0%	100%	ok
B2b. Quality: Securities must be rated investment grade by S&P or Moody's at time of purchase				ok
B2c. Effective Duration <=18 months	4		18	ok
B2d. Number of securities	41	10	50	ok
B3a. Allocation of corporate securities to one issuer	5%		5%	check
The portfolio is in compliance with all other aspects of the Portfolio Guidelines			☑ Yes	☐ No

Manager Explanations for Deviations from Portfolio Guidelines

B3a. Corporate Issuer: End of month cash outflows caused a position to go above the 5% threshold

Manager Style Summary

The enhanced cash portfolio was created with the expectation that the portfolio will generate returns similar to, or in slight excess of, the Mellon Short-Term Investment Fund (STIF), while providing PERSI with an increased level of transparency into the cash portfolio.

This page intentionally left blank