

Summary Prospectus

BlackRock Funds III | Class K Shares

- **iShares Russell 1000 Large-Cap Index Fund**

Class K: BRGKX

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 (including amendments and supplements), reports to shareholders and other information about the Fund, including the Fund's statement of additional information, online at <http://www.blackrock.com/prospectus>. You can also get this information at no cost by calling (800) 537-4942 or by sending an e-mail request to prospectus.request@blackrock.com, or from your financial professional. The Fund's prospectus and statement of additional information, both dated April 28, 2023, as amended and supplemented from time to time, are incorporated by reference into (legally made a part of) this Summary Prospectus.

This Summary Prospectus contains information you should know before investing, including information about risks. Please read it before you invest and keep it for future reference.

The Securities and Exchange Commission has not approved or disapproved these securities or passed upon the adequacy of this Summary Prospectus. Any representation to the contrary is a criminal offense.

Not FDIC Insured • May Lose Value • No Bank Guarantee

Summary Prospectus

Key Facts About iShares Russell 1000 Large-Cap Index Fund

Investment Objective

The investment objective of iShares Russell 1000 Large-Cap Index Fund (“Large-Cap Index Fund” or the “Fund”), a series of BlackRock Funds III (the “Trust”), is to match the performance of the Russell 1000® Index (the “Russell 1000” or the “Underlying Index”) as closely as possible before the deduction of Fund expenses.

Fees and Expenses of the Fund

This table describes the fees and expenses that you may pay if you buy, hold and sell Class K Shares of the Large-Cap Index Fund. **You may pay other fees, such as brokerage commissions and other fees to your financial professional or your selected securities dealer, broker, investment adviser, service provider or industry professional (including BlackRock Fund Advisors (“BFA”) and its affiliates) (each, a “Financial Intermediary”), which are not reflected in the table and example below.**

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)¹	Class K Shares
Management Fee ^{1,2}	0.03%
Distribution and/or Service (12b-1) Fees	None
Other Expenses	0.04%
Administration Fees	0.01%
Miscellaneous Other Expenses	0.03%
Total Annual Fund Operating Expenses	0.07%
Fee Waivers and/or Expense Reimbursements ^{2,3}	—
Total Annual Fund Operating Expenses After Fee Waivers and/or Expense Reimbursements^{2,3}	0.07%

¹ The fees and expenses shown in the table above and the example that follows include both the expenses of the Fund and its share of the allocated expenses of Large Cap Index Master Portfolio (the “Master Portfolio”), a series of Master Investment Portfolio (“MIP”). The management fees are paid by the Master Portfolio.

² As described in the “Management of the Funds” section of the Fund’s prospectus beginning on page 36, BFA, the investment adviser for the Master Portfolio, has contractually agreed to waive the management fee with respect to any portion of the Master Portfolio’s assets estimated to be attributable to investments in other equity and fixed-income mutual funds and exchange-traded funds managed by BFA or its affiliates that have a contractual management fee, through June 30, 2024. In addition, BFA has contractually agreed to waive its management fees by the amount of investment advisory fees the Master Portfolio pays to BFA indirectly through its investment in money market funds managed by BFA or its affiliates, through June 30, 2024. The contractual agreements may be terminated upon 90 days’ notice by a majority of the non-interested trustees of MIP or by a vote of a majority of the outstanding voting securities of the Master Portfolio.

³ As described in the “Management of the Funds” section of the Fund’s prospectus beginning on page 36, BFA and BlackRock Advisors, LLC (“BAL”), the administrator for the Fund, have contractually agreed to waive and/or reimburse fees or expenses in order to limit Total Annual Fund Operating Expenses After Fee Waivers and/or Expense Reimbursements of the Fund (excluding Dividend Expense, Interest Expense, Acquired Fund Fees and Expenses and certain other Fund expenses) to 0.08% of average daily net assets for Class K Shares through June 30, 2024. This contractual agreement may be terminated upon 90 days’ notice by a majority of the non-interested trustees of the Trust or of MIP, as applicable, or by a vote of a majority of the outstanding voting securities of the Fund or the Master Portfolio, as applicable.

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 in the Fund for the time periods indicated and then redeem all of your shares at the end of those periods. The Example also assumes that your investment has a 5% return each year and that the Fund’s operating expenses remain the same. Although your actual costs may be higher or lower, based on these assumptions your costs would be:

	1 Year	3 Years	5 Years	10 Years
Class K Shares	\$7	\$23	\$40	\$90

Portfolio Turnover:

The Master Portfolio 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 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 Master Portfolio's portfolio turnover rate was 22% of the average value of its portfolio.

Principal Investment Strategies of the Fund

The Large-Cap Index Fund employs a "passive" management approach, attempting to invest in a portfolio of assets whose performance is expected to match approximately the performance of the Russell 1000. The Fund will be substantially invested in equity securities in the Russell 1000, and will invest, under normal circumstances, at least 80% of its net assets in securities or other financial instruments that are components of or have economic characteristics similar to the securities included in the Russell 1000. Equity securities in which the Fund invests include common stock, preferred stock and securities or other instruments whose price is linked to the value of common stock.

The Fund will invest in the common stocks represented in the Russell 1000 in roughly the same proportions as their weightings in the Russell 1000. As of March 31, 2023, the companies in the Russell 1000 have a market capitalization ranging from \$536 million to \$2.6 trillion. The Fund may also engage in futures transactions. At times, the Fund may not invest in all of the common stocks in the Russell 1000, or in the same weightings as in the Russell 1000. At those times, the Fund chooses investments so that the market capitalizations, industry weightings and other fundamental characteristics of the stocks chosen are similar to the Russell 1000 as a whole. The Fund may lend securities with a value up to 33 $\frac{1}{3}$ % of its total assets to financial institutions that provide cash or securities issued or guaranteed by the U.S. Government as collateral. The Fund will concentrate its investments (i.e., hold 25% or more of its total assets) in a particular industry or group of industries to approximately the same extent that the Russell 1000 is concentrated.

The Fund is a "feeder" fund that invests all of its assets in the Master Portfolio, which has the same investment objective and strategies as the Fund. All investments are made at the Master Portfolio level. This structure is sometimes called a "master/feeder" structure. The Fund's investment results will correspond directly to the investment results of the Master Portfolio. For simplicity, this prospectus uses the name of the Fund or the term "Fund" (as applicable) to include the Master Portfolio.

Principal Risks of Investing in the Fund

Risk is inherent in all investing. The value of your investment in the Large-Cap Index Fund, as well as the amount of return you receive on your investment, may fluctuate significantly from day to day and over time. You may lose part or all of your investment in the Fund or your investment may not perform as well as other similar investments. The following is a summary description of the principal risks of investing in the Fund. The relative significance of each risk factor below may change over time and you should review each risk factor carefully.

- **Concentration Risk** — The Fund reserves the right to concentrate its investments (i.e., invest 25% or more of its total assets in securities of issuers in a particular industry) to approximately the same extent that the Underlying Index concentrates in a particular industry. To the extent the Fund concentrates in a particular industry, it may be more susceptible to economic conditions and risks affecting that industry.
- **Equity Securities Risk** — Stock markets are volatile. The price of equity securities fluctuates based on changes in a company's financial condition and overall market and economic conditions.
- **Futures Risk** — The Fund's use of futures may reduce the Fund's returns. In these transactions, the Fund is subject to liquidity risk and correlation risk (i.e., that fluctuations in a future's value may not correlate with the change in market value of the instruments held by the Fund).
- **Index-Related Risk** — There is no guarantee that the Fund's investment results will have a high degree of correlation to those of the Underlying Index or that the Fund will achieve its investment objective. Market disruptions or high volatility, other unusual market circumstances and regulatory restrictions could have an adverse effect on the Fund's ability to adjust its exposure to the required levels in order to track the Underlying Index. Errors in index data, index computations or the construction of the Underlying Index in accordance with its methodology may occur from time to time and may not be identified and corrected by the index provider for a period of time or at all, which may have an adverse impact on the Fund and its shareholders. Unusual market conditions or other unforeseen circumstances (such as natural disasters, political unrest or war) may impact the Index Provider or a third-party data provider and could cause the Index Provider to postpone a scheduled rebalance. This could cause the Underlying Index to vary from its normal or expected composition.

An index fund has operating and other expenses while an index does not. As a result, while the Fund will attempt to track the Russell 1000 as closely as possible, it will tend to underperform the index to some degree over time. If an index fund is properly correlated to its stated index, the fund will perform poorly when the index performs poorly.

■ **Market Risk and Selection Risk** — Market risk is the risk that one or more markets in which the Fund invests will go down in value, including the possibility that the markets will go down sharply and unpredictably. The value of a security or other asset may decline due to changes in general market conditions, economic trends or events that are not specifically related to the issuer of the security or other asset, or factors that affect a particular issuer or issuers, exchange, country, group of countries, region, market, industry, group of industries, sector or asset class. Local, regional or global events such as war, acts of terrorism, the spread of infectious illness or other public health issues like pandemics or epidemics, recessions, or other events could have a significant impact on the Fund and its investments. Selection risk is the risk that the securities selected by Fund management will underperform the markets, the relevant indices or the securities selected by other funds with similar investment objectives and investment strategies. This means you may lose money.

An outbreak of an infectious coronavirus (COVID-19) that was first detected in December 2019 developed into a global pandemic that has resulted in numerous disruptions in the market and has had significant economic impact leaving general concern and uncertainty. Although vaccines have been developed and approved for use by various governments, the duration of the pandemic and its effects cannot be predicted with certainty. The impact of this coronavirus, and other epidemics and pandemics that may arise in the future, could affect the economies of many nations, individual companies and the market in general ways that cannot necessarily be foreseen at the present time.

■ **Mid Cap Securities Risk** — The securities of mid cap companies generally trade in lower volumes and are generally subject to greater and less predictable price changes than the securities of larger capitalization companies.

■ **Passive Investment Risk** — Because BFA does not select individual companies in the index that the Fund tracks, the Fund may hold securities of companies that present risks that an investment adviser researching individual securities might seek to avoid.

■ **Preferred Securities Risk** — Preferred securities may pay fixed or adjustable rates of return. Preferred securities are subject to issuer-specific and market risks applicable generally to equity securities. In addition, a company's preferred securities generally pay dividends only after the company makes required payments to holders of its bonds and other debt. For this reason, the value of preferred securities will usually react more strongly than bonds and other debt to actual or perceived changes in the company's financial condition or prospects. Preferred securities of smaller companies may be more vulnerable to adverse developments than preferred securities of larger companies.

■ **Securities Lending Risk** — Securities lending involves the risk that the borrower may fail to return the securities in a timely manner or at all. As a result, the Fund may lose money and there may be a delay in recovering the loaned securities. The Fund could also lose money if it does not recover the securities and/or the value of the collateral falls, including the value of investments made with cash collateral. These events could trigger adverse tax consequences for the Fund.

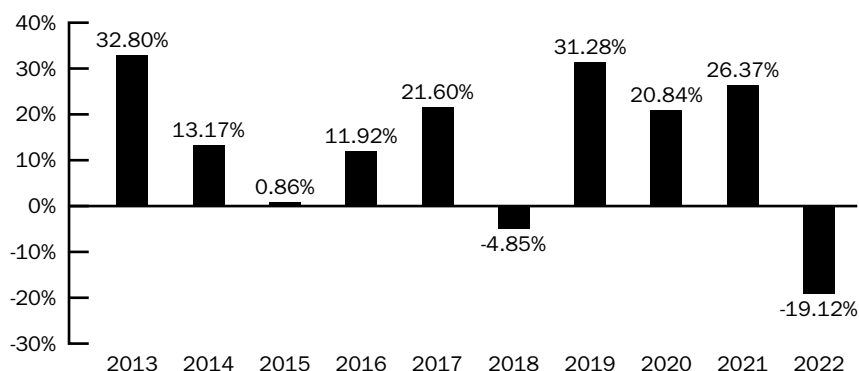
■ **Tracking Error Risk** — The Fund may be subject to tracking error, which is the divergence of the Fund's performance from that of the Underlying Index. Tracking error may occur because of differences between the securities and other instruments held in the Fund's portfolio and those included in the Underlying Index, pricing differences (including, as applicable, differences between a security's price at the local market close and the Fund's valuation of a security at the time of calculation of the Fund's net asset value), differences in transaction costs, the Fund's holding of uninvested cash, differences in timing of the accrual of or the valuation of dividends or other distributions, interest, the requirements to maintain pass-through tax treatment, portfolio transactions carried out to minimize the distribution of capital gains to shareholders, changes to the Underlying Index and the cost to the Fund of complying with various new or existing regulatory requirements. These risks may be heightened during times of increased market volatility or other unusual market conditions. In addition, tracking error may result because the Fund incurs fees and expenses, while the Underlying Index does not.

Performance Information

The information shows you how the performance of Large-Cap Index Fund has varied year by year and provides some indication of the risks of investing in the Fund. The table compares the Fund's performance to that of the Russell 1000. To the extent that dividends and distributions have been paid by the Fund, the performance information for the Fund in the chart and table assumes reinvestment of the dividends and distributions. As with all such investments, past performance (before and after taxes) is not an indication of future results. The table includes all applicable fees. If BFA, BAL and their affiliates had not waived or reimbursed certain Fund expenses during these periods, the Fund's

returns would have been lower. Updated information on the Fund’s performance, including its current net asset value, can be obtained by visiting <http://www.blackrock.com> or can be obtained by phone at (800) 882-0052.

Class K Shares
ANNUAL TOTAL RETURNS
iShares Russell Large-Cap Index Fund
As of 12/31



During the ten-year period shown in the bar chart, the highest return for a quarter was 21.76% (quarter ended June 30, 2020) and the lowest return for a quarter was -20.22% (quarter ended March 31, 2020).

For the periods ended 12/31/22
Average Annual Total Returns

	1 Year	5 Years	10 Years
iShares Russell 1000 Large Cap Index Fund — Class K Shares			
Return Before Taxes	(19.12)%	9.06%	12.27%
Return After Taxes on Distributions	(19.50)%	8.38%	11.31%
Return After Taxes on Distributions and Sale of Fund Shares	(11.11)%	6.99%	9.87%
Russell 1000® Index (Reflects no deduction for fees, expenses or taxes)	(19.13)%	9.13%	12.37%

After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes. Actual after-tax returns depend on the investor’s tax situation and may differ from those shown, and the after-tax returns shown are not relevant to investors who hold their shares through tax-deferred arrangements, such as 401(k) plans or individual retirement accounts.

Investment Adviser

The Master Portfolio’s investment adviser is BlackRock Fund Advisors (previously defined as “BFA”).

Portfolio Managers

Name	Portfolio Manager of the Master Portfolio Since	Title
Paul Whitehead	2022	Managing Director of BlackRock, Inc.
Jennifer Hsui, CFA	2016	Managing Director of BlackRock, Inc.

Purchase and Sale of Fund Shares

Class K Shares of the Fund are available only to (i) certain employee benefit plans, such as health savings accounts, and certain employer-sponsored retirement plans (not including SEP IRAs, SIMPLE IRAs and SARSEPs) (collectively, “Employer-Sponsored Retirement Plans”), (ii) collective trust funds, investment companies and other pooled investment vehicles, each of which may purchase shares of the Fund through a Financial Intermediary that has entered into an agreement with the Fund’s distributor to purchase such shares, (iii) “Institutional Investors,” which include, but are not limited to, endowments, foundations, family offices, banks and bank trusts, local, city, and state governmental institutions, corporations and insurance company separate accounts, each of which may purchase shares of the Fund through a Financial Intermediary that has entered into an agreement with the Fund’s distributor to purchase such

shares, (iv) clients of private banks that purchase shares of the Fund through a Financial Intermediary that has entered into an agreement with the Fund's distributor to sell such shares, (v) fee-based advisory platforms of a Financial Intermediary that (a) has specifically acknowledged in a written agreement with the Fund's distributor and/or its affiliate(s) that the Financial Intermediary shall offer such shares to fee-based advisory clients through an omnibus account held at the Fund or (b) transacts in the Fund's shares through another intermediary that has executed such an agreement and (vi) any other investors who met the eligibility criteria for BlackRock Shares or Class K Shares prior to August 15, 2016 and have continually held Class K Shares of the Fund in the same account since August 15, 2016.

You may purchase or redeem shares of the Fund each day the New York Stock Exchange is open. Purchase orders may also be placed by calling (800) 537-4942, by mail (c/o BlackRock, P.O. Box 534429, Pittsburgh, Pennsylvania 15253-4429), or online at www.blackrock.com. Institutional Investors are subject to a \$5 million minimum initial investment requirement. Other investors, including Employer-Sponsored Retirement Plans, have no minimum initial investment requirement. There is no minimum investment amount for additional purchases.

Tax Information

Different income tax rules apply depending on whether you are invested through a qualified tax-exempt plan described in section 401(a) of the Internal Revenue Code of 1986, as amended. If you are invested through such a plan (and Fund shares are not "debt-financed property" to the plan), then the dividends paid by the Fund and the gain realized from a redemption or exchange of Fund shares will generally not be subject to U.S. federal income taxes until you withdraw or receive distributions from the plan. If you are not invested through such a plan, then the Fund's dividends and gain from a redemption or exchange may be subject to U.S. federal income taxes and may be taxed as ordinary income or capital gains, unless you are a tax-exempt investor.

Payments to Broker/Dealers and Other Financial Intermediaries

If you purchase shares of the Fund through a Financial Intermediary, the Fund and BlackRock Investments, LLC, the Fund's distributor, or its affiliates may pay the Financial Intermediary for the sale of Fund shares and related services. These payments may create a conflict of interest by influencing the Financial Intermediary and your individual financial professional to recommend the Fund over another investment.

Class K Shares are only available through a Financial Intermediary if the Financial Intermediary will not receive from Fund assets, or the Fund's distributor's or an affiliate's resources, any commission payments, shareholder servicing fees (including sub-transfer agent and networking fees), or distribution fees (including Rule 12b-1 fees) with respect to assets invested in Class K Shares.

Ask your individual financial professional or visit your Financial Intermediary's website for more information.

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