

# Firm Brochure (Part 2A of Form ADV)

**John Hancock Investment Management**

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**March 30, 2023**

This Form ADV Part 2A Brochure provides information about the qualifications and business practices of John Hancock Investment Management LLC, a Delaware limited liability company ("John Hancock Investment Management"). If you have any questions about the contents of this Brochure, please contact us at (617) 663-3000. The information in this Brochure has not been approved or verified by the United States Securities and Exchange Commission (the "SEC") or by any state securities authority.

Additional information about John Hancock Investment Management is also available on the SEC's website at [www.adviserinfo.sec.gov](http://www.adviserinfo.sec.gov).

John Hancock Investment Management is a registered investment adviser. Registration of an investment adviser does not imply a certain level of skill or training.

## Item 2 – Material Changes

There have been no material changes made to this brochure since the last annual update on March 29, 2022. However, this brochure has been updated to reflect certain non-material changes, including updates and enhancements to the description of John Hancock Investment Management's advisory business and related risk disclosures.

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## Item 4 – Advisory Business

John Hancock Investment Management is a limited liability company founded in 2002 and is an indirect subsidiary of Manulife Financial Corporation (“MFC”), a diversified international management and holding company with interests in companies that are active in, among other things, financial services and insurance. MFC is a publicly traded company based in Toronto, Canada that trades as ‘MFC’ on the Toronto Stock Exchange, New York Stock Exchange (the “NYSE”), and the Philippine Stock Exchange, and under ‘945’ in Hong Kong.

John Hancock Investment Management provides discretionary investment advisory services as a “manager of managers” to certain open-end and closed-end registered investment companies, including exchange-traded funds, in the John Hancock family of funds (together, the “John Hancock Funds”) that are offered to retail investors and, in the case of certain funds, are included as investments in model portfolios created by John Hancock Investment Management or one of its affiliates. Each of the investment companies is organized as a Massachusetts business trust (the “Trusts”). This brochure is limited to John Hancock Investment Management’s services as a manager of managers.

Pursuant to the terms of investment advisory agreements with the Trusts, John Hancock Investment Management administers the business affairs of each Trust, negotiates and contracts with affiliated and unaffiliated sub-advisers (“Sub-Advisers”) that provide investment advisory services to individual portfolios of the Trusts, and supervises the activities of the Sub-Advisers on behalf of the Trusts, as further described herein. John Hancock Investment Management is also responsible for performing or paying for various services provided to the Trusts, including providing office space and all necessary office facilities and equipment to perform its duties under the investment advisory agreements and any personnel necessary for the oversight and/or conduct of the investment operations of the Trust. John Hancock Investment Management also agrees to permit individuals who are directors, officers, or employees of John Hancock Investment Management to serve (if duly elected or appointed) as Trustees and President of a Trust without remuneration from or other direct cost to the Trust. In addition, John Hancock Investment Management allows the Trusts and the John Hancock Funds to use the recognizable and valuable brand name, “John Hancock.”

The advisory agreement between a Trust and John Hancock Investment Management may be terminated at any time, without the payment of a penalty, by the Board of Trustees of the Trust (the “Board”), by a vote of the majority of the outstanding voting securities of the Trust, or, with respect to any portfolio, by the Board or by the vote of a majority of the outstanding voting securities of the series of shares of such portfolio, on sixty days written notice to John Hancock Investment Management, or by John Hancock Investment Management, on sixty days written notice to the Trust. An advisory agreement will automatically terminate, without payment of any penalty, in the event of its assignment (as defined in the Investment Company Act of 1940, as amended (“1940 Act”)).

### **Description of Investment Advisory Services**

The Investment Oversight team of John Hancock Investment Management employs highly experienced and well-credentialed professionals.

Key advisory responsibilities include researching new investment products, asset classes, and investment managers, and monitoring the performance of investment managers on an ongoing basis.

As a manager of managers, John Hancock Investment Management administers the business and affairs of the Trusts, including the investment portfolios of the John Hancock Funds, and retains, supervises, and compensates Sub-Advisers to manage the assets of the investment

portfolios of the John Hancock Funds. In its role as manager-of-managers, John Hancock Investment Management has supervisory responsibility for managing the investment and reinvestment of the funds' portfolio assets through proactive oversight and monitoring of the Sub-Advisers and the funds. John Hancock Investment Management is responsible for developing overall investment strategies for the funds and overseeing and implementing the funds' continuous investment programs and provides a variety of advisory oversight and investment research services. John Hancock Investment Management also provides management and transition services associated with certain fund events (e.g., strategy, portfolio manager or sub-adviser changes) and coordinates and oversees services provided under other agreements. John Hancock Investment Management has ultimate responsibility to oversee a Sub-Adviser and recommend to the Board its hiring, termination, and replacement. In this capacity, John Hancock Investment Management among other things:

- (i) monitors on a daily basis the compliance of the Sub-Adviser with the investment objectives and related policies of the fund;
- (ii) monitors significant changes that may impact the Sub-Adviser's overall business and regularly performs due diligence reviews of the Sub-Adviser;
- (iii) reviews the performance, and monitors the liquidity, of the Sub-Adviser; and
- (iv) reports periodically on such performance to the Board.

John Hancock Investment Management employs a team of investment professionals who provide these ongoing research and monitoring services.

Pursuant to an order from the SEC applicable to certain John Hancock Funds, John Hancock Investment Management, subject to Board approval, is permitted to appoint a new Sub-Adviser for a fund, or change the terms of a sub-advisory agreement, without obtaining shareholder approval. The SEC order does not, however, permit John Hancock Investment Management to appoint a Sub-Adviser that is an affiliate of John Hancock Investment Management or of the relevant John Hancock Fund (other than by reason of serving as Sub-Adviser), or to increase the sub-advisory fee of an affiliated Sub-Adviser without shareholder approval.

The John Hancock Investment Management team of professionals is responsible for the selection of Sub-Advisers and monitoring Sub-Adviser performance. The team closely monitors each sub-advised portfolio on a daily, monthly, quarterly and annual basis. Team members periodically meet with each Sub-Adviser to perform due diligence on the advisory services provided by the Sub-Adviser, as well as the business and compliance operations of the Sub-Adviser. John Hancock Investment Management recommends to the Board the continuation or termination of the sub-advisory agreements at least annually.

The process for selecting new Sub-Advisers involves the use of screening models with and in-depth data analysis as well as the industry knowledge of the members of the investment team. A rigorous five-step process is used in selecting Sub-Adviser candidates:

- (i) initial screening by investment style;
- (ii) firm review to identify managers who demonstrate the highest potential to produce above average results;
- (iii) quantitative analysis of performance;
- (iv) qualitative analysis of the investment team, philosophy, process and risk management practices through in-person interviews; and
- (v) final selection, based on management review of the investment team's findings and in the case of open-end funds, management review of the capacity of the Sub-Adviser and the liquidity of the new fund.

New Sub-Advisers are also reviewed by the Manulife Global Investment Product Committee.

Sub-Advisers that are selected by John Hancock Investment Management are generally required

to adhere to pre-established value propositions. In monitoring the Sub-Advisers, John Hancock Investment Management generally focuses on longer-term performance rather than short-term performance metrics. Although a Sub-Adviser's performance record is one of several factors used to determine whether a Sub-Adviser should be retained or replaced, a full due diligence review of a Sub-Adviser will be conducted if:

- (i) value proposition criteria are violated;
- (ii) performance is not aligned with the performance blueprint;
- (iii) the Sub-Adviser experiences major organizational changes such as resignations or a change in ownership; or
- (iv) the fund's risk profile is outside of expectations.

In the case of exchange-traded funds designed to track the performance of a specified index, John Hancock Investment Management evaluates the Sub-Adviser's performance in relation to the index in addition to other benchmarks.

During a full review of a Sub-Adviser, John Hancock Investment Management focuses on identifying and assessing the issue that has caused the full review to be undertaken. If John Hancock Investment Management determines that the Sub-Adviser can no longer deliver its value proposition to the John Hancock Fund and its shareholders, a recommendation will be made to the Board to replace the Sub-Adviser.

Further information regarding John Hancock Investment Management's screening, supervision, and review of Sub-Advisers is described in Item 8 – Methods of Analysis, Investment Strategies and Risk of Loss.

In the event of the replacement of a Sub-Adviser or the merger of one or more John Hancock Funds, John Hancock Investment Management manages the transition or merger transaction of the relevant fund's portfolio investments to the new Sub-Adviser in an effort to minimize transaction costs and avoid other implicit costs. This involves the development of strategic plans to execute all fund events (e.g., fund launches, mergers, and liquidations), taking into consideration downstream impacts on services provided to the John Hancock Funds by global business units, in coordination with legal, compliance, tax, product, operations, and other business units of John Hancock Investment Management or its affiliates, and with the fund's Sub-Adviser(s).

Certain of the Trusts have established "Funds of Funds" which invest in a number of other underlying funds and may invest in certain other types of investments. John Hancock Investment Management is responsible for oversight of the Funds of Funds, including the monitoring of the asset allocation strategies and processes employed by the Sub-Advisers of such funds. John Hancock Investment Management and its Trade Oversight Committee also oversee rebalancing of the funds' assets, and have adopted procedures to help minimize any negative impact of rebalancings on the underlying funds. John Hancock Investment Management also has the authority, with Board approval, to manage a Fund of Funds directly and, in that case, would be responsible for implementing asset allocation strategies, including by rebalancing the Fund of Funds' underlying funds to maintain target allocations. It is not the current practice of John Hancock Investment Management to exercise this authority in the normal course of business. Certain Funds of Funds warrant focused monitoring by John Hancock Investment Management, which includes evaluating the Sub-Adviser's asset class mix and manager mix decisions, determining the effectiveness of the optimization process, and monitoring cash flows and trading efficiencies.

The John Hancock Investment Management ETF Capital Markets group regularly monitors the John Hancock ETF products ("ETFs") in the marketplace.

This process is primarily focused on the following areas:

1. Review and monitoring of daily quoting & pricing including bid/ask spreads and premium/discounts on major exchanges such as the New York Stock Exchange ("NYSE") in an attempt to ensure ETF pricing efficiency.
2. Review of daily iNAV/IOPV, and premium/discount relationships to NAV and prevailing market trade prices.
3. Maintain communication with market makers, authorized participants and investment advisers to address any questions or issues related to the ETFs.
4. Provide consultative services to investors/clients on best practices for ETF execution.
5. Monitor for regulatory developments, industry research, product development and market structure issues that affect the John Hancock ETF platform.

John Hancock Investment Management develops and provides detailed reports for the Board of the John Hancock Funds on a regular basis. These reports include performance and liquidity data, due diligence information and compliance, risk, derivatives and other reports, based on John Hancock Investment Management's ongoing portfolio and Sub-Adviser monitoring activities. John Hancock Investment Management also prepares ad hoc reports and consults with Investment and Compliance Committees established by the Board to monitor Sub-Adviser performance, and assists these committees in the preparation of performance reports to the full Board.

John Hancock Investment Management serves as the investment adviser to certain closed-end John Hancock Funds that use leverage by borrowing from third-party financial institutions. John Hancock Investment Management employs a team that is responsible for overseeing compliance with various asset coverage, portfolio composition, collateral management, and other requirements set forth in the credit facility agreement for each such fund.

John Hancock Investment Management provides various services related to the closed-end John Hancock Funds, including the following:

1. Review and monitoring of daily quoting and pricing on major exchanges (NYSE).
2. Review of daily NAV, trade prices and premium/discount relationship to NAV.
3. Maintain communication with market makers.
4. Provide consultative services to investors/clients on best practices for closed-end fund execution.
5. Monitor for industry research, product development and market structure issues that affect the John Hancock Closed-End Fund platform.

John Hancock Investment Management oversees and assists the investment marketing team of its affiliate, John Hancock Investment Management Distributors LLC ("John Hancock Investment Management Distributors") with respect to the collection and dissemination of information regarding the investment portfolios of the John Hancock Funds, and the production of quarterly fact sheets, portfolio manager commentaries, and other marketing materials for the funds. The marketing activities performed by John Hancock Investment Management Distributors are described in Item 10 – Other Financial Industry Activities and Affiliations.

John Hancock Investment Management also oversees the John Hancock family of funds inter-fund lending program, and the management by Sub-Advisers of overnight cash held by the John Hancock Funds.

John Hancock Investment Management has a committee governance structure that provides oversight of certain of the services John Hancock Investment Management provides to the John Hancock Funds. The services overseen by the John Hancock Investment Management committees include investment, operational, legal, compliance, risk oversight, disclosure oversight and proxy voting. Each of the John Hancock Investment Management Committees is

listed below.

1. Risk and Investment Operations ("RIO") Committee
2. Trade Oversight Committee
3. Complex Securities Committee
4. Multi-Manager and Multi-Style Funds Investment Oversight Committee
5. Service Provider Oversight Committee
6. Service Fee Committee
7. Disclosure Review Committee
8. Proxy Voting Committee
9. Liquidity Risk Management Committee
10. Investment Risk Oversight Committee
11. Accounting Policies Committee
12. Ethics Oversight Committee
13. Investment Oversight Committee
14. Derivatives Risk Management Committee
15. Pricing Committee

### **Compliance Support and Oversight**

John Hancock Investment Management also provides the John Hancock Funds with ongoing compliance support and oversight through programs designed to ensure that there are adequate procedures in place to deter, detect, correct, and report on control weaknesses that could potentially result in a violation of Federal securities laws. This program is administered pursuant to the requirements of Rule 206(4)-7 of the Investment Advisers Act of 1940, as amended (the "Advisers Act") and is managed by John Hancock Investment Management's duly appointed Chief Compliance Officer ("CCO").

The role of the CCO and the Compliance Office ("CCO's Office") is to: (a) develop and monitor a compliance program for John Hancock Investment Management based on an on-going review of risk and current legal and regulatory developments; (b) oversee and manage compliance issues; (c) ensure that John Hancock Investment Management complies with applicable legal and regulatory requirements; and (d) ensure that the John Hancock Investment Management employees comply with internal policies and procedures. These responsibilities include: designing and overseeing the appropriate implementation of policies and procedures to reasonably assure compliance with applicable federal securities laws and regulations; providing employee training on certain key policies such as Code of Ethics, Insider Trading, Gifts and Entertainment and the Whistleblower Policy; managing and/or participating in investigations into regulatory and compliance issues; and responding to requests for information from regulatory authorities.

In carrying out this role, the CCO's Office has developed a compliance oversight program designed to reasonably ensure that the requirements imposed by federal securities laws are implemented effectively throughout John Hancock Investment Management and by its third-party service providers, including the Sub-Advisers to the Funds. The Compliance Program involves four main components: (1) development and maintenance of policies and procedures; (2) risk assessments; (3) policy review and evaluation; and (4) Sub-Adviser and service provider oversight ("Service Provider Oversight").

#### ***Development and Maintenance of Policies and Procedures***

The CCO's Office, in conjunction with John Hancock Investment Management's business units, has developed policies and procedures that address the regulatory risks that are associated with John Hancock Investment Management's operation. In addition, these policies include procedures that address the manner in which the CCO's office will oversee the compliance and internal control programs implemented by the Sub-Advisers and service providers. These policies and procedures are evaluated on at least an annual basis by the CCO's Office, in conjunction with John Hancock Investment Management's business units, with all material changes requiring



CCO's Office and Board of Directors approval. The CCO's Office, in conjunction with John Hancock Investment Management's business units, develops compliance policies as new regulations become effective and continually evaluates and amends existing policies as necessary.

#### *Risk Assessment*

The risk assessment process is a key component of the Compliance Program as it provides an indication of the potential risk associated with each compliance policy and procedure. The risk assessment process is designed to evaluate the effectiveness of the procedures supporting the underlying policies. In conjunction with each John Hancock Investment Management business unit, the CCO's Office conducts a quantitative, risk-based assessment of the organization's risk through a review of both inherent and residual risk. Inherent risk is an assessment of the risk of the requirement itself, independent of any operational and/or supervisory controls which are in place. It takes into account where the origin of the requirement is from (*i.e.*, regulatory guidance, SEC rule, etc.), the potential magnitude of non-compliance (*e.g.*, minor or material) and the reputational risk of noncompliance. At the conclusion of the "inherent" risk assessment, a "control maturity" risk assessment is completed which involves an evaluation of the effectiveness of the operating control environment. Residual risk is a product of the inherent and control maturity risk scores and ultimately is representative of the remaining business risk based on existing operational and supervisory controls.

#### *Policy Review and Evaluation*

After assessing the risk environment, the CCO's Office then focuses on testing the compliance program's effectiveness. This is conducted through a series of tests that are centered on the operational and control environment that supports the Compliance Policies. In conducting the testing, the CCO's Office, in conjunction with John Hancock Investment Management's business units, prepares detailed test scripts which are designed to test the key activities/controls of each process. Once these test scripts are prepared, the CCO's Office, working with John Hancock Investment Management's business units, conducts testing on the effectiveness of the control environment. At the conclusion of the testing, the CCO's Office prepares reports for Senior Management which summarize the results of the process.

#### *Sub-Adviser and Service Provider Oversight*

The CCO's Office has established a standardized approach for assessing all Sub-Adviser compliance programs. For prospective Sub-Advisers and prior to any onsite due diligence meeting, each Sub-Adviser is asked to provide a response to a preliminary questionnaire which is then utilized by the CCO's Office as the initial step in fulfilling its oversight responsibilities. These narratives are reviewed for adequacy, comprehensiveness and completeness.

The CCO's Office also requires that each Sub-Adviser complete a due diligence questionnaire and provide additional documentation (*e.g.*, Compliance Manuals, Code of Ethics, etc.) on the firm's processes, controls, and policies in place to address the requirements of the 1940 Act, the Advisers Act, and other federal securities laws. Responses to these questions are then reviewed by the CCO's Office to assist in determining the adequacy of the Sub-Advisers' compliance programs. The responses and requested documents are reviewed before the meeting in order to establish a preliminary understanding of the internal controls in place.

In addition, Sub-Adviser evaluation by the CCO's Office includes onsite due diligence meetings. A typical onsite meeting with a Sub-Adviser includes sessions with representatives from Legal, Compliance, Trading, Operations, Fund Management and the Chief Compliance Officer. The results of onsite meetings are documented and then reviewed with senior management of John Hancock Investment Management and the Funds' Board of Trustees. If the CCO's Office is not satisfied with the Sub-Advisers' compliance program, the Sub-Adviser will not be approved to sub-advise a John Hancock Fund.

The CCO's Office utilizes a similar approach for the ongoing oversight of its Sub-Advisers once they are approved to sub-advise a John Hancock Fund. The CCO's Office continues to conduct on-site due diligence meetings on a prescribed schedule. In addition, the CCO's Office monitors the compliance programs of the Sub-Advisers on an ongoing basis by requiring the completion of quarterly, annual and periodic compliance questionnaires, quarterly certifications concerning adherence to prospectus guidelines and disclosures as well as annual certification of the Sub-Advisers' Code of Ethics. Further, the CCO's Office oversees the monitoring of the investment activities of the Sub-Advisers on a daily post trade basis to ensure that each portfolio investment is in compliance with prospectus guidelines and other regulatory requirements.

Service Provider Oversight is similar to the oversight performed for Sub-Advisers, but incorporates additional techniques based upon information which is generally available. The goal of the oversight performed by the CCO's Office and John Hancock Investment Management's Fund Administration department is to ensure that the John Hancock Funds' service providers have satisfactory operational controls and that the service providers are fulfilling their fiduciary and contractual obligations.

The Global Wealth and Asset Management Vendor Management Group ("Vendor Management") maintains a framework that includes, but is not limited to, the following processes:

1. Due diligence questionnaires – The due diligence questionnaires are used to gather current information on topics such as financial viability, results of regulatory reviews, business continuity programs, information security, business code of conduct issues and a number of other topics, to gain a better understanding of each provider's overall control environment and risk monitoring process.
2. On-site/Virtual due diligence visits of the service provider – This allows the CCO's Office, Fund Administration, Vendor Management and subject matter experts from the various business units to discuss and make observations as to the adequacy of the internal operational control environment and provides a forum to discuss the results of independent assurance tests and operational and performance issues. The forum also provides the service provider with an opportunity to present future key initiatives.
3. Independent attestation report reviews – Vendor Management reviews the results of these reports to confirm that the controls are adequate, complete, and operating as intended. These reports may be in the form of SOC-1 Reports, Agreed-Upon Procedures or other similar reports. For those service providers that provide these reports, Vendor Management obtains copies, and performs a detailed review to assess the adequacy, scope and completeness of the testing. Vendor Management, in conjunction with the business owners, evaluates the implications of the results of the testing to form a basis for determining the effectiveness of the internal control environment.
4. Monthly operational report reviews – Vendor Management obtains and reviews monthly operational management reports that are prepared by the custodians and shared with the management of John Hancock. The purpose of reviewing these reports is to ensure that operational processes are performing as intended, confirm Key Performance Indicators (KPI) are reported accurately, and identify areas which require further discussion or explanation from the service provider.
5. Service Provider Scorecards/Performance Evaluations – A tool used for key service providers to ensure that the services being provided to John Hancock continue to meet expectations. Vendor Management facilitates the scorecard process by obtaining feedback from the business owners on a regular basis and providing that feedback to the vendor in a formal performance scorecard.

John Hancock Investment Management is also advised by internal and external legal counsel in connection with general investment company governance, exemptive applications and SEC no-action letters drafted and filed on its behalf, dissolutions of subsidiaries, and mergers and acquisitions. Legal counsel services are also provided to John Hancock Investment Management in connection with the investment advisory services John Hancock Investment Management provides to the John Hancock Funds related to new and existing products, acquisitions of mutual fund assets, determinations of fee breakpoints and valuations. John Hancock Investment Management also receives legal counsel related to proxy materials, tax reporting and communications, and preparation of 15(c) material for review by the Board of Trustees.

John Hancock Investment Management provides services to the John Hancock Funds related both to any litigation against the John Hancock Funds and litigation that the John Hancock Funds may initiate. John Hancock Investment Management regularly monitors class actions related to securities held by the John Hancock Funds and provides support for the John Hancock Funds to join such class actions where appropriate.

As of December 31, 2022, John Hancock Investment Management has more than 394 professionals dedicated to its manager of manager services, including professionals in investments, legal, fund administration, compliance and code of ethics oversight.

### **Investment Consulting Services**

John Hancock Investment Management also provides non-advisory portfolio analysis services, as well as education relating to investment process and investment decision making, to financial professionals and other investment professionals as part of its marketing efforts. John Hancock Investment Management analyzes model portfolios created by a financial professional using software to determine the desired market/style/macroeconomic exposure, and provides its analysis to the financial professional.

John Hancock Investment Management does not charge a fee for this service.

If you are a financial professional or investment professional receiving free portfolio analysis from John Hancock Investment Management as part of John Hancock Investment Management's marketing services, John Hancock Investment Management is providing this brochure for informational purposes only and there is no adviser-client relationship between John Hancock Investment Management and you or between John Hancock Investment Management and your clients.

### **Assets Under Management**

As of December 31, 2022, John Hancock Investment Management managed approximately \$181,758,139,852 of assets on a discretionary basis including closed end funds, model portfolios and open-end mutual funds such as Funds of Funds and exchange-traded funds. As of December 31, 2022, John Hancock Investment Management did not manage any assets on a nondiscretionary basis.

## **Item 5 – Fees and Compensation**

Advisory and sub-advisory fees charged to the John Hancock Funds are based on a percentage of assets under management, except as noted below, and are paid daily or monthly to John Hancock Investment Management by each fund. The advisory fees charged by John Hancock Investment Management to the funds in the Trusts range from 0.21% to 1.42% of assets under management. In addition, the John Hancock Funds may benefit from a complex-wide fee waiver that is triggered by reaching certain asset levels. Sub-advisory fees are calculated daily and paid either monthly or quarterly to the Sub-Adviser of each fund. Sub-advisory fees are negotiated at

arm's length. The advisory fees, as well as further information regarding the calculation and payment of such fees, are set forth in the currently effective registration statement of each open-end John Hancock Fund, and in the annual reports to shareholders of each closed-end John Hancock Fund.

With respect to certain closed-end funds, John Hancock Investment Management may receive a fee that is based on a fund's assets as well as portion of the fund's income.

The John Hancock Funds typically pay John Hancock Investment Management to provide administrative and legal services to the John Hancock Funds based on the cost of providing such services (including an allocation of overhead). With respect to certain closed-end John Hancock Funds, however, these services are provided at a set administrative fee to John Hancock Investment Management. In addition to advisory fees and administrative fees charged by John Hancock Investment Management, the John Hancock Funds pay other expenses such as qualified custodian fees, external auditor fees and transfer agency fees.

#### Compensation from Affiliated Entities

As a manager of managers, John Hancock Investment Management retains, supervises, and compensates Sub-Advisers to manage the assets of the investment portfolios of the John Hancock Funds. In this capacity, John Hancock Investment Management may perform research and due diligence on affiliated investment advisers as well as non-affiliated investment advisers. When John Hancock Investment Management selects an affiliated investment adviser as a Sub-Adviser to a John Hancock Fund, management fees paid to the Sub-Adviser flow indirectly to John Hancock Investment Management's parent companies. These fees are in addition to the advisory fees paid to John Hancock Investment Management. Likewise, when a John Hancock Fund that is a Fund of Funds invests in other John Hancock Funds including exchange-traded funds advised by John Hancock Investment Management, fees and other compensation flow directly or indirectly to John Hancock Investment Management and its affiliates in the form of additional management fees and administrative fees. Broker-dealers and insurance companies affiliated with John Hancock Investment Management also receive 12b-1 fees and/or shareholder servicing fees based on the amount of assets invested in share classes of the funds that provide for such fees. In addition, several John Hancock Funds invest collateral from securities lending activities in John Hancock Collateral Trust (the "Collateral Trust") advised by John Hancock Investment Management and subadvised by Manulife Investment Management (US), an affiliate of John Hancock Investment Management. Manulife Investment Management (US) receives subadvisory fees for managing the Collateral Trust. Also, several John Hancock Funds subadvised by Manulife Investment Management (US) and Manulife Investment Management (North America) Limited, may sweep excess overnight cash into the Collateral Trust. In addition, John Hancock Investment Management personnel may be invested personally in the John Hancock Funds.

In light of these circumstances, John Hancock Investment Management has a conflict of interest to the extent it has an incentive to provide more favorable research and analysis with respect to affiliated investment managers based on the fact that John Hancock Investment Management and its affiliates will receive compensation or other benefits if affiliated investment managers are selected as Sub-Advisers for the John Hancock Funds. These conflicts are described in Item 10 – Other Financial Industry Activities and Affiliations. In recommending Sub-Advisers for the John Hancock Funds, John Hancock Investment Management endeavors to utilize its best independent judgment as part of its overall evaluation process described above.

## Item 6 – Performance-Based Fees and Side-By-Side Management

John Hancock Investment Management does not receive performance-based fees based on a share of capital gains on or capital appreciation of client assets. Therefore, John Hancock Investment Management does not engage in side-by-side management of clients with performance-based fees.

## Item 7 – Types of Clients

John Hancock Investment Management provides discretionary investment advisory services as a “manager of managers” to the John Hancock Funds.

## Item 8 – Methods of Analysis, Investment Strategies and Risk of Loss

John Hancock Investment Management does not directly offer advice on specific investments. Instead, John Hancock Investment Management contracts with and reviews the performance of Sub-Advisers that provide investment management services to the John Hancock Funds. Security analysis is performed and methods of analysis are selected by the Sub-Advisers, which use investment strategies determined appropriate, subject to supervision by John Hancock Investment Management and the Board, if applicable, to achieve the investment objectives set forth in the investment guidelines of the applicable John Hancock Fund.

### Research of New Investment Products, Asset Classes, and Investment Managers

John Hancock Investment Management consults with the Trusts and, on behalf of the Trusts, with various affiliated business units to determine investment needs of existing and proposed John Hancock Funds, identify opportunities for new products and asset classes, and develop appropriate solutions. Topics of consultation may include fund launches, fund adoptions, manager replacements, and changes to the investment strategies of existing products (“Product Changes”) and other corporate actions. To generate ideas, John Hancock Investment Management conducts market, industry, and competitive research. This process involves:

- monitoring sales and industry trends; identifying investment products that are gaining market acceptance, analyzing market share (by distribution channel and fund category), examining new product launches, and conducting product gap analysis to identify potential areas for new products or product features;
- utilizing asset manager relationships, researching market publications, and conducting external manager research to inform research into potential new asset classes;
- conducting research related to partnership and acquisition opportunities, including Sub-Adviser searches and fund adoptions; and
- analyzing data from third-party vendors, including Morningstar, FactSet, Bloomberg, and Lipper.

The Manulife Global Investment Product Committee approves the decision to develop any new product or any Product Changes.

In addition to conducting research to identify new opportunities, John Hancock Investment

Management also collaborates with affiliated business units to implement Product Changes. This includes working with internal and external legal counsel, fund administration, tax, and compliance to coordinate all Product Changes on behalf of the Trusts. In doing so, John Hancock Investment Management coordinates compliance with the 1940 Act, the IRS, ERISA, CFTC and SEC and other related regulations and requirements.

#### Initial Screening of Sub-Advisers

To identify appropriate Sub-Advisers for the John Hancock Funds, John Hancock Investment Management utilizes an extensive screening process, which involves both the review of the Sub-Adviser and the particular individuals or investment team proposed to manage the fund. The Sub-Adviser selection and review process consists of the following five steps:

- **Initial Screening:** John Hancock Investment Management runs preliminary screens by investment style, and leverages the industry knowledge of the analyst team to determine which portfolios and asset management firms manage an investment strategy that would meet the desired solution and have performed well over time versus their peers.
- **Firm Review:** John Hancock Investment Management identifies managers it believes demonstrate the highest probability of producing above average results for clients. The focus is typically on established firms with sizeable assets under management that are best positioned to recruit and retain experienced and talented portfolio managers, access wider resources to help make well-researched investment decisions, and capitalize on proven economies of scale when buying and selling securities. At times, John Hancock Investment Management has identified and hired smaller, boutique firms that provide unique investment capabilities.
- **Quantitative Analysis:** Once the field of potential Sub-Advisers has been narrowed, John Hancock Investment Management conducts extensive quantitative analysis. John Hancock Investment Management analyzes each portfolio's style by examining returns-based style analysis, including the historical measures such as R-squared (*i.e.*, the degree to which the portfolio's performance can be explained by the benchmark), active share, tracking error, and portfolio holdings. This provides an initial view of a potential Sub-Adviser's investment style biases. After investment style has been analyzed, John Hancock Investment Management reviews performance in greater depth. It evaluates the fund's performance attribution through various classification groups (*i.e.*, sector, market cap, region, factor), volatility characteristics using measures such as standard deviation, upside/downside capture, Sharpe Ratio (*i.e.*, a measure of risk-adjusted performance) and Information Ratio (*i.e.*, a measure of the manager's ability to generate consistent excess returns relative to a benchmark). This allows John Hancock Investment Management to gain deeper insight into the strengths and weaknesses of a particular manager, and to understand its overall "performance blueprint" and investment capacity as well as the liquidity of its investments. In the case of index-based funds, these performance-related characteristics are considered in the context of the relevant index.
- **Qualitative Analysis:** In conjunction with quantitative analysis, John Hancock Investment Management conducts in-depth manager interviews to verify its initial findings and uncover vital information that can only be determined through this process. During the interview, John Hancock Investment Management focuses on the stability of the organization (*i.e.*, whether John Hancock Investment Management believes it can maintain the culture and environment that has made it successful), the quality of the people managing the money and the firm, investment philosophy and process, risk management, portfolio construction, investment capacity, liquidity of securities to be purchased by the manager, and the performance of the strategy. The ultimate goal of John Hancock Investment Management's approach is to define the most prominent aspects of the manager's value proposition. Value propositions define an investment

strategy's essential purpose and what makes it unique. They are the key to a strategy's past success and the link to future success. John Hancock Investment Management believes that value propositions must be observable or measurable, and requires that each Sub-Adviser ultimately agree that violating its value proposition(s) will lead to a review and possible replacement.

- Final Selection: At the end of this process, John Hancock Investment Management will generally identify candidates that are strong contenders for ultimate selection. John Hancock Investment Management reviews these potential Sub-Advisers with the Manulife Global Investment Product Committee to reach a final decision to retain one or more of the candidates as Sub-Advisers.

### Ongoing Reviews

Once a Sub-Adviser is hired to manage a John Hancock Fund, John Hancock Investment Management performs continuous monitoring to ensure it meets value propositions and performance expectations. This review includes not only the monitoring of the performance of the Fund but also a review of the Sub-Adviser's overall operations to ensure that the business affairs of the Sub-Adviser remain sound. John Hancock Investment Management closely monitors every investment portfolio on a daily, monthly, quarterly and annual basis.

John Hancock Investment Management believes that this level of ongoing review is essential for determining whether a Fund continues to have the ability to meet its performance expectations. As part of this monitoring process, John Hancock Investment Management develops and maintains sophisticated performance reporting systems. These systems deliver Fund-level performance data for the investment platforms. In addition, the team creates and reviews detailed performance attribution packages, including all asset allocation products.

In the case of exchange-traded funds designed to track the performance of a specified index, John Hancock Investment Management evaluates the subadviser's performance in relation to the index in addition to other benchmarks.

John Hancock Investment Management team members periodically conduct due diligence meetings with each Fund Sub-Adviser (generally once a year). These meetings are preceded by an in-depth due diligence questionnaire that is completed by the Sub-Adviser detailing organizational, investment, and performance related matters. In addition to performance review discussions with portfolio managers, other topics addressed in a due diligence review may typically include business updates and discussions of risk management practices with senior management.

Ongoing monitoring and/or due diligence reviews may typically include, as appropriate:

- a review of the background of each of the Sub-Adviser's portfolio managers and analysts;
- a review of the Sub-Adviser's use of derivatives and other complex investment instruments and strategies; any change in the Sub-Adviser's strategy regarding the use of derivatives and complex securities is reviewed and reported to the Board;
- an in-depth review of the Sub-Adviser's strategy for managing investment-related risk, including the Sub-Adviser's handling of liquidity issues as they relate to individual securities; and
- involvement of John Hancock Investment Management's CCO and/or his staff in the due diligence review of a Sub-Adviser's business operations and risks.

John Hancock Investment Management maintains detailed due diligence reports for all John Hancock Funds, provides detailed due diligence information to the Board with respect to each John Hancock Fund and its Sub-Adviser(s), and assists the Investment, Audit and Compliance committees established by the Board to monitor Sub-Adviser performance.

#### Risk of Loss

Investing in funds involves risk of loss that clients should be prepared to bear. An investment in a fund is not a bank deposit and is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Many factors affect performance, and past performance is not indicative of future results. Fund shares will fluctuate in price, meaning investors in the John Hancock Funds could lose money by investing in such funds. As with the managers of all investment funds, there is no assurance that any of the Sub-Advisers analyzed by John Hancock Investment Management will achieve their investment objective, and a fund's investment strategy may not produce the intended results.

#### Multi-Manager Risk; Limited Universe of Sub-Advisers and Underlying Funds

The investment styles employed by the managers of underlying funds of John Hancock Funds that are funds of funds may not be complementary. The ability of Funds of Funds to achieve their investment objectives depends upon the Sub-Advisers' skill in determining such fund's strategic allocation to investment strategies and in selecting the best mix of underlying funds. The allocation of investments among the different Sub-Advisers managing underlying funds with different styles and asset classes, such as equity, debt, U.S., or foreign securities, may have a more significant effect on the performance of a Fund of Funds when one of these investments is performing more poorly than the other. The underlying funds selected by a Sub-Adviser for the portfolio of a Fund of Funds may underperform the market generally or other funds that could have been selected for the portfolio.

There is no assurance that allocation decisions will result in the desired effects. Investment decisions made by a Sub-Adviser may cause a Fund of Funds to incur losses or to miss profit opportunities on which it might otherwise have capitalized. Moreover, at times, a Sub-Adviser may invest fund assets in underlying funds managed by a limited number of Sub-Advisers. In such circumstances, the Fund of Fund's performance could be substantially dependent on the performance of these Sub-Advisers. Similarly, the Sub-Adviser's allocation of a Fund of Fund's assets to a limited number of underlying funds may adversely affect the performance of the fund of funds, and, in such circumstances, it will be more sensitive to the performance and risks associated with those funds and any investments in which such underlying funds focus.

#### Affiliated Sub-advised Fund Conflicts of Interest Risk

The Sub-Adviser may allocate a fund's assets without limit to underlying funds managed by the Sub-Adviser and/or other Affiliated Sub-Advisers (affiliated sub-advised funds). Accordingly, rebalancings of the assets of a fund present a conflict of interest because there is an incentive for the Sub-Adviser to allocate assets to the Sub-Adviser and other affiliated sub-advised funds rather than underlying funds managed by unaffiliated Sub-Advisers. In this regard, the Sub-Adviser and other Affiliated Sub-Advisers of affiliated sub-advised funds benefit from the Sub-Adviser's allocations of fund assets to such funds through the additional subadvisory fees they earn on such allocated fund assets. The Sub-Adviser has a duty to allocate assets only to underlying funds it has determined are in the best interests of shareholders, and make allocations to affiliated sub-advised funds on this basis without regard to any such economic incentive. As part of its oversight of the funds and the Sub-Advisers, John Hancock Investment Management monitors to ensure that allocations are conducted in accordance with these principles.



### Risks Related to the Use of Quantitative Models (also known as algorithms) to Manage Certain John Hancock Funds

Certain John Hancock Funds may be managed based on quantitative models, which are commonly referred to as algorithms. There are risks associated with utilizing quantitative models to manage funds, including, without limitation, the following:

- The successful application of a quantitative model is dependent on the Sub-Adviser's skill in building and implementing the model.
- Quantitative models generally use certain economic assumptions that may not be updated in a timely manner or reflect shifts in the market, and may not accurately predict future market movements or characteristics due to the fact that market performance can be affected by nonquantitative factors that are not easily integrated into quantitative analysis, among other factors.
- The use of quantitative models may affect a portfolio's exposure to certain sectors or types of investments, notwithstanding whether such sectors or investments are in or out of favor in the market.
- The output of the quantitative model depends upon the accuracy of the information input into the investment tool.
- There may be certain factors or variables which have not been included in the quantitative model. To the extent some questions are over-generalized, ambiguous or designed to fit a pre-determined option, the output may not reflect needs or goals of a fund relying on the output.
- Quantitative models may have errors, omissions, imperfections and malfunctions, and human judgment plays a role in building, utilizing, testing, modifying, and implementing the financial algorithms and formulas used in these models. Errors in the models may be difficult to detect and may go undetected for long periods of time and some errors may never be detected. While this risk may be mitigated by testing, there is no assurance that the algorithm will always work as intended.
- Quantitative models are subject to technical issues including programming and data inaccuracies, are based on assumptions, and rely on data that is subject to limitations (e.g., inaccuracies, staleness), any of which could adversely affect their effectiveness or predictive value.

In addition, quantitative modeling may rebalance a fund based on factors other than just market conditions and may rebalance on a more frequent basis than non-algorithmically created funds.

### Securities Lending Risk

If a borrower of a John Hancock Fund's securities fails financially, the fund's recovery of the loaned securities may be delayed or the fund may lose its rights to the collateral, which could result in a loss to the fund. While securities are on loan, a fund is subject to several risks, including: the risk that the borrower may default on the loan and that the collateral could be inadequate in the event the borrower defaults, the risk that the earnings on the collateral invested may not be sufficient to pay fees incurred in connection with the loan, the risk that the principal value of the collateral invested may decline and may not be sufficient to pay back the borrower for the amount of the collateral posted, the risk that the borrower may sell the loaned securities short, which may place downward pressure on the market prices of the loaned securities, the risk that return of loaned securities could be delayed and could interfere with portfolio management decisions by the fund's Sub-Adviser, and the risk that any efforts to recall the securities for purposes of voting may not be effective.

The collateral is managed by an affiliate of John Hancock Investment Management, which may incentivize John Hancock Investment Management to lend fund securities to benefit this affiliate. John Hancock Investment Management maintains robust oversight of securities lending activity

and seeks to ensure that all lending activity undertaken by a fund is in the fund's best interests.

A fund will be responsible for the risks associated with the investment of cash collateral, including the risk that the fund may lose money on the investment or may fail to earn sufficient income to meet its obligations to the borrower. In addition, a fund may lose its right to vote its shares of the loaned securities at a shareholder meeting if the Sub-Adviser does not recall or does not timely recall the loaned securities, or if the borrower fails to return the recalled securities in advance of the record date for the meeting.

### Strategy Risks

In addition to the risks detailed herein, each investment strategy implemented by a Sub-Adviser is subject to investment risks that are unique to that strategy, and a fund's investment strategy may not produce the intended results. The specific risks associated with the investment strategy of each John Hancock Fund are set forth in the currently effective registration statement of the fund.

### Index Risk

In the case of exchange-traded funds designed to track the performance of a specified index (an "ETF Index Fund"), the ETF Index Fund will be negatively affected by general declines in the securities and asset classes represented in the index. In addition, because the fund is not "actively" managed, unless a specific security is removed from the index, the fund generally would not sell a security because the security's issuer was in financial trouble. Market disruptions 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 index. The ETF Index Fund also does not attempt to take defensive positions under any market conditions, including declining markets. Therefore, the fund's performance could be lower than funds that may actively shift their portfolio assets to take advantage of market opportunities or to lessen the impact of a market decline or a decline in the value of one or more issuers. The ETF Index Fund's mandate is to provide investment results that closely correspond with the performance of the index provided by the index provider. While the index provider provides descriptions of what the index is designed to achieve, neither the index provider nor its agents provide any warranty or accept any liability in relation to the quality, accuracy or completeness of the index or its related data, and they do not guarantee that the index will be in line with the index provider's methodology. John Hancock Investment Management does not provide any warranty or guarantee against the index provider's or any agent's errors. The index is constructed and maintained using third party data that is believed to be reliable, but there is no guarantee of the accuracy or availability of such third-party data. In addition, the market value of the index is calculated by a third party, and there is no guarantee that such calculation will be accurate. Errors in respect of the quality, accuracy and completeness of the data used to compile the index may occur from time to time. Any such errors may not be identified and corrected for some period of time. These errors and corrections may have an adverse impact on the fund and its shareholders, including in the form of increased costs and/or tracking error. During a period where the index contains incorrect constituents, the fund would have market exposure to such constituents and would be underexposed to the index's other constituents. In addition, neither the fund, the index provider, nor John Hancock Investment Management can guarantee the availability or timeliness of the production of the index. Unusual market conditions may cause the index provider to postpone a scheduled rebalance, which could cause the index to vary from its normal or expected composition. The postponement of a scheduled rebalance in a time of market volatility could mean that constituents that would otherwise be removed at rebalance due to changes in market capitalizations or other reasons may remain, causing the performance and constituents of the index to vary from those expected under normal conditions and potentially increasing transaction costs to the ETF Index Fund. Apart from scheduled rebalances, the index provider or its agents may carry out additional ad hoc rebalances to the index in order, for example, to correct an error in the selection of index constituents. When the index is rebalanced and the ETF Index Fund in turn rebalances its portfolio to attempt to increase the correlation between its portfolio and the index, any transaction

costs and market exposure arising from such portfolio rebalancing may be borne directly by the ETF Index Fund and its shareholders. Therefore, errors and additional ad hoc rebalances carried out by the index provider or its agents to the index may increase the costs to, and the tracking error risk of, the ETF Index Fund.

#### Industry or Sector Investing Risk

When a fund invests a substantial portion of its assets in a particular industry or sector of the economy, the fund's investments are not as varied as the investments of most funds and are far less varied than the broad securities markets. As a result, the fund's performance tends to be more volatile than other funds, and the values of the fund's investments tend to go up and down more rapidly. In addition, to the extent that a fund invests significantly in a particular industry or sector, it is susceptible to the impact of market, economic, regulatory, and other factors affecting that industry or sector.

For example, the coronavirus (COVID-19) pandemic led to materially reduced consumer demand in certain sectors, a disruption in supply chains and an increase in market closures and retail company bankruptcies. The coronavirus (COVID-19) pandemic may affect certain countries, industries, economic sectors, and companies more than others, may continue to exacerbate existing economic, political, or social tensions and may continue to increase the probability of an economic recession or depression. The impact on the consumer discretionary market may last for an extended period of time.

#### Operational and Cybersecurity Risk

With the increased use of technologies, such as mobile devices and "cloud"-based service offerings and the dependence on the internet and computer systems to perform necessary business functions, the fund's service providers are susceptible to operational and information or cybersecurity risks that could result in losses to the fund and its shareholders. Cybersecurity breaches are either intentional or unintentional events that allow an unauthorized party to gain access to fund assets, customer data, or proprietary information, or cause a fund or fund service provider to suffer data corruption or lose operational functionality. Intentional cybersecurity breaches include unauthorized access to systems, networks, or devices (such as through "hacking" activity or "phishing"); infection from computer viruses or other malicious software code; and attacks that shut down, disable, slow, or otherwise disrupt operations, business processes, or website access or functionality. Cyber-attacks can also be carried out in a manner that does not require gaining unauthorized access, such as causing denial-of-service attacks on the service providers' systems or websites rendering them unavailable to intended users or via "ransomware" that renders the systems inoperable until appropriate actions are taken. In addition, unintentional incidents can occur, such as the inadvertent release of confidential information (possibly resulting in the violation of applicable privacy laws).

A cybersecurity breach could result in the loss or theft of customer data or funds, loss or theft of proprietary information or corporate data, physical damage to a computer or network system, or costs associated with system repairs. Such incidents could cause a fund, John Hancock Investment Management, a Sub-Adviser, or other service providers to incur regulatory penalties, reputational damage, additional compliance costs, litigation costs or financial loss. In addition, such incidents could affect issuers in which a fund invests, and thereby cause the fund's investments to lose value.

Cyber-events have the potential to materially affect a fund and John Hancock Investment Management's relationships with accounts, shareholders, clients, customers, employees, products, and service providers. The Funds have established risk management systems reasonably designed to seek to reduce the risks associated with cyber-events. There is no guarantee that a fund will be able to prevent or mitigate the impact of any or all cyber-events.

A fund is exposed to operational risk arising from a number of factors, including, but not limited to, human error, processing and communication errors, errors of the fund's service providers, counterparties, or other third parties, failed or inadequate processes and technology or system failures.

In addition, other disruptive events, including (but not limited to) natural disasters and public health crises (such as the coronavirus pandemic), may adversely affect a fund's ability to conduct business, in particular if a fund's employees or the employees of its service providers are unable or unwilling to perform their responsibilities as a result of any such event. Even if a fund's employees and the employees of its service providers are able to work remotely, those remote work arrangements could result in a fund's business operations being less efficient than under normal circumstances, could lead to delays in its processing of transactions, and could increase the risk of cyber-events.

#### Health Crisis Risk

A widespread health crisis such as a global pandemic could cause substantial market volatility, exchange trading suspensions and closures, which may lead to less liquidity in certain instruments, industries, sectors or the markets generally, and may ultimately affect fund performance. For example, the novel coronavirus (COVID-19) pandemic has resulted and may continue to result in significant disruptions to global business activity and market volatility due to disruptions in market access, resource availability, facilities operations, imposition of tariffs, export controls and supply chain disruption, among others. The impact of a health crisis and other epidemics and pandemics that may arise in the future, could affect the global economy in ways that cannot necessarily be foreseen at the present time. A health crisis may exacerbate other pre-existing political, social and economic risks. Any such impact could adversely affect a fund's performance, resulting in losses to the fund and its shareholders.

## Item 9 – Disciplinary Information

Not applicable.

## Item 10 – Other Financial Industry Activities and Affiliations

John Hancock Investment Management is an indirect, majority-owned subsidiary of MFC. As such, John Hancock Investment Management is affiliated with a number of investment advisers, investment companies, broker-dealers and insurance companies. Except as noted below, John Hancock Investment Management does not believe that these relationships are material to John Hancock Investment Management's advisory business with respect to the John Hancock Funds.

#### Broker-Dealers

John Hancock Distributors LLC ("JHD") is the distributor of the John Hancock Variable Insurance Trust ("JHVIT"), a no-load, open-end investment company, advised by John Hancock Variable Trust Advisers LLC, that serves as the underlying investment medium for variable annuity and variable life contracts issued by John Hancock Life Insurance Company (U.S.A.) and affiliated entities. John Hancock Investment Management Distributors LLC ("John Hancock Investment Management Distributors") is the distributor of all of the Trusts advised by John Hancock Investment Management other than John Hancock Exchange-Traded Fund Trust and certain of the closed-end funds. JHD and John Hancock Investment Management Distributors are each related persons of John Hancock Investment Management. John Hancock Investment Management Distributors and JHD are broker-dealers registered with the SEC and are regulated by the Financial Industry Regulatory Authority, Inc. ("FINRA"). Both broker-dealers are also supported by John Hancock's shared services Broker Dealer Compliance department.

The marketing team of John Hancock Investment Management Distributors creates and publishes information regarding the investment portfolios of the John Hancock Funds (the "Funds") for all audiences, including shareholders, financial professionals, institutions, and for internal use by John Hancock Investment Management and its affiliates. This includes quarterly fact sheets and other materials that contain data regarding portfolio performance and holdings, objective, strategy and risk considerations for each John Hancock Fund. The marketing team also publishes key portfolio data directly to the Funds' web site on a monthly basis, including updated performance, holdings, risk statistics and portfolio composition. In addition, the marketing team collects, edits and publishes portfolio manager commentaries on the Funds each quarter and also publishes ad hoc market and economic commentary and research from the Sub-Advisers of the Funds to help keep investors abreast of market conditions that may impact portfolio performance and to facilitate the education of the Funds' sales and marketing personnel.

The Investment Compliance Review Team ("ICR") of the Broker Dealer Compliance department is responsible for the review and principal approval of marketing material related to the Funds. The ICR Team reviews marketing material taking into account the FINRA rules regarding communications and other regulatory rules related to investment company/mutual fund advertising. The Broker Dealer Compliance department is also responsible for maintaining appropriate securities registrations for JHD and John Hancock Investment Management Distributors and its associated persons.

The John Hancock Investment Management Distributors Compliance department also performs testing of certain items in the Trusts' 38a-1 compliance program that pertain to John Hancock Investment Management Distributors as distributor of certain of the Funds. John Hancock Investment Management Distributors Compliance department coordinates with the CCO's Office in performing this task. John Hancock Investment Management Distributors also performs annual testing of its compliance program, required under FINRA rules 3110, 3120 and 3130. John Hancock Investment Management Distributors makes the results of these tests available to the CCO's Office.

Foreside Fund Services, LLC ("Foreside") serves as distributor of the ETF Funds within the John Hancock family of funds. Foreside is not affiliated with John Hancock Investment Management.

#### Investment Companies

As described above, John Hancock Investment Management serves as investment adviser to the Trusts, and John Hancock Variable Trust Advisers LLC, an affiliated investment adviser, serves as investment adviser to JHVIT.

#### MFC

MFC owns, directly or indirectly, a number of subsidiaries, including the following: John Hancock Investment Management, John Hancock Investment Management Distributors LLC, the Affiliated Sub-Advisers noted below, and John Hancock Variable Trust Advisers LLC.

#### Investment Advisers

John Hancock Investment Management has entered into sub-advisory agreements with Manulife Investment Management (North America) Limited and Manulife Investment Management (US) LLC (the "Affiliated Sub-Advisers"), each of which is controlled by MFC.

Advisory arrangements involving Affiliated Sub-Advisers and investments in affiliated underlying funds present certain conflicts of interest. For each John Hancock Fund subadvised by an Affiliated Sub-Adviser, MFC, as the ultimate parent company of the Affiliated Sub-Adviser and John Hancock Investment Management, will benefit not only from the net advisory fee retained by

John Hancock Investment Management but also from the subadvisory fee paid by John Hancock Investment Management to the Affiliated Sub-Adviser. Consequently, the Affiliated Sub-Advisers and MFC benefit financially from one or more of the following: (i) the appointment of or continued service of Affiliated Sub-Advisers to manage the funds; and (ii) the allocation of the assets of Funds of Funds to other funds (“Underlying Funds”) having Affiliated Sub-Advisers. In each case, an Affiliated Sub-Adviser benefits from increased subadvisory fees. Similarly, John Hancock Investment Management has a conflict of interest in the allocation of the assets of the John Hancock Funds to affiliated underlying funds as opposed to unaffiliated underlying funds. However, both John Hancock Investment Management, in recommending to the Board the appointment or continued service of Affiliated Sub-Advisers, and such Sub-Advisers, in allocating the assets of the funds, have a fiduciary duty to act in the best interests of the funds and their shareholders. John Hancock Investment Management has a duty to recommend that Affiliated Sub-Advisers be selected, retained, or replaced only when John Hancock Investment Management believes it is in the best interests of shareholders. In addition, under the “manager of managers” exemptive order received from the SEC, certain John Hancock Funds are required to obtain shareholder approval of any sub-advisory agreement appointing an Affiliated Sub-Adviser as the sub-adviser to a John Hancock Fund except as otherwise permitted by applicable SEC No-Action Letter (in the case of a new fund, the initial sole shareholder of the fund, an affiliate of John Hancock Investment Management and MFC, may provide this approval). Each Affiliated Sub-Adviser has a duty to allocate assets to affiliated sub-advised funds, and affiliated Underlying Funds more broadly, only when it believes this is in shareholders’ best interests and without regard for the financial incentives inherent in making such allocations. The independent trustees of the Board are aware of and monitor these conflicts of interest.

In addition, MFC and its John Hancock insurance company subsidiaries may benefit from investment decisions made by Affiliated Sub-Advisers, including allocation decisions with respect to a Fund of Funds’ assets. For example, Affiliated Sub-Advisers, by selecting more conservative investments or investments that lend themselves to hedging strategies, or by making more conservative allocations of a Fund of Funds’ assets by increasing the percentage allocation to Underlying Funds which invest primarily in fixed-income securities or otherwise, may reduce the regulatory capital requirements which the John Hancock insurance company subsidiaries of MFC must satisfy in order to support their guarantees under variable annuity and insurance contracts that they issue, or aid the John Hancock insurance company subsidiaries with hedging their investment exposure under their variable annuity and insurance contracts.

In all cases, however, John Hancock Investment Management in recommending to the Board the appointment or continued service of Affiliated Sub-Advisers and the Affiliated Sub-Advisers in selecting investments and allocating each Fund of Funds’ assets have a fiduciary duty to act in the best interests of the funds and their shareholders. As part of its oversight of the funds and the Sub-Advisers, John Hancock Investment Management will monitor to ensure that allocations are conducted in accordance with these principles.

All investment management arrangements with related parties are conducted on an arms-length basis as to neither advantage nor disadvantage John Hancock Investment Management’s other clients or the above mentioned related parties.

#### Self-Indexing Exchange-Traded Funds

John Hancock Investment Management provides investment advisory services to certain exchange-traded funds based on indices managed by the funds’ Sub-Adviser (the “Index Provider”). John Hancock Investment Management compensates the Index Provider pursuant to a license agreement for use of the indices. John Hancock Investment Management also compensates the Index Provider, as sub-adviser to the exchange-traded funds, through the payment of sub-advisory fees. The Index Provider is not affiliated with John Hancock Investment Management.

### Payments to Financial Intermediaries

Except with respect to Class R6 shares of the John Hancock Funds, certain firms may request, and John Hancock Investment Management Distributors (also referred to as the “distributor”) may agree to make, payments in addition to sales commissions and Rule 12b-1 fees, if applicable, out of the distributor’s own resources. These additional payments are sometimes referred to as revenue sharing. These payments assist in the distributor’s efforts to promote the sale of shares of the John Hancock Funds. The distributor agrees with the firm on the methods for calculating any additional compensation, which may include the level of sales or assets attributable to the firm. Not all firms receive additional compensation, and the amount of compensation varies. These payments could be significant to a firm. The distributor determines which firms to support and the extent of the payments it is willing to make. The distributor generally chooses to compensate firms that have a strong capability to distribute shares of the John Hancock Funds and that are willing to cooperate with the distributor’s promotional efforts.

The distributor hopes to benefit from revenue sharing by increasing the net assets of the John Hancock Funds, which, as well as benefiting these funds, would result in additional management and other fees for John Hancock Investment Management and its affiliates. In consideration for revenue sharing, a firm may feature one or more John Hancock Fund in its sales system or give preferential access to members of its sales force or management. In addition, the firm may agree to participate in the distributor’s marketing efforts by allowing the distributor or its affiliates to participate in conferences, seminars, or other programs attended by the intermediary’s sales force. Although an intermediary may seek revenue-sharing payments to offset costs incurred by the firm in servicing its clients who have invested in a John Hancock Fund, the intermediary may earn a profit on these payments. Revenue-sharing payments may provide a firm with an incentive to favor a John Hancock Fund.

The distributor, John Hancock Investment Management, and their affiliates may have other relationships with a firm relating to the provisions of services to a John Hancock Fund, such as providing omnibus account services, transaction-processing services, or effecting portfolio transactions for the fund. If an intermediary provides these services, John Hancock Investment Management or the fund may compensate the intermediary for these services. In addition, an intermediary may have other compensated relationships with John Hancock Investment Management or its affiliates that are not related to a John Hancock Fund.

John Hancock Investment Management internally credits a portion of its profits to an affiliated business, John Hancock Retirement (“JHR”), which is the record keeper for certain 401(k) plans that invest in Class R6 shares. JHR may reduce the record keeping fees paid to it by such 401(k) plans by a commensurate amount. JHR may discontinue this practice with adequate notice to plan sponsors.

## **Item 11 – Code of Ethics, Participation or Interest in Client Transactions and Personal Trading**

### Code of Ethics

John Hancock Investment Management’s Code of Ethics (the “Code”) establishes standards of business conduct for John Hancock Investment Management and its “Covered Employees” (which includes all officers and employees with access to non-public portfolio information) and all persons who provide investment advice on behalf of John Hancock Investment Management and are subject to the supervision and control of John Hancock Investment Management (“Supervised Persons”).

The Code states that each Covered Employee is responsible for maintaining the very highest ethical standards when conducting company business. In general, John Hancock Investment Management and its Covered Employees are required to (i) at all times place the interests of clients first; (ii) ensure that all personal securities transactions are conducted consistent with this Code and in such a manner as to avoid any actual or potential conflict of interest or any abuse of a position of trust and responsibility; (iii) not take inappropriate advantage of their positions or engage in manipulative practices such as front running or manipulative market timing; (iv) comply with all applicable federal securities laws; and (v) promptly report any violation of the Code to the CCO.

The Code is designed to prevent abuses in the investment advisory business that can arise when conflicts of interest exist between the employees of John Hancock Investment Management and its clients. When conflicting interests cannot be reconciled, the Code makes clear that, first and foremost, Covered Employees owe a fiduciary duty to John Hancock clients. The Code contains specific rules prohibiting defined types of conflicts. Since every potential conflict cannot be anticipated by the Code, it also contains general provisions prohibiting conflict situations.

The Code is also designed to permit John Hancock Investment Management to monitor various securities transactions by Covered Employees, including those in shares of any mutual funds advised by John Hancock Investment Management in which they may have a direct or indirect beneficial ownership interest. Under the Code and subject to limited exceptions, Covered Employees must obtain the approval of the CCO or his designee before acquiring any covered security in an IPO or limited offering. However, any Covered Employee who participates in, or has prior knowledge of, purchase or sale recommendations made to a fund generally is prohibited from acquiring any covered security in an IPO.

The Code includes sections on policies in and outside the Code, reporting requirements and other disclosures inside and outside the Code, reporting violations, interpretation and enforcement, exemptions and appeals, education of employees and recordkeeping.

This Code will be provided to any client or prospective client upon request by contacting John Hancock Investment Management at 617-663-3000.

John Hancock Investment Management has also adopted an Amended and Restated Policy Statement and Procedures on Insider Trading in accordance with Section 204A of the Advisers Act which establishes procedures to prevent the misuse of material information by its officers, directors and employees. John Hancock Investment Management and its related persons may, from time to time, come into possession of material nonpublic and other confidential information which, if disclosed, might affect an investor's decision to buy, sell or hold a security. Under applicable law, John Hancock Investment Management and its related persons may be prohibited from improperly disclosing or using such information for their personal benefit or for the benefit of any other person, regardless of whether such other person is a client. Accordingly, should such persons come into possession of material nonpublic or other confidential information with respect to any company, they may be prohibited from communicating such information to, or using such information for the benefit of, their respective clients, and have no obligation or responsibility to disclose such information to, nor responsibility to use such information for the benefit of, their clients when following policies and procedures designed to comply with law.

#### Participation or Interest in Client Transactions

Each of the Trusts' Sub-Advisers, including the Trusts' Affiliated Sub-Advisers, manage a number of accounts other than the Trusts' portfolios subject to oversight by John Hancock Investment Management and the Board. Although investment determinations for the Trusts' portfolios will be made by the Sub-Advisers independently from the investment determinations made by them for any other account, investments deemed appropriate for the Trusts' portfolios by the Sub-Advisers may also be deemed appropriate by them for other accounts. Therefore, the same security may



be purchased or sold at or about the same time for both the Trusts' portfolios and other accounts. In such circumstances, the Sub-Advisers may determine that orders for the purchase or sale of the same security for the Trusts' portfolios and one or more other accounts should be combined. In this event the transactions will be priced and allocated in a manner deemed by the Sub-Advisers to be fair and equitable and in the best interests of the Trust portfolios and such other accounts, over time.

From time to time, employees and principals of John Hancock Investment Management or a related person may also invest or otherwise have an interest in securities owned by or recommended to John Hancock Investment Management's clients.

Similarly, some or all of the financial services businesses under common control with John Hancock Investment Management may invest in securities that are also owned by John Hancock Investment Management's clients. Any of such persons may invest or otherwise have an interest, either directly or indirectly, in certain pooled vehicles, which, in turn, may invest in securities held in other managed accounts. This presents a conflict of interest to the extent that such businesses and persons have an incentive: (i) to recommend or otherwise favor securities or other vehicles in which they invest or otherwise have an interest where doing so would not be in a client's best interest; or (ii) to put their own interest ahead of a client's interest. As these situations can involve conflicts of interest, John Hancock Investment Management has implemented policies and procedures relating to personal securities transactions and insider trading, that are designed to identify potential conflicts of interest, to prevent or mitigate actual conflicts of interest and to resolve such conflicts appropriately if they do occur. John Hancock Investment Management has also implemented policies and procedures designed to review and monitor trading associated with fund mergers, liquidations and asset allocation fund rebalancing, in order to identify and address potential issues associated with these transactions in a proactive and timely manner.

## Item 12 – Brokerage Practices

Pursuant to the sub-advisory agreements between John Hancock Investment Management and its Sub-Advisers, the Sub-Advisers are responsible for placing all orders for the purchase and sale of portfolio securities of the Trust's portfolios, subject to the oversight of John Hancock Investment Management and in compliance with the registration statements of the John Hancock Funds. The following description of the Sub-Advisers' policies is qualified in its entirety to reference to the relevant Sub-Advisers' disclosures concerning their brokerage practices.

The Sub-Advisers have no formula for the distribution of a portfolio's brokerage business; rather they place orders for the purchase and sale of securities with the primary objective of obtaining the most favorable overall results for the portfolio. The cost of securities transactions for each portfolio will consist primarily of brokerage commissions or dealer or underwriter spreads. Fixed-income securities (*i.e.*, bonds) and money market instruments are generally traded on a net basis and do not normally involve either brokerage commissions or transfer taxes.

Occasionally, securities may be purchased directly from the issuer. For securities traded primarily in the over-the-counter market, the Sub-Advisers will, where possible, deal directly with dealers who make a market in the securities unless better prices and execution are available elsewhere. Such dealers usually act as principals for their own account.

*Selection of Brokers or Dealers to Effect Trades.* In selecting brokers or dealers to implement transactions, the Sub-Advisers will give consideration to a number of factors, including:

- price, dealer spread or commission, if any,
- the reliability, integrity and financial condition of the broker-dealer,
- size of the transaction,

- difficulty of execution,
- brokerage and research services provided (unless prohibited by applicable law), and
- confidentiality and anonymity.

Consideration of these factors by a Sub-Adviser, either in terms of a particular transaction or the Sub-Adviser's overall responsibilities with respect to the portfolio and any other accounts managed by the Sub-Adviser, could result in the applicable portfolio paying a commission or spread on a transaction that is in excess of the amount of commission or spread another broker-dealer might have charged for executing the same transaction.

*Soft Dollar Considerations.* In selecting brokers and dealers, a Sub-Adviser will give consideration to the value and quality of any research, statistical, quotation, brokerage or valuation services provided by the broker or dealer to the Sub-Adviser. In placing a purchase or sale order, unless prohibited by applicable law, a Sub-Adviser may use a broker whose commission in effecting the transaction is higher than that of some other broker if the Sub-Adviser determines in good faith that the amount of the higher commission is reasonable in relation to the value of the brokerage and research services provided by such broker, viewed in terms of either the particular transaction or the Sub-Adviser's overall responsibilities with respect to the relevant portfolio(s) and any other accounts managed by the Sub-Adviser. In addition to statistical, quotation, brokerage or valuation services, a Sub-Adviser may receive products or research from brokers or dealers that are used for both research and other purposes, such as administration or marketing. In such case, the Sub-Adviser will make a good faith determination as to the portion attributable to research. Only the portion attributable to research will be paid through portfolio brokerage. The portion not attributable to research will be paid by the Sub-Adviser. Research products and services may be acquired or received either directly from executing brokers or indirectly through other brokers in step-out transactions. A "step-out" is an arrangement by which a Sub-Adviser executes a trade through one broker-dealer but instructs that entity to step-out all or a portion of the trade to another broker-dealer. This second broker-dealer will clear and settle, and receive commissions for, the stepped-out portion. The second broker-dealer may or may not have a trading desk of its own.

Under the EU's Markets in Financial Instruments Directive ("MiFID II"), EU investment managers, including certain Sub-Advisers to the John Hancock Funds, may only pay for research from brokers and dealers directly out of their own resources or by establishing "research payment accounts" for each client, rather than through client commissions. MiFID II limits the use of soft dollars by Sub-Advisers located in the EU, if applicable, and in certain circumstances may result in other Sub-Advisers reducing the use of soft dollars as to certain groups of clients or as to all clients.

The Sub-Advisers also may receive research or research credits from brokers that are generated from underwriting commissions when purchasing new issues of fixed-income securities or other assets for portfolios of the Trusts. These services, which in some cases also may be purchased for cash, include such matters as general economic and security market reviews, industry and company reviews, evaluations of securities and recommendations as to the purchase and sale of securities.

Some of these services are of value to the Sub-Advisers in advising several of their clients (including the John Hancock Funds), although not all of these services are necessarily useful and of value in managing the portfolios of the Trusts. The management fee paid by a portfolio is not reduced because a Sub-Adviser and its affiliates receive such services.

As noted above, a Sub-Adviser may purchase new issues of securities for a portfolio in underwritten fixed price offerings. In these situations, the underwriter or selling group member may provide the Sub-adviser with research in addition to selling the securities (at the fixed public

offering price) to the portfolio or other advisory clients. Because the offerings are conducted at a fixed price, the ability to obtain research from a broker-dealer in this situation provides knowledge that may benefit the portfolio, other managed accounts, and the Sub-Adviser without incurring additional costs. These arrangements may not fall within the safe harbor of Section 28(e) of the Securities Exchange Act of 1934 because the broker-dealer is considered to be acting in a principal capacity in underwritten transactions. However, FINRA has adopted rules expressly permitting broker-dealers to provide bona fide research to advisers in connection with fixed price offerings under certain circumstances. As a general matter in these situations, the underwriter or selling group member will provide research credits at a rate that is higher than that which is available for secondary market transactions.

Brokerage and research services provided by brokers and dealers include advice, either directly or through publications or writings, as to:

- the value of securities,
- the advisability of purchasing or selling securities,
- the availability of securities or purchasers or sellers of securities, and
- analyses and reports concerning (a) issuers, (b) industries, (c) securities, (d) economic, political and legal factors and trends and (e) portfolio strategy.

Research services are received primarily in the form of written reports, computer generated services, telephone contacts and personal meetings with security analysts. In addition, such services may be provided in the form of meetings arranged with corporate and industry spokespersons, economists, academicians and government representatives. In some cases, research services are generated by third parties but are provided to the Sub-Adviser by or through a broker.

To the extent research services are used by the Sub-Advisers, such services would tend to reduce such party's expenses. However, the Sub-Advisers do not believe that an exact dollar value can be assigned to these services. Research services received by the Sub-Advisers from brokers or dealers executing transactions for the John Hancock Funds, which may not be used in connection with a portfolio, also will be available for the benefit of other portfolios managed by the Sub-Advisers.

*Sales of Fund Shares by Broker-Dealers.* Consistent with the duty to seek best execution, trades for the John Hancock Funds may be executed by dealers that also sell shares of John Hancock Funds. However, the Sub-Adviser is prohibited from considering such sales as a factor in the selection of broker-dealers to execute portfolio transactions. John Hancock Investment Management has implemented policies and procedures (approved by the Board of Trustees) that it considers to be reasonably designed to ensure that the selection of broker-dealers by the Sub-Advisers is not influenced by a broker-dealer's sales of shares of the John Hancock Funds.

*Allocation of Trades by the Sub-Advisers.* As described in Item 11 – Code of Ethics, Participation or Interest in Client Transactions and Personal Trading, the Sub-Advisers manage a number of accounts other than the portfolios of the Trusts. Although investment determinations for the portfolios of the Trusts will be made by a Sub-Adviser independently from the investment determinations it makes for any other account, investments deemed appropriate for a portfolio of the Trust by a Sub-Adviser also may be deemed appropriate by it for other accounts. Therefore, the same security may be purchased or sold at or about the same time for both a portfolio of a Trust and other accounts. In such circumstances, a Sub-Adviser may determine that orders for the purchase or sale of the same security for a portfolio of the Trusts and one or more other accounts should be combined. In this event the transactions will be priced and allocated in a manner deemed by the Sub-Adviser to be equitable and in the best interests of the particular portfolio of the Trusts and such other accounts. While in some instances combined orders could

adversely affect the price or volume of a security, the Trusts each believe that a portfolio's participation in such transactions on balance will produce better overall results for the portfolio.

For purchases of equity securities, when a complete order is not filled, a partial allocation will be made to each participating account pro rata based on the order size. For high demand issues (for example, initial public offerings), shares will be allocated pro rata by account size as well as on the basis of account objective, account size (a small account's allocation may be increased to provide it with a meaningful position), and the account's other holdings. In addition, an account's allocation may be increased if that account's portfolio manager was responsible for generating the investment idea or the portfolio manager intends to buy more shares in the secondary market. For fixed-income accounts, generally securities will be allocated when appropriate among accounts based on account size, except if the accounts have different objectives or if an account is too small to receive a meaningful allocation. For new issues, when a complete order is not filled, a partial allocation will be made to each account pro rata based on the order size. However, if a partial allocation is too small to be meaningful, it may be reallocated based on such factors as account objectives, strategies, duration benchmarks and credit and sector exposure. For example, value funds will likely not participate in initial public offerings as frequently as growth funds. In some instances, this investment procedure may adversely affect the price paid or received by the portfolios or the size of the position obtainable for it. On the other hand, to the extent permitted by law, a Sub-Adviser may aggregate securities to be sold or purchased for the portfolios with those to be sold or purchased for other clients that it manages in order to obtain best execution.

*Affiliated Underwriting Transactions by the Sub-Advisers.* The Board of the Trusts has approved procedures in conformity with Rule 10f-3 under the 1940 Act whereby a portfolio may purchase securities that are offered in underwritings in which an affiliate of the Sub-Advisers participates. These procedures prohibit a portfolio from directly or indirectly benefiting John Hancock Investment Management, a Sub-Adviser or such an affiliate in connection with such underwritings. In addition, for underwritings where such an affiliate participates as a principal underwriter, certain restrictions may apply that could, among other things, limit the amount of securities that the portfolios could purchase.

*Affiliated Brokerage.* Pursuant to procedures determined by the Board of the Trusts in conformity with Rule 17e-1 under the 1940 Act and consistent with the above policy of seeking best execution, a portfolio may execute portfolio transactions with or through brokers affiliated with John Hancock Investment Management or the Sub-Adviser ("Affiliated Brokers"). Affiliated Brokers may act as broker for portfolios on exchange transactions, subject, however, to the general policy set forth above and the Board's procedures. Commissions paid to an Affiliated Broker must be at least as favorable as those that the Board believe to be contemporaneously charged by other brokers in connection with comparable transactions involving similar securities being purchased or sold. A transaction would not be placed with an Affiliated Broker if a portfolio would have to pay a commission rate less favorable than the Affiliated Broker's contemporaneous charges for comparable transactions for its other most favored, but unaffiliated, customers, except for accounts for which the Affiliated Broker acts as clearing broker for another brokerage firm, and any customers of the Affiliated Broker not comparable to the portfolio, as determined by a majority of the Trustees of the Board who are not "interested persons" (as defined in the 1940 Act) of the John Hancock Funds, John Hancock Investment Management, the Sub-Advisers or the Affiliated Broker. Because John Hancock Investment Management or the Sub-Advisers that are affiliated with the Affiliated Broker have, as investment advisers to the portfolios, the obligation to provide investment management services, which includes elements of research and related investment skills such research and related skills will not be used by the Affiliated Broker as a basis for negotiating commissions at a rate higher than that determined in accordance with the above criteria.

*Funds of Funds.* Certain of the portfolios are “Funds of Funds.” A Fund of Funds invests primarily in shares of other investment companies, typically mutual funds or ETFs. With respect to mutual funds, such shares are purchased and redeemed directly with the fund’s principal underwriter at net asset value. Consequently, there is no opportunity to seek improvement in the price of the securities being purchased or a reduction in the transaction costs. However, where a mutual fund offers different share classes with differing “loads” or fees, the Sub-Adviser typically seeks to invest in the most efficient available share class. The same is true when a portfolio that is not a Fund of Funds invests in another fund. In cases where the underlying fund is an ETF, shares are traded through exchanges and the Sub-Adviser may be in a position to select which broker or dealer will effect the trade. In those cases, the considerations discussed above apply.

*Commission Recapture Program.* The Board of the Trusts has also approved each portfolio’s participation in a commission recapture program. Commission recapture is a form of institutional discount brokerage that returns commission dollars directly to a portfolio. It provides a way to gain control over the commission expenses incurred by a Sub-Adviser, which can be significant over time and thereby reduce expenses, improve cash flow and conserves assets. A portfolio can derive commission recapture dollars from both equity trading commissions and fixed income (commission equivalent) spreads. From time to time, the Board reviews whether participation in the recapture program is in the best interests of the portfolios of the Trusts.

## Item 13 – Review of Accounts

As indicated in response to Item 4 – Advisory Business, John Hancock Investment Management generally contracts with Sub-Advisers who manage fund assets under the supervision of John Hancock Investment Management. John Hancock Investment Management reviews the performance and compliance program of the portfolios managed by Sub-Advisers and reports to the Board of Trustees at least quarterly. Detailed information regarding the account reviews performed by John Hancock Investment Management is described in Item 4 – Advisory Business and Item 8 – Methods of Analysis, Investment Strategies and Risk of Loss.

John Hancock Investment Management’s finance department in conjunction with the Global Wealth & Asset Management (“Global WAM”) accounting and reporting team also performs monthly and quarterly close processes to ensure that John Hancock Investment Management’s financials accurately reflect its financial results. The finance department provides quarterly reports and analysis to the Board on behalf of John Hancock Investment Management, manages internal and external audits; and oversees a risk management process that evaluates and controls financial and operational risk with respect to services provided to the Funds.

## Item 14 – Client Referrals and Other Compensation

John Hancock Investment Management does not directly or indirectly compensate any person who is not John Hancock Investment Management’s supervised person for client referrals.

John Hancock Investment Management and its related persons receive economic benefits from non-clients in connection with advice given to clients. To the extent assets of Fund of Funds managed by a Sub-Adviser are invested in underlying John Hancock Funds underwritten or advised by John Hancock Investment Management or its related persons, the Rule 12b-1 and management fees received by these related persons from the underlying funds are increased. In addition, to the extent the assets of an underlying John Hancock Fund subject to an expense limitation agreement increase due to investments by such fund-of-funds, the obligation of John Hancock Investment Management or a related person under such expense limitation agreement to waive or reimburse fees or expenses may be reduced or eliminated. Further, John Hancock Investment Management may receive a percentage of the advisory or other fees received by

managers or underwriters of underlying funds attributable to assets of Fund of Funds advised by John Hancock Investment Management.

## Item 15 – Custody

John Hancock Investment Management in its capacity as investment adviser does not maintain direct custody of client funds or securities, or have “custody” as that term is used in Rule 206(4)-2 under the Advisers Act. In the case of the Funds of Funds, shares of the underlying funds may be held book-entry with the transfer agent of the underlying fund and will not be held with the Fund of Funds’ qualified custodian. In such cases, John Hancock Investment Management will arrange for independent verification of such holdings within the meaning of Rule 17f-2 under the 1940 Act.

## Item 16 – Investment Discretion

As a manager of managers, John Hancock Investment Management administers the business and affairs of the Trusts, including the investment portfolios of the John Hancock Funds, and retains, supervises, and compensates Sub-Advisers to manage the assets of the investment portfolios of the John Hancock Funds. In its role as a manager-of-managers, John Hancock Investment Management has overall supervisory responsibility for the general management and investment activities of each John Hancock Fund, but does not, in the normal course of business, assume direct investment discretion to manage the securities accounts of the John Hancock Funds.

John Hancock Investment Management also has the authority, with Board approval, to manage a Fund of Funds directly and, in that case, would be responsible for implementing asset allocation strategies, including by rebalancing the Fund of Fund’s underlying funds to maintain target allocations. It is not the current practice of John Hancock Investment Management to exercise this authority in the normal course of business.

## Item 17 – Voting Client Securities

The Trusts’ proxy voting policies and procedures (the “Procedures”) delegate the responsibility for voting proxies relating to portfolio securities held by a John Hancock Fund to the fund’s investment adviser, John Hancock Investment Management or, if John Hancock Investment Management has delegated portfolio management responsibilities to one or more Sub-Advisers, to the Sub-Adviser, subject to the Board’s oversight. When serving as a manager of managers, John Hancock Investment Management delegates portfolio management responsibilities to one or more Sub-Advisers. Each Sub-Adviser has the responsibility to vote all proxies relating to securities held by a portfolio in accordance with the Sub-Adviser’s proxy voting policies and procedures. John Hancock Investment Management retains the responsibility to oversee each Sub-Adviser’s compliance with the Procedures. A Sub-Adviser has a duty to vote such proxies in the best interests of the John Hancock Fund and its shareholders. Complete descriptions of each Trust’s Procedures and the proxy voting procedures of each of the Sub-Advisers are set forth in the currently effective registration statement’s Statement of Additional Information (the “SAI”) for the applicable Trust.

It is possible that conflicts of interest will arise for a Sub-Adviser when voting proxies. Such conflicts can arise, for example, when the Sub-Adviser or its affiliate has a client or other business relationship with the issuer of the security being voted or with a third party that has an interest in the vote. A conflict of interest can also arise when the Trust, its investment adviser or principal underwriter or any of their affiliates has an interest in the vote, for example, a vote to increase an advisory fee for a fund in the Trust.

In the event a Sub-Adviser becomes aware of a material conflict of interest, the Procedures generally require the Sub-Adviser to follow conflicts procedures included in the Sub-Adviser's proxy voting procedures. Although conflicts procedures will vary among Sub-Advisers, they generally provide for one or more of the following:

- (i) voting pursuant to the recommendation of a third-party voting service;
- (ii) voting pursuant to pre-determined voting guidelines; or
- (iii) referring voting to a special compliance or oversight committee.

The specific conflicts procedures of each Sub-Adviser are set forth in its proxy voting procedures included in the SAI of each Trust. While these conflicts procedures may reduce, they will not necessarily eliminate, any influence on proxy voting of conflicts of interest.

Although Sub-Advisers have a duty to vote all proxies on behalf of the portfolios they sub-advise, it is possible that a Sub-Adviser may not be able to vote proxies under certain circumstances. For example, it may be impracticable to translate in a timely manner voting materials that are written in a foreign language or to travel to a foreign country when voting in person rather than by proxy is required. In addition, if the voting of proxies for shares of a security prohibits the Sub-Adviser from trading the shares in the marketplace for a period of time, the Sub-Adviser may determine that it is not in the best interests of the portfolio to vote the proxies. In addition, consistent with its duty to vote proxies in the best interests of a fund's shareholders, a Sub-Adviser may refrain from voting one or more of the fund's proxies if a Sub-Adviser believes that the costs of voting such proxies may outweigh the potential benefits. For example, a Sub-Adviser may also choose not to recall securities that have been loaned in order to vote proxies for shares of the security since the fund would lose security lending income if the security were recalled.

John Hancock Investment Management also has a Proxy Voting Committee (the "Committee") that was established pursuant to its Proxy Voting Policies and Procedures for the purpose of making recommendations to John Hancock Investment Management on the voting of proxies under specific conditions. For example, voting shares of an underlying fund held by a fund of funds advised by John Hancock Investment Management where in certain cases the fund of funds may mirror vote the vote of other shareholders in an underlying fund. In carrying out its proxy voting responsibilities, John Hancock Investment Management will monitor, and submit to the Committee for resolution, potential material conflicts between the interests of a fund and John Hancock Investment Management or any of its affiliated persons.

Information regarding how proxies relating to portfolio securities were voted during the most recent 12-month period is available (1) without charge, on [www.jhinvestments.com](http://www.jhinvestments.com) and (2) on the SEC's website at <http://www.sec.gov>. A copy of the Trust's proxy voting policy, John Hancock Investment Management's proxy voting policy and the proxy voting policy of each Sub-Adviser to a fund of the Trust is included as an exhibit to the Trust's current SAI available on the SEC's website at <http://www.sec.gov> or on [www.jhinvestments.com](http://www.jhinvestments.com).

## Item 18 – Financial Information

John Hancock Investment Management is not aware of any financial condition that is reasonably likely to impair its ability to meet contractual and fiduciary commitments to clients, and has not been the subject of a bankruptcy petition at any time during the past ten years.