
Clearwater Advisors, LLCCore Fixed: BB Aggregate Benchmark

For the month of: **April** **2023**

Manager Performance Calculations

* Annualized returns

	Last Month	Last 3 Months	Last 1 Year	Last 3 Years*	Last 5 Years*
Clearwater Agg	0.68%	0.68%	-0.60%	-2.87%	1.30%
BB Aggregate	0.61%	0.49%	-0.43%	-3.15%	1.18%

Performance Attribution & Strategy Comments

The portfolio outperformed the index by 7 basis points in April. Markets already unsettled by the regional bank failures of March now looked forward to a possible debt ceiling debacle. Stubborn inflation and a strong labor market point to further hikes, but banking sector turmoil and political dysfunction clouds the picture. The yield curve flattened somewhat as front-end rates increased 10-30 bps (pricing in debt ceiling x-date concerns) and longer rates were lower to unchanged.

The portfolio's positioning corporate securities primarily contributed to excess performance while mortgage-backed securities and agencies dragged on returns. Lower rated credit outperformed its higher rated counterparts. REITS and insurance credits outperformed. Within the banking sector, smaller banks recovered as the month passed, but still trade at distressed levels. Primary market activity was muted and April posted its lowest monthly total since 2012. YTD issuance is down 16% to 2022.

The Federal Reserve has slowed its pace of hiking and is likely close to stopping all together. Economic data provided a mixed picture but did not dispel concerns that high inflation may be more persistent than markets had expected. Incoming data, especially related to inflation, will be the primary market focus over the near-term and all eyes are on Washington DC as it relates to the debt ceiling. Volatility will remain high.

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: BB Aggregate Benchmark

Portfolio Guideline Compliance

Portfolio Guideline:	Clearwater	BB Agg	Min	Max	Compliance
A1. The account shall consist of dollar denominated fixed income securities					ok
B2. Duration:	6.1	6.2	5.7	6.7	ok
B3. Sector Diversification:					
Treasuries	27%	41%	26%	56%	ok
Agencies	2%	2%	-13%	17%	ok
Supra/Sovereign	0%	2%	-8%	12%	ok
Corporates	35%	25%	5%	45%	ok
Industrial	17%	14%	-1%	29%	ok
Financial	14%	8%	-7%	23%	ok
Utility	4%	2%	-8%	12%	ok
MBS	29%	27%	12%	42%	ok
ABS	2%	0%	-5%	5%	ok
CMBS	4%	2%	-3%	7%	ok
B4. Issuer Concentration: <=5% all corporate issuers				5%	ok
B5. Number of positions	115		100	200	ok
B6. Non-Investment Grade alloc	0%			10%	ok
B7. Out of index sector alloc	0%			10%	ok
B7. TIPS allocation	0%			20%	ok
E2. Annual Turnover (ex TBA rolls)	66%		80%	120%	check
The portfolio is in compliance with all other aspects of the Portfolio Guidelines				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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.

Total Firm Assets Under Management (\$m) as of: Qtr 1 \$ 3,619

Organizational/Personnel Changes

N/A

Account Turnover

Gained: Number of Accounts: 0 Total Mkt Value (\$m): \$ -
 Lost: Number of Accounts: 0 Total Mkt Value (\$m): \$ -

Reason(s) for loss:

Clearwater Advisors - PERSI STIF

Cash: Merrill Lynch 0-3 Month Treasury Bill Benchmark

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Clearwater - PERSI STIF	0.48%	1.09%	2.99%	1.20%	1.59%
ML 0-3 Month T-bill	0.36%	1.14%	2.95%	1.03%	1.43%

Performance Attribution & Strategy Comments

More subdued banking sector stress in April drove volatility lower while inflation data showed persistence. Although headline inflation continued declining, core inflation rose marginally to 5.6% with shelter contributing meaningfully. The April tax filing deadline placed renewed focus on the debt limit. Tax receipt uncertainty, exacerbated by weather-related filing extensions in California, started to raise speculation that the "x-date" could come sooner. Meanwhile, Speaker McCarthy placed more pressure on the Administration to come to the table on spending cuts after he successfully moved a bill through his very divided caucus that paired some increase in the limit with spending cuts, and work requirements on some social programs.

The U.S. Treasury curve twisted slightly steeper in April with the 2 and 30-year yield falling and rising 2 basis points (bps), respectively. Supply and demand imbalances drove volatility in T-bills as the 1-month yield fell 35bps while the 3-month yield rose 34bps. 3-month LIBOR rose modestly to 5.30% while SOFR was little changed at 4.81% ahead of the Fed's May 3rd meeting. At the end of April, the market priced just one more Fed hike. U.S. IG corporate bond spreads narrowed 5bps on lower volatility led by financials.

Portfolio Guideline Compliance

Portfolio Guideline:	Clearwater	Min	Max	Compliance
B2a. Sector Allocations:	100%			
Treasuries	6%	0%	100%	ok
Agencies	16%	0%	100%	ok
Corporates	31%	0%	100%	ok
Mortgage Backed Securities (MBSs)	0%	0%	60%	ok
Asset Backed Securities (ABSs)	3%	0%	40%	ok
Cash	12%	0%	100%	ok
Commercial Paper	33%	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	36	10	50	ok
B3a. Allocation of corporate securities to one issuer	5%		5%	ok
The portfolio is in compliance with all other aspects of the Portfolio Guidelines			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Manager Explanations for Deviations from Portfolio Guidelines

There were no deviations.

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.

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