

iBONDS ETF MATURITIES CASE STUDY



December 2022 Update

iBonds ETFs Combine Two Great Investment Ideas: Bond Ladders and Funds

In January 2010, iShares launched a series of iBonds ETFs, the first term-maturity fixed income ETFs. These funds offer investors a new way to think about bond investing: ETFs that are designed to mature at a specific date, like a bond; trade similar to a stock; and offer diversification like a fund. The iBonds ETFs allow investors a similar experience to owning a bond ladder, using ETFs that may offer more liquidity and diversification than individual bonds.

Designed to:

MATURE, like a Bond
TRADE, like a Stock
DIVERSIFY, like a Fund

See how iBonds Compare	iBonds ETFs	Individual bonds	Bond ETFs	Mutual funds
Scalable across client accounts	✓		✓	✓
Diversified portfolio	✓		✓	✓
Monthly distributions	✓		✓	✓
Exchange traded / intra-day prices	✓		✓	
Set maturity date	✓	✓		

Case Study: Municipal and Corporate iBonds

Since launching in January 2010, two treasury, two high yield, eleven municipal, and thirteen investment grade corporate iBonds ETFs have successfully liquidated. All twenty-eight iBonds ETFs provided a total return experience that closely approximated holding a portfolio of individual bonds.

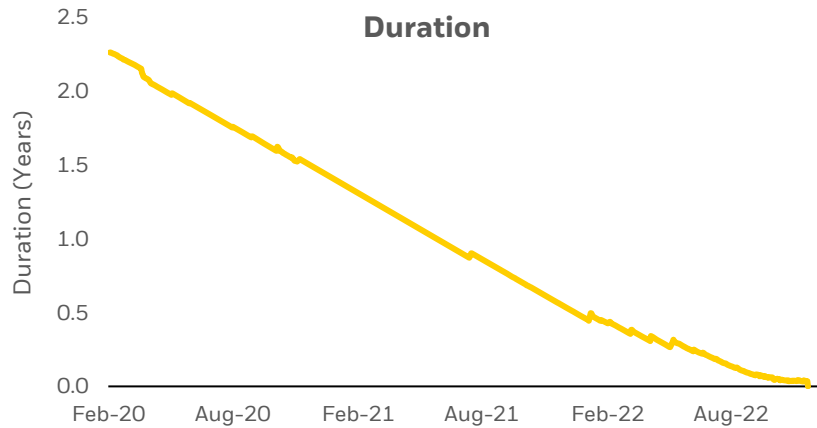
The monthly income distributions and final NAV payment will vary as bonds are entering the portfolios at different yield levels. Portfolio rebalancing, sampling, cash reinvestment and transaction costs can contribute to the variability in realized total returns.

In addition to the municipal and IG corporate funds, iShares launched High Yield and Income iBonds ETFs in May 2019 and Treasury iBonds in February 2020. The most recent funds in the series, IBHB and IBTB, liquidated in December 2022.

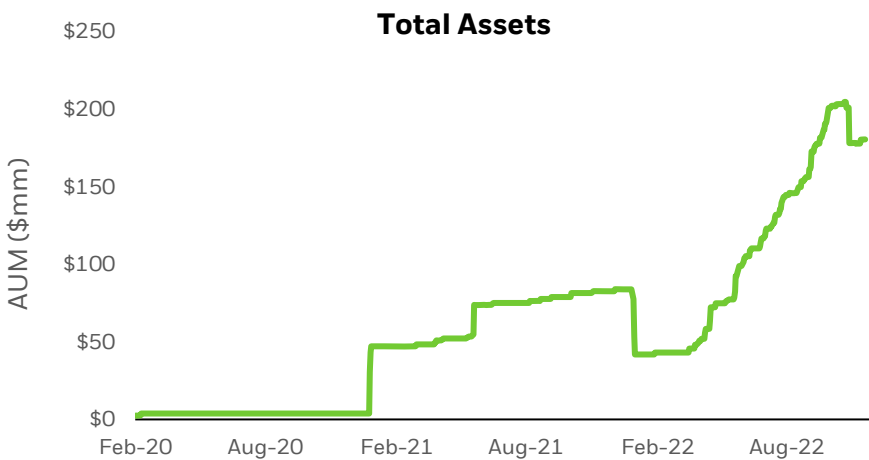
2022 Treasury iBond Maturity – IBTB

At inception, IBTA had about 2.75 years until its target maturity date (February 2020 to December 2022) and a duration of 2.26 years. The ETF’s duration declined as the holdings approached maturity and the fund approached its maturity date.

IBTB’s duration declined linearly like an individual cash bond.

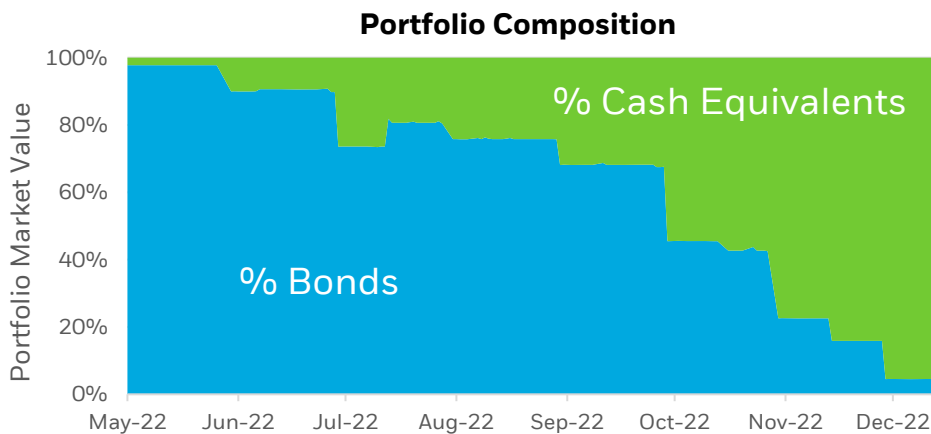


IBTB grew from \$2.5mm to \$204.43mm – then, the fund had redemptions of \$24.2mm in the last month. This is consistent with the behavior of other iBonds, as some holders seek to invest in the next ladder rung before liquidation.



IBTB grew from a \$2.5mm initial seed amount to \$204.43mm in late 2022.

Lastly, in the final six months of the fund’s life, proceeds from coupons and maturities were invested into cash equivalents. This culminated in a final distribution of \$25.39 to shareholders on December 15th, in line with the closing price on the final day of trading.

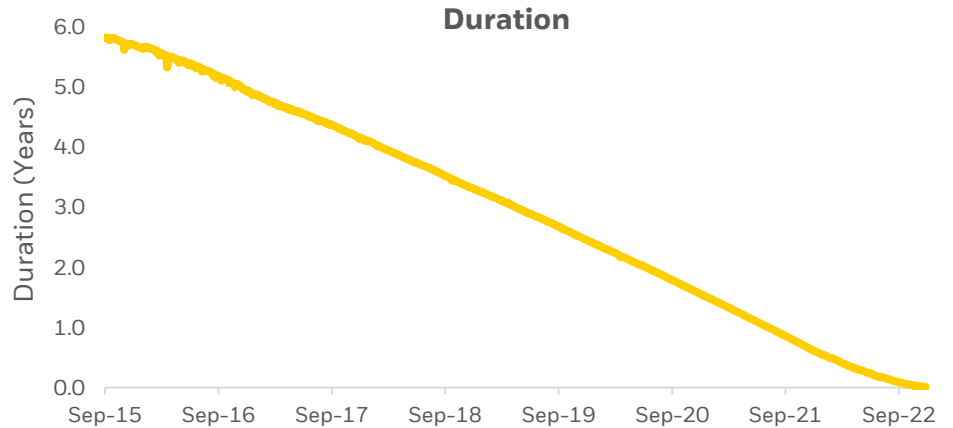


Portfolio holdings shifted to cash as the maturity date approached.

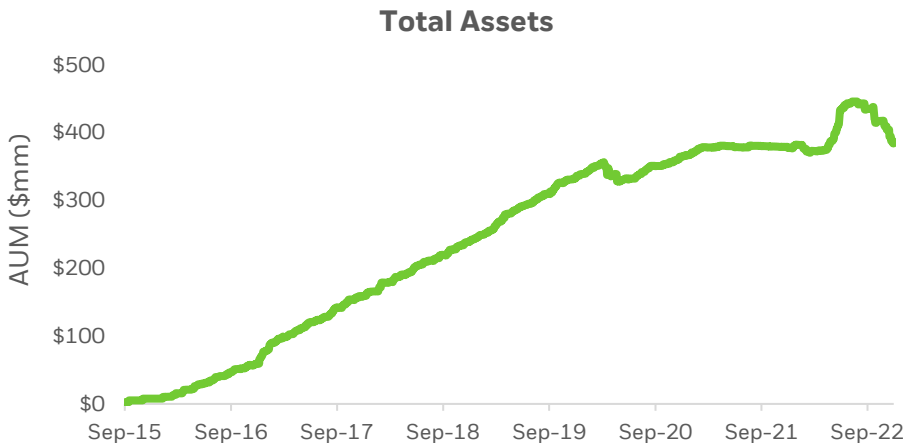
2022 Municipal iBond Maturity – IBMK

At inception, IBMK had about 7.2 years until its target maturity date (September 2015 to December 2022) and a duration of 5.83. IBMK’s duration declined as its holdings approached maturity and the fund approached its maturity date. When bonds matured between January and December of 2022, the proceeds were invested in short-term tax-exempt money market instruments (cash equivalents).

IBMK’s duration declined linearly like an individual cash bond

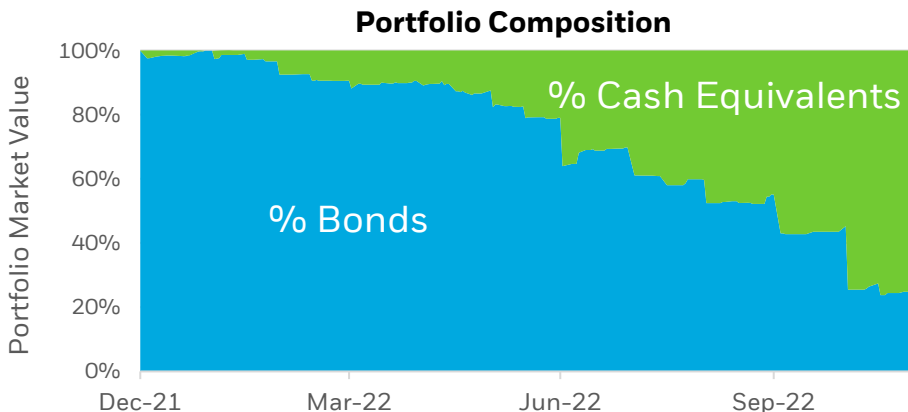


IBMK grew from \$2.5mm to \$445mm – then, the fund had redemptions of \$62mm in the last 6 months. This is consistent with the behavior of other iBonds, as some holders seek to invest in the next ladder rung before liquidation.



IBMK grew from its \$2.5mm initial seed amount to \$445mm in 2022.

Lastly, in the final year of the fund’s life, proceeds from coupons and maturities were invested into cash equivalents. This culminated in a final distribution of \$25.92 to shareholders on December 1st, in line with the closing price on the final day of trading. Note that the graph below appears jagged due to the nature of municipal bond maturities, which tend to occur on the 1st and 15th of the month.

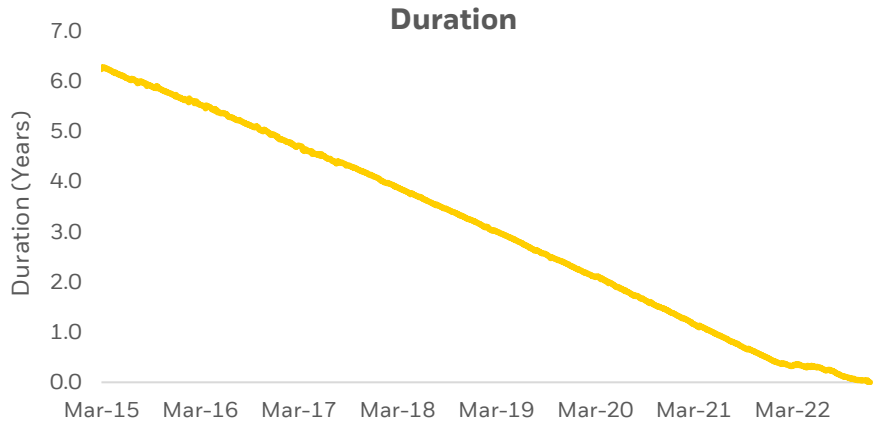


Portfolio holdings shifted to cash as the maturity date approached.

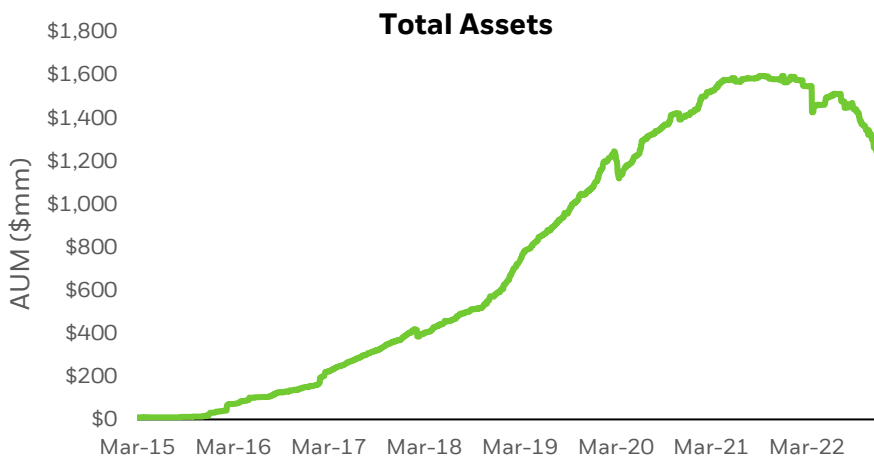
2022 IG Corporate iBond Maturity – IBDN

At inception, IBDN had about 7.8 years until its target maturity date (March 2015 to December 2022) and a duration of 6.23 years. The ETF’s duration declined as the holdings approached maturity and the fund approached its maturity date.

IBDN’s duration declined linearly like an individual cash bond.

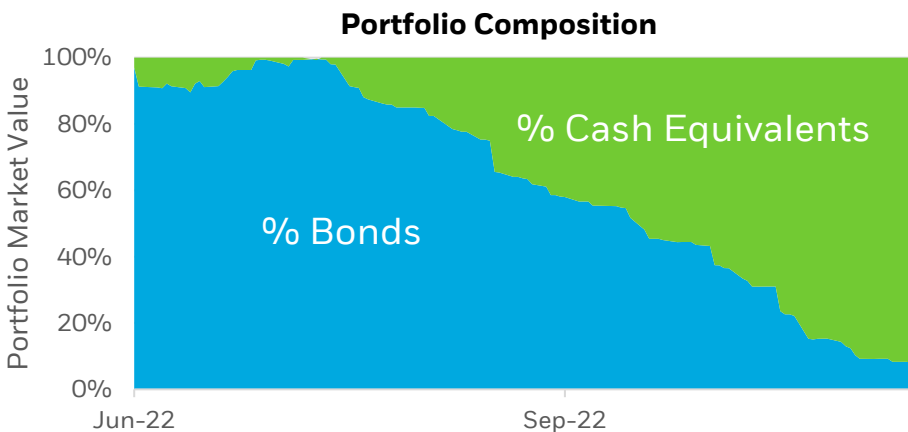


IBDN grew from \$9.9mm to \$1.59bn – then, the fund had redemptions of \$353mm in the last 12 months. This is consistent with the behavior of other iBonds, as some holders seek to invest in the next ladder rung before liquidation.



IBDN grew from a \$9.9mm initial seed amount to \$1.59bn in late 2021.

Lastly, in the final six months of the fund’s life, proceeds from coupons and maturities were invested into cash equivalents. This culminated in a final distribution of \$25.06 to shareholders on December 15th, in line with the closing price on the final day of trading.

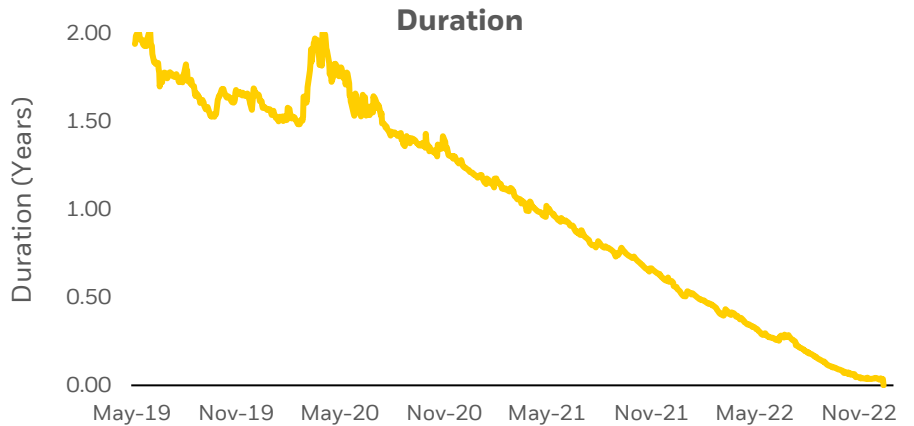


Portfolio holdings shifted to cash as the maturity date approached.

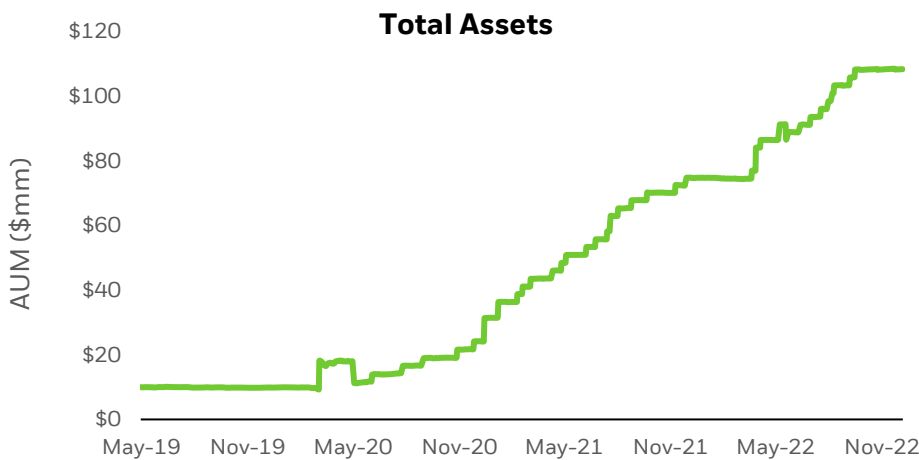
2022 HY & Income iBond Maturity – IBHB

At inception, IBHB had about 3.6 years until its target maturity date (May 2019 to December 2022) and a duration of 1.94 years. The ETF’s duration declined as the holdings approached maturity and the fund approached its maturity date.

IBHB’s duration declined linearly like an individual cash bond.

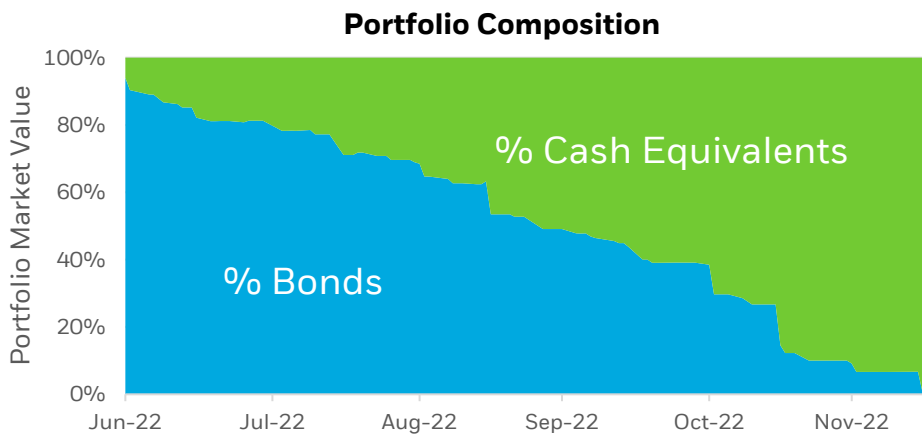


IBHB grew from \$10mm to \$108.38mm without any major redemptions in the last 6 months. Unlike other iBonds as some holders seek to invest in the next ladder rung before liquidation, IBHB maintained its level of AUM through the final 6 months.



IBHB grew from a \$10mm initial seed amount to \$108.4mm in late 2022.

Lastly, in the final six months of the fund’s life, proceeds from coupons and maturities were invested into cash equivalents. This culminated in a final distribution of \$24.06 to shareholders on December 15th, in line with the closing price on the final day of trading.



Portfolio holdings shifted to cash as the maturity date approached.

Performance history of liquidated iBonds

Summary of iBonds ETF Performance	Municipal iBonds										
	MUAA	MUAB	MUAC	IBMD	IBME	IBMF	IBMG	IBMH	IBMI	IBMJ	IBMK
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Inception Date	1/7/2010	1/7/2010	1/7/2010	1/7/2010	1/7/2010	1/7/2010	3/21/2013	2/4/2014	8/12/2014	9/1/2015	9/1/2015
Termination Date	8/15/2012	8/15/2013	8/15/2014	9/1/2015	9/1/2016	9/1/2017	9/1/2018	9/3/2019	9/1/2020	12/1/2021	12/1/2022
Initial YTM at Inception	0.96%	1.35%	1.68%	2.20%	2.60%	2.97%	1.18%	1.36%	1.56%	1.81%	2.04%
Less Fund Expenses	-0.30%	-0.30%	-0.30%	-0.27%	-0.26%	-0.25%	-0.21%	-0.19%	-0.18%	-0.18%	-0.18%
Net YTM	0.66%	1.05%	1.38%	1.93%	2.34%	2.72%	0.97%	1.17%	1.38%	1.63%	1.86%
NAV Total Return (Since Inception)	0.69%	1.09%	1.41%	1.83%	2.23%	2.51%	1.10%	1.36%	1.49%	1.63%	1.89%
Performance Difference	0.03%	0.04%	0.03%	-0.10%	-0.11%	-0.21%	0.13%	0.19%	0.11%	0.00%	0.03%
Initial NAV	\$50.38	\$50.06	\$50.03	\$50.49	\$24.83	\$25.07	\$25.14	\$25.00	\$25.00	\$25.00	\$25.00
Final NAV	\$50.62	\$50.50	\$51.18	\$52.57	\$26.46	\$27.22	\$25.45	\$25.45	\$25.48	\$25.58	\$25.92
Difference in NAV	\$0.24	\$0.44	\$1.15	\$2.08	\$1.63	\$2.15	\$0.31	\$0.45	\$0.48	\$0.58	\$0.92
Income per Share	\$0.67	\$1.54	\$2.11	\$3.26	\$2.19	\$2.87	\$1.22	\$1.46	\$1.79	\$1.98	\$2.59

Summary of iBonds ETF Performance	Corporate iBonds												
	IBCB (Ex-Fin Mar 2016)	IBDA (Mar 2016)	IBDF (Mar 2017)	IBDJ (Dec 2017)	IBCC (Ex-Fin Mar 2018)	IBDB (Mar 2018)	IBDH (Dec 2018)	IBDK (Dec 2019)	IBDC (Mar 2020)	IBCD (Ex-Fin Mar 2020)	IBDL (Dec 2020)	IBDM (Dec 2021)	IBDN (Dec 2022)
Inception Date	4/17/2013	7/9/2013	5/27/2014	3/10/2015	4/17/2013	7/9/2013	5/28/2014	5/10/2015	7/9/2013	4/17/2013	12/2/2014	3/10/2015	3/10/2015
Termination Date	3/31/2016	3/31/2016	12/15/2016	12/15/2017	3/15/2018	3/26/2018	12/18/2018	12/16/2019	3/31/2020	3/31/2020	12/16/2020	12/15/2021	12/15/2022
Initial YTM at Inception	0.73%	1.23%	0.80%	1.41%	1.26%	2.33%	1.71%	2.18%	3.33%	2.00%	2.74%	2.78%	2.99%
Less Fund Expenses ¹	-0.10%	-0.10%	-0.10%	-0.10%	-0.10%	-0.10%	-0.10%	-0.10%	-0.10%	-0.10%	-0.10%	-0.10%	-0.10%
Net YTM	0.63%	1.13%	0.70%	1.31%	1.16%	2.23%	1.61%	2.08%	3.23%	1.90%	2.64%	2.68%	2.89%
NAV Total Return (Since Inception)	0.59%	1.02%	0.66%	1.28%	1.11%	2.06%	1.65%	2.08%	2.93%	1.80%	2.35%	2.29%	2.69%
Performance Difference	-0.04%	-0.11%	-0.04%	-0.03%	-0.05%	-0.17%	0.04%	0.00%	-0.30%	-0.10%	-0.29%	-0.39%	-0.20%
Initial NAV	\$99.50	\$99.95	\$25.00	\$24.75	\$24.88	\$24.99	\$25.07	\$24.75	\$24.99	\$24.88	\$25.00	\$24.75	\$24.75
Final NAV	\$99.50	\$100.82	\$25.03	\$24.84	\$24.64	\$25.60	\$25.18	\$24.87	\$26.06	\$24.58	\$25.20	\$24.73	\$25.06
Difference in NAV	\$0.00	\$0.87	\$0.03	\$0.09	(\$0.24)	\$0.61	\$0.11	\$0.12	\$1.07	(\$0.30)	\$0.20	(\$0.02)	\$0.31
Income per Share	\$1.72	\$1.91	\$0.39	\$0.78	\$1.57	\$1.85	\$1.76	\$2.32	\$3.95	\$3.33	\$3.34	\$3.80	\$4.83

Fund performance and yields are shown for illustrative purposes only. There is no guarantee that other iBonds funds will experience the same investment results.

1: For IBMD, IBME, IBMF, IBMG, and IBMH, a contractual fee waiver of 12 bps was in effect for a net expense ratio of 18 bps, effective 5/23/2014. IBCB, IBDA, IBDC and IBCD had contractual fee waivers for any acquired fund fees and expenses for a net expense ratio of 10 bps, effective through termination date of the fund. Fees for IBMD, IBME, IBMF, IBMG, and IBMH were prorated. IBMD changed its ticker from MUAD, IBME changed its ticker from MUAE, IBMF changed its ticker from MUAF, IBMG changed its ticker from MUAG, and IBMH changed its ticker from MUAH on 7/7/2014. All the S&P AMT-Free Municipal Series indices extended their maturity from August 15th to September 1st of each calendar year effective 8/1/2014.

Performance history of liquidated iBonds

Summary of iBonds ETF Performance	High Yield & Income iBonds	
	IBHA 2021	IBHB 2022
Inception Date	5/7/2019	5/7/2019
Termination Date	12/15/2021	12/15/2022
Initial YTM at Inception	5.20%	5.67%
Less Fund Expenses	0.35%	0.35%
Net YTM	4.85%	5.32%
NAV Total Return (Since Inception)	1.67%	2.66%
Performance Difference¹	-3.18%	-2.66%
Initial NAV	\$25.00	\$25.00
Final NAV	\$24.13	\$24.06
Difference in NAV	(\$0.87)	(\$0.94)
Income per Share	\$1.91	\$3.20

Summary of iBonds ETF Performance	Treasury iBonds	
	IBTA 2021	IBTB 2022
Inception Date	2/25/2020	2/25/2020
Termination Date	12/15/2021	12/15/2022
Initial YTM at Inception	1.01%	1.19%
Less Fund Expenses	0.07%	0.07%
Net YTM	0.94%	1.12%
NAV Total Return (Since Inception)	0.86%	1.22%
Performance Difference	-0.08%	0.10%
Initial NAV	\$25.03	\$25.05
Final NAV	\$25.35	\$25.39
Difference in NAV	\$0.32	\$0.34
Income per Share	\$0.08	\$0.52

Fund performance and yields are shown for illustrative purposes only. There is no guarantee that other iBonds funds will experience the same investment results.

¹IBHA's performance difference may vary as a result of the index composition transitioning to a composite high yield and BBB index 2.5 years prior to maturity. The initial YTM is based on a portfolio composed of 100% high yield bonds.

Frequently Asked Questions About iBonds Maturities

1. When do the individual bonds within iBonds ETFs start to mature?

The underlying bonds will mature through a set time period. See the table below for more details. When the last bond matures, the ETF will then delist from the stock exchange. Investors should receive their proceeds approximately two days after the fund ceases trading, though this may vary depending on their specific brokerage.

Sector	Series	Underlying Bond Maturity Dates
Municipals	Dec Series (2021 – 2028)	Jan 1 to December 15
Investment Grade Corp	Mar Series (2023) Dec Series (2020-2030)	April 1 to March 31 Jan 1 to December 15
High Yield Corp	Dec Series (2021- 2026)	Jan 1 to December 15
Treasuries	Dec Series (2021- 2030)	Jan 1 to December 15

2. What will I receive when the iBond matures?

Investors will receive the final net asset value per share, which includes the proceeds from bond maturities and any undistributed interest. For the investment grade corporate, high yield and treasury iBonds ETFs, the proceeds will be reinvested in bonds for the first six months and then reinvested into cash and cash equivalents in the final six months. The municipal iBonds will purchase tax-exempt cash equivalents as the bonds mature. Please review each fund's prospectus and SAI for more information.

3. How will the distribution be treated from a tax perspective?

The distribution, as reflected on Form 1099s to be received by shareholders, may have the following classifications:

- ❑ **Liquidation Distribution** – one form of a return of capital that is not taxable to the investor, but each investor needs to determine their cost basis to verify if they had a capital gain or loss.
- ❑ **Exempt-Interest Dividend** – not subject to income tax as long as the ETF had more than 50% assets invested in muni investments. This is the type of distribution the Municipal iBonds have paid since inception.
- ❑ **Taxable Interest Dividend** – subject to income tax. This is the type of distribution the Corporate iBonds have paid since inception.

Detailed Structure Comparison

	iBonds ETFs	Individual bonds	Traditional Bond ETFs	Mutual funds
Diversified portfolio	Yes	No	Yes	Yes
Distributions	Monthly	Semi-annual	Monthly	Monthly
Set maturity date	Yes	Yes	No	No
Trading	On Exchange	OTC	On Exchange	Transact with Fund Sponsor at NAV
Duration declines over time	Yes	Yes	No	No
Transparent intraday prices	Yes	No	Yes	No
Liquidity	Trade on exchanges intraday at market price, which may be greater or less than its NAV	Varies based on the type of bond	Trade on exchanges intraday at market price, which may be greater or less than its NAV	Accessed directly through the fund company or through a select broker. Bought and sold once per day
Cost and expenses	Expense ratio + transaction/brokerage costs	Transaction/markup costs + brokerage costs (if applicable)	Expense ratio + transaction/brokerage costs	Expense ratio + any sales loads/redemption fees + other expenses (12b-1 fees)

Important Information Regarding iShares ETFs

Carefully consider the Funds' investment objectives, risk factors, and charges and expenses before investing. This and other information can be found in the Funds' prospectuses or, if available, the summary prospectuses which may be obtained by visiting www.iShares.com or www.blackrock.com. Read the prospectus carefully before investing.

Investing involves risk, including possible loss of principal.

Fixed income risks include interest-rate and credit risk. Typically, when interest rates rise, there is a corresponding decline in bond values. Credit risk refers to the possibility that the bond issuer will not be able to make principal and interest payments. There may be less information on the financial condition of municipal issuers than for public corporations. The market for municipal bonds may be less liquid than for taxable bonds. Some investors may be subject to federal or state income taxes or the Alternative Minimum Tax (AMT). Capital gains distributions, if any, are taxable. Funds that concentrate investments in specific industries, sectors, markets or asset classes may underperform or be more volatile than other industries, sectors, markets or asset classes and than the general securities market.

When comparing stocks or bonds and iShares Funds, it should be remembered that management fees associated with fund investments, like iShares Funds, are not borne by investors in individual stocks or bonds. There is no guarantee that any fund will pay dividends.

Shares of ETFs trade at market price, which may be greater or less than net asset value. The iShares® iBonds® ETFs (“Funds”) will terminate on or about the month and year in each Fund’s name. An investment in the Fund(s) is not guaranteed, and an investor may experience losses, including near or at the termination date. Unlike a direct investment in a bond that has a level coupon payment and a fixed payment at maturity, the Fund(s) will make distributions of income that vary over time. In the final months of each Fund’s operation, as the bonds it holds mature, its portfolio will transition to cash and cash-like instruments. As a result, its yield will tend to move toward prevailing money market rates (and in the case of the muni iBonds ETFs, tax-exempt money market rates) and may be lower than the yields of the bonds previously held by the Fund and lower than prevailing yields in the bond market. As the Fund approaches its termination date, its holdings of money market or similar funds may increase, causing the Fund to incur the fees and expenses of these funds.

Following the Fund’s termination date, the Fund will distribute substantially all of its net assets, after deduction of any liabilities, to then-current investors without further notice and will no longer be listed or traded. The Funds’ distributions and liquidation proceeds are not predictable at the time of investment and the Funds do not seek to return any predetermined amount.

The rate of Fund distribution payments may adversely affect the tax characterization of an investor’s returns from an investment in the Fund relative to a direct investment in bonds. If the amount an investor receives as liquidation proceeds upon the Fund’s termination is higher or lower than the investor’s cost basis, the investor may experience a gain or loss for tax purposes.

The Funds are distributed by BlackRock Investments, LLC (together with its affiliates, “BlackRock”).

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