Harbor Core Bond Fund

Income Research + Management

Subadvisor Since 06/01/2018

Total Net Assets – *All Classes*	$52,235,905
Fixed Income Assets:	99.17%
Cash & Other Assets Less Liabilities:	0.83%
Benchmark Name:	Bloomberg US Aggregate Bond Index

Portfolio Managers


William A. O'Malley, CFA


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Jake Remley, CFA


Matt Walker, CFA


Rachel Campbell

Investment Philosophy

The Fund invests primarily in investment-grade fixed income securities of issuers located in the U.S. Under normal market conditions, the Fund invests at least 80% of its net assets, plus borrowings for investment purposes, in a diversified portfolio of fixed income instruments. Fixed income instruments include bonds, debt securities and other similar instruments issued by various public- or private-sector entities. The Subadviser's approach is grounded in detailed bottom-up research and emphasizes careful security selection through rigorous fundamental credit analysis of the issuer, a detailed review of the structural features of the security, and relative-value comparisons to other opportunities. In order to be selected for the portfolio, a security must be attractive on all three of these factors. If one factor deteriorates, the security becomes a candidate for sale.

CHARACTERISTICS & ALLOCATION

As of 09/30/2022

Portfolio Characteristics

	Portfolio	Benchmark
Number of Bonds	204	12,641
Avg. Market Coupon (%)	3.17	2.63
Wtd. Avg. Maturity (yrs)	8.53	8.52
Wtd. Avg. Duration (yrs)	6.12	6.20
Beta vs. Fund Benchmark	1.03	
Current 30-Day Yield %	3.45	
Current 30-Day Un-Sub Yield %	3.29	

Top 10 Issues

	Portfolio %
US TREASURY N/B 02/42 2	3.98
US TREASURY N/B 02/52 2	2.85
US TREASURY N/B 08/40 1	1.87
FED HM LN PC POOL ZA119	1.84
US TREASURY N/B 01/27 1	1.84
FEDERAL NATIONAL MORTGA	1.54
GNMA II POOL 785283 G2	1.50
US TREASURY N/B 02/32 1	1.38
FED HM LN PC POOL SD049	1.34
United Airlines Pass-Th	1.17
Total	**19.31**

Maturity

	Portfolio %
0-1 yr	4.80
1-3 yr	16.75
3-5 yr	18.28
5-7 yr	20.28
7-10 yr	19.68
10-20 yr	11.54
20-30 yr	7.72
Over 30 yr	0.94

Duration

	Portfolio %
0-1 yr	6.20
1-3 yr	17.56
3-5 yr	21.89
5-7 yr	29.01
7-10 yr	10.17
10-20 yr	15.04
20-30 yr	0.13
Over 30 yr	0.00

Credit Quality

	Portfolio %
US Govt/Agency	14.18
AAA	46.12
AA	3.10
A	14.31
BBB	21.59
BB	0.47
B	0.00
CCC	0.00
CC	0.00
C	0.00
Below C	0.00
Non-Rated	0.00

Harbor

Trusted Partnerships › Trusted Solutions

Harbor Core Bond Fund

CHARACTERISTICS & ALLOCATION

As of 09/30/2022

Sector	% of Market Value
Credit	**33.15**
Industrial	17.61
Finance	12.29
Utility	3.24
Non-corporate	0
Government	**17.95**
Treasury	14.83
SBA and Gov Guaranteed	3.12
Agency	0
Municipal	**2.26**
Revenue	1.25
GO	1.01
Pre-Refund/ETM	0
Securitized	**46.42**
Agency RMBS	25.82
ABS	9.14
CMBS	8.23

Sector (cont.)	% of Market Value
RMBS	2.26
Agency CMBS	0.97

PERFORMANCE

As of 09/30/2022

Average Annual Returns

Share Class	Ticker	CUSIP	3 Months	YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.	Since Inception	Inception Date	Net Expense Ratio %	Gross Expense Ratio %
Institutional	HACBX	411512239	-4.65%	-14.75%	-15.02%	-2.95%	N/A	N/A	0.15%	06/01/18	0.34	0.40
Retirement	HCBRX	411512197	-4.53%	-14.69%	-14.94%	-2.90%	N/A	N/A	0.23%	06/01/18	0.26	0.32
Bloomberg US Aggregate Bond Index			-4.75%	-14.61%	-14.60%	-3.26%	N/A	N/A	-0.05%	06/01/18		

Expense ratio information is as of the Fund's current prospectus, as supplemented. Gross expenses are the Fund's total annual operating expenses. The net expense ratios for this fund are subject to a contractual management fee waiver and/or expense limitation agreement, excluding interest expense and acquired fund fees and expenses (if any), through 02/28/2023.

Performance data shown represents past performance and is no guarantee of future results. Past performance is net of management fees and expenses and reflects reinvested dividends and distributions. Past performance reflects the beneficial effect of any expense waivers or reimbursements, without which returns would have been lower. Investment returns and principal value will fluctuate and when redeemed may be worth more or less than their original cost. Returns for periods less than one year are not annualized. Current performance may be higher or lower and is available through the most recent month end at harborcapital.com or by calling 800-422-1050.

"At IR+M, we remain cautious given the volatile Entering the fourth quarter, investors will need to navigate a market plagued with uncertainty."

Income Research + Management

Market in Review

During the third quarter of 2022, persistent inflationary pressures and a continuation of tighter monetary policy resulted in heightened volatility, as investors grappled with an uncertain economic outlook. The Consumer Price Index increased 9.1%, year over year in June, then fell to 8.5% and 8.3%, year over year in July and August, respectively. Although inflationary pressures showed signs of slowing, Federal Reserve ("Fed") Chair Jerome Powell reiterated the Fed's commitment to combating inflation until "the job is done," even if it results in "pain" for households and businesses. The impact was already evident as the U.S. economy contracted for a second-consecutive quarter, entering a technical recession. Second-quarter GDP fell 0.9%, year over year, following a 1.6% decline in the first quarter. Despite this, the Fed announced two additional 0.75% hikes in July and September to bring the fed funds target range to 3.0%–3.25%. The Fed's outlook for short-term rates revealed this was not the end of hiking either—the updated dot plot showed most Fed officials anticipate the federal funds rate to not only be higher than where they predicted in June, but for longer, as well. Investors pushed Treasury rates higher across the curve, as the market priced in more rate hikes, with the curve flattening and the three-year Treasury rate closing the quarter at the highest point on the curve.

Investment-grade corporate issuance totaled roughly $287 billion for the quarter, well below the trailing five-year average, as the pace was dictated by broader market volatility. The average spread difference between A- and BBB-rated corporates tightened by 0.09%, from 0.66% to 0.57%. Investment-grade corporate spreads widened by 0.04%, quarter over quarter, from 1.55% to 1.59%, a new, year-to-date wide, while yields increased by 0.98% to 5.69%.

We believe our bottom-up focus should allow us to take advantage of further weakness and benefit if sentiment shifts.

Portfolio Performance

During the third quarter, the Harbor Core Bond Fund (Institutional Class, "Fund") returned -4.65%, slightly outperforming its benchmark, the Bloomberg US Aggregate Bond Index, which returned -4.75%. Higher interest rates caused negative absolute returns for the Fund and the benchmark. The Fund's outperformance relative to the Index was driven primarily by our overweight to spread product and underweight to U.S. Treasuries. BBB-rated debt outperformed higher-rated corporates and caused credit curves to tighten for the first time in 2022.

In the securitized market, performance was mixed with asset-backed securities ("ABS") outperforming Treasuries by 0.30% and agency mortgage-backed securities ("MBS") underperforming by 1.69%. The ABS sector benefited from its shorter duration, which attracted investors, given the low compensation for taking additional interest rate risk. Agency MBS underperformed due to the uncertain impact of quantitative tightening and higher rates. This led to duration extensions and clouded future prepayment speeds for lower-coupon mortgages. The Bloomberg MBS Index convexity increased to 0.14, the highest level on record.

Security selection was positive. Also on the positive side, credit security selection was strong with Financials, Industrials, and agency residential mortgage-backed securities ("RMBS") leading the way. On the negative side, security selection within ABS and non-agency RMBS detracted.

Portfolio Positioning

We strive to remain duration and curve neutral to the benchmark.

Positive contributors to relative performance included security selection within agency RMBS, Financials, and Industrials. Detractors from relative performance included security section within ABS and non-agency RMBS securities.

The Fund’s overweight to the BAA credit bucket and underweight to AAA securities aided relative performance. Additionally, security selection in A securities contributed to positive relative performance.

The Fund’s out-of-benchmark allocation to non-agency RMBS detracted from relative returns.

We invest exclusively in U.S. dollar-denominated, fixed-income securities.

Contributors and Detractors

The largest contributors to Fund performance included Occidental Petroleum, United Airlines, and an agency RMBS pool.

The largest detractors from Fund performance included Warner Bros Discovery, an ABS pool, and a CVS pass-through.

Buys & Sells

We purchased LOW 5.625 53 in the new issue market at 2.15% vs the 30-year Treasury.

Lowe's is the second-largest U.S. home improvement retailer with stable momentum, given recent benefits as an essential retailer, improvement in the overall business with steady comp sales growth, and improved credit metrics.

Lowe’s is committed in several environmental, social, and governance areas to improving the business, including sustainable product sourcing (example—wood purchasing policy), proactive measures to preempt data breach risks, as well as to supporting employees and communities (with additional support, given the recent pandemic, through bonuses and enhanced leave policies). The independent majority board, board-gender diversity (35%), and single-equity class are positive governance attributes.

We sold Fed Ex – FDX 4.05 48 at a tight spread level relative to Lowe’s new issue purchase noted above, whereas historically, long FDX traded flat or cheap to LOW.

Outlook

Entering the fourth quarter, investors will need to navigate a market plagued with uncertainty. The Fed, along with most other central banks, is tightening monetary policy to fight inflation with 1.00%–1.25% of rate hikes expected for the remainder of the year. A continued slowdown in economic growth is expected, but the magnitude and length is hard to predict. The strengthening U.S. dollar pressured other countries and forced some to intervene in their currency or rate markets to avoid a further deterioration of conditions. This may cause the Fed to pivot sooner than initially anticipated. At Income Research + Management, we pride ourselves on being bottom-up security selectors. We remain methodical in adding any additional risk at a time when the market could turn in either direction. We feel confident that the securities that do make it into the Fund are fundamentally sound and able to withstand market weakness—but are also attractively priced should spreads tighten.

Harbor Core Bond Fund - Quarterly Attribution – *As of 09/30/2022*

	Portfolio Return (Gross of Fee)	Bloomberg Aggregate Index Return	Return Difference	Market Term Structure	Asset Allocation	Security Selection	Price and Intraday	Total
3Q 2022	**(4.58)**	**(4.75)**	**0.17**	**0.03**	**0.04**	**0.09**	**0.01**	**0.17**

Market Term Structure		Asset Allocation		Security Selection		Price and Intraday	
Duration	0.02	Finance	0.01	Finance	0.06	Pricing	0.00
Shape	0.03	Industrial	0.01	Industrial	0.04	Intraday	0.01
Other	(0.02)	Utility	0.01	Utility	0.00		
		ABS	0.07	ABS	(0.06)		
		CMBS	0.04	CMBS	(0.01)		
		MBS	0.05	MBS	0.08		
		Agency	0.01	Agency	(0.02)		
		Municipal	(0.01)	Municipal	0.01		
		Non-Corp	(0.01)	Non-Corp	0.00		
		Treasury	(0.14)	Treasury	(0.01)		
		Other	0.00	Other	0.00		

What Worked

- The Harbor Core Bond Fund outperformed the Bloomberg Aggregate Index in the 3rd quarter.
- Security selection within Agency RMBS, Financials and Industrial contributed to outperformance.
- The portfolio's overweight to CMBS and ABS aided relative performance.
- Top performers: OXY, UAL, and an Agency RMBS security.

What Didn't Work

- Security selection within ABS detracted from relative returns.
- The portfolio's underweight to Treasuries detracted from relative returns.
- Bottom performers: WBD, CVS, and an ABS security.

Source: Bloomberg

Harbor Core Bond Fund – 1 Year Attribution – *As of 09/30/2022*

	Portfolio Return (Gross of Fee)	Bloomberg Aggregate Index Return	Return Difference	Market Term Structure	Asset Allocation	Security Selection	Price and Intraday	Total
1 Year	**(14.74)**	**(14.60)**	**(0.14)**	**0.42**	**(0.35)**	**(0.20)**	**(0.01)**	**(0.14)**

Market Term Structure		Asset Allocation		Security Selection		Price and Intraday	
Duration	0.27	Finance	(0.06)	Finance	0.10	Pricing	0.04
Shape	0.20	Industrial	(0.01)	Industrial	0.05	Intraday	(0.05)
Other	(0.05)	Utility	(0.03)	Utility	0.04		
		ABS	0.14	ABS	(0.29)		
		CMBS	0.02	CMBS	0.00		
		MBS	0.06	MBS	(0.10)		
		Agency	0.04	Agency	(0.05)		
		Municipal	(0.03)	Municipal	0.06		
		Non-Corp	(0.03)	Non-Corp	0.00		
		Treasury	(0.48)	Treasury	(0.01)		
		Other	0.03	Other	0.00		

What Worked

- The portfolio's overweight to ABS and out of benchmark exposure to SBAs.
- Security selection within Financials, Industrials and taxable munis aided relative performance.
- Top performers: OXY, AIA, and a taxable muni security.

What Didn't Work

- The Harbor Core Bond Fund portfolio underperformed the Bloomberg Aggregate Index over the past 12 months.
- The portfolio's underweight to Treasuries and Financials detracted from relative performance.
- Security selection within ABS and non- Agency RMBS detracted from relative returns.
- Bottom performers: Three ABS securities.

Source: Bloomberg

Risks

There is no guarantee that the investment objective of the Fund will be achieved. Fixed income investments are affected by interest rate changes and the creditworthiness of the issues held by the Fund. As interest rates rise, the values of fixed income securities held by the Fund are likely to decrease and reduce the value of the Fund's portfolio. The use of derivative instruments may add additional risk.

There may be a greater risk that the Fund could lose money due to prepayment and extension risks because the Fund invests heavily at times in mortgage-related and/or asset backed securities. The Fund may engage in active and frequent trading to achieve its principal investment strategies. Investing in international and emerging markets poses special risks, including potentially greater price volatility due to social, political and economic factors, as well as currency exchange rate fluctuations. These risks are more severe for securities of issuers in emerging market regions.

Benchmarks

The Bloomberg US Aggregate Bond Index is an unmanaged index of investment-grade fixed-rate debt issues with maturities of at least one year. This unmanaged index does not reflect fees and expenses and is not available for direct investment.

Disclosures

All data except for top holdings, performance, and yields is provided by the subadvisor.

Current 30-Day Yields are for the Institutional Class and represent the average annualized income dividend over the last 30 days excluding gains and losses as defined by the SEC. Current 30-Day Yield is the Current 30-Day Subsidized SEC Yield and reflects reimbursements or waivers of fees currently in effect. Current 30-Day Yield-Unsub is the Current 30-Day Unsubsidized SEC Yield and does not reflect reimbursements or waivers of fees currently in effect.

Credit quality breakdown is based on ratings from Moody’s, Standard and Poor’s and Fitch. In cases where all three credit rating agencies have assigned different credit ratings to the same security, the middle rating is used. In cases where the security is rated by two rating agencies, the lower rating is used and, in cases where only one rating agency has assigned a credit rating to a security, that rating is used. Ratings are measured on a scale that generally ranges from AAA (highest) to D (lowest). Securities that receive no rating from an independent agency have been categorized as ‘not rated.’ Certain unrated securities (such as derivatives) are not reflected in the data shown. U.S. Treasury and U.S. Agency securities appear under the category U.S. Government/Agency. The credit quality of securities in the Fund’s portfolio does not apply to the stability or safety of the Fund. The Fund itself has not been rated by an independent rating agency.

Due to rounding, percentages may not sum to 100.

Views expressed herein are drawn from commentary provided to Harbor by the subadvisor and may not be reflective of their current opinions or future actions, are subject to change without prior notice, and should not be considered investment advice.

The views expressed herein may not be reflective of current opinions, are subject to change without prior notice, and should not be considered investment advice.

This information should not be considered as a recommendation to purchase or sell a particular security. The weightings, holdings, industries, sectors, countries, and returns mentioned may change at any time and may not represent current or future investments.

As a result of changing market conditions, total net asset levels, expenses and other statistics may change at any time and may differ from those shown.

The total amount shown for sector, industries, or country holdings may be greater than 100% because of the inclusion of derivatives and the collateral securities supporting those instruments.

Sector allocations are determined using the Global Industry Classification Standard (GICS), which is a service of Morgan Stanley Capital International (MSCI) and Standard & Poor's (S&P).

Investors should carefully consider the investment objectives, risks, charges and expenses of a fund before investing. To obtain a summary prospectus or prospectus for this and other information, visit harborcapital.com or call 800-422-1050. Read it carefully before investing.

Income Research + Management is an independent subadvisor to the Harbor Core Bond Fund.

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Attribution Disclosures

All data for this attribution analysis is provided by Income Research + Management.

Linked Performance by Sectors data is produced from FactSet using data supplied by State Street Bank and Trust Company.

Duration is a commonly used measure of the sensitivity of the price of a debt security, or the aggregate market value of a portfolio of debt securities, to change in interest rates. Securities with a longer duration are more sensitive to changes in interest rates and generally have more volatile prices than securities of comparable quality with a shorter duration.

Other is the contribution to relative return due to the cumulative differences in carry, rolldown, and convexity.

Shape is the contribution to relative return due to the difference between the portfolio's and the index's duration profiles. The basic formula is the [(difference of each key rate duration between the portfolio and the index) multiplied by the total return of the respective key rate Treasury] minus the Duration and Other effects.

Definitions

Beta is a measure of systematic risk, or the sensitivity of a fund to movements in the benchmark. A beta of 1 implies that the expected movement of a fund's return would match that of the benchmark used to measure beta.