

Summary Prospectus



May 31, 2026

Disclosure contained herein relates to all classes of the Fund, as listed below, unless otherwise noted.

Share Class | Ticker **A** | FHIX **C** | FHICX **Institutional** | FHISX **R6** | FHBRX

Federated Hermes Sustainable High Yield Bond Fund, Inc.

Before you invest, you may want to review the Fund's Prospectus, which contains more information about the Fund and its risks. You can find the Fund's Prospectus and other information about the Fund, including the Statement of Additional Information and most recent reports to shareholders, online at FederatedHermes.com/us/FundInformation. You can also get this information at no cost by calling 1-800-341-7400, by sending an email request via Contact Us on FederatedHermes.com/us, or from a financial intermediary through which Shares of the Fund may be bought or sold. The Fund's Prospectus and Statement of Additional Information, both dated May 31, 2026, are incorporated by reference into this Summary Prospectus.

A mutual fund seeking high current income by investing primarily in sustainable, lower-rated fixed-income securities, including debt securities issued by U.S. or foreign businesses.

As with all mutual funds, the Securities and Exchange Commission (SEC) has not approved or disapproved these securities or passed upon the adequacy of this Prospectus. Any representation to the contrary is a criminal offense.

Not FDIC Insured • May Lose Value • No Bank Guarantee

Fund Summary Information

Federated Hermes Sustainable High Yield Bond Fund, Inc. (the "Fund")

RISK/RETURN SUMMARY: INVESTMENT OBJECTIVE

The Fund's investment objective is to seek high current income.

RISK/RETURN SUMMARY: FEES AND EXPENSES

This table describes the fees and expenses that you may pay if you buy, hold and sell Class A Shares (A), Class C Shares (C), Institutional Shares (IS) and Class R6 Shares (R6) of the Fund. **You may pay other fees, such as brokerage commissions and other fees to financial intermediaries, which are not reflected in the tables and examples below.** You may qualify for certain sales charge discounts if you and your family invest, or agree to invest in the future, at least \$100,000 in certain classes (e.g., A class) of Federated Hermes funds. More information about these and other discounts is available from your financial professional, in the "What Do Shares Cost?" section of the Prospectus on page 18 and in "Appendix B" to this Prospectus.

Shareholder Fees (fees paid directly from your investment)

	A	C	IS	R6
Maximum Sales Charge (Load) Imposed on Purchases (as a percentage of offering price).....	4.50%	None	None	None
Maximum Deferred Sales Charge (Load) (as a percentage of original purchase price or redemption proceeds, as applicable)	0.00%	1.00%	None	None
Maximum Sales Charge (Load) Imposed on Reinvested Dividends (and other Distributions) (as a percentage of offering price)	None	None	None	None
Redemption Fee (as a percentage of amount redeemed, if applicable)	None	None	None	None
Exchange Fee	None	None	None	None

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

	A	C	IS	R6
Management Fee	0.50%	0.50%	0.50%	0.50%
Distribution (12b-1) Fee	None	0.75%	None	None
Other Expenses	0.53%	0.54%	0.29%	0.21%
Total Annual Fund Operating Expenses	1.03%	1.79%	0.79%	0.71%
Fee Waivers and/or Expense Reimbursements ¹	(0.13)%	(0.05)%	(0.14)%	(0.07)%
Total Annual Fund Operating Expenses After Fee Waivers and/or Expense Reimbursements.....	0.90%	1.74%	0.65%	0.64%

1 The Adviser and certain of its affiliates, on their own initiative, have agreed to waive certain amounts of their respective fees and/or reimburse expenses. Effective June 1, 2026, total annual fund operating expenses (excluding acquired fund fees and expenses, interest expense, extraordinary expenses and proxy-related expenses, if any) paid by the Fund's A, C, IS and R6 classes (after the voluntary waivers and/or reimbursements) will not exceed 0.90%, 1.74%, 0.65% and 0.64% (the "Fee Limit"), respectively, up to but not including the later of (the "Termination Date"): (a) June 1, 2027; or (b) the date of the Fund's next effective Prospectus. While the Adviser and its affiliates currently do not anticipate terminating or increasing these arrangements prior to the Termination Date, these arrangements may only be terminated or the Fee Limit increased prior to the Termination Date with the approval of the Fund's Board of Trustees.

Example

This Example is intended to help you compare the cost of investing in the Fund with the cost of investing in other mutual funds.

The Example assumes that you invest \$10,000 for the time periods indicated and then redeem all of your Shares at the end of those periods. Expenses assuming no redemption are also shown. The Example also assumes that your investment has a 5% return each year and that operating expenses remain the same. The Example does not reflect sales charges (loads) on reinvested dividends. If these sales charges (loads) were included, your costs would be higher. Although your actual costs and returns may be higher or lower, based on these assumptions your costs would be:

Share Class	1 Year	3 Years	5 Years	10 Years
A:				
Expenses assuming redemption	\$550	\$763	\$993	\$1,653
Expenses assuming no redemption	\$550	\$763	\$993	\$1,653
C:				
Expenses assuming redemption	\$282	\$563	\$970	\$1,905
Expenses assuming no redemption	\$182	\$563	\$970	\$1,905
IS:				
Expenses assuming redemption	\$ 81	\$252	\$439	\$ 978
Expenses assuming no redemption	\$ 81	\$252	\$439	\$ 978
R6:				
Expenses assuming redemption	\$ 73	\$227	\$395	\$ 883
Expenses assuming no redemption	\$ 73	\$227	\$395	\$ 883

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when Fund Shares are held in a taxable account. These costs, which are not reflected in Annual Fund Operating Expenses or in the Example, affect the Fund's performance. During the most recent fiscal year, the Fund's portfolio turnover rate was 32% of the average value of its portfolio.

RISK/RETURN SUMMARY: INVESTMENTS, RISKS AND PERFORMANCE

What are the Fund's Main Investment Strategies?

The Fund pursues its investment objective by investing primarily in a diversified portfolio of sustainable, lower-rated fixed-income investments (i.e., BB or lower). These investments include lower-rated corporate bonds (also known as “junk bonds”) which include debt securities issued by U.S. or foreign businesses (including emerging market debt securities). The Fund’s investment adviser or sub-adviser (as applicable, the “Adviser”) does not target an average maturity for the Fund’s portfolio.

The Adviser’s securities selection process includes a focus on sustainable investments and the avoidance of issuers with high environmental, social and governance (ESG) risk as determined in accordance with the Adviser’s sustainable investment methodology, which includes a proprietary analysis of a company’s creditworthiness, ESG risks and sustainability credentials.

The Adviser assigns an ESG Rating to individual securities based on a proprietary assessment of material ESG risks. The Adviser determines these ratings based on research and due diligence, including a review of information that may be publicly available, company provided and/or from third party sources. The ESG Rating is determined by the Adviser’s view of risks including: environmental (e.g., temperature alignment, carbon intensity, water usage, waste reduction); social (e.g., human rights, employee rights, health/safety concerns, data privacy); and governance (e.g., management effectiveness and board composition). Additionally, issuers will be evaluated based on their approach to addressing greenhouse gas emissions based on the Adviser’s proprietary Climate Change Impact Score (CCI) methodology. These scores are determined by combining a review of data on greenhouse gas emissions, publicly available or company-disclosed information, third-party opinions and information derived from engagement with issuers.

The Adviser may invest up to 15% of the Fund’s net assets in companies that have not been subject to sustainability analysis. The Fund will generally not purchase securities with ESG Ratings or CCI Scores below certain thresholds as determined by the Adviser. However, the Fund may purchase a “Green Bond,” “Social Bond” or “Sustainability-Linked Bond” (collectively, “GSS Bonds”) from certain issuers whose securities may otherwise be excluded based on ESG Ratings or CCI Scores.

The Adviser will exclude companies that generate greater than 5% of their revenue from the manufacture of tobacco or controversial weapons, or that, in the Adviser’s view, are in violation of the UN Global Compact principles. For purposes of this strategy, examples of controversial weapons include cluster munitions, anti-personnel mines, biological weapons and chemical weapons. The Adviser also targets a lower weighted-average carbon intensity compared to that of the Bloomberg US Corporate High Yield 2% Issuer Capped Index.

The Fund may invest in derivative contracts, in particular, futures contracts, option contracts and swap contracts, and/or hybrid instruments to implement elements of its investment strategy. For example, the Fund may use derivative contracts and/or hybrid instruments to increase or decrease the portfolio's exposure to the investment(s) underlying the derivative contracts or hybrid instruments in an attempt to benefit from changes in the value of the underlying investment(s). There can be no assurance that the Fund's use of derivative contracts or hybrid instruments will work as intended. Derivative investments made by the Fund are included within the Fund's 80% policy (as described below) and are calculated at market value.

The Fund will invest at least 80% of its net assets (plus the amount of any borrowings for investment purposes) in sustainable, lower-rated fixed-income investments. The Fund will notify shareholders at least 60 days in advance of any change in this investment policy. For the purposes of this policy, the Adviser will consider "sustainable" investments as those that are selected in accordance with its sustainable investment methodology, which is based on a materiality assessment of a company's carbon intensity and incorporates a proprietary scoring methodology focusing on the overall sustainability credentials of issuers.

What are the Main Risks of Investing in the Fund?

All mutual funds take investment risks. Therefore, it is possible to lose money by investing in the Fund. The primary factors that may reduce the Fund's returns include:

- **Issuer Credit Risk.** It is possible that interest or principal on securities will not be paid when due. Noninvestment-grade securities generally have a higher default risk than investment-grade securities. Such non-payment or default may reduce the value of the Fund's portfolio holdings, its share price and its performance.
- **Counterparty Risk.** Counterparty risk includes the possibility that a party to a transaction involving the Fund will fail to meet its obligations. This could cause the Fund to lose the benefit of the transaction or prevent the Fund from selling or buying other securities to implement its investment strategy.
- **Liquidity Risk.** Liquidity of individual corporate bonds varies considerably. Low-grade corporate bonds have less liquidity than investment-grade securities, which means that it may be more difficult to buy or sell a security at a favorable price or time.
- **Risk Associated with Noninvestment-Grade Securities.** Securities rated below investment grade may be subject to greater interest rate, credit and liquidity risks than investment-grade securities. These securities are considered speculative with respect to the issuer's ability to pay interest and repay principal.
- **Risk Related to the Economy.** The value of the Fund's portfolio may decline in tandem with a drop in the overall value of the markets in which the Fund invests and/or other markets. Global economic, political and financial

conditions including geopolitical and other events (e.g., wars, sanctions and terrorism), legislative changes or shifts in fiscal or monetary policy or reform, industry or economic trends and developments, grid congestion or capacity constraints, natural disasters or public health risks, such as epidemics or pandemics, may, from time to time, and for varying periods of time, have a significant effect on the economies of many nations, including the U.S., and financial markets generally and cause the Fund to experience volatility, illiquidity, loss of value, shareholder redemptions, and/or other potentially adverse effects. Among other investments, lower-grade bonds and loans may be particularly sensitive to changes in the economy.

- **Environmental, Social and Governance Risk.** The Adviser considers environmental, social and governance (ESG) issues as part of its security selection process. ESG factors are not the only factors considered by the Adviser and there is no guarantee the companies in which the Fund invests will have favorable third party ESG profiles. Such considerations may fail to produce the intended result, and the Fund may underperform funds that do not have such a strategy.
- **Interest Rate Risk.** Prices of fixed-income securities generally fall when interest rates rise. The longer the duration of a fixed-income security, the more susceptible it is to interest-rate risk. Recent and potential future changes in monetary policy made by central banks and/or their governments are likely to affect the level of interest rates.
- **Call Risk.** There is a possibility that an issuer of fixed-income securities in which the Fund may invest may redeem a security before maturity (a “call”) at a price below its current market price. An increase in the likelihood of a call may reduce the security’s price.
- **Risk of Foreign Investing.** Because the Fund invests in securities issued by foreign companies, the Fund’s Share price may be more affected by foreign economic and political conditions, taxation policies and accounting and auditing standards than could otherwise be the case.
- **Currency Risk.** Exchange rates for currencies fluctuate daily. Foreign securities are normally denominated and traded in foreign currencies. As a result, the value of the Fund’s foreign investments and the value of the shares may be affected favorably or unfavorably by changes in currency exchange rates relative to the U.S. dollar.
- **European Union and Eurozone Related Risk.** A number of countries in the European Union (EU), including certain countries within the EU that have adopted the euro (Eurozone), have experienced, and may continue to experience, severe economic and financial difficulties. Additional countries within the EU may also fall subject to such difficulties. These events could negatively affect the value and liquidity of the Fund’s investments in euro-denominated securities and derivative contracts, securities of issuers located in the EU or with significant exposure to EU issuers or countries.

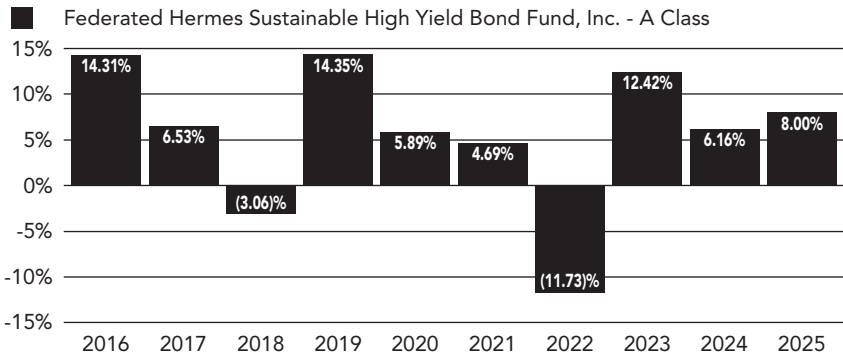
- **Risk of Investing in Emerging Market Countries.** Securities issued or traded in emerging markets generally entail greater risks than securities issued or traded in developed markets. Securities markets within emerging market countries may experience low or non-existent trading volume, resulting in a lack of liquidity and increased volatility in prices for such securities. Political and economic structures in emerging market countries generally lack the social, political and economic stability of developed countries, which may affect the value of the Fund's investments in these countries. There may be less publicly available information about issuers in emerging markets than would be available about issuers in more developed capital markets, and such issuers may not be subject to accounting, auditing and financial reporting standards comparable to those to which U.S. companies are subject.
- **Risk of Investing in Derivative Contracts and Hybrid Instruments.** Derivative contracts and hybrid instruments involve risks different from, or possibly greater than, risks associated with investing directly in securities and other traditional investments. Specific risk issues related to the use of such contracts and instruments include valuation and tax issues, increased potential for losses and/or costs to the Fund, and a potential reduction in gains to the Fund. Each of these issues is described in greater detail in this Prospectus. Derivative contracts and hybrid instruments may also involve other risks described in this Prospectus such as interest rate, credit, currency, liquidity and leverage risks.
- **Leverage Risk.** Leverage risk is created when an investment exposes the Fund to a level of risk that exceeds the amount invested.
- **Exchange-Traded Funds Risk.** An investment in an ETF generally presents the same primary risks as an investment in a conventional fund (i.e., one that is not exchange traded). In addition, ETFs may be subject to the following risks that do not apply to conventional funds: (i) the market price of an ETF's shares may trade above or below their net asset value; (ii) an active trading market for an ETF's shares may not develop or be maintained; or (iii) trading of an ETF's shares may be halted if the listing exchange's officials deem such action appropriate.
- **Technology Risk.** The Adviser uses various technologies in managing the Fund, consistent with its investment objective and strategy described in this Prospectus. For example, proprietary and third party data and systems are utilized to support decision making for the Fund. Data imprecision, software or other technology malfunctions, programming inaccuracies and similar circumstances may impair the performance of these systems, which may negatively affect Fund performance.

The Shares offered by this Prospectus are not deposits or obligations of any bank, are not endorsed or guaranteed by any bank and are not insured or guaranteed by the U.S. government, the Federal Deposit Insurance Corporation, the Federal Reserve Board or any other government agency.

PERFORMANCE: BAR CHART AND TABLE

Risk/Return Bar Chart

Prior to May 26, 2023, the Fund was managed pursuant to a different investment strategy. As a result of the difference in investment strategy, the performance information presented for periods prior to May 26, 2023, reflects management of the Fund consistent with investment strategies in effect during those periods and might have differed materially if the Fund's investments had been managed under its current strategies. The bar chart and performance table below reflect historical performance data for the Fund and are intended to help you analyze the Fund's investment risks in light of its historical returns. The bar chart shows the variability of the Fund's A class total returns on a calendar year-by-year basis. The Average Annual Total Return Table shows returns for each class *averaged* over the stated periods, and includes comparative performance information with a broad-based securities market index. The Fund's performance is also compared to a secondary index to show how the Fund's performance compares with the returns of an index with similar investments. *The Fund's performance will fluctuate, and past performance (before and after taxes) is not necessarily an indication of future results.* Updated performance information for the Fund is available under the "Products" section at FederatedHermes.com/us or by calling 1-800-341-7400.



The total returns shown in the bar chart do not reflect the payment of any sales charges or recurring shareholder account fees. If these charges or fees had been included, the returns shown would have been lower.

The Fund's A class total return for the three-month period from January 1, 2026 to March 31, 2026, was (0.95)%.

Within the periods shown in the bar chart, the Fund's A class highest quarterly return was 9.34% (quarter ended June 30, 2020). Its lowest quarterly return was (12.22)% (quarter ended March 31, 2020).

Average Annual Total Return Table

The Fund's IS and R6 classes commenced operations on January 27, 2017. For the periods prior to commencement of operations of the Fund's IS and R6 classes, the performance information shown below is for the Fund's A class. The performance of the A class has not been adjusted to reflect the expenses applicable to the IS and R6 classes since the IS and R6 classes have a lower expense ratio than the expense ratio of the A class. The performance of the A class has been adjusted to reflect the absence of sales charges.

In addition to Return Before Taxes, Return After Taxes is shown for the Fund's A class to illustrate the effect of federal taxes on Fund returns. After-tax returns are shown only for the A class, and after-tax returns for the C class, IS class and R6 class will differ from those shown for the A class. *Actual after-tax returns depend on each investor's personal tax situation, and are likely to differ from those shown.* After-tax returns are calculated using a standard set of assumptions. The stated returns assume the highest historical **federal** income and capital gains tax rates. These after-tax returns do **not** reflect the effect of any applicable **state** and **local** taxes. After-tax returns are not relevant to investors holding Shares through a 401(k) plan, an Individual Retirement Account or other tax-advantaged investment plan.

(For the Period Ended December 31, 2025)

Share Class	1 Year	5 Years	10 Years
A:			
Return Before Taxes	3.12%	2.60%	4.98%
Return After Taxes on Distributions	0.90%	0.41%	2.70%
Return After Taxes on Distributions and Sale of Fund Shares	1.80%	0.99%	2.80%
C:			
Return Before Taxes	5.99%	2.72%	4.78%
IS:			
Return Before Taxes	8.12%	3.82%	5.69%
R6:			
Return Before Taxes	8.29%	3.86%	5.70%
Bloomberg US Aggregate Bond Index¹ (reflects no deduction for fees, expenses, or taxes)	7.30%	(0.36)%	2.01%
Bloomberg US Corporate High Yield 2% Issuer Capped Index² (reflects no deduction for fees, expenses or taxes)	8.62%	4.50%	6.52%
Lipper High Yield Funds Average³	8.03%	4.14%	5.66%

- ¹ The Bloomberg US Aggregate Bond Index is a broad-based benchmark that measures the investment-grade, U.S. dollar-denominated, fixed-rate taxable bond market.
- ² The Bloomberg US Corporate High Yield 2% Issuer Capped Index is an issuer-constrained version of the Bloomberg US Corporate High Yield Index that measures the market of USD-denominated, noninvestment-grade, fixed-rate, taxable corporate bonds. The index follows the same rules as the uncapped index but limits the exposure of each issuer to 2% of the total market value and redistributes any excess market value index-wide on a pro rata basis.

3 *Lipper figures represent the average of the total returns reported by all mutual funds designated by Lipper, Inc., as falling into the respective category and is not adjusted to reflect any sales charges.*

FUND MANAGEMENT

The Fund's Investment Adviser is Federated Investment Management Company and the Fund's Sub-Adviser, an affiliate of the Investment Adviser, is Hermes Investment Management Limited.

Kathryn P. Glass, CFA, Senior Portfolio Manager, has been the Fund's portfolio manager since May of 2023.

Thomas Scherr, CFA, Portfolio Manager, has been the Fund's portfolio manager since May of 2023.

Mitch Reznick, CFA, Portfolio Manager, has been the Fund's portfolio manager since May of 2023.

Mark E. Durbiano, CFA, Senior Portfolio Manager, has been the Fund's portfolio manager since January of 1987.

PURCHASE AND SALE OF FUND SHARES

You may purchase, redeem or exchange Shares of the Fund on any day the New York Stock Exchange is open. Shares may be purchased through a financial intermediary firm that has entered into a Fund selling and/or servicing agreement with the Distributor or an affiliate ("Financial Intermediary") or directly from the Fund, by wire or by check. Please note that certain purchase restrictions may apply. Redeem or exchange Shares through a financial intermediary or directly from the Fund by telephone at 1-800-341-7400 or by mail.

A and C Classes

The minimum investment amount for the Fund's A class and C class is generally \$1,500 for initial investments and \$100 for subsequent investments. The minimum initial and subsequent investment amounts for Individual Retirement Accounts (IRAs) are \$250 and \$100, respectively. There is no minimum initial or subsequent investment amount required for employer-sponsored retirement plans. Certain types of accounts are eligible for lower minimum investments. The minimum investment amount for Systematic Investment Programs is \$50.

IS Class

The minimum initial investment amount for the Fund's IS class is generally \$1,000,000 and there is no minimum subsequent investment amount. Certain types of accounts are eligible for lower minimum investments. The minimum investment amount for Systematic Investment Programs is \$50.

R6 Class

There are no minimum initial or subsequent investment amounts required. The minimum investment amount for Systematic Investment Programs is \$50.

TAX INFORMATION

A, C and IS Classes

The Fund's distributions are taxable as ordinary income or capital gains except when your investment is through a 401(k) plan, an Individual Retirement Account or other tax-advantaged investment plan. When your Fund investments are withdrawn from a 401(k) plan, an Individual Retirement Account or other tax-advantaged investment plan, they may be taxable.

R6 Class

The Fund's distributions are taxable as ordinary income or capital gains except when your investment is through a tax-advantaged investment plan. When your Fund investments are withdrawn from tax-advantaged investment plan, they may be taxable.

PAYMENTS TO BROKER-DEALERS AND OTHER FINANCIAL INTERMEDIARIES

A, C and IS Classes

If you purchase the Fund through a broker-dealer or other financial intermediary (such as a bank), the Fund and/or its related companies may pay the intermediary for the sale of Fund Shares and related services. These payments may create a conflict of interest by influencing the broker-dealer or other intermediary and your salesperson to recommend the Fund over another investment. Ask your salesperson or visit your financial intermediary's website for more information.

R6 Class

Class R6 Shares do not make any payments to financial intermediaries, either from Fund assets or from the investment adviser and its affiliates.



Federated Hermes Sustainable High Yield Bond Fund, Inc.
Federated Hermes Funds
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Warrendale, PA 15086-7561

Contact us at [FederatedHermes.com/us](https://www.federatedhermes.com/us)
or call 1-800-341-7400.

Federated Securities Corp., Distributor

Investment Company Act File No. 811-2782

CUSIP 314195108

CUSIP 314195306

CUSIP 314195405

CUSIP 314195504

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