

John Hancock Funds II
Statement of Additional Information
September 17, 2020

	A	I	R2	R4	R5	R6	1
Multi-Index 2065 Lifetime Portfolio	N/A	N/A	N/A	JAAJX	N/A	JAAKX	JAAFV
Multi-Index 2065 Preservation Portfolio	N/A	N/A	JAANX	JAAQX	N/A	JAAUX	JAALX
Multimanager 2065 Lifetime Portfolio	JAAWX	JABSX	JAAZX	JABBX	JABDX	JABEX	JAAVX

This Statement of Additional Information ("SAI") provides information about each fund listed above (each a "fund" and collectively, the "funds" or "fund of funds"). Each fund of funds is a series of the Trust indicated above. Each fund of funds invests in a number of funds and also may invest in other funds for which JHF II's investment advisor or any of its affiliates serves as investment advisor. The information in this SAI is in addition to the information that is contained in each fund's prospectus dated September 17, 2020, as amended and supplemented from time to time (collectively, the "Prospectus").

This SAI is not a prospectus. It should be read in conjunction with the Prospectus. Copies of a Prospectus or the Fund's most recent annual and semiannual reports can be obtained free of charge by contacting:

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GLOSSARY

Term	Definition
"1933 Act"	the Securities Act of 1933, as amended
"1940 Act"	the Investment Company Act of 1940, as amended
"Advisers Act"	the Investment Advisers Act of 1940, as amended
"Advisor"	John Hancock Investment Management LLC (formerly, John Hancock Advisers, LLC), 200 Berkeley Street, Boston, Massachusetts 02116
"Advisory Agreement"	an investment advisory agreement or investment management contract between the Trust and the Advisor
"Affiliated Subadvisors"	Manulife Investment Management (North America) Limited and Manulife Investment Management (US) LLC, as applicable
"affiliated underlying funds"	Funds advised by John Hancock's investment advisor or its affiliates
"BDCs"	business development companies
"Board"	Board of Trustees of the Trust
"Bond Connect"	Mutual Bond Market Access between Mainland China and Hong Kong
"Brown Brothers Harriman"	Brown Brothers Harriman & Co.
"CATS"	Certificates of Accrual on Treasury Securities
"CBOs"	Collateralized Bond Obligations
"CCO"	Chief Compliance Officer
"CDSC"	Contingent Deferred Sales Charge
"CEA"	the Commodity Exchange Act, as amended
"China A-Shares"	Chinese stock exchanges
"CIBM"	China interbank bond market
"CLOs"	Collateralized Loan Obligations
"CMOs"	Collateralized Mortgage Obligations
"Code"	the Internal Revenue Code of 1986, as amended
"COFI floaters"	Cost of Funds Index
"CPI"	Consumer Price Index
"CPI-U"	Consumer Price Index for Urban Consumers
"CPO"	Commodity Pool Operator
"CFTC"	Commodity Futures Trading Commission
"Citibank"	Citibank, N.A., 388 Greenwich Street, New York, NY 10013
"Distributor"	John Hancock Investment Management Distributors LLC (formerly, John Hancock Funds, LLC), 200 Berkeley Street, Boston, Massachusetts 02116
"EMU"	Economic and Monetary Union
"ETFs"	Exchange-Traded Funds
"ETNs"	Exchange-Traded Notes
"EU"	European Union
"Fannie Mae"	Federal National Mortgage Association
"FHFA"	Federal Housing Finance Agency
"FHLBs"	Federal Home Loan Banks
"FICBs"	Federal Intermediate Credit Banks
"Fitch"	Fitch Ratings
"Freddie Mac"	Federal Home Loan Mortgage Corporation
"funds" or "series"	The John Hancock funds within this SAI as noted on the front cover and as the context may require
"GNMA"	Government National Mortgage Association
"HKSCC"	Hong Kong Securities Clearing Company
"IOs"	Interest-Only
"IRA"	Individual Retirement Account
"IRS"	Internal Revenue Service
"JHCT"	John Hancock Collateral Trust
"JH Distributors"	John Hancock Distributors, LLC
"JHLICO New York"	John Hancock Life Insurance Company of New York
"JHLICO U.S.A."	John Hancock Life Insurance Company (U.S.A.)
"LOI"	Letter of Intention
"LIBOR"	London Interbank Offered Rate
"MAAP"	Monthly Automatic Accumulation Program
"Manulife Financial" or "MFC"	Manulife Financial, a publicly traded company based in Toronto, Canada
"Manulife IM (NA)"	Manulife Investment Management (North America) Limited (formerly, John Hancock Asset Management a Division of Manulife Asset Management (North America) Limited)
"Manulife IM (US)"	Manulife Investment Management (US) LLC (formerly, John Hancock Asset Management a Division of Manulife Asset Management (US) LLC)
"MiFID II"	Markets in Financial Instruments Directive
"Moody's"	Moody's Investors Service, Inc
"NAV"	Net Asset Value
"NRSRO"	Nationally Recognized Statistical Rating Organization
"NYSE"	New York Stock Exchange
"OID"	Original Issue Discount
"OTC"	Over-The-Counter
"PAC"	Planned Amortization Class
"PFS"	Personal Financial Services
"POs"	Principal-Only

"PRC"	People's Republic of China
"PROMESA"	Puerto Rico Oversight, Management and Economic Stability Act
"REITs"	Real Estate Investment Trusts
"RIC"	Regulated Investment Company
"RPS"	John Hancock Retirement Plan Services
"SARSEP"	Salary Reduction Simplified Employee Pension Plan
"SEC"	Securities and Exchange Commission
"SEP"	Simplified Employee Pension
"SIMPLE"	Savings Incentive Match Plan for Employees
"S&P"	Standard & Poor's Ratings Services
"SLMA"	Student Loan Marketing Association
"State Street"	State Street Bank and Trust Company, State Street Financial Center, One Lincoln Street, Boston, Massachusetts 02111
"Stock Connect"	Hong Kong Stock Connect Program
"subadvisor"	The subadvisors employed by John Hancock within this SAI as noted in Appendix B and as the context may require
"TAC"	Target Amortization Class
"TIGRs"	Treasury Receipts, Treasury Investors Growth Receipts
"Trust"	John Hancock Bond Trust John Hancock California Tax-Free Income Fund John Hancock Capital Series John Hancock Current Interest John Hancock Exchange-Traded Fund Trust John Hancock Funds II John Hancock Funds III John Hancock Investment Trust John Hancock Investment Trust II John Hancock Municipal Securities Trust John Hancock Sovereign Bond Fund John Hancock Strategic Series John Hancock Variable Insurance Trust
"TSA"	Tax-Sheltered Annuity
"unaffiliated underlying funds"	Funds in which the Funds of Funds invest that are advised by an entity other than John Hancock's investment advisor or its affiliates
"underlying funds"	Funds in which the Funds of Funds invest
"UK"	United Kingdom

ORGANIZATION OF THE TRUST

The Trust is organized as a Massachusetts business trust under the laws of The Commonwealth of Massachusetts and is an open-end management investment company registered under the 1940 Act. Each fund is a diversified series of the Trust, as that term is used in the 1940 Act, and as interpreted or modified by regulatory authority having jurisdiction, from time to time. The funds of funds may invest in affiliated and unaffiliated underlying funds. The following table sets forth the date the Trust was organized:

Trust	Date of Organization
John Hancock Funds II	June 28, 2005

The Advisor is a Delaware limited liability company whose principal offices are located at 200 Berkeley Street, Boston, Massachusetts 02116. The Advisor is registered as an investment advisor under the Advisers Act. The Advisor is an indirect principally owned subsidiary of JHLICO U.S.A. JHLICO U.S.A. and its subsidiaries today offer a broad range of financial products, including life insurance, annuities, 401(k) plans, long-term care insurance, college savings, and other forms of business insurance. Additional information about John Hancock may be found on the Internet at johnhancock.com. The ultimate controlling parent of the Advisor is MFC, a publicly traded company based in Toronto, Canada. MFC is the holding company of The Manufacturers Life Insurance Company and its subsidiaries, collectively known as Manulife Financial.

The Advisor has retained for each fund a subadvisor that is responsible for providing investment advice to the fund subject to the review of the Board and the overall supervision of the Advisor.

Manulife Financial is a leading international financial services group with principal operations in Asia, Canada, and the United States. Operating primarily as John Hancock in the United States and Manulife elsewhere, it provides financial protection products and advice, insurance, as well as wealth and asset management services through its extensive network of solutions for individuals, groups, and institutions. As of June 30, 2020, it had over C\$1.2 trillion (US\$0.9 trillion) in assets under management and administration. Its global headquarters are in Toronto, Canada, and it trades as 'MFC' on the Toronto Stock Exchange, NYSE, and the Philippine Stock Exchange, and under '945' in Hong Kong. Manulife Financial can be found on the Internet at manulife.com.

ADDITIONAL INVESTMENT POLICIES AND OTHER INSTRUMENTS

The principal strategies and risks of investing in each fund are described in the applicable Prospectus. Unless otherwise stated in the applicable Prospectus or this SAI, the investment objective and policies of the funds may be changed without shareholder approval. The funds may invest in the instruments below, and such instruments and investment policies apply to each fund, but only if and to the extent that such policies are consistent with and permitted by a fund's investment objective and policies. Each fund may also have indirect exposure to the instruments described below through derivative contracts, if applicable. By owning shares of the underlying funds, each fund of funds indirectly invests in the securities and instruments held by the underlying funds and bears the same risks of such underlying funds.

Asset-Backed Securities

The securitization techniques used to develop mortgage securities also are being applied to a broad range of other assets. Through the use of trusts and special purpose corporations, automobile and credit card receivables are being securitized in pass-through structures similar to mortgage pass-through structures or in a pay-through structure similar to the CMO structure.

Generally, the issuers of asset-backed bonds, notes or pass-through certificates are special purpose entities and do not have any significant assets other than the receivables securing such obligations. In general, the collateral supporting asset-backed securities is of a shorter maturity than that of mortgage loans. As a result, investment in these securities should be subject to less volatility than mortgage securities. Instruments backed by pools of receivables are similar to mortgage-backed securities in that they are subject to unscheduled prepayments of principal prior to maturity. When the obligations are prepaid, a fund must reinvest the prepaid amounts in securities with the prevailing interest rates at the time. Therefore, a fund's ability to maintain an investment including high-yielding asset-backed securities will be affected adversely to the extent that prepayments of principal must be

reinvested in securities that have lower yields than the prepaid obligations. Moreover, prepayments of securities purchased at a premium could result in a realized loss. Unless otherwise stated in its Prospectus, a fund will only invest in asset-backed securities rated, at the time of purchase, "AA" or better by S&P or Fitch or "Aa" or better by Moody's.

As with mortgage securities, asset-backed securities are often backed by a pool of assets representing the obligation of a number of different parties and use similar credit enhancement techniques. For a description of the types of credit enhancement that may accompany asset-backed securities, see "Types of Credit Support" below. When a fund invests in asset-backed securities, it will not limit its investments in asset-backed securities to those with credit enhancements. Although asset-backed securities are not generally traded on a national securities exchange, such securities are widely traded by brokers and dealers, and will not be considered illiquid securities for the purposes of the investment restriction on illiquid securities under "Additional Investment Policies and Other Instruments."

Types of Credit Support. To lessen the impact of an obligor's failure to make payments on underlying assets, mortgage securities and asset-backed securities may contain elements of credit support. Such credit support falls into two categories:

- liquidity protection; and
- default protection.

Liquidity protection refers to the provision of advances, generally by the entity administering the pool of assets, to ensure that the pass-through of payments due on the underlying pool of assets occurs in a timely fashion. Default protection provides protection against losses resulting from ultimate default and enhances the likelihood of ultimate payment of the obligations on at least a portion of the assets in the pool. This protection may be provided through guarantees, insurance policies or letters of credit obtained by the issuer or sponsor from third parties, through various means of structuring the transaction or through a combination of such approaches. A fund will not pay any additional fees for such credit support, although the existence of credit support may increase the price of a security.

Some examples of credit support include:

- "senior-subordinated securities" (multiple class securities with one or more classes subordinate to other classes as to the payment of principal thereof and interest thereon, with the result that defaults on the underlying assets are borne first by the holders of the subordinated class);
- creation of "reserve funds" (where cash or investments, sometimes funded from a portion of the payments on the underlying assets, are held in reserve against future losses); and
- "over-collateralization" (where the scheduled payments on, or the principal amount of, the underlying assets exceed those required to make payment on the securities and pay any servicing or other fees).

The ratings of mortgage-backed securities and asset-backed securities for which third-party credit enhancement provides liquidity protection or default protection are generally dependent upon the continued creditworthiness of the provider of the credit enhancement. The ratings of these securities could be reduced in the event of deterioration in the creditworthiness of the credit enhancement provider even in cases where the delinquency and loss experienced on the underlying pool of assets is better than expected.

The degree of credit support provided for each issue is generally based on historical information concerning the level of credit risk associated with the underlying assets. Delinquency or loss greater than anticipated could adversely affect the return on an investment in mortgage securities or asset-backed securities.

Collateralized Debt Obligations. CBOs, CLOs, other collateralized debt obligations, and other similarly structured securities (collectively, "CDOs") are types of asset-backed securities. A CBO is a trust that is often backed by a diversified pool of high risk, below investment grade fixed-income securities. The collateral can be from many different types of fixed-income securities such as high yield debt, residential privately issued mortgage-related securities, commercial privately issued mortgage-related securities, trust preferred securities and emerging market debt. A CLO is a trust typically collateralized by a pool of loans, which may include, among others, domestic and foreign senior secured loans, senior unsecured loans, and subordinate corporate loans, including loans that may be rated below investment grade or equivalent unrated loans. Other CDOs are trusts backed by other types of assets representing obligations of various parties. CDOs may charge management fees and administrative expenses.

In a CDO structure, the cash flows from the trust are split into two or more portions, called tranches, varying in risk and yield. The riskiest portion is the "equity" tranche which bears the bulk of defaults from the bonds or loans in the trust and serves to protect the other, more senior tranches from default in all but the most severe circumstances. Since it is partially protected from defaults, a senior tranche from a CDO trust typically has a higher rating and lower yield than its underlying securities, and can be rated investment grade. Despite the protection from the equity tranche, CDO tranches can experience substantial losses due to actual defaults, increased sensitivity to defaults due to collateral default and disappearance of protecting tranches, market anticipation of defaults, as well as aversion to CDO securities as a class. In the case of all CDO tranches, the market prices of and yields on tranches with longer terms to maturity tend to be more volatile than those of tranches with shorter terms to maturity due to the greater volatility and uncertainty of cash flows.

Brady Bonds

Brady Bonds are debt securities issued under the framework of the "Brady Plan," an initiative announced by former U.S. Treasury Secretary Nicholas F. Brady in 1989 as a mechanism for debtor nations to restructure their outstanding external commercial bank indebtedness. The Brady Plan framework, as it has developed, involves the exchange of external commercial bank debt for newly issued bonds ("Brady Bonds"). Brady Bonds also may be issued in respect of new money being advanced by existing lenders in connection with the debt restructuring. Brady Bonds issued to date generally have maturities between 15 and 30 years from the date of issuance and have traded at a deep discount from their face value. In addition to Brady Bonds, investments in emerging market governmental obligations issued as a result of debt restructuring agreements outside of the scope of the Brady Plan are available.

Agreements implemented under the Brady Plan to date are designed to achieve debt and debt-service reduction through specific options negotiated by a debtor nation with its creditors. As a result, the financial packages offered by each country differ. The types of options have included:

- the exchange of outstanding commercial bank debt for bonds issued at 100% of face value that carry a below-market stated rate of interest (generally known as par bonds);
- bonds issued at a discount from face value (generally known as discount bonds);
- bonds bearing an interest rate which increases over time; and
- bonds issued in exchange for the advancement of new money by existing lenders.

Discount bonds issued to date under the framework of the Brady Plan have generally borne interest computed semiannually at a rate equal to 13/16th of one percent above current six-month LIBOR. Regardless of the stated face amount and interest rate of the various types of Brady Bonds, when investing in Brady Bonds, a fund will purchase Brady Bonds in secondary markets in which the price and yield to the investor reflect market conditions at the time of purchase.

Certain sovereign bonds are entitled to "value recovery payments" in certain circumstances, which in effect constitute supplemental interest payments but generally are not collateralized. Certain Brady Bonds have been collateralized as to principal due at maturity (typically 15 to 30 years from the date of issuance) by U.S. Treasury zero coupon bonds with a maturity equal to the final maturity of such Brady Bonds, although the collateral is not available to investors until the final maturity of the Brady Bonds. Collateral purchases are financed by the International Monetary Fund (the "IMF"), the World Bank and the debtor nations' reserves. In addition, interest payments on certain types of Brady Bonds may be collateralized by cash or high-grade securities in amounts that typically represent between 12 and 18 months of interest accruals on these instruments, with the balance of the interest accruals being uncollateralized.

A fund may purchase Brady Bonds with no or limited collateralization, and must rely for payment of interest and (except in the case of principal collateralized Brady Bonds) principal primarily on the willingness and ability of the foreign government to make payment in accordance with the terms of the Brady Bonds.

Brady Bonds issued to date are purchased and sold in secondary markets through U.S. securities dealers and other financial institutions and are generally maintained through European transactional securities depositories. A substantial portion of the Brady Bonds and other sovereign debt securities in which a fund invests are likely to be acquired at a discount.

Canadian and Provincial Government and Crown Agency Obligations

Canadian Government Obligations. Canadian government obligations are debt securities issued or guaranteed as to principal or interest by the government of Canada pursuant to authority granted by the Parliament of Canada and approved by the Governor in Council, where necessary. These securities include treasury bills, notes, bonds, debentures and marketable government of Canada loans.

Canadian Crown Obligations. Canadian Crown agency obligations are debt securities issued or guaranteed by a Crown corporation, company or agency ("Crown Agencies") pursuant to authority granted by the Parliament of Canada and approved by the Governor in Council, where necessary. Certain Crown Agencies are by statute agents of Her Majesty in right of Canada, and their obligations, when properly authorized, constitute direct obligations of the government of Canada. These obligations include, but are not limited to, those issued or guaranteed by the:

- Export Development Corporation;
- Farm Credit Corporation;
- Federal Business Development Bank; and
- Canada Post Corporation.

In addition, certain Crown Agencies that are not, by law, agents of Her Majesty may issue obligations that, by statute, the Governor in Council may authorize the Minister of Finance to guarantee on behalf of the government of Canada. Other Crown Agencies that are not, by law, agents of Her Majesty may issue or guarantee obligations not entitled to be guaranteed by the government of Canada. No assurance can be given that the government of Canada will support the obligations of Crown Agencies that are not agents of Her Majesty, which it has not guaranteed, since it is not obligated to do so by law.

Provincial Government Obligations. Provincial Government obligations are debt securities issued or guaranteed as to principal or interest by the government of any province of Canada pursuant to authority granted by the provincial Legislature and approved by the Lieutenant Governor in Council of such province, where necessary. These securities include treasury bills, notes, bonds and debentures.

Provincial Crown Agency Obligations. Provincial Crown Agency obligations are debt securities issued or guaranteed by a provincial Crown corporation, company or agency ("Provincial Crown Agencies") pursuant to authority granted by the provincial Legislature and approved by the Lieutenant Governor in Council of such province, where necessary. Certain Provincial Crown Agencies are by statute agents of Her Majesty in right of a particular province of Canada, and their obligations, when properly authorized, constitute direct obligations of such province. Other Provincial Crown Agencies that are not, by law, agents of Her Majesty in right of a particular province of Canada may issue obligations that, by statute, the Lieutenant Governor in Council of such province may guarantee, or may authorize the Treasurer thereof to guarantee, on behalf of the government of such province. Finally, other Provincial Crown Agencies that are not, by law, agencies of Her Majesty may issue or guarantee obligations not entitled to be guaranteed by a provincial government. No assurance can be given that the government of any province of Canada will support the obligations of Provincial Crown Agencies that are not agents of Her Majesty and that it has not guaranteed, as it is not obligated to do so by law. Provincial Crown Agency obligations described above include, but are not limited to, those issued or guaranteed by a:

- provincial railway corporation;
- provincial hydroelectric or power commission or authority;
- provincial municipal financing corporation or agency; and
- provincial telephone commission or authority.

Certificates of Deposit, Time Deposits and Bankers' Acceptances

Certificates of Deposit. Certificates of deposit are certificates issued against funds deposited in a bank or a savings and loan. They are issued for a definite period of time and earn a specified rate of return.

Time Deposits. Time deposits are non-negotiable deposits maintained in banking institutions for specified periods of time at stated interest rates.

Bankers' Acceptances. Bankers' acceptances are short-term credit instruments evidencing the obligation of a bank to pay a draft which has been drawn on it by a customer. These instruments reflect the obligations both of the bank and of the drawer to pay the face amount of the instrument upon maturity. They are primarily used to finance the import, export, transfer or storage of goods. They are "accepted" when a bank guarantees their payment at maturity.

These obligations are not insured by the Federal Deposit Insurance Corporation.

Commercial Paper and Short Term Notes. Commercial paper consists of unsecured promissory notes issued by corporations. Issues of commercial paper and short-term notes will normally have maturities of less than nine months and fixed rates of return, although such instruments may have maturities of up to one year.

Variable Amount Master Demand Notes. Commercial paper obligations may include variable amount master demand notes. Variable amount master demand notes are obligations that permit the investment of fluctuating amounts at varying rates of interest pursuant to direct arrangements between a fund, as lender, and the borrower. These notes permit daily changes in the amounts borrowed. The investing (i.e., "lending") fund has the right to increase the amount under the note at any time up to the full amount provided by the note agreement, or to decrease the amount, and the borrower may prepay up to the full amount of the note without penalty. Because variable amount master demand notes are direct lending arrangements between the lender and borrower, it is not generally contemplated that such instruments will be traded. There is no secondary market for these notes, although they are redeemable (and thus immediately repayable by the borrower) at face value, plus accrued interest, at any time.

A subadvisor will only invest in variable amount master demand notes issued by companies that, at the date of investment, have an outstanding debt issue rated "Aaa" or "Aa" by Moody's or "AAA" or "AA" by S&P or Fitch, and that the subadvisor has determined present minimal risk of loss. A subadvisor will look generally at the financial strength of the issuing company as "backing" for the note and not to any security interest or supplemental source, such as a bank letter of credit. A variable amount master demand note will be valued on each day a NAV is determined. The NAV generally will be equal to the face value of the note plus accrued interest unless the financial position of the issuer is such that its ability to repay the note when due is in question.

Conversion of Debt Securities

In the event debt securities held by a fund are converted to or exchanged for equity securities, the fund may continue to hold such equity securities, but only if and to the extent consistent with and permitted by its investment objective and policies.

Convertible Securities

Convertible securities may include corporate notes or preferred securities. Investments in convertible securities are not subject to the rating criteria with respect to non-convertible debt obligations. As with all debt securities, the market value of convertible securities tends to decline as interest rates increase and, conversely, to increase as interest rates decline. The market value of convertible securities can also be heavily dependent upon the changing value of the equity securities into which such securities are convertible, depending on whether the market price of the underlying security exceeds the conversion price. Convertible securities generally rank senior to common stocks in an issuer's capital structure and consequently entail less risk than the issuer's common stock. However, the extent to which such risk is reduced depends upon the degree to which the convertible security sells above its value as a fixed-income security.

Corporate Obligations

Corporate obligations are bonds and notes issued by corporations to finance long-term credit needs.

Depository Receipts

Securities of foreign issuers may include American Depositary Receipts, European Depositary Receipts, Global Depositary Receipts, International Depositary Receipts, and Non-Voting Depositary Receipts ("ADRs," "EDRs," "GDRs," "IDRs," and "NVDRs," respectively, and collectively, "Depository Receipts"). Depository Receipts are certificates typically issued by a bank or trust company that give their holders the right to receive securities issued by a foreign or domestic corporation.

ADRs are U.S. dollar-denominated securities backed by foreign securities deposited in a U.S. securities depository. ADRs are created for trading in the U.S. markets. The value of an ADR will fluctuate with the value of the

underlying security and will reflect any changes in exchange rates. An investment in ADRs involves risks associated with investing in foreign securities. Issuers of unsponsored ADRs are not contractually obligated to disclose material information in the United States, and, therefore, there may not be a correlation between that information and the market value of an unsponsored ADR.

EDRs, GDRs, IDRs, and NVDRs are receipts evidencing an arrangement with a foreign bank or exchange affiliate similar to that for ADRs and are designed for use in foreign securities markets. EDRs, GDRs, IDRs, and NVDRs are not necessarily quoted in the same currency as the underlying security. NVDRs do not have voting rights.

Exchange-Traded Notes

ETNs are senior, unsecured, unsubordinated debt securities the returns of which are linked to the performance of a particular market benchmark or strategy, minus applicable fees. ETNs are traded on an exchange (e.g., the NYSE) during normal trading hours; however, investors also can hold ETNs until they mature. At maturity, the issuer pays to the investor a cash amount equal to the principal amount, subject to the day's market benchmark or strategy factor. ETNs do not make periodic coupon payments or provide principal protection. ETNs are subject to credit risk, including the credit risk of the issuer, and the value of the ETN may drop due to a downgrade in the issuer's credit rating, despite the underlying market benchmark or strategy remaining unchanged. The value of an ETN also may be influenced by time to maturity, level of supply and demand for the ETN, volatility and lack of liquidity in underlying assets, changes in the applicable interest rates, changes in the issuer's credit rating, and economic, legal, political, or geographic events that affect the referenced underlying asset. When a fund invests in ETNs, it will bear its proportionate share of any fees and expenses borne by the ETN. A decision by a fund to sell ETN holdings may be limited by the availability of a secondary market. In addition, although an ETN may be listed on an exchange, the issuer may not be required to maintain the listing, and there can be no assurance that a secondary market will exist for an ETN.

ETNs also are subject to tax risk. No assurance can be given that the IRS will accept, or a court will uphold, how a fund characterizes and treats ETNs for tax purposes.

An ETN that is tied to a specific market benchmark or strategy may not be able to replicate and maintain exactly the composition and relative weighting of securities, commodities or other components in the applicable market benchmark or strategy. Some ETNs that use leverage can, at times, be relatively illiquid, and thus they may be difficult to purchase or sell at a fair price. Leveraged ETNs are subject to the same risk as other instruments that use leverage in any form. The market value of ETNs may differ from their market benchmark or strategy. This difference in price may be due to the fact that the supply and demand in the market for ETNs at any point in time is not always identical to the supply and demand in the market for the securities, commodities or other components underlying the market benchmark or strategy that the ETN seeks to track. As a result, there may be times when an ETN trades at a premium or discount to its market benchmark or strategy.

Fixed-Income Securities

Investment grade bonds are rated at the time of purchase in the four highest rating categories by a NRSRO, such as those rated "Aaa," "Aa," "A" and "Baa" by Moody's, or "AAA," "AA," "A" and "BBB" by S&P or Fitch. Obligations rated in the lowest of the top four rating categories (such as "Baa" by Moody's or "BBB" by S&P or Fitch) may have speculative characteristics and changes in economic conditions or other circumstances are more likely to lead to a weakened capacity to make principal and interest payments, including a greater possibility of default or bankruptcy of the issuer, than is the case with higher grade bonds. Subsequent to its purchase by a fund, an issue of securities may cease to be rated or its rating may be reduced below the minimum required for purchase by a fund. In addition, it is possible that Moody's, S&P, Fitch and other NRSROs might not timely change their ratings of a particular issue to reflect subsequent events. None of these events will require the sale of the securities by a fund, although a subadvisor will consider these events in determining whether it should continue to hold the securities.

In general, the ratings of Moody's, S&P, and Fitch represent the opinions of these agencies as to the quality of the securities that they rate. It should be emphasized however, that ratings are relative and subjective and are not absolute standards of quality. These ratings will be used by a fund as initial criteria for the selection of portfolio securities. Among the factors that will be considered are the long-term ability of the issuer to pay principal and interest and general economic trends. Appendix A contains further information concerning the ratings of Moody's, S&P, and Fitch and their significance.

Foreign Government Securities

Foreign government securities include securities issued or guaranteed by foreign governments (including political subdivisions) or their authorities, agencies, or instrumentalities or by supra-national agencies. Different kinds of foreign government securities have different kinds of government support. For example, some foreign government securities are supported by the full faith and credit of a foreign national government or political subdivision and some are not. Foreign government securities of some countries may involve varying degrees of credit risk as a result of financial or political instability in those countries and the possible inability of a Fund to enforce its rights against the foreign government issuer. As with other fixed income securities, sovereign issuers may be unable or unwilling to make timely principal or interest payments. Supra-national agencies are agencies whose member nations make capital contributions to support the agencies' activities.

High Yield (High Risk) Domestic Corporate Debt Securities

High yield corporate debt securities (also known as "junk bonds") include bonds, debentures, notes, bank loans, credit-linked notes and commercial paper. Most of these debt securities will bear interest at fixed rates, except bank loans, which usually have floating rates. Bonds also may have variable rates of interest, and debt securities may involve equity features, such as equity warrants or convertible outright and participation features (i.e., interest or other payments, often in addition to a fixed rate of return, that are based on the borrower's attainment of specified levels of revenues, sales or profits and thus enable the holder of the security to share in the potential success of the venture). Today, much high yield debt is used for general corporate purposes, such as financing capital needs or consolidating and paying down bank lines of credit.

The secondary market for high yield U.S. corporate debt securities is concentrated in relatively few market makers and is dominated by institutional investors, including funds, insurance companies and other financial institutions. Accordingly, the secondary market for such securities is not as liquid as, and is more volatile than, the secondary market for higher-rated securities. In addition, market trading volume for high yield U.S. corporate debt securities is generally lower and the secondary market for such securities could shrink or disappear suddenly and without warning as a result of adverse market or economic conditions, independent of any specific adverse changes in the condition of a particular issuer. The lack of sufficient market liquidity may cause a fund to incur losses because it will be required to effect sales at a disadvantageous time and then only at a substantial drop in price. These factors may have an adverse effect on the market price and a fund's ability to dispose of particular portfolio investments. A less liquid secondary market also may make it more difficult for a fund to obtain precise valuations of the high yield securities in its portfolio.

A fund is not obligated to dispose of securities whose issuers subsequently are in default or that are downgraded below the rating requirements that the fund imposes at the time of purchase.

Hybrid Instruments

Hybrid instruments (a type of potentially high-risk derivative) combine the elements of futures contracts or options with those of debt, preferred equity or a depository instrument.

Characteristics of Hybrid Instruments. Generally, a hybrid instrument is a debt security, preferred stock, depository share, trust certificate, certificate of deposit or other evidence of indebtedness on which a portion of or all interest payments, and/or the principal or stated amount payable at maturity, redemption or retirement, is determined by reference to the following:

- prices, changes in prices, or differences between prices of securities, currencies, intangibles, goods, articles or commodities (collectively, "underlying assets"); or
- an objective index, economic factor or other measure, such as interest rates, currency exchange rates, commodity indices, and securities indices (collectively, "benchmarks").

Hybrid instruments may take a variety of forms, including, but not limited to:

- debt instruments with interest or principal payments or redemption terms determined by reference to the value of a currency or commodity or securities index at a future point in time;
- preferred stock with dividend rates determined by reference to the value of a currency; or
- convertible securities with the conversion terms related to a particular commodity.

Uses of Hybrid Instruments. Hybrid instruments provide an efficient means of creating exposure to a particular market, or segment of a market, with the objective of enhancing total return. For example, a fund may wish to take advantage of expected declines in interest rates in several European countries, but avoid the transaction costs associated with buying and currency-hedging the foreign bond positions.

One approach is to purchase a U.S. dollar-denominated hybrid instrument whose redemption price is linked to the average three-year interest rate in a designated group of countries. The redemption price formula would provide for payoffs of greater than par if the average interest rate was lower than a specified level, and payoffs of less than par if rates were above the specified level. Furthermore, the investing fund could limit the downside risk of the security by establishing a minimum redemption price so that the principal paid at maturity could not be below a predetermined minimum level if interest rates were to rise significantly.

The purpose of this type of arrangement, known as a structured security with an embedded put option, is to give a fund the desired European bond exposure while avoiding currency risk, limiting downside market risk, and lowering transactions costs. Of course, there is no guarantee that such a strategy will be successful and the value of a fund may decline if, for example, interest rates do not move as anticipated or credit problems develop with the issuer of the hybrid instrument.

Structured Notes. Structured notes include investments in an entity, such as a trust, organized and operated solely for the purpose of restructuring the investment characteristics of various securities. This type of restructuring involves the deposit or purchase of specified instruments and the issuance of one or more classes of securities backed by, or representing interests, in the underlying instruments. The cash flow on the underlying instruments may be apportioned among the newly issued structured notes to create securities with different investment characteristics, such as varying maturities, payment priorities or interest rate provisions. The extent of the income paid by the structured notes is dependent on the cash flow of the underlying instruments.

Illiquid Securities

No fund may invest more than 15% of its net assets in securities that cannot be sold or disposed of in seven calendar days or less without the sale or disposition significantly changing the market value of the investment. Investment in illiquid securities involves the risk that, because of the lack of consistent market demand for such securities, a fund may be forced to sell them at a discount from the last offer price. To the extent that an investment is deemed to be an illiquid investment or a less liquid investment, a fund can expect to be exposed to greater liquidity risk.

Illiquid securities may include, but are not limited to: (a) securities (except for Section 4(a)(2) Commercial Paper, discussed below) that are not eligible for resale pursuant to Rule 144A under the 1933 Act; (b) repurchase agreements maturing in more than seven days (except for those that can be terminated after a notice period of seven days or less); (c) IOs and POs of non-governmental issuers; (d) time deposits maturing in more than seven days; (e) federal fund loans maturing in more than seven days; (f) bank loan participation interests; (g) foreign government loan participations; (h) municipal leases and participations therein; and (i) any other securities or other investments for which a liquid secondary market does not exist.

The Trust has implemented a written liquidity risk management program (the "LRM Program") and related procedures to manage the liquidity risk of a fund in accordance with Rule 22e-4 under the 1940 Act ("Rule 22e-4"). Rule 22e-4 defines "liquidity risk" as the risk that a fund could not meet requests to redeem shares issued by the fund without significant dilution of the remaining investors' interests in the fund. The Board has designated the Advisor to serve as the administrator of the LRM Program and the related procedures. As a part of the LRM Program, the Advisor is responsible to identify illiquid investments and categorize the relative liquidity of a fund's investments in accordance with Rule 22e-4. Under the LRM Program, the Advisor assesses, manages, and periodically reviews a fund's liquidity risk, and is responsible to make periodic reports to the Board and the SEC regarding the liquidity of a fund's investments, and to notify the Board and the SEC of certain liquidity events specified in Rule 22e-4. The liquidity of a fund's portfolio investments is determined based on relevant market, trading and investment-specific considerations under the LRM Program.

Commercial paper issued in reliance on Section 4(a)(2) of the 1933 Act ("Section 4(a)(2) Commercial Paper") is restricted as to its disposition under federal securities law, and generally is sold to institutional investors, such as the funds, who agree that they are purchasing the paper for investment purposes and not with a view to public distribution. Any resale by the purchaser must be made in an exempt transaction. Section 4(a)(2) Commercial Paper normally is resold to other institutional investors, like the funds, through or with the assistance of the issuer or investment dealers who make a market in Section 4(a)(2) Commercial Paper, thus providing liquidity.

If the Advisor determines, pursuant to the LRM Program and related procedures, that specific Section 4(a)(2) Commercial Paper or securities that are restricted as to resale but for which a ready market is available pursuant to an exemption provided by Rule 144A under the 1933 Act or other exemptions from the registration requirements of the 1933 Act are liquid, they will not be subject to a fund's limitation on investments in illiquid securities. Investing in Section 4(a)(2) Commercial Paper could have the effect of increasing the level of illiquidity in a fund if qualified institutional buyers become for a time uninterested in purchasing these restricted securities.

Indexed Securities

Indexed securities are instruments whose prices are indexed to the prices of other securities, securities indices, currencies, or other financial indicators. Indexed securities typically, but not always, are debt securities or deposits whose value at maturity or coupon rate is determined by reference to a specific instrument or statistic.

Currency-indexed securities typically are short-term to intermediate-term debt securities whose maturity values or interest rates are determined by reference to the values of one or more specified foreign currencies, and may offer higher yields than U.S. dollar-denominated securities. Currency-indexed securities may be positively or negatively indexed; that is, their maturity value may increase when the specified currency value increases, resulting in a security that performs similarly to a foreign denominated instrument, or their maturity value may decline when foreign currencies increase, resulting in a security whose price characteristics are similar to a put on the underlying currency. Currency-indexed securities also may have prices that depend on the values of a number of different foreign currencies relative to each other.

The performance of indexed securities depends to a great extent on the performance of the security, currency, or other instrument to which they are indexed, and also may be influenced by interest rate changes in the United States and abroad. Indexed securities may be more volatile than the underlying instruments. Indexed securities also are subject to the credit risks associated with the issuer of the security, and their values may decline substantially if the issuer's creditworthiness deteriorates. Issuers of indexed securities have included banks, corporations, and certain U.S. government agencies. An indexed security may be leveraged to the extent that the magnitude of any change in the interest rate or principal payable on an indexed security is a multiple of the change in the reference price.

Index-Related Securities ("Equity Equivalents")

A fund may invest in certain types of securities that enable investors to purchase or sell shares in a basket of securities that seeks to track the performance of an underlying index or a portion of an index. Such Equity Equivalents include, among others, DIAMONDS (interests in a basket of securities that seeks to track the performance of the Dow Jones Industrial Average), SPDRs or S&P Depositary Receipts (an exchange-traded fund that tracks the S&P 500 Index). Such securities are similar to index mutual funds, but they are traded on various stock exchanges or secondary markets. The value of these securities is dependent upon the performance of the underlying index on which they are based. Thus, these securities are subject to the same risks as their underlying indices as well as the securities that make up those indices. For example, if the securities comprising an index that an index-related security seeks to track perform poorly, the index-related security will lose value.

Equity Equivalents may be used for several purposes, including to simulate full investment in the underlying index while retaining a cash balance for portfolio management purposes, to facilitate trading, to reduce transaction costs or to seek higher investment returns where an Equity Equivalent is priced more attractively than securities in the underlying index. Because the expense associated with an investment in Equity Equivalents may be substantially lower than the expense of small investments directly in the securities comprising the indices they seek to track, investments in Equity Equivalents may provide a cost-effective means of diversifying a fund's assets across a broad range of securities.

To the extent a fund invests in securities of other investment companies, including Equity Equivalents, fund shareholders would indirectly pay a portion of the operating costs of such companies in addition to the expenses of its own operations. These costs include management, brokerage, shareholder servicing and other operational expenses. Indirectly, if a fund invests in Equity Equivalents, shareholders may pay higher operational costs than if they owned the underlying investment companies directly. Additionally, a fund's investments in such investment companies are subject to limitations under the 1940 Act and market availability.

The prices of Equity Equivalents are derived and based upon the securities held by the particular investment company. Accordingly, the level of risk involved in the purchase or sale of an Equity Equivalent is similar to the risk involved in the purchase or sale of traditional common stock, with the exception that the pricing mechanism for

such instruments is based on a basket of stocks. The market prices of Equity Equivalents are expected to fluctuate in accordance with both changes in the NAVs of their underlying indices and the supply and demand for the instruments on the exchanges on which they are traded. Substantial market or other disruptions affecting Equity Equivalents could adversely affect the liquidity and value of the shares of a fund.

Inflation-Indexed Bonds

Inflation-indexed bonds are debt instruments whose principal and/or interest value are adjusted periodically according to a rate of inflation (usually a CPI). Two structures are most common. The U.S. Treasury and some other issuers use a structure that accrues inflation into the principal value of the bond. Most other issuers pay out the inflation accruals as part of a semiannual coupon.

U.S. Treasury Inflation Protected Securities ("TIPS") currently are issued with maturities of five, ten, or thirty years, although it is possible that securities with other maturities will be issued in the future. The principal amount of TIPS adjusts for inflation, although the inflation-adjusted principal is not paid until maturity. Semiannual coupon payments are determined as a fixed percentage of the inflation-adjusted principal at the time the payment is made.

If the rate measuring inflation falls, the principal value of inflation-indexed bonds will be adjusted downward, and consequently the interest payable on these securities (calculated with respect to a smaller principal amount) will be reduced. At maturity, TIPS are redeemed at the greater of their inflation-adjusted principal or at the par amount at original issue. If an inflation-indexed bond does not provide a guarantee of principal at maturity, the adjusted principal value of the bond repaid at maturity may be less than the original principal.

The value of inflation-indexed bonds is expected to change in response to changes in real interest rates. Real interest rates in turn are tied to the relationship between nominal interest rates and the rate of inflation. For example, if inflation were to rise at a faster rate than nominal interest rates, real interest rates would likely decline, leading to an increase in value of inflation-indexed bonds. In contrast, if nominal interest rates increase at a faster rate than inflation, real interest rates would likely rise, leading to a decrease in value of inflation-indexed bonds.

While these securities, if held to maturity, are expected to be protected from long-term inflationary trends, short-term increases in inflation may lead to a decline in value. If nominal interest rates rise due to reasons other than inflation (for example, due to an expansion of non-inflationary economic activity), investors in these securities may not be protected to the extent that the increase in rates is not reflected in the bond's inflation measure.

The inflation adjustment of TIPS is tied to the CPI-U, which is calculated monthly by the U.S. Bureau of Labor Statistics. The CPI-U is a measurement of price changes in the cost of living, made up of components such as housing, food, transportation, and energy. There can be no assurance that the CPI-U will accurately measure the real rate of inflation in the prices of goods and services.

Interfund Lending

Pursuant to an exemptive order issued by the SEC, a fund may lend money to, and borrow money from, other funds advised by the Advisor or any other investment advisor under common control with the Advisor, subject to the fundamental restrictions on borrowing and lending applicable to the fund. Each fund is authorized to participate fully in this program.

A fund will borrow through the program only when the costs are equal to or lower than the cost of bank loans, and a fund will lend through the program only when the returns are higher than those available from an investment in overnight repurchase agreements. Interfund loans and borrowings normally extend overnight, but can have a maximum duration of seven days. Loans may be called on one day's notice. A fund may have to borrow from a bank at a higher interest rate if an interfund loan is called or not renewed. Any delay in repayment to a lending fund or from a borrowing fund could result in a lost investment opportunity or additional borrowing costs.

Investment in Other Investment Companies

A fund may invest in other investment companies (including closed-end investment companies, unit investment trusts, open-end investment companies, investment companies exempted from registration under the 1940 Act pursuant to the rules thereunder and other pooled vehicles) to the extent permitted by federal securities laws (including the rules, regulations and interpretations thereunder) and to the extent permitted by exemptive relief obtained from the SEC by the custodian, the Advisor and/or a subadvisor.

Investing in other investment companies involves substantially the same risks as investing directly in the underlying instruments, but the total return on such investments at the investment company-level may be reduced by the operating expenses and fees of such other investment companies, including advisory fees. Certain types of investment companies, such as closed-end investment companies, issue a fixed number of shares that trade on a stock exchange or may involve the payment of substantial premiums above the value of such investment companies' portfolio securities when traded OTC or at discounts to their NAVs. Others are continuously offered at NAV, but also may be traded in the secondary market.

Investments in Creditors' Claims

Creditors' claims in bankruptcy ("Creditors' Claims") are rights to payment from a debtor under the U.S. bankruptcy laws. Creditors' Claims may be secured or unsecured. A secured claim generally receives priority in payment over unsecured claims.

Sellers of Creditors' Claims can either be: (i) creditors that have extended unsecured credit to the debtor company (most commonly trade suppliers of materials or services); or (ii) secured creditors (most commonly financial institutions) that have obtained collateral to secure an advance of credit to the debtor. Selling a Creditors' Claim offers the creditor an opportunity to turn a claim that otherwise might not be satisfied for many years into liquid assets.

A Creditors' Claim may be purchased directly from a creditor although most are purchased through brokers. A Creditors' Claim can be sold as a single claim or as part of a package of claims from several different bankruptcy filings. Purchasers of Creditors' Claims may take an active role in the reorganization process of the bankrupt company and, in certain situations in which a Creditors' Claim is not paid in full, the claim may be converted into stock of the reorganized debtor.

Although Creditors' Claims can be sold to other investors, the market for Creditors' Claims is not liquid and, as a result, a purchaser of a Creditors' Claim may be unable to sell the claim or may have to sell it at a drastically reduced price. There is no guarantee that any payment will be received from a Creditors' Claim, especially in the case of unsecured claims.

Lending of Securities

A fund may lend its securities so long as such loans do not represent more than 33 $\frac{1}{3}$ % of its total assets. As collateral for the loaned securities, the borrower gives the lending portfolio collateral equal to at least 100% of the value of the loaned securities. The collateral will consist of cash (including U.S. dollars and foreign currency), cash equivalents or securities issued or guaranteed by the U.S. government or its agencies or instrumentalities. The borrower must also agree to increase the collateral if the value of the loaned securities increases. If the market value of the loaned securities declines, the borrower may request that some collateral be returned.

During the existence of the loan, a fund will receive from the borrower amounts equivalent to any dividends, interest or other distributions on the loaned securities, as well as interest on such amounts. If the fund receives a payment in lieu of dividends (a "substitute payment") with respect to securities on loan pursuant to a securities lending transaction, such income will not be eligible for the dividends-received deduction (the "DRD") for corporate shareholders or for treatment as qualified dividend income for individual shareholders. The DRD and qualified dividend income are discussed more fully in this SAI under "Additional Information Concerning Taxes."

As with other extensions of credit, there are risks that collateral could be inadequate in the event of the borrower failing financially, which could result in actual financial loss, and risks that recovery of loaned securities could be delayed, which could result in interference with portfolio management decisions or exercise of ownership rights. The collateral is managed by an affiliate of the Advisor. 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 subadvisor 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.

The Trust, on behalf of certain of its funds, has entered into an agency agreement for securities lending transactions ("Securities Lending Agreement") with Citibank and, separately, with Brown Brothers Harriman (each, a "Securities Lending Agent"). Pursuant to each Securities Lending Agreement, Citibank or Brown Brothers Harriman acts as securities lending agent for the funds and administers each fund's securities lending program. During the fiscal year,

each Securities Lending Agent performed various services for the funds, including the following: (i) lending portfolio securities, previously identified by the fund as available for loan, and held by the fund's custodian ("Custodian") on behalf of the fund, to borrowers identified by the fund in the Securities Lending Agreement; (ii) instructing the Custodian to receive and deliver securities, as applicable, to effect such loans; (iii) locating borrowers; (iv) monitoring daily the market value of loaned securities; (v) ensuring daily movement of collateral associated with loan transactions; (vi) marking to market loaned securities and non-cash collateral; (vii) monitoring dividend activity with respect to loaned securities; (viii) negotiating loan terms with the borrowers; (ix) recordkeeping and account servicing related to securities lending activities; and (x) arranging for the return of loaned securities at the termination of the loan. Under each Securities Lending Agreement, Citibank or Brown Brothers Harriman, as applicable, generally will bear the risk that a borrower may default on its obligation to return loaned securities.

Securities lending involves counterparty risk, including the risk that the loaned securities may not be returned or returned in a timely manner and/or a loss of rights in the collateral if the borrower or the lending agent defaults or fails financially. This risk is increased when the fund's loans are concentrated with a single or limited number of borrowers. There are no limits on the number of borrowers to which the fund may lend securities and the fund may lend securities to only one or a small group of borrowers. In addition, under each Securities Lending Agreement, loans may be made to affiliates of Citibank or Brown Brothers Harriman, as applicable, as identified in the applicable Securities Lending Agreement.

Cash collateral may be invested by a fund in JHCT. Investment of cash collateral offers the opportunity for a fund to profit from income earned by this collateral pool, but also the risk of loss, should the value of the fund's shares in the collateral pool decrease below their initial value.

Loan Participations and Assignments; Term Loans

Loan participations are loans or other direct debt instruments that are interests in amounts owned by a corporate, governmental or other borrower to another party. They may represent amounts owed to lenders or lending syndicates to suppliers of goods or services, or to other parties. A fund will have the right to receive payments of principal, interest and any fees to which it is entitled only from the lender selling the participation and only upon receipt by the lender of the payments from the borrower. In connection with purchasing participations, a fund generally will have no right to enforce compliance by the borrower with the term of the loan agreement relating to loan, nor any rights of set-off against the borrower, and a fund may not directly benefit from any collateral supporting the loan in which it has purchased the participation. As a result, the fund will assume the credit risk of both the borrower and the lender that is selling the participation. In the event of the insolvency of the lender selling a participation, a fund may be treated as a general creditor of the lender and may not benefit from any set-off between the lender and the borrower.

When a fund purchases assignments from lenders it will acquire direct rights against the borrower on the loan. However, because assignments are arranged through private negotiations between potential assignees and potential assignors, the rights and obligation acquired by a fund as the purchaser of an assignment may differ from, and be more limited than, those held by the assigning lender. Investments in loan participations and assignments present the possibility that a fund could be held liable as a co-lender under emerging legal theories of lender liability. In addition, if the loan is foreclosed, a fund could be part owner of any collateral and could bear the costs and liabilities of owning and disposing of the collateral. It is anticipated that such securities could be sold only to a limited number of institutional investors. In addition, some loan participations and assignments may not be rated by major rating agencies and may not be protected by the securities laws.

A term loan is typically a loan in a fixed amount that borrowers repay in a scheduled series of repayments or a lump-sum payment at maturity. A delayed draw loan is a special feature in a term loan that permits the borrower to withdraw predetermined portions of the total amount borrowed at certain times. If a fund enters into a commitment with a borrower regarding a delayed draw term loan or bridge loan, the fund will be obligated on one or more dates in the future to lend the borrower monies (up to an aggregate stated amount) if called upon to do so by the borrower. Once repaid, a term loan cannot be drawn upon again.

Investments in loans and loan participations will subject a fund to liquidity risk. Loans and loan participations may be transferable among financial institutions, but may not have the liquidity of conventional debt securities and are often subject to restrictions on resale, thereby making them potentially illiquid. For example, the purchase or sale of loans requires, in many cases, the consent of either a third party (such as the lead or agent bank for the loan) or of

the borrower, and although such consent is, in practice, infrequently withheld, the consent requirement can delay a purchase or hinder a fund's ability to dispose of its investments in loans in a timely fashion. In addition, in some cases, negotiations involved in disposing of indebtedness may require weeks to complete. Consequently, some indebtedness may be difficult or impossible to dispose of readily at what a subadvisor believes to be a fair price.

Corporate loans that a fund may acquire or in which a fund may purchase a loan participation are made generally to finance internal growth, mergers, acquisitions, stock repurchases, leveraged buy-outs, leverage recapitalizations and other corporate activities. The highly leveraged capital structure of the borrowers in certain of these transactions may make such loans especially vulnerable to adverse changes in economic or market conditions and greater credit risk than other investments.

Certain of the loan participations or assignments acquired by a fund may involve unfunded commitments of the lenders or revolving credit facilities under which a borrower may from time to time borrow and repay amounts up to the maximum amount of the facility. In such cases, a fund would have an obligation to advance its portion of such additional borrowings upon the terms specified in the loan documentation. Such an obligation may have the effect of requiring a fund to increase its investment in a company at a time when it might not be desirable to do so (including at a time when the company's financial condition makes it unlikely that such amounts will be repaid).

The borrower of a loan in which a fund holds an interest (including through a loan participation) may, either at its own election or pursuant to the terms of the loan documentation, prepay amounts of the loan from time to time. The degree to which borrowers prepay loans, whether as a contractual requirement or at their election, may be affected by general business conditions, the financial condition of the borrower and competitive conditions among lenders, among other things. As such, prepayments cannot be predicted with accuracy. Upon a prepayment, either in part or in full, the actual outstanding debt on which a fund derives interest income will be reduced. The effect of prepayments on a fund's performance may be mitigated by the receipt of prepayment fees, and the fund's ability to reinvest prepayments in other loans that have similar or identical yields. However, there is no assurance that a fund will be able to reinvest the proceeds of any loan prepayment at the same interest rate or on the same terms as those of the prepaid loan.

A fund may invest in loans that pay interest at fixed rates and loans that pay interest at rates that float or reset periodically at a margin above a generally recognized base lending rate, such as the Prime Rate (the interest rate that banks charge their most creditworthy customers), LIBOR, or another generally recognized base lending rate. Most floating rate loans are senior in rank in the event of bankruptcy to most other securities of the borrower such as common stock or public bonds. In addition, floating rate loans also are normally secured by specific collateral or assets of the borrower so that the holders of the loans will have a priority claim on those assets in the event of default or bankruptcy of the issuer. While the seniority in rank and the security interest are helpful in reducing credit risk, such risk is not eliminated. Securities with floating interest rates can be less sensitive to interest rate changes, but may decline in value if their interest rates do not rise as much as interest rates in general, or if interest rates decline. While, because of this interest rate reset feature, loans with resetting interest rates provide a considerable degree of protection against rising interest rates, there is still potential for interest rates on such loans to lag changes in interest rates in general for some period of time. In addition, changes in interest rates will affect the amount of interest income paid to a fund as the floating rate instruments adjust to the new levels of interest rates. In a rising base rate environment, income generation generally will increase. Conversely, during periods when the base rate is declining, the income generating ability of the loan instruments will be adversely affected.

Investments in many loans have additional risks that result from the use of agents and other interposed financial institutions. Many loans are structured and administered by a financial institution (e.g., a commercial bank) that acts as the agent of the lending syndicate. The agent typically administers and enforces the loan on behalf of the other lenders in the lending syndicate. In addition, an institution, typically but not always the agent, holds the collateral, if any, on behalf of the lenders. A financial institution's employment as an agent might be terminated in the event that it fails to observe a requisite standard of care or becomes insolvent. A successor agent would generally be appointed to replace the terminated agent, and assets held by the agent under the loan agreement would likely remain available to holders of such indebtedness. However, if assets held by the agent for the benefit of a fund were determined to be subject to the claims of the agent's general creditors, the fund might incur certain costs and delays in realizing payment on a loan or loan participation and could suffer a loss of principal and/or interest. In situations involving other interposed financial institutions (e.g., an insurance company or government agency) similar risks may arise.

Loans and Other Direct Debt Instruments

Direct debt instruments are interests in amounts owed by a corporate, governmental, or other borrower to lenders or lending syndicates (loans and loan participations), to suppliers of goods or services (trade claims or other receivables), or to other parties. Direct debt instruments involve a risk of loss in case of default or insolvency of the borrower and may offer less legal protection to the purchaser in the event of fraud or misrepresentation, or there may be a requirement that a fund supply additional cash to a borrower on demand. U.S. federal securities laws afford certain protections against fraud and misrepresentation in connection with the offering or sale of a security, as well as against manipulation of trading markets for securities. It is unclear whether these protections are available to investments in loans and other forms of direct indebtedness under certain circumstances, in which case such risks may be increased.

A fund may be in possession of material non-public information about a borrower as a result of owning a floating rate instrument issued by such borrower. Because of prohibitions on trading in securities of issuers while in possession of such information, a fund might be unable to enter into a transaction in a publicly traded security issued by that borrower when it would otherwise be advantageous to do so.

Market Capitalization Weighted Approach

A fund's structure may involve market capitalization weighting in determining individual security weights and, where applicable, country or region weights. Market capitalization weighting means each security is generally purchased based on the issuer's relative market capitalization. Market capitalization weighting may be adjusted by a subadvisor, for a variety of reasons. A fund may deviate from market capitalization weighting to limit or fix the exposure to a particular country or issuer to a maximum portion of the assets of the fund. Additionally, a subadvisor may consider such factors as free float, momentum, trading strategies, size, value, liquidity, profitability, investment characteristics and other factors determined to be appropriate by a subadvisor given market conditions. In assessing profitability, a subadvisor may consider different ratios, such as that of earnings or profits from operations relative to book value or assets. A subadvisor may exclude the eligible security of a company that meets applicable market capitalization criterion if it determines, in its judgment, that the purchase of such security is inappropriate in light of other conditions. These adjustments will result in a deviation from traditional market capitalization weighting. A further deviation may occur due to holdings in securities received in connection with corporate actions.

Adjustment for free float modifies market capitalization weighting to exclude the share capital of a company that is not freely available for trading in the public equity markets. For example, the following types of shares may be excluded: (i) those held by strategic investors (such as governments, controlling shareholders and management); (ii) treasury shares; or (iii) shares subject to foreign ownership restrictions.

Furthermore, a subadvisor may reduce the relative amount of any security held in order to retain sufficient portfolio liquidity. A portion, but generally not in excess of 20% of a fund's assets, may be invested in interest-bearing obligations, such as money market instruments, thereby causing further deviation from market capitalization weighting. A further deviation may occur due to holdings in securities received in connection with corporate actions.

Block purchases of eligible securities may be made at opportune prices, even though such purchases exceed the number of shares that, at the time of purchase, would be purchased under a market capitalization weighted approach. Generally, changes in the composition and relative ranking (in terms of market capitalization) of the stocks that are eligible for purchase take place with every trade when the securities markets are open for trading due, primarily, to price changes of such securities. On at least a semiannual basis, a subadvisor will identify companies whose stock is eligible for investment by the fund. Additional investments generally will not be made in securities that have changed in value sufficiently to be excluded from a subadvisor's then-current market capitalization requirement for eligible portfolio securities. This may result in further deviation from market capitalization weighting. Such deviation could be substantial if a significant amount of holdings of a fund change in value sufficiently to be excluded from the requirement for eligible securities but not by a sufficient amount to warrant their sale.

Country weights may be based on the total market capitalization of companies within each country. The country weights may take into consideration the free float of companies within a country or whether these companies are eligible to be purchased for the particular strategy. In addition, to maintain a satisfactory level of diversification, a subadvisor may limit or fix the exposure to a particular country or region to a maximum proportion of the assets of that vehicle. Country weights may also vary due to general day-to-day trading patterns and price movements. The weighting of countries may vary from their weighting in published international indices.

Money Market Instruments

Money market instruments (and other securities as noted under each fund description) may be purchased for temporary defensive purposes or for short-term investment purposes. General overnight cash held in a fund's portfolio may also be invested in JHCT, a privately offered registered investment company subadvised by Manulife IM (US) LLC, an affiliate of the Advisor, that is part of the same group of investment companies as the fund and that is offered exclusively to funds in the same group of investment companies.

Mortgage Dollar Rolls

Under a mortgage dollar roll, a fund sells mortgage-backed securities for delivery in the future (generally within 30 days) and simultaneously contracts to repurchase substantially similar securities (of the same type, coupon and maturity) on a specified future date. During the roll period, a fund forgoes principal and interest paid on the mortgage-backed securities. A fund is compensated by the difference between the current sale price and the lower forward price for the future purchase (often referred to as the "drop"), as well as by the interest earned on the cash proceeds of the initial sale. A fund also may be compensated by receipt of a commitment fee. A fund may only enter into "covered rolls." A covered roll is a specific type of dollar roll for which there is an offsetting cash or cash equivalent security position that matures on or before the forward settlement date of the dollar roll transaction or for which a fund maintains on its records liquid assets having an aggregate value at least equal to the amount of such commitment to repurchase. Dollar roll transactions involve the risk that the market value of the securities sold by a fund may decline below the repurchase price of those securities. A mortgage dollar roll may be considered a form of leveraging, and may, therefore, increase fluctuations in a fund's NAV per share. Covered rolls are not treated as a borrowing or other senior security and will be excluded from the calculation of a fund's borrowing and other senior securities. For financial reporting and tax purposes, the funds treat mortgage dollar rolls as two separate transactions; one involving the purchase of a security and a separate transaction involving a sale.

Mortgage Securities

Prepayment of Mortgages. Mortgage securities differ from conventional bonds in that principal is paid over the life of the securities rather than at maturity. As a result, when a fund invests in mortgage securities, it receives monthly scheduled payments of principal and interest, and may receive unscheduled principal payments representing prepayments on the underlying mortgages. When a fund reinvests the payments and any unscheduled prepayments of principal it receives, it may receive a rate of interest that is higher or lower than the rate on the existing mortgage securities. For this reason, mortgage securities may be less effective than other types of debt securities as a means of locking in long term interest rates.

In addition, because the underlying mortgage loans and assets may be prepaid at any time, if a fund purchases mortgage securities at a premium, a prepayment rate that is faster than expected will reduce yield to maturity, while a prepayment rate that is slower than expected will increase yield to maturity. Conversely, if a fund purchases these securities at a discount, faster than expected prepayments will increase yield to maturity, while slower than expected payments will reduce yield to maturity.

Adjustable Rate Mortgage Securities. Adjustable rate mortgage securities are similar to the fixed rate mortgage securities discussed above, except that, unlike fixed rate mortgage securities, adjustable rate mortgage securities are collateralized by or represent interests in mortgage loans with variable rates of interest. These variable rates of interest reset periodically to align themselves with market rates. Most adjustable rate mortgage securities provide for an initial mortgage rate that is in effect for a fixed period, typically ranging from three to twelve months. Thereafter, the mortgage interest rate will reset periodically in accordance with movements in a specified published interest rate index. The amount of interest due to an adjustable rate mortgage holder is determined in accordance with movements in a specified published interest rate index by adding a pre-determined increment or "margin" to the specified interest rate index. Many adjustable rate mortgage securities reset their interest rates based on changes in:

- one-year, three-year and five-year constant maturity Treasury Bill rates;
- three-month or six-month Treasury Bill rates;
- 11th District Federal Home Loan Bank Cost of Funds;
- National Median Cost of Funds; or
- one-month, three-month, six-month or one-year LIBOR and other market rates.

During periods of increasing rates, a fund will not benefit from such increase to the extent that interest rates rise to the point where they cause the current coupon of adjustable rate mortgages held as investments to exceed any maximum allowable annual or lifetime reset limits or "cap rates" for a particular mortgage. In this event, the value of

the mortgage securities held by a fund would likely decrease. During periods of declining interest rates, income to a fund derived from adjustable rate mortgages that remain in a mortgage pool may decrease in contrast to the income on fixed rate mortgages, which will remain constant. Adjustable rate mortgages also have less potential for appreciation in value as interest rates decline than do fixed rate investments. Also, a fund's NAV could vary to the extent that current yields on adjustable rate mortgage securities held as investments are different than market yields during interim periods between coupon reset dates.

Privately Issued Mortgage Securities. Privately issued mortgage securities provide for the monthly principal and interest payments made by individual borrowers to pass through to investors on a corporate basis, and in privately issued collateralized mortgage obligations, as further described below. Privately issued mortgage securities are issued by private originators of, or investors in, mortgage loans, including:

- mortgage bankers;
- commercial banks;
- investment banks;
- savings and loan associations; and
- special purpose subsidiaries of the foregoing.

Since privately issued mortgage certificates are not guaranteed by an entity having the credit status of GNMA or Freddie Mac, such securities generally are structured with one or more types of credit enhancement. For a description of the types of credit enhancements that may accompany privately issued mortgage securities, see "Types of Credit Support" below. To the extent that a fund invests in mortgage securities, it will not limit its investments in mortgage securities to those with credit enhancements.

Collateralized Mortgage Obligations. CMOs generally are bonds or certificates issued in multiple classes that are collateralized by or represent an interest in mortgages. CMOs may be issued by single-purpose, stand-alone finance subsidiaries or trusts of financial institutions, government agencies, investment banks or other similar institutions. Each class of CMOs, often referred to as a "tranche," may be issued with a specific fixed coupon rate (which may be zero) or a floating coupon rate. Each class of CMOs also has a stated maturity or final distribution date. Principal prepayments on the underlying mortgages may cause the CMOs to be retired substantially earlier than their stated maturities or final distribution dates. Interest is paid or accrued on CMOs on a monthly, quarterly or semiannual basis.

The principal of and interest on the underlying mortgages may be allocated among the several classes of a series of a CMO in many ways. The general goal sought to be achieved in allocating cash flows on the underlying mortgages to the various classes of a series of CMOs is to create tranches on which the expected cash flows have a higher degree of predictability than the underlying mortgages. In creating such tranches, other tranches may be subordinated to the interests of these tranches and receive payments only after the obligations of the more senior tranches have been satisfied. As a general matter, the more predictable the cash flow is on a CMO tranche, the lower the anticipated yield will be on that tranche at the time of issuance. As part of the process of creating more predictable cash flows on most of the tranches in a series of CMOs, one or more tranches generally must be created that absorb most of the volatility in the cash flows on the underlying mortgages. The yields on these tranches are relatively higher than on tranches with more predictable cash flows. Because of the uncertainty of the cash flows on these tranches, and the sensitivity of these transactions to changes in prepayment rates on the underlying mortgages, the market prices of and yields on these tranches tend to be highly volatile. The market prices of and yields on tranches with longer terms to maturity also tend to be more volatile than tranches with shorter terms to maturity due to these same factors. To the extent the mortgages underlying a series of a CMO are so-called "subprime mortgages" (mortgages granted to borrowers whose credit history is not sufficient to obtain a conventional mortgage), the risk of default is higher, which increases the risk that one or more tranches of a CMO will not receive its predicted cash flows.

CMOs purchased by a fund may be:

1. collateralized by pools of mortgages in which each mortgage is guaranteed as to payment of principal and interest by an agency or instrumentality of the U.S. government;
2. collateralized by pools of mortgages in which payment of principal and interest is guaranteed by the issuer and the guarantee is collateralized by U.S. government securities; or
3. securities for which the proceeds of the issuance are invested in mortgage securities and payment of the principal and interest is supported by the credit of an agency or instrumentality of the U.S. government.

Separate Trading of Registered Interest and Principal of Securities. Separately traded interest components of securities may be issued or guaranteed by the U.S. Treasury. The interest components of selected securities are traded independently under the Separate Trading of Registered Interest and Principal of Securities program. Under the Separate Trading of Registered Interest and Principal of Securities program, the interest components are individually numbered and separately issued by the U.S. Treasury at the request of depository financial institutions, which then trade the component parts independently.

Stripped Mortgage Securities. Stripped mortgage securities are derivative multi-class mortgage securities. Stripped mortgage securities may be issued by agencies or instrumentalities of the U.S. government, or by private issuers, including savings and loan associations, mortgage banks, commercial banks, investment banks and special purpose subsidiaries of the foregoing. Stripped mortgage securities have greater volatility than other types of mortgage securities in which a fund invests. Although stripped mortgage securities are purchased and sold by institutional investors through several investment banking firms acting as brokers or dealers, the market for such securities has not yet been fully developed. Accordingly, stripped mortgage securities may be illiquid and, together with any other illiquid investments, will not exceed a fund's limitation on investments in illiquid securities.

Stripped mortgage securities are usually structured with two classes that receive different proportions of the interest and principal distributions on a pool of mortgage assets. A common type of stripped mortgage security will have one class receiving some of the interest and most of the principal from the mortgage assets, while the other class will receive most of the interest and the remainder of the principal. In the most extreme case, one class will receive all of the interest (the interest only or "IO" class), while the other class will receive all of the principal (the principal only or "PO" class). The yield to maturity on an IO class is extremely sensitive to changes in prevailing interest rates and the rate of principal payments (including prepayments) on the related underlying mortgage assets. A rapid rate of principal payments may have a material adverse effect on an investing fund's yield to maturity. If the underlying mortgage assets experience greater than anticipated prepayments of principal, the fund may fail to fully recoup its initial investment in these securities even if the securities are rated highly.

As interest rates rise and fall, the value of IOs tends to move in the same direction as interest rates. The value of the other mortgage securities described in the Prospectus and this SAI, like other debt instruments, will tend to move in the opposite direction to interest rates. Accordingly, investing in IOs, in conjunction with the other mortgage securities described in the Prospectus and this SAI, is expected to contribute to the relative stability of a fund's NAV.

In addition to the stripped mortgage securities described above, each of two affiliated underlying funds, High Yield Fund and Value Fund, may invest in similar securities such as Super Principal Only ("SPO") and Levered Interest Only ("LIO") are more volatile than POs and IOs. Risks associated with instruments such as SPOs are similar in nature to those risks related to investments in POs. Risks associated with LIOs and IOettes (a.k.a. "high coupon bonds") are similar in nature to those associated with IOs. Other similar instruments may develop in the future.

Under the Code, POs may generate taxable income from the current accrual of original issue discount, without a corresponding distribution of cash to a fund.

Inverse Floaters. Inverse floaters may be issued by agencies or instrumentalities of the U.S. government, or by private issuers, including savings and loan associations, mortgage banks, commercial banks, investment banks and special purpose subsidiaries of the foregoing. Inverse floaters have greater volatility than other types of mortgage securities in which a fund invests (with the exception of stripped mortgage securities and there is a risk that the market value will vary from the amortized cost). Although inverse floaters are purchased and sold by institutional investors through several investment banking firms acting as brokers or dealers, the market for such securities has not yet been fully developed. Accordingly, inverse floaters may be illiquid. Any illiquid inverse floaters, together with any other illiquid investments, will not exceed a fund's limitation on investments in illiquid securities.

Inverse floaters are derivative mortgage securities that are structured as a class of security that receives distributions on a pool of mortgage assets. Yields on inverse floaters move in the opposite direction of short-term interest rates and at an accelerated rate.

Types of Credit Support. Mortgage securities are often backed by a pool of assets representing the obligations of a number of different parties. To lessen the impact of an obligor's failure to make payments on underlying assets,

mortgage securities may contain elements of credit support. A discussion of credit support is included in "Asset-Backed Securities."

Municipal Obligations

The two principal classifications of municipal obligations are general obligations and revenue obligations. General obligations are secured by the issuer's pledge of its full faith, credit and taxing power for the payment of principal and interest. Revenue obligations are payable only from the revenues derived from a particular facility or class of facilities or in some cases from the proceeds of a special excise or other tax. For example, industrial development and pollution control bonds are in most cases revenue obligations since payment of principal and interest is dependent solely on the ability of the user of the facilities financed or the guarantor to meet its financial obligations, and in certain cases, the pledge of real and personal property as security for payment.

Issuers of municipal obligations are subject to the provisions of bankruptcy, insolvency and other laws affecting the rights and remedies of creditors, such as the Federal Bankruptcy Act, and laws, if any, that may be enacted by Congress or state legislatures extending the time for payment of principal or interest or both, or imposing other constraints upon enforcement of such obligations. There also is the possibility that as a result of litigation or other conditions, the power or ability of any one or more issuers to pay when due the principal of and interest on their municipal obligations may be affected.

Municipal Bonds. Municipal bonds are issued to obtain funding for various public purposes, including the construction of a wide range of public facilities such as airports, highways, bridges, schools, hospitals, housing, mass transportation, streets and water and sewer works. Other public purposes for which municipal bonds may be issued include refunding outstanding obligations, obtaining funds for general operating expenses and obtaining funds to lend to other public institutions and facilities. In addition, certain types of industrial development bonds are issued by or on behalf of public authorities to obtain funds for many types of local, privately operated facilities. Such debt instruments are considered municipal obligations if the interest paid on them is exempt from federal income tax. The payment of principal and interest by issuers of certain obligations purchased may be guaranteed by a letter of credit, note repurchase agreement, insurance or other credit facility agreement offered by a bank or other financial institution. Such guarantees and the creditworthiness of guarantors will be considered by a subadvisor in determining whether a municipal obligation meets investment quality requirements. No assurance can be given that a municipality or guarantor will be able to satisfy the payment of principal or interest on a municipal obligation.

The yields or returns of municipal bonds depend on a variety of factors, including general market conditions, effective marginal tax rates, the financial condition of the issuer, general conditions of the municipal bond market, the size of a particular offering, the maturity of the obligation, and the rating (if any) of the issue. The ratings of S&P, Moody's and Fitch represent their opinions as to the quality of various municipal bonds that they undertake to rate. It should be emphasized, however, that ratings are not absolute standards of quality. For example, depending on market conditions, municipal bonds with the same maturity and stated interest rate, but with different ratings, may nevertheless have the same yield. See Appendix A for a description of ratings. Many issuers of securities choose not to have their obligations rated. Although unrated securities eligible for purchase must be determined to be comparable in quality to securities having certain specified ratings, the market for unrated securities may not be as broad as for rated securities since many investors rely on rating organizations for credit appraisal. Yield disparities may occur for reasons not directly related to the investment quality of particular issues or the general movement of interest rates, due to such factors as changes in the overall demand or supply of various types of municipal bonds.

Municipal Bonds Issued by the Commonwealth of Puerto Rico. Municipal obligations issued by the Commonwealth of Puerto Rico and its agencies, or other U.S. territories, generally are tax-exempt.

Adverse economic, market, political, or other conditions within Puerto Rico may negatively affect the value of a fund's holdings in municipal obligations issued by the Commonwealth of Puerto Rico and its agencies. The Puerto Rican economy is reliant on manufacturing, services, and tourism, and its economy and financial operations generally parallel the economic cycles of those in the United States. As a result, economic difficulties in the United States are likely to have an adverse impact on the overall economy of Puerto Rico. Moreover, like many other U.S. states and municipalities, Puerto Rico experienced a significant downturn during the most recent recession.

Puerto Rico continues to face significant fiscal challenges, including persistent government budget deficits, underfunded public pension benefit obligations, underfunded government retirement systems, sizable debt service obligations and a high unemployment rate. Several rating organizations have downgraded a number of securities issued in Puerto Rico to below investment-grade or placed them on "negative watch." Any further downgrades could

place additional strain on the Puerto Rican economy. On June 30, 2016, President Obama signed PROMESA, a law creating a federal oversight board that would negotiate the restructuring of Puerto Rico's debt. Shortly after PROMESA took effect, Puerto Rico's then-governor issued an executive order suspending payments on its general obligation debt. In May 2017, Puerto Rico began seeking the protection of the U.S. federal courts to commence a debt restructuring process under Title III of PROMESA, which is analogous to a traditional municipal bankruptcy proceeding under Chapter 9 of the U.S. Bankruptcy Code. However, Puerto Rico's case is the first ever heard under PROMESA and there is no existing case precedent to guide the proceedings. Accordingly, Puerto Rico's debt restructuring process could take significantly longer than traditional municipal bankruptcy proceedings. Further, it is not clear whether a debt restructuring process will ultimately be approved or, if so, the extent to which it will apply to Puerto Rico municipal securities sold by an issuer other than the territory. A debt restructuring could reduce the principal amount due, the interest rate, the maturity, and other terms of Puerto Rico municipal securities, which could adversely affect the value of Puerto Rican municipal securities. Further legislation by the U.S. Congress, or actions by the oversight board established by PROMESA, or court approval of a debt restructuring deal could have a negative impact on the marketability, liquidity, or value of certain investments held by a fund and could reduce a fund's performance.

In addition, Puerto Rico has faced significant out-migration relating to its economic difficulties, eroding Puerto Rico's population, economic base and ultimate ability to support its current debt burden, creating further long-term uncertainty. Future defaults may occur in the event that Puerto Rico does not have the ability to meet its upcoming obligations. Puerto Rican financial difficulties potentially could lead to less liquidity, wider yield spreads over benchmark U.S. government securities, and greater risk of default for Puerto Rican municipal securities, and consequently may increase the volatility of a fund's share price, and adversely affect the value of a fund's investments and its investment performance.

The Puerto Rican constitution prioritizes general obligation bonds over revenue bonds, so that all tax revenues, even those pledged to revenue bondholders, can be applied first to general obligation bonds and other Commonwealth-guaranteed debt if other revenues are insufficient to satisfy such obligations.

Municipal Notes. Municipal notes are short-term obligations of municipalities, generally with a maturity ranging from six months to three years. The principal types of such notes include tax, bond and revenue anticipation notes, project notes and construction loan notes.

Municipal Commercial Paper. Municipal commercial paper is a short-term obligation of a municipality, generally issued at a discount with a maturity of less than one year. Such paper is likely to be issued to meet seasonal working capital needs of a municipality or interim construction financing. Municipal commercial paper is backed in many cases by letters of credit, lending agreements, note repurchase agreements or other credit facility agreements offered by banks and other institutions.

Preferred Stocks

Preferred stock generally has a preference to dividends and, upon liquidation, over an issuer's common stock but ranks junior to debt securities in an issuer's capital structure. Preferred stock generally pays dividends in cash (or additional shares of preferred stock) at a defined rate but, unlike interest payments on debt securities, preferred stock dividends are payable only if declared by the issuer's board of directors. Dividends on preferred stock may be cumulative, meaning that, in the event the issuer fails to make one or more dividend payments on the preferred stock, no dividends may be paid on the issuer's common stock until all unpaid preferred stock dividends have been paid. Preferred stock also may be subject to optional or mandatory redemption provisions.

Repurchase Agreements, Reverse Repurchase Agreements, and Sale-Buybacks

Repurchase agreements are arrangements involving the purchase of an obligation and the simultaneous agreement to resell the same obligation on demand or at a specified future date and at an agreed-upon price. A repurchase agreement can be viewed as a loan made by a fund to the seller of the obligation with such obligation serving as collateral for the seller's agreement to repay the amount borrowed with interest. Repurchase agreements provide the opportunity to earn a return on cash that is only temporarily available. Repurchase agreements may be entered with banks, brokers, or dealers. However, a repurchase agreement will only be entered with a broker or dealer if the broker or dealer agrees to deposit additional collateral should the value of the obligation purchased decrease below the resale price.

Generally, repurchase agreements are of a short duration, often less than one week but on occasion for longer periods. Securities subject to repurchase agreements will be valued every business day and additional collateral will be requested if necessary so that the value of the collateral is at least equal to the value of the repurchase obligation, including the interest accrued thereon.

A subadvisor shall engage in a repurchase agreement transaction only with those banks or broker dealers who meet the subadvisor's quantitative and qualitative criteria regarding creditworthiness, asset size and collateralization requirements. The Advisor also may engage in repurchase agreement transactions on behalf of the funds. The counterparties to a repurchase agreement transaction are limited to a:

- Federal Reserve System member bank;
- primary government securities dealer reporting to the Federal Reserve Bank of New York's Market Reports Division; or
- broker dealer that reports U.S. government securities positions to the Federal Reserve Board.

A fund also may participate in repurchase agreement transactions utilizing the settlement services of clearing firms that meet the subadvisor's creditworthiness requirements.

The Advisor and the subadvisors will continuously monitor repurchase agreement transactions to ensure that the collateral held with respect to a repurchase agreement equals or exceeds the amount of the obligation.

The risk of a repurchase agreement transaction is limited to the ability of the seller to pay the agreed-upon sum on the delivery date. In the event of bankruptcy or other default by the seller, the instrument purchased may decline in value, interest payable on the instrument may be lost and there may be possible difficulties and delays in obtaining collateral and delays and expense in liquidating the instrument. If an issuer of a repurchase agreement fails to repurchase the underlying obligation, the loss, if any, would be the difference between the repurchase price and the underlying obligation's market value. A fund also might incur certain costs in liquidating the underlying obligation. Moreover, if bankruptcy or other insolvency proceedings are commenced with respect to the seller, realization upon the underlying obligation might be delayed or limited.

Under a reverse repurchase agreement, a fund sells a debt security and agrees to repurchase it at an agreed-upon time and at an agreed-upon price. The fund retains record ownership of the security and the right to receive interest and principal payments thereon. At an agreed-upon future date, the fund repurchases the security by remitting the proceeds previously received, plus interest. The difference between the amount the fund receives for the security and the amount it pays on repurchase is payment of interest. In certain types of agreements, there is no agreed-upon repurchase date and interest payments are calculated daily, often based on the prevailing overnight repurchase rate. A reverse repurchase agreement may be considered a form of leveraging and may, therefore, increase fluctuations in a fund's NAV per share. A fund will cover its repurchase agreement transactions by maintaining in a segregated custodial account cash, Treasury bills, other U.S. government securities, or other liquid assets having an aggregate value at least equal to the amount of such commitment to repurchase including accrued interest, until payment is made.

A fund may effect simultaneous purchase and sale transactions that are known as "sale-buybacks." A sale-buyback is similar to a reverse repurchase agreement, except that in a sale-buyback, the counterparty that purchases the security is entitled to receive any principal or interest payments made on the underlying security pending settlement of the fund's repurchase of the underlying security. A fund's obligations under a sale-buyback typically would be offset by liquid assets equal in value to the amount of the fund's forward commitment to repurchase the subject security.

Foreign Repurchase Agreements. Foreign repurchase agreements involve an agreement to purchase a foreign security and to sell that security back to the original seller at an agreed-upon price in either U.S. dollars or foreign currency. Unlike typical U.S. repurchase agreements, foreign repurchase agreements may not be fully collateralized at all times.

The value of a security purchased may be more or less than the price at which the counterparty has agreed to repurchase the security. In the event of default by the counterparty, a fund may suffer a loss if the value of the security purchased is less than the agreed-upon repurchase price, or if it is unable to successfully assert a claim to the collateral under foreign laws. As a result, foreign repurchase agreements may involve higher credit risks than

repurchase agreements in U.S. markets, as well as risks associated with currency fluctuations. In addition, as with other emerging market investments, repurchase agreements with counterparties located in emerging markets, or relating to emerging markets, may involve issuers or counterparties with lower credit ratings than typical U.S. repurchase agreements.

Restricted Securities

A fund may invest in “restricted securities,” which generally are securities that may be resold to the public only pursuant to an effective registration statement under the 1933 Act or an exemption from registration. Regulation S under the 1933 Act is an exemption from registration that permits, under certain circumstances, the resale of restricted securities in offshore transactions, subject to certain conditions, and Rule 144A under the 1933 Act is an exemption that permits the resale of certain restricted securities to qualified institutional buyers.

Since its adoption by the SEC in 1990, Rule 144A has facilitated trading of restricted securities among qualified institutional investors. To the extent restricted securities held by a fund qualify under Rule 144A and an institutional market develops for those securities, the fund expects that it will be able to dispose of the securities without registering the resale of such securities under the 1933 Act. However, to the extent that a robust market for such 144A securities does not develop, or a market develops but experiences periods of illiquidity, investments in Rule 144A securities could increase the level of a fund’s illiquidity. A fund might have to register restricted securities in order to dispose of them, resulting in additional expense and delay. Adverse market conditions could impede such a public offering of securities.

There is a large institutional market for certain securities that are not registered under the 1933 Act, which may include markets for repurchase agreements, commercial paper, foreign securities, municipal securities, loans and corporate bonds and notes. Institutional investors depend on an efficient institutional market in which the unregistered security can be readily resold or on an issuer’s ability to honor a demand for repayment. The fact that there are contractual or legal restrictions on resale to the general public or to certain institutions may not be indicative of the liquidity of such investments.

Short Sales

A fund may engage in short sales and short sales “against the box.” In a short sale against the box, a fund borrows securities from a broker-dealer and sells the borrowed securities, and at all times during the transaction, a fund either owns or has the right to acquire the same securities at no extra cost. If the price of the security has declined at the time a fund is required to deliver the security, a fund will benefit from the difference in the price. If the price of a security has increased, the funds will be required to pay the difference.

In addition, a fund may sell a security it does not own in anticipation of a decline in the market value of that security (a “short sale”). To complete such a transaction, a fund must borrow the security to make delivery to the buyer. The fund is then obligated to replace the security borrowed by purchasing it at market price at the time of replacement. The price at such time may be more or less than the price at which the security was sold by the fund. Until the security is replaced, the fund is required to pay the lender any dividends or interest which accrues during the period of the loan. To borrow the security, the fund also may be required to pay a premium, which would increase the cost of the security sold. The proceeds of the short sale are typically retained by the broker to meet margin requirements until the short position is closed out. Until a fund replaces a borrowed security, it will segregate with its custodian cash or other liquid assets at such a level that the amount segregated plus the amount deposited with the broker as collateral (generally not including proceeds from the short sales) will equal the current value of the security sold short. Except for short sales against-the-box, the amount of a fund's net assets that may be committed to short sales is limited and the securities in which short sales are made must be listed on a national securities exchange.

A fund will incur a loss as a result of the short sale if the price of the security increases between the date of the short sale and the date on which the fund replaced the borrowed security and theoretically the fund's loss could be unlimited. A fund will generally realize a gain if the security declines in price between those dates. This result is the opposite of what one would expect from a cash purchase of a long position in a security. The amount of any gain will be decreased, and the amount of any loss increased, by the amount of any premium, dividends or interest the fund may be required to pay in connection with a short sale. Short selling may amplify changes in a fund's NAV. Short selling also may produce higher than normal portfolio turnover, which may result in increased transaction costs to a fund.

Short-Term Trading

Short-term trading means the purchase and subsequent sale of a security after it has been held for a relatively brief period of time. If and to the extent consistent with and permitted by its investment objective and policies, a fund may engage in short-term trading in response to stock market conditions, changes in interest rates or other economic trends and developments, or to take advantage of yield disparities between various fixed-income securities in order to realize capital gains or improve income. Short-term trading may have the effect of increasing portfolio turnover rate. A high rate of portfolio turnover (100% or greater) involves correspondingly greater brokerage transaction expenses and may make it more difficult for a fund to qualify as a RIC for federal income tax purposes (for additional information about qualification as a RIC under the Code, see "Additional Information Concerning Taxes" in this SAI). See "Portfolio Turnover."

Sovereign Debt Obligations

Sovereign debt obligations are issued or guaranteed by foreign governments or their agencies. Sovereign debt may be in the form of conventional securities or other types of debt instruments such as loan or loan participations. Typically, sovereign debt of developing countries may involve a high degree of risk and may be in default or present the risk of default, however, sovereign debt of developed countries also may involve a high degree of risk and may be in default or present the risk of default. Governments rely on taxes and other revenue sources to pay interest and principal on their debt obligations, and governmental entities responsible for repayment of the debt may be unable or unwilling to repay principal and pay interest when due and may require renegotiation or rescheduling of debt payments. The payment of principal and interest on these obligations may be adversely affected by a variety of factors, including economic results, changes in interest and exchange rates, changes in debt ratings, a limited tax base or limited revenue sources, natural disasters, or other economic or credit problems. In addition, prospects for repayment and payment of interest may depend on political as well as economic factors. Defaults in sovereign debt obligations, or the perceived risk of default, also may impair the market for other securities and debt instruments, including securities issued by banks and other entities holding such sovereign debt, and negatively impact the funds.

U.S. Government and Government Agency Obligations

U.S. Government Obligations. U.S. government obligations are debt securities issued or guaranteed as to principal or interest by the U.S. Treasury. These securities include treasury bills, notes and bonds.

GNMA Obligations. GNMA obligations are mortgage-backed securities guaranteed by the GNMA, which guarantee is supported by the full faith and credit of the U.S. government.

U.S. Agency Obligations. U.S. government agency obligations are debt securities issued or guaranteed as to principal or interest by an agency or instrumentality of the U.S. government pursuant to authority granted by Congress. U.S. government agency obligations include, but are not limited to:

- SLMA;
- FHLBs;
- FICBs; and
- Fannie Mae.

U.S. Instrumentality Obligations. U.S. instrumentality obligations include, but are not limited to, those issued by the Export-Import Bank and Farmers Home Administration.

Some obligations issued or guaranteed by U.S. government agencies or instrumentalities are supported by the right of the issuer to borrow from the U.S. Treasury or the Federal Reserve Banks, such as those issued by FICBs. Others, such as those issued by Fannie Mae, FHLBs and Freddie Mac, are supported by discretionary authority of the U.S. government to purchase certain obligations of the agency or instrumentality. In addition, other obligations, such as those issued by the SLMA, are supported only by the credit of the agency or instrumentality. There also are separately traded interest components of securities issued or guaranteed by the U.S. Treasury.

No assurance can be given that the U.S. government will provide financial support for the obligations of such U.S. government-sponsored agencies or instrumentalities in the future, since it is not obligated to do so by law. In this SAI, "U.S. government securities" refers not only to securities issued or guaranteed as to principal or interest by the U.S. Treasury but also to securities that are backed only by their own credit and not the full faith and credit of the U.S. government.

It is possible that the availability and the marketability (liquidity) of the securities discussed in this section could be adversely affected by actions of the U.S. government to tighten the availability of its credit. In 2008, FHFA, an agency of the U.S. government, placed Fannie Mae and Freddie Mac into conservatorship, a statutory process with the objective of returning the entities to normal business operations. The FHFA will act as the conservator to operate Fannie Mae and Freddie Mac until they are stabilized. It is unclear what effect this conservatorship will have on the securities issued or guaranteed by Fannie Mae or Freddie Mac.

Variable and Floating Rate Obligations

Investments in floating or variable rate securities normally will involve industrial development or revenue bonds, which provide that the rate of interest is set as a specific percentage of a designated base rate, such as rates of Treasury Bonds or Bills or the prime rate at a major commercial bank. In addition, a bondholder can demand payment of the obligations on behalf of the investing fund on short notice at par plus accrued interest, which amount may be more or less than the amount the bondholder paid for them. The maturity of floating or variable rate obligations (including participation interests therein) is deemed to be the longer of: (i) the notice period required before a fund is entitled to receive payment of the obligation upon demand; or (ii) the period remaining until the obligation's next interest rate adjustment. If not redeemed by the investor through the demand feature, the obligations mature on a specified date, which may range up to thirty years from the date of issuance.

Warrants

Warrants may trade independently of the underlying securities. Warrants are rights to purchase securities at specific prices and are valid for a specific period of time. Warrant prices do not necessarily move parallel to the prices of the underlying securities, and warrant holders receive no dividends and have no voting rights or rights with respect to the assets of an issuer. The price of a warrant may be more volatile than the price of its underlying security, and a warrant may offer greater potential for capital appreciation as well as capital loss. Warrants cease to have value if not exercised prior to the expiration date. These factors can make warrants more speculative than other types of investments.

When-Issued/Delayed Delivery/Forward Commitment Securities

When-issued, delayed-delivery or forward-commitment transactions involve a commitment to purchase or sell securities at a predetermined price or yield in which payment and delivery take place after the customary settlement for such securities (which is typically one month or more after trade date). When purchasing securities in one of these types of transactions, payment for the securities is not required until the delivery date, however, the purchaser assumes the rights and risks of ownership, including the risks of price and yield fluctuations and the risk that the security will not be delivered. When a fund has sold securities pursuant to one of these transactions, it will not participate in further gains or losses with respect to that security. At the time of delivery, the value of when-issued, delayed-delivery or forward commitment securities may be more or less than the transaction price, and the yields then available in the market may be higher or lower than those obtained in the transaction.

Under normal circumstances, when a fund purchases securities on a when-issued or forward commitment basis, it will take delivery of the securities, but a fund may, if deemed advisable, sell the securities before the settlement date. Forward contracts may settle in cash between the counterparty and the fund or by physical settlement of the underlying securities, and a fund may renegotiate or roll over a forward commitment transaction. In general, a fund does not pay for the securities, or start earning interest on them, or deliver or take possession of securities until the obligations are scheduled to be settled. In such transactions, no cash changes hands on the trade date, however, if the transaction is collateralized, the exchange of margin may take place between the fund and the counterparty according to an agreed-upon schedule. A fund does, however, record the transaction and reflect the value each day of the securities in determining its NAV.

While awaiting settlement of the obligations purchased or sold on such basis, a fund will maintain on its records liquid assets consisting of cash, liquid high quality debt obligations or other assets equal to the amount of the commitments to purchase or sell when-issued, delayed-delivery or forward commitment securities. The availability of liquid assets for this purpose and the effect of asset segregation on a fund's ability to meet its current obligations, to honor requests for redemption, and to otherwise manage its investment portfolio will limit the extent to which the fund may purchase when-issued or forward commitment securities.

Yield Curve Notes

Inverse floating rate securities include, but are not limited to, an inverse floating rate class of a government agency-issued yield curve note. A yield curve note is a fixed-income security that bears interest at a floating rate that is reset periodically based on an interest rate benchmark. The interest rate resets on a yield curve note in the opposite direction from the interest rate benchmark.

Zero Coupon Securities, Deferred Interest Bonds and Pay-In-Kind Bonds

Zero coupon securities, deferred interest bonds and pay-in-kind bonds involve special risk considerations. Zero coupon securities and deferred interest bonds are debt securities that pay no cash income but are sold at substantial discounts from their value at maturity. While zero coupon bonds do not require the periodic payment of interest, deferred interest bonds provide for a period of delay before the regular payment of interest begins. When a zero coupon security or a deferred interest bond is held to maturity, its entire return, which consists of the amortization of discount, comes from the difference between its purchase price and its maturity value. This difference is known at the time of purchase, so that investors holding these securities until maturity know at the time of their investment what the return on their investment will be. Pay-in-kind bonds are bonds that pay all or a portion of their interest in the form of debt or equity securities.

Zero coupon securities, deferred interest bonds and pay-in-kind bonds are subject to greater price fluctuations in response to changes in interest rates than ordinary interest-paying debt securities with similar maturities. The value of zero coupon securities and deferred interest bonds usually appreciates during periods of declining interest rates and usually depreciates during periods of rising interest rates.

Issuers of Zero Coupon Securities and Pay-In-Kind Bonds. Zero coupon securities and pay-in-kind bonds may be issued by a wide variety of corporate and governmental issuers. Although zero coupon securities and pay-in-kind bonds are generally not traded on a national securities exchange, these securities are widely traded by brokers and dealers and, to the extent they are widely traded, will not be considered illiquid for the purposes of the investment restriction under "Additional Investment Policies and Other Instruments."

Tax Considerations. Current federal income tax law requires the holder of a zero coupon security or certain pay-in-kind bonds to accrue income with respect to these securities prior to the receipt of cash payments. To maintain its qualification as a RIC under the Code and avoid liability for federal income and excise taxes, a fund may be required to distribute income accrued with respect to these securities and may have to dispose of portfolio securities under disadvantageous circumstances in order to generate cash to satisfy these distribution requirements.

RISK FACTORS

The risks of investing in certain types of securities are described below. Risks are only applicable to a fund if and to the extent that corresponding investments, or indirect exposures to such investments through derivative contracts, are consistent with and permitted by the fund's investment objectives and policies. The value of an individual security or a particular type of security can be more volatile than the market as a whole and can perform differently than the value of the market as a whole. By owning shares of the underlying funds, each fund of funds indirectly invests in the securities and instruments held by the underlying funds and bears the same risks of such underlying funds.

Cash Holdings Risk

A fund may be subject to delays in making investments when significant purchases or redemptions of fund shares cause the fund to have an unusually large cash position. When the fund has a higher than normal cash position, it may incur "cash drag," which is the opportunity cost of holding a significant cash position. This significant cash position might cause the fund to miss investment opportunities it otherwise would have benefited from if fully invested, or might cause the fund to pay more for investments in a rising market, potentially reducing fund performance.

Collateralized Debt Obligations

The risks of an investment in a CDO depend largely on the quality of the collateral securities and the class of the instrument in which a fund invests. Normally, CDOs are privately offered and sold, and thus, are not registered under the securities laws. As a result, investments in CDOs may be characterized by a fund as illiquid, however an active dealer market may exist for CDOs allowing them to qualify for treatment as liquid under Rule 144A

transactions. In addition to the normal risks associated with fixed-income securities discussed elsewhere in this SAI and the Prospectus (e.g., interest rate risk and default risk), CDOs carry risks including, but are not limited to the possibility that: (i) distributions from collateral securities will not be adequate to make interest or other payments; (ii) the quality of the collateral may decline in value or default; (iii) a fund may invest in CDO classes that are subordinate to other classes of the CDO; and (iv) the complex structure of the CDO may not be fully understood at the time of investment and may produce disputes with the issuer or unexpected investment results.

Cybersecurity and Operational Risk

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 incidents include: unauthorized access to systems, networks, or devices (such as through "hacking" activity); 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. In addition, unintentional incidents can occur, such as the inadvertent release of confidential information.

A cybersecurity breach could result in the loss or theft of customer data or funds, the inability to access electronic systems ("denial of services"), loss or theft of proprietary information or corporate data, physical damage to a computer or network system, or costs associated with system repairs, any of which could have a substantial impact on a fund. For example, in a denial of service, fund shareholders could lose access to their electronic accounts indefinitely, and employees of the Advisor, the subadvisor, or the funds' other service providers may not be able to access electronic systems to perform critical duties for the funds, such as trading, NAV calculation, shareholder accounting, or fulfillment of fund share purchases and redemptions. Cybersecurity incidents could cause a fund, the Advisor, the subadvisor, or other service provider to incur regulatory penalties, reputational damage, compliance costs associated with corrective measures, litigation costs, or financial loss. They may also result in violations of applicable privacy and other laws. In addition, such incidents could affect issuers in which a fund invests, thereby causing the fund's investments to lose value.

Cyber-events have the potential to affect materially the funds and the advisor'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 the funds will be able to prevent or mitigate the impact of any or all cyber-events.

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

The Advisor, the subadvisor, and their affiliates have established risk management systems that seek to reduce cybersecurity and operational risks, and business continuity plans in the event of a cybersecurity breach or operational failure. However, there are inherent limitations in such plans, including that certain risks have not been identified, and there is no guarantee that such efforts will succeed, especially since none of the Advisor, the subadvisor, or their affiliates controls the cybersecurity or operations systems of the funds' third-party service providers (including the funds' custodian), or those of the issuers of securities in which the funds invest.

In addition, other disruptive events, including (but not limited to) natural disasters and public health crises (such as the novel coronavirus (COVID-19) pandemic), may adversely affect the fund's ability to conduct business, in particular if the 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 the fund's employees and the employees of its service providers are able to work remotely, those remote work arrangements could result in the 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.

Equity Securities

Equity securities include common, preferred and convertible preferred stocks and securities the values of which are tied to the price of stocks, such as rights, warrants and convertible debt securities. Common and preferred stocks represent equity ownership in a company. Stock markets are volatile. The price of equity securities will fluctuate and can decline and reduce the value of a fund's investment in equities. The price of equity securities fluctuates based on

changes in a company's financial condition and overall market and economic conditions. The value of equity securities purchased by a fund could decline if the financial condition of the issuers of these securities declines or if overall market and economic conditions deteriorate. Even funds that invest in high quality or "blue chip" equity securities or securities of established companies with large market capitalizations (which generally have strong financial characteristics) can be negatively impacted by poor overall market and economic conditions. Companies with large market capitalizations also may have less growth potential than smaller companies and may be able to react less quickly to change in the marketplace.

European Risk

Countries in Europe may be significantly affected by fiscal and monetary controls implemented by the EU and EMU, which require member countries to comply with restrictions on inflation rates, deficits, interest rates, debt levels and fiscal and monetary controls. Decreasing imports or exports, changes in governmental or other regulations on trade, changes in the exchange rate of the Euro, the default or threat of default by one or more EU member countries on its sovereign debt, and/or an economic recession in one or more EU member countries may have a significant adverse effect on the economies of other EU member countries and major trading partners outside Europe.

In recent years, the European financial markets have experienced volatility and adverse trends due to concerns about economic downturns, rising government debt levels and the possible default of government debt in several European countries, including Greece, Ireland, Italy, Portugal and Spain. Several countries, including Greece and Italy, have agreed to multi-year bailout loans from the European Central Bank, the IMF, and other institutions. A default or debt restructuring by any European country, such as the restructuring of Greece's outstanding sovereign debt, can adversely impact holders of that country's debt and sellers of credit default swaps linked to that country's creditworthiness, which may be located in countries other than those listed above, and can affect exposures to other EU countries and their financial companies as well. The manner in which the EU and EMU responded to the global recession and sovereign debt issues raised questions about their ability to react quickly to rising borrowing costs and the potential default by Greece and other countries of their sovereign debt and revealed a lack of cohesion in dealing with the fiscal problems of member states. To address budget deficits and public debt concerns, a number of European countries have imposed strict austerity measures and comprehensive financial and labor market reforms, which could increase political or social instability. Many European countries continue to suffer from high unemployment rates.

Uncertainties regarding the viability of the EU have impacted and may continue to impact markets in the United States and around the world. If one or more countries leave the EU or the EU dissolves, securities markets would likely be significantly disrupted. On January 31, 2020, the UK left the EU, commonly referred to as "Brexit," and there commenced a transition period during which the EU and UK will negotiate and agree on the nature of their future relationship. There is significant market uncertainty regarding Brexit's ramifications, and the range and potential implications of possible political, regulatory, economic, and market outcomes are difficult to predict. This uncertainty may affect other countries in the EU and elsewhere, and may cause volatility within the EU, triggering prolonged economic downturns in certain countries within the EU. It is also possible that various countries within the UK, such as Scotland or Northern Ireland, could seek to separate and remain a part of the EU.

The UK has one of the largest economies in Europe and is a major trading partner with the other EU countries and the United States. Brexit might negatively affect The City of London's economy, which is heavily dominated by financial services, as banks might be forced to move staff and comply with two separate sets of rules or lose business to banks in Continental Europe. In addition, Brexit may create additional and substantial economic stresses for the UK, including a contraction of the UK economy and price volatility in UK stocks, decreased trade, capital outflows, devaluation of the British pound, wider corporate bond spreads due to uncertainty and declines in business and consumer spending as well as foreign direct investment. Further, the United Kingdom's departure from the EU would potentially cause volatility within the EU, which could trigger prolonged economic downturns in certain European countries or spark additional member states to contemplate departing the EU (thereby exacerbating political instability in the region). Brexit may also adversely affect UK-based financial firms that have counterparties in the EU or participate in market infrastructure (trading venues, clearing houses, settlement facilities) based in the EU. These events and the resulting market volatility may have an adverse effect on the performance of the fund.

Investing in the securities of Eastern European issuers is highly speculative and involves risks not usually associated with investing in the more developed markets of Western Europe. Securities markets of Eastern European countries typically are less efficient and have lower trading volume, lower liquidity, and higher volatility than more developed markets. Eastern European economies also may be particularly susceptible to disruption in the international credit market due to their reliance on bank related inflows of capital.

To the extent that a fund invests in European securities, it may be exposed to these risks through its direct investments in such securities, including sovereign debt, or indirectly through investments in money market funds and financial institutions with significant investments in such securities.

Fixed-Income Securities

Fixed-income securities generally are subject to two principal types of risks: (a) interest rate risk; and (b) credit quality risk. Fixed-income securities are also subject to liquidity risk.

Interest Rate Risk. Fixed-income securities are affected by changes in interest rates. When interest rates decline, the market value of the fixed-income securities generally can be expected to rise. Conversely, when interest rates rise, the market value of fixed-income securities generally can be expected to decline. Recent and potential future changes in government monetary policy may affect the level of interest rates.

The longer a fixed-income security's duration, the more sensitive it will be to changes in interest rates. Similarly, a fund with a longer average portfolio duration will be more sensitive to changes in interest rates than a fund with a shorter average portfolio duration. Duration is a measure used to determine the sensitivity of a security's price to changes in interest rates that incorporates a security's yield, coupon, final maturity, and call features, among other characteristics. All other things remaining equal, for each one percentage point increase in interest rates, the value of a portfolio of fixed-income investments would generally be expected to decline by one percent for every year of the portfolio's average duration above zero. For example, the price of a bond fund with an average duration of eight years would be expected to fall approximately 8% if interest rates rose by one percentage point. The maturity of a security, another commonly used measure of price sensitivity, measures only the time until final payment is due, whereas duration takes into account the pattern of all payments of interest and principal on a security over time, including how these payments are affected by prepayments and by changes in interest rates, as well as the time until an interest rate is reset (in the case of variable-rate securities).

The fixed-income securities market has been and may continue to be negatively affected by the novel coronavirus (COVID-19) pandemic. As with other serious economic disruptions, governmental authorities and regulators are responding to this crisis with significant fiscal and monetary policy changes, including considerably lowering interest rates, which, in some cases could result in negative interest rates. These actions, including their possible unexpected or sudden reversal or potential ineffectiveness, could further increase volatility in securities and other financial markets and reduce market liquidity. To the extent the fund has a bank deposit or holds a debt instrument with a negative interest rate to maturity, the fund would generate a negative return on that investment. Similarly, negative rates on investments by money market funds and similar cash management products could lead to losses on investments, including on investments of the fund's uninvested cash.

Credit Quality Risk. Fixed-income securities are subject to the risk that the issuer of the security will not repay all or a portion of the principal borrowed and will not make all interest payments. If the credit quality of a fixed-income security deteriorates after a fund has purchased the security, the market value of the security may decrease and lead to a decrease in the value of the fund's investments. Funds that may invest in lower rated fixed-income securities are riskier than funds that may invest in higher rated fixed-income securities.

Liquidity Risk. Liquidity risk may result from the lack of an active market, the reduced number of traditional market participants, or the reduced capacity of traditional market participants to make a market in fixed-income securities. The capacity of traditional dealers to engage in fixed-income trading has not kept pace with the bond market's growth. As a result, dealer inventories of corporate bonds, which indicate the ability to "make markets," i.e., buy or sell a security at the quoted bid and ask price, respectively, are at or near historic lows relative to market size. Because market makers provide stability to fixed-income markets, the significant reduction in dealer inventories could lead to decreased liquidity and increased volatility, which may become exacerbated during periods of economic or political stress. In addition, liquidity risk may be magnified in a rising interest rate environment in which investor redemptions from fixed-income funds may be higher than normal; the selling of fixed-income securities to satisfy shareholder redemptions may result in an increased supply of such securities during periods of reduced investor demand due to a lack of buyers, thereby impairing the fund's ability to sell such securities. The

secondary market for certain tax-exempt securities tends to be less well-developed or liquid than many other securities markets, which may adversely affect a fund's ability to sell such securities at attractive prices.

Foreign Securities

Currency Fluctuations. Investments in foreign securities may cause a fund to lose money when converting investments from foreign currencies into U.S. dollars. A fund may attempt to lock in an exchange rate by purchasing a foreign currency exchange contract prior to the settlement of an investment in a foreign security. However, the fund may not always be successful in doing so, and it could still lose money.

Political and Economic Conditions. Investments in foreign securities subject a fund to the political or economic conditions of the foreign country. These conditions could cause a fund's investments to lose value if these conditions deteriorate for any reason. This risk increases in the case of emerging market countries which are more likely to be politically unstable. Political instability could cause the value of any investment in the securities of an issuer based in a foreign country to decrease or could prevent or delay a fund from selling its investment and taking the money out of the country.

Removal of Proceeds of Investments from a Foreign Country. Foreign countries, especially emerging market countries, often have currency controls or restrictions that may prevent or delay a fund from taking money out of the country or may impose additional taxes on money removed from the country. Therefore, a fund could lose money if it is not permitted to remove capital from the country or if there is a delay in taking the assets out of the country, since the value of the assets could decline during this period, or the exchange rate to convert the assets into U.S. dollars could worsen.

Nationalization of Assets. Investments in foreign securities subject a fund to the risk that the company issuing the security may be nationalized. If the company is nationalized, the value of the company's securities could decrease in value or even become worthless.

Settlement of Sales. Foreign countries, especially emerging market countries, also may have problems associated with settlement of sales. Such problems could cause a fund to suffer a loss if a security to be sold declines in value while settlement of the sale is delayed.

Investor Protection Standards. Foreign countries, especially emerging market countries, may have less stringent investor protection and disclosure standards than the U.S. Therefore, when making a decision to purchase a security for a fund, a subadvisor may not be aware of problems associated with the company issuing the security and may not enjoy the same legal rights as those provided in the U.S.

Gaming-Tribal Authority Investments

The value of a fund's investments in securities issued by gaming companies, including gaming facilities operated by Indian (Native American) tribal authorities, is subject to legislative or regulatory changes, adverse market conditions, and/or increased competition affecting the gaming sector. Securities of gaming companies may be considered speculative, and generally exhibit greater volatility than the overall market. The market value of gaming company securities may fluctuate widely due to unpredictable earnings, due in part to changing consumer tastes and intense competition, strong reaction to technological developments, and the threat of increased government regulation.

Securities issued by Indian tribal authorities are subject to particular risks. Indian tribes enjoy sovereign immunity, which is the legal privilege by which the United States federal, state, and tribal governments cannot be sued without their consent. In order to sue an Indian tribe (or an agency or instrumentality thereof), the tribe must have effectively waived its sovereign immunity with respect to the matter in dispute. Certain Indian tribal authorities have agreed to waive their sovereign immunity in connection with their outstanding debt obligations. Generally, waivers of sovereign immunity have been held to be enforceable against Indian tribes. Nevertheless, if a waiver of sovereign immunity is held to be ineffective, claimants, including investors in Indian tribal authority securities (such as a fund), could be precluded from judicially enforcing their rights and remedies.

Further, in most commercial disputes with Indian tribes, it may be difficult or impossible to obtain federal court jurisdiction. A commercial dispute may not present a federal question, and an Indian tribe may not be considered a citizen of any state for purposes of establishing diversity jurisdiction. The U.S. Supreme Court has held that jurisdiction in a tribal court must be exhausted before any dispute can be heard in an appropriate federal court. In cases where the jurisdiction of the tribal forum is disputed, the tribal court first must rule as to the limits of its own

jurisdiction. Such jurisdictional issues, as well as the general view that Indian tribes are not considered to be subject to ordinary bankruptcy proceedings, may be disadvantageous to holders of obligations issued by Indian tribal authorities, including a fund.

Greater China Region Risk

Investments in the Greater China region are subject to special risks, such as less developed or less efficient trading markets, restrictions on monetary repatriation and possible seizure, nationalization or expropriation of assets. Investments in Taiwan could be adversely affected by its political and economic relationship with China. In addition, the willingness of the government of the PRC to support the Chinese and Hong Kong economies and markets is uncertain, and changes in government policy could significantly affect the markets in both Hong Kong and China. For example, a government may restrict investment in companies or industries considered important to national interests, or intervene in the financial markets, such as by imposing trading restrictions, or banning or curtailing short selling. The PRC also maintains strict currency controls and imposes repatriation restrictions in order to achieve economic, trade and political objectives and regularly intervenes in the currency market. The imposition of currency controls and repatriation restrictions may negatively impact the performance and liquidity of a fund as capital may become trapped in the PRC. Chinese yuan currency exchange rates can be very volatile and can change quickly and unpredictably. A small number of companies and industries may represent a relatively large portion of the Greater China market. Consequently, a fund may experience greater price volatility and significantly lower liquidity than a portfolio invested solely in equity securities of U.S. issuers. These companies and industries also may be subject to greater sensitivity to adverse political, economic or regulatory developments generally affecting the market (see "Risk Factors – Foreign Securities").

Securities of Emerging Market Issuers or Countries.

The risks described above apply to an even greater extent to investments in emerging markets. The securities markets of emerging countries are generally smaller, less developed, less liquid, and more volatile than the securities markets of the United States and developed foreign countries. In addition, the securities markets of emerging countries may be subject to a lower level of monitoring and regulation. Government enforcement of existing securities regulations also has been extremely limited, and any such enforcement may be arbitrary and the results difficult to predict with any degree of certainty. Many emerging countries have experienced substantial, and in some periods extremely high, rates of inflation for many years. Inflation and rapid fluctuations in inflation rates have had and may continue to have very negative effects on the economies and securities markets of some emerging countries. Economies in emerging markets generally are heavily dependent upon international trade and, accordingly, have been and may continue to be affected adversely by trade barriers, exchange controls, managed adjustments in relative currency values, and other protectionist measures imposed or negotiated by the countries with which they trade. Economies in emerging markets also have been and may continue to be adversely affected by economic conditions in the countries with which they trade. The economies of countries with emerging markets also may be predominantly based on only a few industries or dependent on revenues from particular commodities. In many cases, governments of emerging market countries continue to exercise significant control over their economies, and government actions relative to the economy, as well as economic developments generally, may affect the capacity of issuers of debt instruments to make payments on their debt obligations, regardless of their financial condition.

High Yield (High Risk) Securities

General. A fund may invest in high yield (high risk) securities, consistent with its investment objectives and policies. High yield (high risk) securities (also known as "junk bonds") are those rated below investment grade and comparable unrated securities. These securities offer yields that fluctuate over time, but generally are superior to the yields offered by higher-rated securities. However, securities rated below investment grade also have greater risks than higher-rated securities as described below.

Interest Rate Risk. To the extent that a fund invests in fixed-income securities, the NAV of the fund's shares can be expected to change as general levels of interest rates fluctuate. However, the market values of securities rated below investment grade (and comparable unrated securities) tend to react less to fluctuations in interest rate levels than do those of higher-rated securities. Except to the extent that values are affected independently by other factors (such as developments relating to a specific issuer) when interest rates decline, the value of a fixed-income fund generally rise. Conversely, when interest rates rise, the value of a fixed-income fund will decline.

Liquidity. The secondary markets for high yield corporate and sovereign debt securities are not as liquid as the secondary markets for investment grade securities. The secondary markets for high yield debt securities are concentrated in relatively few market makers and participants are mostly institutional investors. In addition, the trading volume for high yield debt securities is generally lower than for investment grade securities. Furthermore, the secondary markets could contract under adverse market or economic conditions independent of any specific adverse changes in the condition of a particular issuer.

These factors may have an adverse effect on the ability of funds investing in high yield securities to dispose of particular portfolio investments. These factors also may limit funds that invest in high yield securities from obtaining accurate market quotations to value securities and calculate NAV. If a fund investing in high yield debt securities is not able to obtain precise or accurate market quotations for a particular security, it will be more difficult for the subadvisor to value the fund's investments.

Less liquid secondary markets also may affect a fund's ability to sell securities at their fair value. Each fund may invest in illiquid securities, subject to certain restrictions (see "Additional Investment Policies and Other Instruments"). These securities may be more difficult to value and to sell at fair value. If the secondary markets for high yield debt securities are affected by adverse economic conditions, the proportion of a fund's assets invested in illiquid securities may increase.

Below-Investment Grade Corporate Debt Securities. While the market values of securities rated below investment grade (and comparable unrated securities) tend to react less to fluctuations in interest rate levels than do those of higher-rated securities, the market values of below-investment grade corporate debt securities tend to be more sensitive to individual corporate developments and changes in economic conditions than higher-rated securities.

In addition, these securities generally present a higher degree of credit risk. Issuers of these securities are often highly leveraged and may not have more traditional methods of financing available to them. Therefore, their ability to service their debt obligations during an economic downturn or during sustained periods of rising interest rates may be impaired. The risk of loss due to default by such issuers is significantly greater than with investment grade securities because such securities generally are unsecured and frequently are subordinated to the prior payment of senior indebtedness.

Below-Investment Grade Foreign Sovereign Debt Securities. Investing in below-investment grade foreign sovereign debt securities will expose a fund to the consequences of political, social or economic changes in the developing and emerging market countries that issue the securities. The ability and willingness of sovereign obligors in these countries to pay principal and interest on such debt when due may depend on general economic and political conditions within the relevant country. Developing and emerging market countries have historically experienced (and may continue to experience) high inflation and interest rates, exchange rate trade difficulties, extreme poverty and unemployment. Many of these countries also are characterized by political uncertainty or instability.

The ability of a foreign sovereign obligor to make timely payments on its external debt obligations also will be strongly influenced by:

- the obligor's balance of payments, including export performance;
- the obligor's access to international credits and investments;
- fluctuations in interest rates; and
- the extent of the obligor's foreign reserves.

Defaulted Securities. The risk of loss due to default may be considerably greater with lower-quality securities because they are generally unsecured and are often subordinated to other debt of the issuer. The purchase of defaulted debt securities involves risks such as the possibility of complete loss of the investment where the issuer does not restructure to enable it to resume principal and interest payments. If the issuer of a security in a fund's portfolio defaults, the fund may have unrealized losses on the security, which may lower the fund's NAV. Defaulted securities tend to lose much of their value before they default. Thus, a fund's NAV may be adversely affected before an issuer defaults. In addition, a fund may incur additional expenses if it must try to recover principal or interest payments on a defaulted security.

Defaulted debt securities may be illiquid and, as such, will be part of the percentage limits on investments in illiquid securities discussed under "Illiquid Securities."

Obligor's Balance of Payments. A country whose exports are concentrated in a few commodities or whose economy depends on certain strategic imports could be vulnerable to fluctuations in international prices of these commodities or imports. To the extent that a country receives payment for its exports in currencies other than dollars, its ability to make debt payments denominated in dollars could be adversely affected.

Obligor's Access to International Credits and Investments. If a foreign sovereign obligor cannot generate sufficient earnings from foreign trade to service its external debt, it may need to depend on continuing loans and aid from foreign governments, commercial banks, and multilateral organizations, and inflows of foreign investment. The commitment on the part of these entities to make such disbursements may be conditioned on the government's implementation of economic reforms and/or economic performance and the timely service of its obligations. Failure in any of these efforts may result in the cancellation of these third parties' lending commitments, thereby further impairing the obligor's ability or willingness to service its debts on time.

Obligor's Fluctuations in Interest Rates. The cost of servicing external debt is generally adversely affected by rising international interest rates since many external debt obligations bear interest at rates that are adjusted based upon international interest rates.

Obligor's Foreign Reserves. The ability to service external debt also will depend on the level of the relevant government's international currency reserves and its access to foreign exchange. Currency devaluations may affect the ability of a sovereign obligor to obtain sufficient foreign exchange to service its external debt.

The Consequences of a Default. As a result of the previously listed factors, a governmental obligor may default on its obligations. If a default occurs, a fund holding foreign sovereign debt securities may have limited legal recourse against the issuer and/or guarantor. Remedies must, in some cases, be pursued in the courts of the defaulting party itself, and the ability of the holder of the foreign sovereign debt securities to obtain recourse may be subject to the political climate in the relevant country. In addition, no assurance can be given that the holders of commercial bank debt will not contest payments to the holders of other foreign sovereign debt obligations in the event of default under their commercial bank loan agreements.

Sovereign obligors in developing and emerging countries are among the world's largest debtors to commercial banks, other governments, international financial organizations and other financial institutions. These obligors have in the past experienced substantial difficulties in servicing their external debt obligations. This difficulty has led to defaults on certain obligations and the restructuring of certain indebtedness. Restructuring arrangements have included, among other things:

- reducing and rescheduling interest and principal payments by negotiating new or amended credit agreements or converting outstanding principal and unpaid interest to Brady Bonds; and
- obtaining new credit to finance interest payments.

Holders of certain foreign sovereign debt securities may be requested to participate in the restructuring of such obligations and to extend further loans to their issuers. There can be no assurance that the Brady Bonds and other foreign sovereign debt securities in which a fund may invest will not be subject to similar restructuring arrangements or to requests for new credit that may adversely affect the fund's holdings. Furthermore, certain participants in the secondary market for such debt may be directly involved in negotiating the terms of these arrangements and may therefore have access to information not available to other market participants.

Securities in the Lowest Rating Categories. Certain debt securities in which a fund may invest may have (or be considered comparable to securities having) the lowest ratings for non-subordinated debt instruments (e.g., securities rated "Caa" or lower by Moody's, "CCC" or lower by S&P or Fitch). These securities are considered to have the following characteristics:

- extremely poor prospects of ever attaining any real investment standing;
- current identifiable vulnerability to default;
- unlikely to have the capacity to pay interest and repay principal when due in the event of adverse business, financial or economic conditions;
- are speculative with respect to the issuer's capacity to pay interest and repay principal in accordance with the terms of the obligations; and/or
- are in default or not current in the payment of interest or principal.

Accordingly, it is possible that these types of characteristics could, in certain instances, reduce the value of securities held by a fund with a commensurate effect on the value of the fund's shares.

Hong Kong Stock Connect Program and Bond Connect Program Risk

A fund may invest in eligible renminbi-denominated class A shares of equity securities that are listed and traded on certain Chinese stock exchanges ("China A-Shares") through Stock Connect, a mutual market access program designed to, among others, enable foreign investment in the PRC; and in renminbi-denominated bonds issued in the PRC by Chinese credit, government and quasi-governmental issuers ("RMB Bonds"), which are available on the CIBM to eligible foreign investors through, among others, the "Mutual Bond Market Access between Mainland China and Hong Kong" ("Bond Connect") program.

Trading in China A-Shares through Stock Connect and bonds through Bond Connect is subject to certain restrictions and risks. A fund's investment in China A-Shares may only be traded through Stock Connect and is not otherwise transferable. The list of securities eligible to be traded on either program may change from time to time. Securities listed on either program may lose purchase eligibility, which could adversely affect a fund's performance.

While Stock Connect is not subject to individual investment quotas, daily and aggregate investment quotas apply to all Stock Connect participants, which may restrict or preclude a fund's ability to invest in China A-Shares. For example, these quota limitations require that buy orders for China A-Shares be rejected once the remaining balance of the relevant quota drops to zero or the daily quota is exceeded (although a fund will be permitted to sell China A-Shares regardless of the quota balance). These limitations may restrict a fund from investing in China A-Shares on a timely basis, which could affect a fund's ability to effectively pursue its investment strategy. Investment quotas are also subject to change. Bond Connect is not subject to investment quotas.

Chinese regulations prohibit over-selling of China A-Shares. If a fund intends to sell China A-shares it holds, it must transfer those securities to the accounts of a fund's participant broker before the market opens. As a result, a fund may not be able to dispose of its holdings of China A-Shares in a timely manner.

Stock Connect also is generally available only on business days when both the exchange on which China A-Shares are offered and the Stock Exchange of Hong Kong are open and when banks in both markets are open on the corresponding settlement days. Therefore, an investment in China A-Shares through Stock Connect may subject a fund to a risk of price fluctuations on days where Chinese stock markets are open, but Stock Connect is not operating. Similarly, Bond Connect is only available on days when markets in both China and Hong Kong are open, which may limit a fund's ability to trade when it would be otherwise attractive to do so.

Stock Connect launched in November 2014 and Bond Connect launched in July 2017. Therefore, trading through Stock Connect and Bond Connect is subject to trading, clearance, and settlement procedures that may continue to develop as the programs mature, which could pose risks to a fund. Bond Connect is relatively new and its effects on the CIBM are uncertain. In addition, the trading, settlement and information technology systems required for non-Chinese investors in Bond Connect are relatively new. In the event of systems malfunctions or extreme market conditions, trading via Bond Connect could be disrupted. In addition, the rules governing the operation of Stock Connect and Bond Connect may be subject to further interpretation and guidance. There can be no assurance as to the programs' continued existence or whether future developments regarding the programs may restrict or adversely affect a fund's investments or returns. Additionally, the withholding tax treatment of dividends, interest, and capital gains payable to overseas investors may be subject to change. Furthermore, there is currently no specific formal guidance by the PRC tax authorities on the treatment of income tax and other tax categories payable in respect of trading in CIBM by eligible foreign institutional investors via Bond Connect. Any changes in PRC tax law, future clarifications thereof, and/or subsequent retroactive enforcement by the PRC tax authorities of any tax may result in a material loss to a fund.

Stock Connect and Bond Connect regulations provide that investors, such as a fund, enjoy the rights and benefits of equities purchased through Stock Connect and bonds purchased through Bond Connect. However, the nominee structure under Stock Connect requires that China A-Shares be held through the HKSCC as nominee on behalf of investors. For investments via Bond Connect, the relevant filings, registration with People's Bank of China, and account opening have to be carried out via an onshore settlement agent, offshore custody agent, registration agent, or other third parties (as the case may be). As such, a fund is subject to the risks of default or errors on the part of such third parties.

While a fund's ownership of China A-Shares will be reflected on the books of the custodian's records, a fund will only have beneficial rights in such A-Shares. The precise nature and rights of a fund as the beneficial owner of the equities through the HKSCC as nominee is not well defined under the law of the PRC. Although the China Securities Regulatory Commission has issued guidance indicating that participants in Stock Connect will be able to exercise rights of beneficial owners in the PRC, the exact nature and methods of enforcement of the rights and interests of a fund under PRC law is uncertain. In particular, the courts may consider that the nominee or custodian as registered holder of China A-Shares, has full ownership over the securities rather than a fund as the underlying beneficial owner. The HKSCC, as nominee holder, does not guarantee the title to China A-Shares held through it and is under no obligation to enforce title or other rights associated with ownership on behalf of beneficial owners. Consequently, title to these securities, or the rights associated with them, such as participation in corporate actions or shareholder meetings, cannot be assured.

While certain aspects of the Stock Connect trading process are subject to Hong Kong law, PRC rules applicable to share ownership will apply. In addition, transactions using Stock Connect are not subject to the Hong Kong investor compensation fund, which means that a fund will be unable to make monetary claims on the investor compensation fund that it might otherwise be entitled to with respect to investments in Hong Kong securities. Other risks associated with investments in PRC securities apply fully to China A-Shares purchased through Stock Connect.

Similarly, in China, the Hong Kong Monetary Authority Central Money Markets Unit holds Bond Connect securities on behalf of ultimate investors (such as a fund) in accounts maintained with a China-based custodian (either the China Central Depository & Clearing Co. or the Shanghai Clearing House). This recordkeeping system subjects a fund to various risks, including the risk that a fund may have a limited ability to enforce rights as a bondholder and the risks of settlement delays and counterparty default of the Hong Kong sub-custodian. In addition, enforcing the ownership rights of a beneficial holder of Bond Connect securities is untested and courts in China have limited experience in applying the concept of beneficial ownership.

China A-Shares traded via Stock Connect and bonds trading through Bond Connect are subject to various risks associated with the legal and technical framework of Stock Connect and Bond Connect, respectively. In the event that the relevant systems fail to function properly, trading through Stock Connect or Bond Connect could be disrupted. In the event of high trade volume or unexpected market conditions, Stock Connect and Bond Connect may be available only on a limited basis, if at all. Both the PRC and Hong Kong regulators are permitted, independently of each other, to suspend Stock Connect in response to certain market conditions. Similarly, in the event that the relevant Mainland Chinese authorities suspend account opening or trading on the CIBM via Bond Connect, a fund's ability to invest in Chinese bonds will be adversely affected and limited. In such event, a fund's ability to achieve its investment objective will be negatively affected and, after exhausting other trading alternatives, a fund may suffer substantial losses as a result.

Hybrid Instruments

The risks of investing in hybrid instruments are a combination of the risks of investing in securities, options, futures, swaps, and currencies. Therefore, an investment in a hybrid instrument may include significant risks not associated with a similar investment in a traditional debt instrument with a fixed principal amount, is denominated in U.S. dollars, or that bears interest either at a fixed rate or a floating rate determined by reference to a common, nationally published benchmark. The risks of a particular hybrid instrument will depend upon the terms of the instrument, but may include, without limitation, the possibility of significant changes in the benchmarks or the prices of underlying assets to which the instrument is linked. These risks generally depend upon factors unrelated to the operations or credit quality of the issuer of the hybrid instrument and that may not be readily foreseen by the purchaser. Such factors include economic and political events, the supply and demand for the underlying assets, and interest rate movements. In recent years, various benchmarks and prices for underlying assets have been highly volatile, and such volatility may be expected in the future. See "Hedging and Other Strategic Transactions" for a description of certain risks associated with investments in futures, options, and forward contracts. The principal risks of investing in hybrid instruments are as follows:

Volatility. Hybrid instruments are potentially more volatile and carry greater market risks than traditional debt instruments. Depending on the structure of the particular hybrid instrument, changes in a benchmark may be magnified by the terms of the hybrid instrument and have an even more dramatic and substantial

effect upon the value of the hybrid instrument. Also, the prices of the hybrid instrument and the benchmark or underlying asset may not move in the same direction or at the same time.

Leverage Risk. Hybrid instruments may bear interest or pay preferred dividends at below market (or even relatively nominal) rates. Alternatively, hybrid instruments may bear interest at above market rates, but bear an increased risk of principal loss (or gain). For example, an increased risk of principal loss (or gain) may result if "leverage" is used to structure a hybrid instrument. Leverage risk occurs when the hybrid instrument is structured so that a change in a benchmark or underlying asset is multiplied to produce a greater value change in the hybrid instrument, thereby magnifying the risk of loss, as well as the potential for gain.

Liquidity Risk. Hybrid instruments also may carry liquidity risk since the instruments are often "customized" to meet the needs of a particular investor. Therefore, the number of investors that would be willing and able to buy such instruments in the secondary market may be smaller than for more traditional debt securities. In addition, because the purchase and sale of hybrid instruments could take place in an OTC market without the guarantee of a central clearing organization or in a transaction between a fund and the issuer of the hybrid instrument, the creditworthiness of the counterparty or issuer of the hybrid instrument would be an additional risk factor, which the fund would have to consider and monitor.

Lack of U.S. Regulation. Hybrid instruments may not be subject to regulation of the CFTC, which generally regulates the trading of swaps and commodity futures by U.S. persons, the SEC, which regulates the offer and sale of securities by and to U.S. persons, or any other governmental regulatory authority.

Credit and Counterparty Risk. The issuer or guarantor of a hybrid instrument may be unable or unwilling to make timely principal, interest or settlement payments, or otherwise honor its obligations. Funds that invest in hybrid instruments are subject to varying degrees of risk that the issuers of the securities will have their credit rating downgraded or will default, potentially reducing a fund's share price and income level.

The various risks discussed above with respect to hybrid instruments particularly the market risk of such instruments, may cause significant fluctuations in the NAV of a fund that invests in such instruments.

Industry or Sector Investing

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 particularly susceptible to the impact of market, economic, regulatory and other factors affecting that industry or sector. The principal risks of investing in certain sectors are described below.

Consumer Discretionary. The consumer discretionary sector may be affected by fluctuations in supply and demand and may also be adversely affected by changes in consumer spending as a result of world events, political and economic conditions, commodity price volatility, changes in exchange rates, imposition of import controls, increased competition, depletion of resources and labor relations.

The outbreak of the novel coronavirus (COVID-19) pandemic has 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 novel coronavirus (COVID-19) pandemic may affect certain countries, industries, economic sectors, and companies more than others, may exacerbate existing economic, political, or social tensions and may increase the probability of an economic recession or depression. The impact on the consumer discretionary market may last for an extended period of time.

Consumer Staples. Companies in the consumer staples sector may be affected by general economic conditions, commodity production and pricing, consumer confidence and spending, consumer preferences, interest rates, product cycles, marketing, competition, and government regulation. Other risks include changes in global economic, environmental and political events, and the depletion of resources. Companies in the consumer staples sector may also be negatively impacted by government regulations affecting their products. For example, government regulations may affect the permissibility of using various food additives and production methods of companies that make food products, which could affect company profitability. Tobacco companies, in particular, may be adversely affected by new laws, regulations and litigation. Companies in the consumer staples sector may also be subject to risks relating to the supply of,

demand for, and prices of raw materials. The prices of raw materials fluctuate in response to a number of factors, including, changes in exchange rates, import and export controls, changes in international agricultural and trading policies, and seasonal and weather conditions, among others. In addition, the success of food, beverage, household and personal product companies, in particular, may be strongly affected by unpredictable factors, such as, demographics, consumer spending, and product trends.

Energy. Companies in the energy sector may be affected by energy prices, supply and demand fluctuations including in energy fuels, energy conservation, liabilities arising from government or civil actions, environmental and other government regulations, and geopolitical events including political instability and war. The market value of companies in the local energy sector is heavily impacted by the levels and stability of global energy prices, energy conservation efforts, the success of exploration projects, exchange rates, interest rates, economic conditions, tax and other government regulations, increased competition and technological advances, as well as other factors. Companies in this sector may be subject to extensive government regulation and contractual fixed pricing, which may increase the cost of doing business and limit these companies' profits. A large part of the returns of these companies depends on few customers, including governmental entities and utilities. As a result, governmental budget constraints may have a significant negative effect on the stock prices of energy sector companies. Energy companies may also operate in, or engage in, transactions involving countries with less developed regulatory regimes or a history of expropriation, nationalization or other adverse policies. As a result, securities of companies in the energy field are subject to quick price and supply fluctuations caused by events relating to international politics. Other risks include liability from accidents resulting in injury or loss of life or property, pollution or other environmental problems, equipment malfunctions or mishandling of materials and a risk of loss from terrorism, political strife and natural disasters. Energy companies can also be heavily affected by the supply of, and demand for, their specific product or service and for energy products in general, and government subsidization. Energy companies may have high levels of debt and may be more likely to restructure their businesses if there are downturns in energy markets or the economy as a whole.

Companies in the energy sector have been adversely affected by reduced demand for oil and other energy commodities as a result of the slowdown in economic activity resulting from the spread of the novel coronavirus (COVID-19) pandemic and by price competition among key oil producing countries. Recently, global oil prices have declined significantly and experienced significant volatility, including a period where an oil-price futures contract fell into negative territory for the first time in history, as demand for oil has slowed and oil storage facilities reach their storage capacities. The impact on such commodities markets may last for an extended period of time.

Financial Services. To the extent that a fund invests principally in securities of financial services companies, it is particularly vulnerable to events affecting that industry. Financial services companies may include, but are not limited to, commercial and industrial banks, savings and loan associations and their holding companies, consumer and industrial finance companies, diversified financial services companies, investment banking, securities brokerage and investment advisory companies, leasing companies and insurance companies. The types of companies that compose the financial services sector may change over time. These companies are all subject to extensive regulation, rapid business changes, volatile performance dependent upon the availability and cost of capital, prevailing interest rates and significant competition. General economic conditions significantly affect these companies. Credit and other losses resulting from the financial difficulty of borrowers or other third parties have a potentially adverse effect on companies in this sector. Investment banking, securities brokerage and investment advisory companies are particularly subject to government regulation and the risks inherent in securities trading and underwriting activities. In addition, all financial services companies face shrinking profit margins due to new competitors, the cost of new technology, and the pressure to compete globally.

Banking. Commercial banks (including "money center" regional and community banks), savings and loan associations and holding companies of the foregoing are especially subject to adverse effects of volatile interest rates, concentrations of loans in particular industries (such as real estate or energy) and significant competition. The profitability of these businesses is to a significant degree dependent upon the availability and cost of capital funds. Economic conditions in the real estate market may have a particularly strong effect on certain banks and savings associations. Commercial banks and savings associations are subject to

extensive federal and, in many instances, state regulation. Neither such extensive regulation nor the federal insurance of deposits ensures the solvency or profitability of companies in this industry, and there is no assurance against losses in securities issued by such companies.

Insurance. Insurance companies are particularly subject to government regulation and rate setting, potential anti-trust and tax law changes, and industry-wide pricing and competition cycles. Property and casualty insurance companies also may be affected by weather and other catastrophes. Life and health insurance companies may be affected by mortality and morbidity rates, including the effects of epidemics. Individual insurance companies may be exposed to reserve inadequacies, problems in investment portfolios (for example, due to real estate or "junk" bond holdings) and failures of reinsurance carriers.

Health Sciences. Companies in this sector are subject to the additional risks of increased competition within the health care industry, changes in legislation or government regulations, reductions in government funding, product liability or other litigation and the obsolescence of popular products. The prices of the securities of health sciences companies may fluctuate widely due to government regulation and approval of their products and services, which may have a significant effect on their price and availability. In addition, the types of products or services produced or provided by these companies may quickly become obsolete. Moreover, liability for products that are later alleged to be harmful or unsafe may be substantial and may have a significant impact on a company's market value or share price.

Industrials. Companies in the industrials sector may be affected by general economic conditions, commodity production and pricing, supply and demand fluctuations, environmental and other government regulations, geopolitical events, interest rates, insurance costs, technological developments, liabilities arising from governmental or civil actions, labor relations, import controls and government spending. The value of securities issued by companies in the industrials sector may also be adversely affected by supply and demand related to their specific products or services and industrials sector products in general, as well as liability for environmental damage and product liability claims and government regulations. For example, the products of manufacturing companies may face obsolescence due to rapid technological developments and frequent new product introduction. Certain companies within this sector, particularly aerospace and defense companies, may be heavily affected by government spending policies because companies involved in this industry rely, to a significant extent, on government demand for their products and services, and, therefore, the financial condition of, and investor interest in, these companies are significantly influenced by governmental defense spending policies, which are typically under pressure from efforts to control the U.S. (and other) government budgets. In addition, securities of industrials companies in transportation may be cyclical and have occasional sharp price movements which may result from economic changes, fuel prices, labor relations and insurance costs, and transportation companies in certain countries may also be subject to significant government regulation and oversight, which may adversely affect their businesses.

Internet-Related Investments. The value of companies engaged in Internet-related activities, which is a developing industry, is particularly vulnerable to: (a) rapidly changing technology; (b) extensive government regulation; and (c) relatively high risk of obsolescence caused by scientific and technological advances. In addition, companies engaged in Internet-related activities are difficult to value and many have high share prices relative to their earnings which they may not be able to maintain over the long-term. Moreover, many Internet companies are not yet profitable and will need additional financing to continue their operations. There is no guarantee that such financing will be available when needed. Since many Internet companies are start-up companies, the risks associated with investing in small companies are heightened for these companies. A fund that invests a significant portion of its assets in Internet-related companies should be considered extremely risky even as compared to other funds that invest primarily in small company securities.

Materials. Companies in the materials sector may be affected by general economic conditions, commodity production and prices, consumer preferences, interest rates, exchange rates, product cycles, marketing, competition, resource depletion, and environmental, import/export and other government regulations. Other risks may include liabilities for environmental damage and general civil liabilities, and mandated expenditures for safety and pollution control. The materials sector may also be affected by economic

cycles, technological progress, and labor relations. At times, worldwide production of industrial materials has been greater than demand as a result of over-building or economic downturns, leading to poor investment returns or losses. These risks are heightened for companies in the materials sector located in foreign markets.

Natural Resources. A fund's investments in natural resources companies are especially affected by variations in the commodities markets (which may be due to market events, regulatory developments or other factors that such fund cannot control) and such companies may lack the resources and the broad business lines to weather hard times. Natural resources companies can be significantly affected by events relating to domestic or international political and economic developments, energy conservation efforts, the success of exploration projects, commodity-price changes, tax and governmental regulations or policies affecting the production and extraction of certain commodities. Investments in certain commodity-linked instruments, such as crude oil and crude oil products, can be susceptible to negative prices due to a surplus in production caused by global events, including restrictions or reductions in global travel. Exposure to such commodity-linked instruments may adversely affect an issuer's returns or the performance of the fund.

The natural resources sector has been adversely impacted by the reduced demand for oil and other natural resources as a result of the slowdown in economic activity resulting from the spread of the novel coronavirus (COVID-19) pandemic. Recently, global oil prices have declined significantly and experienced significant volatility, including a period where an oil-price futures contract fell into negative territory for the first time in history, as demand for oil has slowed and oil storage facilities reach their storage capacities. The impact on the natural resources sector may last for an extended period of time.

Technology. Technology companies rely heavily on technological advances and face intense competition, both domestically and internationally, which may have an adverse effect on profit margins. Shortening of product cycle and manufacturing capacity increases may subject technology companies to aggressive pricing. Technology companies may have limited product lines, markets, financial resources or personnel. The products of technology companies may face product obsolescence due to rapid technological developments and frequent new product introduction, unpredictable changes in growth rates and competition for the services of qualified personnel. Technology companies may not successfully introduce new products, develop and maintain a loyal customer base or achieve general market acceptance for their products.

Stocks of technology companies, especially those of smaller, less-seasoned companies, tend to be more volatile than the overall market. Companies in the technology sector are also heavily dependent on patent and intellectual property rights, the loss or impairment of which may adversely affect the profitability of these companies. Technology companies engaged in manufacturing, such as semiconductor companies, often operate internationally which could expose them to risks associated with instability and changes in economic and political conditions, foreign currency fluctuations, changes in foreign regulations, competition from subsidized foreign competitors with lower production costs and other risks inherent to international business.

Telecommunications. Companies in the telecommunications sector are subject to the additional risks of rapid obsolescence due to technological advancement or development, lack of standardization or compatibility with existing technologies, an unfavorable regulatory environment, and a dependency on patent and copyright protection. The prices of the securities of companies in the telecommunications sector may fluctuate widely due to both federal and state regulations governing rates of return and services that may be offered, fierce competition for market share, and competitive challenges in the U.S. from foreign competitors engaged in strategic joint ventures with U.S. companies, and in foreign markets from both U.S. and foreign competitors. In addition, recent industry consolidation trends may lead to increased regulation of telecommunications companies in their primary markets.

Utilities. Companies in the utilities sector may be affected by general economic conditions, supply and demand, financing and operating costs, rate caps, interest rates, liabilities arising from governmental or civil actions, consumer confidence and spending, competition, technological progress, energy prices,

resource conservation and depletion, man-made or natural disasters, geopolitical events, and environmental and other government regulations. The value of securities issued by companies in the utilities sector may be negatively impacted by variations in exchange rates, domestic and international competition, energy conservation and governmental limitations on rates charged to customers. Although rate changes of a regulated utility usually vary in approximate correlation with financing costs, due to political and regulatory factors rate changes usually happen only after a delay after the changes in financing costs. Deregulation may subject utility companies to increased competition and can negatively affect their profitability as it permits utility companies to diversify outside of their original geographic regions and customary lines of business, causing them to engage in more uncertain ventures. Deregulation can also eliminate restrictions on the profits of certain utility companies, but can simultaneously expose these companies to an increased risk of loss. Although opportunities may permit certain utility companies to earn more than their traditional regulated rates of return, companies in the utilities industry may have difficulty obtaining an adequate return on invested capital, raising capital, or financing large construction projects during periods of inflation or unsettled capital markets. Utility companies may also be subject to increased costs because of the effects of man-made or natural disasters. Current and future regulations or legislation can make it more difficult for utility companies to operate profitably. Government regulators monitor and control utility revenues and costs, and thus may restrict utility profits. There is no assurance that regulatory authorities will grant rate increases in the future, or that those increases will be adequate to permit the payment of dividends on stocks issued by a utility company.

Because utility companies are faced with the same obstacles, issues and regulatory burdens, their securities may react similarly and more in unison to these or other market conditions.

Initial Public Offerings ("IPOs")

IPOs may have a magnified impact on the performance of a fund with a small asset base. The impact of IPOs on a fund's performance likely will decrease as the fund's asset size increases, which could reduce the fund's returns. IPOs may not be consistently available to a fund for investment, particularly as the fund's asset base grows. IPO shares frequently are volatile in price due to the absence of a prior public market, the small number of shares available for trading and limited information about the issuer. Therefore, a fund may hold IPO shares for a very short period of time. This may increase the turnover of a fund and may lead to increased expenses for a fund, such as commissions and transaction costs. In addition, IPO shares can experience an immediate drop in value if the demand for the securities does not continue to support the offering price.

Investment Companies

The fund may invest in shares of other investment companies, including both open- and closed-end investment companies (including single country funds, ETFs, and BDCs). When making such an investment, a fund will be indirectly exposed to all the risks of such investment companies. In general, the investing funds will bear a pro rata portion of the other investment company's fees and expenses, which will reduce the total return in the investing funds. Certain types of investment companies, such as closed-end investment companies, issue a fixed number of shares that trade on a stock exchange and may involve the payment of substantial premiums above the value of such investment companies' portfolio securities when traded OTC or at discounts to their NAVs. Others are continuously offered at NAV, but also may be traded in the secondary market.

In addition, the fund may invest in private investment funds, vehicles, or structures. A fund also may invest in debt-equity conversion funds, which are funds established to exchange foreign bank debt of countries whose principal repayments are in arrears into a portfolio of listed and unlisted equities, subject to certain repatriation restrictions.

Exchange-Traded Funds. An ETF is a type of investment company shares of which are bought and sold on a securities exchange. An ETF generally represents a fixed portfolio of securities designed to track a particular market index or basket of securities. A fund could purchase shares of an ETF to temporarily gain exposure to a portion of the U.S. or a foreign market while awaiting purchase of underlying securities. The risks of owning an ETF include the risks of owning the underlying securities it is designed to track. In addition, the lack of liquidity in an ETF could result in it being more volatile than the underlying securities and ETFs have management fees that increase their costs. Also, there is a risk that an ETF may fail to closely track the index or basket of securities that it is designed to replicate. The existence of extreme market volatility or potential lack of an active trading market for an ETF's shares could result in the ETF's shares trading at a significant premium or discount to their NAV.

Business Development Companies. A BDC is a less-common type of closed-end investment company that more closely resembles an operating company than a typical investment company. BDCs typically invest in and lend to small- and medium-sized private and certain public companies that may not have access to public equity markets to raise capital. BDCs invest in such diverse industries as health care, chemical and manufacturing, technology and service companies. BDCs generally invest in less mature private companies, which involve greater risk than well-established, publicly traded companies. BDCs are unique in that at least 70% of their investments must be made in private and certain public U.S. businesses, and BDCs are required to make available significant managerial assistance to their portfolio companies. Generally, little public information exists for private and thinly traded companies, and there is a risk that investors may not be able to make a fully informed investment decision. With investments in debt instruments issued by such portfolio companies, there is a risk that the issuer may default on its payments or declare bankruptcy.

Investment Grade Fixed-Income Securities in the Lowest Rating Category

Investment grade fixed-income securities in the lowest rating category (i.e., rated "Baa" by Moody's and "BBB" by S&P or Fitch, and comparable unrated securities) involve a higher degree of risk than fixed-income securities in the higher rating categories. While such securities are considered investment grade quality and are deemed to have adequate capacity for payment of principal and interest, such securities lack outstanding investment characteristics and have speculative characteristics as well. For example, changes in economic conditions or other circumstances are more likely to lead to a weakened capacity to make principal and interest payments than is the case with higher grade securities.

LIBOR Discontinuation Risk

Certain debt securities, derivatives and other financial instruments, may utilize LIBOR as the reference or benchmark rate for interest rate calculations. However, following allegations of manipulation and concerns regarding liquidity, in July 2017 the U.K. Financial Conduct Authority, which regulates LIBOR, announced that it will cease its active encouragement of banks to provide the quotations needed to sustain LIBOR after 2021. This event will likely cause LIBOR to cease to be published. Before then, it is expected that market participants will transition to the use of different reference or benchmark rates. However, although regulators have suggested alternative rates, there is currently no definitive information regarding the future utilization of LIBOR or of any particular replacement rate.

There are obstacles to converting certain longer term securities and transactions to a new benchmark and the effectiveness of one alternative reference rate versus multiple alternative reference rates in new or existing financial instruments and products has not been determined. In addition, it is expected that market participants will amend financial instruments referencing LIBOR to include fallback provisions and other measures that contemplate the discontinuation of LIBOR or other similar market disruption events, but neither the effect of the transition process nor the viability of such measures is known. As market participants transition away from LIBOR, LIBOR's usefulness may deteriorate, which could occur prior to the end of 2021. The transition process may lead to increased volatility and illiquidity in markets that currently rely on LIBOR to determine interest rates. LIBOR's deterioration may adversely affect the liquidity and/or market value of securities that use LIBOR as a benchmark interest rate, including securities and other financial instruments held by the fund. Further, the utilization of an alternative reference rate, or the transition process to an alternative reference rate, may adversely affect the Fund's performance.

Lower Rated Fixed-Income Securities

Lower rated fixed-income securities are defined as securities rated below-investment grade (e.g., rated "Ba" and below by Moody's, or "BB" and below by S&P or Fitch). The principal risks of investing in these securities are as follows:

Risk to Principal and Income. Investing in lower rated fixed-income securities is considered speculative. While these securities generally provide greater income potential than investments in higher rated securities, there is a greater risk that principal and interest payments will not be made. Issuers of these securities may even go into default or become bankrupt.

Price Volatility. The price of lower rated fixed-income securities may be more volatile than securities in the higher rating categories. This volatility may increase during periods of economic uncertainty or change. The price of these

securities is affected more than higher rated fixed-income securities by the market's perception of their credit quality especially during times of adverse publicity. In the past, economic downturns or an increase in interest rates have, at times, caused more defaults by issuers of these securities and may do so in the future. Economic downturns and increases in interest rates have an even greater effect on highly leveraged issuers of these securities.

Liquidity. The market for lower rated fixed-income securities may have more limited trading than the market for investment grade fixed-income securities. Therefore, it may be more difficult to sell these securities and these securities may have to be sold at prices below their market value in order to meet redemption requests or to respond to changes in market conditions.

Dependence on Subadvisor's Own Credit Analysis. While a subadvisor to a fund may rely on ratings by established credit rating agencies, it also will supplement such ratings with its own independent review of the credit quality of the issuer. Therefore, the assessment of the credit risk of lower rated fixed-income securities is more dependent on a subadvisor's evaluation than the assessment of the credit risk of higher rated securities.

Additional Risks Regarding Lower Rated Corporate Fixed-Income Securities. Lower rated corporate debt securities (and comparable unrated securities) tend to be more sensitive to individual corporate developments and changes in economic conditions than higher-rated corporate fixed-income securities.

Issuers of lower rated corporate debt securities also may be highly leveraged, increasing the risk that principal and income will not be repaid.

Additional Risks Regarding Lower Rated Foreign Government Fixed-Income Securities. Lower rated foreign government fixed-income securities are subject to the risks of investing in emerging market countries described under "Risk Factors—Foreign Securities." In addition, the ability and willingness of a foreign government to make payments on debt when due may be affected by the prevailing economic and political conditions within the country. Emerging market countries may experience high inflation, interest rates and unemployment as well as exchange rate fluctuations that adversely affect trade and political uncertainty or instability. These factors increase the risk that a foreign government will not make payments when due.

Market Events

Events in certain sectors historically have resulted, and may in the future result, in an unusually high degree of volatility in the financial markets, both domestic and foreign. These events have included, but are not limited to: bankruptcies, corporate restructurings, and other similar events; governmental efforts to limit short selling and high frequency trading; measures to address U.S. federal and state budget deficits; social, political, and economic instability in Europe; economic stimulus by the Japanese central bank; dramatic changes in energy prices and currency exchange rates; and China's economic slowdown. Interconnected global economies and financial markets increase the possibility that conditions in one country or region might adversely impact issuers in a different country or region. Both domestic and foreign equity markets have experienced increased volatility and turmoil, with issuers that have exposure to the real estate, mortgage, and credit markets particularly affected. Banks and financial services companies could suffer losses if interest rates rise or economic conditions deteriorate.

In addition, relatively high market volatility and reduced liquidity in credit and fixed-income markets may adversely affect many issuers worldwide. Actions taken by the U.S. Federal Reserve (the "Fed") or foreign central banks to stimulate or stabilize economic growth, such as interventions in currency markets, could cause high volatility in the equity and fixed-income markets. Reduced liquidity may result in less money being available to purchase raw materials, goods, and services from emerging markets, which may, in turn, bring down the prices of these economic staples. It may also result in emerging-market issuers having more difficulty obtaining financing, which may, in turn, cause a decline in their securities prices.

In addition, while interest rates have been unusually low in recent years in the United States and abroad, any decision by the Fed to adjust the target Fed funds rate, among other factors, could cause markets to experience continuing high volatility. A significant increase in interest rates may cause a decline in the market for equity securities. Also, regulators have expressed concern that rate increases may contribute to price volatility. These events and the possible resulting market volatility may have an adverse effect on a fund.

Political turmoil within the United States and abroad may also impact a fund. Although the U.S. government has honored its credit obligations, it remains possible that the United States could default on its obligations. While it is impossible to predict the consequences of such an unprecedented event, it is likely that a default by the United States would be highly disruptive to the U.S. and global securities markets and could significantly impair the value of a

fund's investments. Similarly, political events within the United States at times have resulted, and may in the future result, in a shutdown of government services, which could negatively affect the U.S. economy, decrease the value of many fund investments, and increase uncertainty in or impair the operation of the U.S. or other securities markets. The U.S. is also considering significant new investments in infrastructure and national defense which, coupled with lower federal taxes, could lead to increased government borrowing and higher interest rates. While these proposed policies are going through the political process, the equity and debt markets may react strongly to expectations, which could increase volatility, especially if the market's expectations for changes in government policies are not borne out. The U.S. is also renegotiating many of its global trade relationships and has imposed or threatened to impose significant import tariffs. These actions could lead to price volatility and overall declines in U.S. and global investment markets.

Uncertainties surrounding the sovereign debt of a number of EU countries and the viability of the EU have disrupted and may in the future disrupt markets in the United States and around the world. If one or more countries leave the EU or the EU dissolves, the world's securities markets likely will be significantly disrupted. On January 31, 2020, the UK left the EU, commonly referred to as "Brexit," and there commenced a transition period during which the EU and UK will negotiate and agree on the nature of their future relationship. There is significant market uncertainty regarding Brexit's ramifications, and the range and potential implications of possible political, regulatory, economic, and market outcomes are difficult to predict. This uncertainty may affect other countries in the EU and elsewhere, and may cause volatility within the EU, triggering prolonged economic downturns in certain countries within the EU. In addition, Brexit may create additional and substantial economic stresses for the UK, including a contraction of the UK economy and price volatility in UK stocks, decreased trade, capital outflows, devaluation of the British pound, wider corporate bond spreads due to uncertainty and declines in business and consumer spending as well as foreign direct investment. Brexit may also adversely affect UK-based financial firms that have counterparties in the EU or participate in market infrastructure (trading venues, clearing houses, settlement facilities) based in the EU. Additionally, the spread of the novel coronavirus (COVID-19) pandemic will stretch the resources and deficits of many countries in the EU and throughout the world, increasing the risk of default on their sovereign debt. These events and the resulting market volatility may have an adverse effect on the performance of the fund.

A widespread health crisis such as a global pandemic could cause substantial market volatility, exchange trading suspensions and closures, impact the ability to complete redemptions, and affect fund performance. For example, the novel coronavirus disease (COVID-19) has resulted in significant disruptions to global business activity. 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 the fund's performance, resulting in losses to your investment.

The United States has responded to the novel coronavirus (COVID-19) pandemic and resulting economic distress with fiscal and monetary stimulus packages. In late March 2020, the government passed the Coronavirus Aid, Relief, and Economic Security Act, a stimulus package providing for over \$2.2 trillion in resources to small businesses, state and local governments, and individuals that have been adversely impacted by the novel coronavirus (COVID-19) pandemic. In addition, in mid-March 2020 the Fed cut interest rates to historically low levels and promised unlimited and open-ended quantitative easing, including purchases of corporate and municipal government bonds. The Fed also enacted various programs to support liquidity operations and funding in the financial markets, including expanding its reverse repurchase agreement operations, adding \$1.5 trillion of liquidity to the banking system, establishing swap lines with other major central banks to provide dollar funding, establishing a program to support money market funds, easing various bank capital buffers, providing funding backstops for businesses to provide bridging loans for up to four years, and providing funding to help credit flow in asset-backed securities markets. The Fed also plans to extend credit to small- and medium-sized businesses.

Political and military events, including in North Korea, Venezuela, Iran, Syria, and other areas of the Middle East, and nationalist unrest in Europe and South America, also may cause market disruptions.

In addition, there is a risk that the prices of goods and services in the United States and many foreign economies may decline over time, known as deflation. Deflation may have an adverse effect on stock prices and creditworthiness and may make defaults on debt more likely. If a country's economy slips into a deflationary pattern, it could last for a prolonged period and may be difficult to reverse.

Master Limited Partnership (MLP) Risk

Investing in MLPs involves certain risks related to investing in the underlying assets of MLPs and risks associated with pooled investment vehicles. MLPs holding credit-related investments are subject to interest-rate risk and the risk of default on payment obligations by debt securities. In addition, investments in the debt and securities of MLPs involve certain other risks, including risks related to limited control and limited rights to vote on matters affecting MLPs, risks related to potential conflicts of interest between an MLP and the MLP's general partner, cash flow risks, dilution risks and risks related to the general partner's right to require unit-holders to sell their common units at an undesirable time or price. A fund's investments in MLPs may be subject to legal and other restrictions on resale or may be less liquid than publicly traded securities. Certain MLP securities may trade in lower volumes due to their smaller capitalizations, and may be subject to more abrupt or erratic price movements and may lack sufficient market liquidity to enable the fund to effect sales at an advantageous time or without a substantial drop in price. If a fund is one of the largest investors in an MLP, it may be more difficult for the fund to buy and sell significant amounts of such investments without an unfavorable impact on prevailing market prices. Larger purchases or sales of MLP investments by a fund in a short period of time may cause abnormal movements in the market price of these investments. As a result, these investments may be difficult to dispose of at an advantageous price when a fund desires to do so. During periods of interest rate volatility, these investments may not provide attractive returns, which may adversely impact the overall performance of a fund. MLPs in which a fund may invest operate oil, natural gas, petroleum, or other facilities within the energy sector. As a result, a fund will be susceptible to adverse economic, environmental, or regulatory occurrences impacting the energy sector.

MLPs have been adversely impacted by the reduced demand for oil and other energy commodities as a result of the slowdown in economic activity resulting from the spread of the novel coronavirus (COVID-19) pandemic. Recently, global oil prices have declined significantly and experienced significant volatility, including a period where an oil-price futures contract fell into negative territory for the first time in history, as demand for oil has slowed and oil storage facilities reach their storage capacities. Reduced production and continued oil price volatility may adversely impact MLPs and energy infrastructure companies.

To the extent a distribution received by a fund from an MLP is treated as a return of capital, the fund's adjusted tax basis in the interests of the MLP may be reduced, which will result in an increase in an amount of income or gain (or decrease in the amount of loss) that will be recognized by the fund for tax purposes upon the sale of any such interests or upon subsequent distributions in respect of such interests. After a fund's tax basis in an MLP has been reduced to zero, subsequent distributions from the MLP will be treated as ordinary income. Changes in the tax character of MLP distributions, as well as late or corrected tax reporting by MLPs, may result in a fund issuing corrected 1099s to its shareholders.

Mortgage-Backed and Asset-Backed Securities

Mortgage-Backed Securities. Mortgage-backed securities represent participating interests in pools of residential mortgage loans that are guaranteed by the U.S. government, its agencies or instrumentalities. However, the guarantee of these types of securities relates to the principal and interest payments and not the market value of such securities. In addition, the guarantee only relates to the mortgage-backed securities held by a fund and not the purchase of shares of the fund.

Mortgage-backed securities are issued by lenders such as mortgage bankers, commercial banks, and savings and loan associations. Such securities differ from conventional debt securities, which provide for the periodic payment of interest in fixed amounts (usually semiannually) with principal payments at maturity or on specified dates. Mortgage-backed securities provide periodic payments that are, in effect, a "pass-through" of the interest and principal payments (including any prepayments) made by the individual borrowers on the pooled mortgage loans. A mortgage-backed security will mature when all the mortgages in the pool mature or are prepaid. Therefore, mortgage-backed securities do not have a fixed maturity, and their expected maturities may vary when interest rates rise or fall.

When interest rates fall, homeowners are more likely to prepay their mortgage loans. An increased rate of prepayments on a fund's mortgage-backed securities will result in an unforeseen loss of interest income to the fund as the fund may be required to reinvest assets at a lower interest rate. Because prepayments increase when interest rates fall, the prices of mortgage-backed securities do not increase as much as other fixed-income securities when interest rates fall.

When interest rates rise, homeowners are less likely to prepay their mortgage loans. A decreased rate of prepayments lengthens the expected maturity of a mortgage-backed security. Therefore, the prices of mortgage-backed securities may decrease more than prices of other fixed-income securities when interest rates rise.

The yield of mortgage-backed securities is based on the average life of the underlying pool of mortgage loans. The actual life of any particular pool may be shortened by unscheduled or early payments of principal and interest. Principal prepayments may result from the sale of the underlying property or the refinancing or foreclosure of underlying mortgages. The occurrence of prepayments is affected by a wide range of economic, demographic and social factors and, accordingly, it is not possible to accurately predict the average life of a particular pool. The actual prepayment experience of a pool of mortgage loans may cause the yield realized by a fund to differ from the yield calculated on the basis of the average life of the pool. In addition, if a fund purchases mortgage-backed securities at a premium, the premium may be lost in the event of early prepayment, which may result in a loss to the fund.

Prepayments tend to increase during periods of falling interest rates and decline during periods of rising interest rates. Monthly interest payments received by a fund have a compounding effect, which will increase the yield to shareholders as compared to debt obligations that pay interest semiannually. Because of the reinvestment of prepayments of principal at current rates, mortgage-backed securities may be less effective than Treasury bonds of similar maturity at maintaining yields during periods of declining interest rates. Also, although the value of debt securities may increase as interest rates decline, the value of these pass-through type of securities may not increase as much due to their prepayment feature.

The mortgage-backed securities market has been and may continue to be negatively affected by the novel coronavirus (COVID-19) pandemic. The U.S. government, its agencies or its instrumentalities may implement initiatives in response to the economic impacts of the novel coronavirus (COVID-19) pandemic applicable to federally backed mortgage loans. These initiatives could involve forbearance of mortgage payments or suspension or restrictions of foreclosures and evictions. The fund cannot predict with certainty the extent to which such initiatives or the economic effects of the pandemic generally may affect rates of prepayment or default or adversely impact the value of the fund's investments in securities in the mortgage industry as a whole.

Collateralized Mortgage Obligations. CMOs are mortgage-backed securities issued in separate classes with different stated maturities. As the mortgage pool experiences prepayments, the pool pays off investors in classes with shorter maturities first. By investing in CMOs, a fund may manage the prepayment risk of mortgage-backed securities. However, prepayments may cause the actual maturity of a CMO to be substantially shorter than its stated maturity.

Asset-Backed Securities. Asset-backed securities include interests in pools of debt securities, commercial or consumer loans, or other receivables. The value of these securities depends on many factors, including changes in interest rates, the availability of information concerning the pool and its structure, the credit quality of the underlying assets, the market's perception of the servicer of the pool, and any credit enhancement provided. In addition, asset-backed securities have prepayment risks similar to mortgage-backed securities.

Multinational Companies Risk

To the extent that a fund invests in the securities of companies with foreign business operations, it may be riskier than funds that focus on companies with primarily U.S. operations. Multinational companies may face certain political and economic risks, such as foreign controls over currency exchange; restrictions on monetary repatriation; possible seizure, nationalization or expropriation of assets; and political, economic or social instability. These risks are greater for companies with significant operations in developing countries.

Natural Disasters and Adverse Weather Conditions

Certain areas of the world may be exposed to adverse weather conditions, such as major natural disasters and other extreme weather events, including hurricanes, earthquakes, typhoons, floods, tidal waves, tsunamis, volcanic eruptions, wildfires, droughts, windstorms, coastal storm surges, heat waves, and rising sea levels, among others. Some countries and regions may not have the infrastructure or resources to respond to natural disasters, making them more economically sensitive to environmental events. Such disasters, and the resulting damage, could have a severe and negative impact on a fund's investment portfolio and, in the longer term, could impair the ability of issuers in which a fund invests to conduct their businesses in the manner normally conducted. Adverse weather conditions also may have a particularly significant negative effect on issuers in the agricultural sector and on insurance companies that insure against the impact of natural disasters.

Climate change, which is the result of a change in global or regional climate patterns, may increase the frequency and intensity of such adverse weather conditions, resulting in increased economic impact, and may pose long-term risks to a fund's investments. The future impact of climate change is difficult to predict but may include changes in demand for certain goods and services, supply chain disruption, changes in production costs, increased legislation, regulation and international accords, changes in property and security values, availability of natural resources and displacement of peoples.

Negative Interest Rates

Certain countries have recently experienced negative interest rates on deposits and debt instruments have traded at negative yields. A negative interest rate policy is an unconventional central bank monetary policy tool where nominal target interest rates are set with a negative value (i.e., below zero percent) intended to help create self-sustaining growth in the local economy. Negative interest rates may become more prevalent among non-U.S. issuers, and potentially within the U.S. For example, if a bank charges negative interest, instead of receiving interest on deposits, a depositor must pay the bank fees to keep money with the bank.

These market conditions may increase a fund's exposures to interest rate risk. To the extent a fund has a bank deposit or holds a debt instrument with a negative interest rate to maturity, the fund would generate a negative return on that investment. While negative yields can be expected to reduce demand for fixed-income investments trading at a negative interest rate, investors may be willing to continue to purchase such investments for a number of reasons including, but not limited to, price insensitivity, arbitrage opportunities across fixed-income markets or rules-based investment strategies. If negative interest rates become more prevalent in the market, it is expected that investors will seek to reallocate assets to other income-producing assets such as investment grade and high-yield debt instruments, or equity investments that pay a dividend. This increased demand for higher yielding assets may cause the price of such instruments to rise while triggering a corresponding decrease in yield and the value of debt instruments over time.

Non-Diversification

While each fund is classified as a diversified fund, certain underlying funds in which a fund may invest may be non-diversified. A fund that is non-diversified is not limited as to the percentage of its assets that may be invested in any one issuer, and as to the percentage of the outstanding voting securities of such issuer that may be owned, except by the fund's own investment restrictions. In contrast, a diversified fund, as to at least 75% of the value of its total assets, generally may not, except with respect to government securities and securities of other investment companies, invest more than five percent of its total assets in the securities, or own more than ten percent of the outstanding voting securities, of any one issuer. In determining the issuer of a municipal security, each state, each political subdivision, agency, and instrumentality of each state and each multi-state agency of which such state is a member is considered a separate issuer. In the event that securities are backed only by assets and revenues of a particular instrumentality, facility or subdivision, such entity is considered the issuer.

A fund that is non-diversified may invest a high percentage of its assets in the securities of a small number of issuers, may invest more of its assets in the securities of a single issuer, and may be affected more than a diversified fund by a change in the financial condition of any of these issuers or by the financial markets' assessment of any of these issuers.

Privately Held and Newly Public Companies

Investments in the stocks of privately held companies and newly public companies involve greater risks than investments in stocks of companies that have traded publicly on an exchange for extended time periods. Investments in such companies are less liquid and may be difficult to value. There may be significantly less information available about these companies' business models, quality of management, earnings growth potential, and other criteria used to evaluate their investment prospects. The extent (if at all) to which securities of privately held companies or newly public companies may be sold without negatively impacting its market value may be impaired by reduced market activity or participation, legal restrictions, or other economic and market impediments. Funds that invest in securities of privately held companies tend to have a greater exposure to liquidity risk than funds that do not invest in securities of privately held companies.

Rebalancing Risks Involving Funds of Funds

The funds of funds seek to achieve their investment objectives by investing in, among other things, other John Hancock funds, as permitted by Section 12 of the 1940 Act ("Underlying JH Funds. In addition, a fund that is not a fund of funds may serve as an Underlying JH Fund for one or more funds of funds. The funds of funds will reallocate or rebalance assets among the Underlying JH Funds (collectively, "Rebalancings") on a daily basis. The following discussion provides information on the risks related to Rebalancings, which risks are applicable to the Underlying JH Funds undergoing Rebalancings, as well as to those funds of funds that hold Underlying JH Funds undergoing Rebalancings.

From time to time, one or more of the Underlying JH Funds may experience relatively large redemptions or investments due to Rebalancings, as effected by the funds of funds' Affiliated Subadvisor. Shareholders should note that Rebalancings may adversely affect the Underlying JH Funds. The Underlying JH Funds subject to redemptions by a fund of funds may find it necessary to sell securities, and the Underlying JH Funds that receive additional cash from a fund of funds will find it necessary to invest the cash. The impact of Rebalancings is likely to be greater when a fund of funds owns, redeems, or invests in, a substantial portion of an Underlying JH Fund. Rebalancings could adversely affect the performance of one or more Underlying JH Funds and, therefore, the performance of one or more funds of funds.

Possible adverse effects of Rebalancings on the Underlying JH Funds include:

1. The Underlying JH Funds could be required to sell securities or to invest cash, at times when they may not otherwise desire to do so.
2. Rebalancings may increase brokerage and/or other transaction costs of the Underlying JH Funds.
3. When a fund of funds owns a substantial portion of an Underlying JH Fund, a large redemption by the fund of funds could cause that Underlying JH Fund's expenses to increase and could result in its portfolio becoming too small to be economically viable.
4. Rebalancings could accelerate the realization of taxable capital gains in Underlying JH Funds subject to large redemptions if sales of securities results in capital gains.

The Advisor, which serves as the investment advisor to both the funds of funds and the Underlying JH Funds, has delegated the day-to-day portfolio management of the funds of funds and many of the Underlying JH Funds to the Affiliated Subadvisors, affiliates of the Advisor. The Advisor monitors both the funds and the Underlying JH Funds. The Affiliated Subadvisors manage the assets of both the funds and many of the Underlying JH Funds (the "Affiliated Subadvised Funds"). The Affiliated Subadvisors may allocate up to all of a funds of funds' assets to Affiliated Subadvised Funds and accordingly has an incentive to allocate more fund of funds assets to such Affiliated Subadvised Funds. The Advisor and the Affiliated Subadvisors monitor the impact of Rebalancings on the Underlying JH Funds and attempt to minimize any adverse effect of the Rebalancings on the underlying funds, consistent with pursuing the investment objective of the relevant Underlying JH Funds. Moreover, an Affiliated Subadvisor has a duty to allocate assets to an Affiliated Subadvised Fund only when such Subadvisor believes it is in the best interests of fund of funds shareholders.

Minimizing any adverse effect of the Rebalancings on the underlying funds may impact the redemption schedule in connection with a Rebalancing. As part of its oversight of the funds and the subadvisors, the Advisor will monitor to ensure that allocations are conducted in accordance with these principles. This conflict of interest is also considered by the Independent Trustees when approving or replacing affiliated subadvisors and in periodically reviewing allocations to Affiliated Subadvised Funds.

As discussed above, the funds of funds periodically reallocate their investments among underlying investments. In an effort to be fully invested at all times and also to avoid temporary periods of under-investment, an Underlying JH Fund may buy securities and other instruments in anticipation of or with knowledge of future purchases of Underlying JH Fund shares resulting from a reallocation of assets by the funds of funds to the Underlying JH Fund. Until such purchases of Underlying JH Fund shares by a fund of funds settle (normally between one and three days), the Underlying JH Fund may have investment exposure in excess of its net assets. Shareholders who transact with the Underlying JH Fund during the period beginning when the Underlying JH Fund first starts buying securities in anticipation of a purchase order from a fund until such purchase order settles may incur more loss or realize more gain than they otherwise might have in the absence of the excess investment exposure. The funds of funds may purchase and redeem shares of underlying funds each business day through the use of an algorithm that operates pursuant to standing instructions to allocate purchase and redemption orders among underlying funds. Each day,

[pursuant to the algorithm, a fund of funds will purchase or redeem shares of an underlying fund at the NAV for the underlying fund calculated that day. This algorithm is used solely for rebalancing a fund of funds' investments in an effort to maintain previously determined allocation percentages.](#)

Responsible Investing Risk

Certain subadvisors may integrate research on environmental, social and governance (ESG) factors into a fund's investment process. ESG investments may be viewed as "sustainable," "responsible," or "socially conscious," among other names. A subadvisor may also be a signatory of the United Nations Principles for Responsible Investment (PRI), which works to support its investor signatories in incorporating ESG factors into their investment and ownership decisions, or other similar global or regional initiatives. ESG factors may be utilized and evaluated differently by different subadvisors, and may mean different things to different people. The successful application of ESG factors is dependent on the subadvisor's skill in properly identifying and analyzing material ESG issues, and the suitability of ESG investments may change over time. Integration of ESG factors into a fund's investment process may impact its investment exposure, performance and proxy voting, among other elements.

Russian Securities Risk

The United States and the EU have imposed economic sanctions against companies in certain sectors of the Russian economy, including, but not limited to: financial services, energy, metals and mining, engineering, and defense and defense-related materials. These sanctions could impair a fund's ability to continue to invest in Russian issuers. For example, a fund may be prohibited from investing in securities issued by companies subject to such sanctions. In addition, retaliatory measures by the Russian government in response to such sanctions may result in a freeze of Russian assets held by the fund, thereby prohibiting the fund from selling or otherwise transacting in these investments. In such circumstances, the fund might be forced to liquidate non-restricted assets in order to satisfy shareholder redemptions. Such liquidation of fund assets might also result in the fund receiving substantially lower prices for its portfolio securities.

Securities Linked to the Real Estate Market

Investing in securities of companies in the real estate industry subjects a fund to the risks associated with the direct ownership of real estate. These risks include, but are not limited to:

- declines in the value of real estate;
- risks related to general and local economic conditions;
- possible lack of availability of mortgage portfolios;
- overbuilding;
- extended vacancies of properties;
- increased competition;
- increases in property taxes and operating expenses;
- change in zoning laws;
- losses due to costs resulting from the clean-up of environmental problems;
- liability to third parties for damages resulting from environmental problems;
- casualty or condemnation losses;
- limitations on rents;
- changes in neighborhood values and the appeal of properties to tenants; and
- changes in interest rates.

Therefore, if a fund invests a substantial amount of its assets in securities of companies in the real estate industry, the value of the fund's shares may change at different rates compared to the value of shares of a fund with investments in a mix of different industries.

Securities of companies in the real estate industry have been and may continue to be negatively affected by the novel coronavirus (COVID-19) pandemic. Potential impacts on the real estate market may include lower occupancy rates, decreased lease payments, defaults and foreclosures, among other consequences. These impacts could adversely affect corporate borrowers and mortgage lenders, the value of mortgage-backed securities, the bonds of municipalities that depend on tax revenues and tourist dollars generated by such properties, and insurers of the

property and/or of corporate, municipal or mortgage-backed securities. It is not known how long such impacts, or any future impacts of other significant events, will last.

Securities of companies in the real estate industry include REITs, including equity REITs and mortgage REITs. Equity REITs may be affected by changes in the value of the underlying property owned by the trusts, while mortgage REITs may be affected by the quality of any credit extended. Further, equity and mortgage REITs are dependent upon management skills and generally may not be diversified. Equity and mortgage REITs also are subject to heavy cash flow dependency, defaults by borrowers or lessees, and self-liquidations. In addition, equity, mortgage, and hybrid REITs could possibly fail to qualify for tax free pass-through of income under the Code, or to maintain their exemptions from registration under the 1940 Act. The above factors also may adversely affect a borrower's or a lessee's ability to meet its obligations to a REIT. In the event of a default by a borrower or lessee, a REIT may experience delays in enforcing its rights as a mortgagee or lessor and may incur substantial costs associated with protecting its investments.

In addition, even the larger REITs in the industry tend to be small to medium-sized companies in relation to the equity markets as a whole. See "Small and Medium Size and Unseasoned Companies" for a discussion of the risks associated with investments in these companies.

Small and Medium Size and Unseasoned Companies

Survival of Small or Unseasoned Companies. Companies that are small or unseasoned (i.e., less than three years of operating history) are more likely than larger or established companies to fail or not to accomplish their goals. As a result, the value of their securities could decline significantly. These companies are less likely to survive since they are often dependent upon a small number of products and may have limited financial resources and a small management group.

Changes in Earnings and Business Prospects. Small or unseasoned companies often have a greater degree of change in earnings and business prospects than larger or established companies, resulting in more volatility in the price of their securities.

Liquidity. The securities of small or unseasoned companies may have limited marketability. This factor could cause the value of a fund's investments to decrease if it needs to sell such securities when there are few interested buyers.

Impact of Buying or Selling Shares. Small or unseasoned companies usually have fewer outstanding shares than larger or established companies. Therefore, it may be more difficult to buy or sell large amounts of these shares without unfavorably impacting the price of the security.

Publicly Available Information. There may be less publicly available information about small or unseasoned companies. Therefore, when making a decision to purchase a security for a fund, a subadvisor may not be aware of problems associated with the company issuing the security.

Medium Size Companies. Investments in the securities of medium sized companies present risks similar to those associated with small or unseasoned companies although to a lesser degree due to the larger size of the companies.

Stripped Securities

Stripped securities are the separate income or principal components of a debt security. The risks associated with stripped securities are similar to those of other debt securities, although stripped securities may be more volatile, and the value of certain types of stripped securities may move in the same direction as interest rates. U.S. Treasury securities that have been stripped by a Federal Reserve Bank are obligations issued by the U.S. Treasury.

U.S. Government Securities

U.S. government securities include securities issued or guaranteed by the U.S. government or by an agency or instrumentality of the U.S. government. Not all U.S. government securities are backed by the full faith and credit of the United States. Some are supported only by the credit of the issuing agency or instrumentality, which depends entirely on its own resources to repay the debt. U.S. government securities that are backed by the full faith and credit of the United States include U.S. Treasuries and mortgage-backed securities guaranteed by GNMA. Securities that are only supported by the credit of the issuing agency or instrumentality include those issued by Fannie Mae, the FHLBs and Freddie Mac.

REGULATION OF COMMODITY INTERESTS

The CFTC has adopted regulations that subject registered investment companies and/or their investment advisors to regulation by the CFTC if the registered investment company invests more than a prescribed level of its NAV in commodity futures, options on commodities or commodity futures, swaps, or other financial instruments regulated under the CEA ("commodity interests"), or if the registered investment company markets itself as providing investment exposure to such commodity interests. The Advisor is registered as a CPO under the CEA and is a National Futures Association member firm; however, the Advisor does not act in the capacity of a registered CPO with respect to the funds.

Although the Advisor is a registered CPO, the Advisor has claimed an exemption from CPO registration pursuant to CFTC Rule 4.5 with respect to the funds. To remain eligible for this exemption, each fund must comply with certain limitations, including limits on trading in commodity interests, and restrictions on the manner in which the fund markets its commodity interests trading activities. These limitations may restrict a fund's ability to pursue its investment strategy, increase the costs of implementing its strategy, increase its expenses and/or adversely affect its total return.

HEDGING AND OTHER STRATEGIC TRANSACTIONS

Hedging refers to protecting against possible changes in the market value of securities or other assets that a fund already owns or plans to buy or protecting unrealized gains in the fund. These strategies also may be used to gain exposure to a particular market. The hedging and other strategic transactions that may be used by a fund, but only if and to the extent that such transactions are consistent with its investment objective and policies, are described below:

- exchange-listed and OTC put and call options on securities, equity indices, volatility indices, financial futures contracts, currencies, fixed-income indices and other financial instruments;
- financial futures contracts (including stock index futures);
- interest rate transactions;*
- currency transactions;**
- warrants and rights (including non-standard warrants and participatory risks);
- swaps (including interest rate, index, dividend, inflation, variance, equity, and volatility swaps, credit default swaps, swap options and currency swaps); and
- structured notes, including hybrid or "index" securities.

* A fund's interest rate transactions may take the form of swaps, caps, floors and collars.

** A fund's currency transactions may take the form of currency forward contracts, currency futures contracts, currency swaps and options on currencies or currency futures contracts.

Hedging and other strategic transactions may be used for the following purposes:

- to attempt to protect against possible changes in the market value of securities held or to be purchased by a fund resulting from securities markets or currency exchange rate fluctuations;
- to protect a fund's unrealized gains in the value of its securities;
- to facilitate the sale of a fund's securities for investment purposes;
- to manage the effective maturity or duration of a fund's securities;
- to establish a position in the derivatives markets as a method of gaining exposure to a particular geographic region, market, industry, issuer, or security; or
- to increase exposure to a foreign currency or to shift exposure to foreign currency fluctuations from one country to another.

To the extent that a fund uses hedging or another strategic transaction to gain, shift or manage exposure to a particular geographic region, market, industry, issuer, security, currency, or other asset, the fund will be exposed to the risks of investing in that asset as well as the risks inherent in the specific hedging or other strategic transaction used to gain such exposure.

For purposes of determining compliance with a fund's investment policies, strategies and restrictions, the fund will generally consider the market value of derivative instruments, unless the nature of the derivative instrument warrants the use of the instrument's notional value to more accurately reflect the economic exposure represented by the derivative position.

Because of the uncertainties under federal tax laws as to whether income from commodity-linked derivative instruments and certain other instruments would constitute "qualifying income" to a RIC, no fund is permitted to invest in such instruments unless a subadvisor obtains prior written approval from the Trust's CCO. The CCO, as a member of the Advisor's Complex Securities Committee, evaluates with the committee the appropriateness of the investment.

General Characteristics of Options

Put options and call options typically have similar structural characteristics and operational mechanics regardless of the underlying instrument on which they are purchased or sold. Many hedging and other strategic transactions involving options require segregation of portfolio assets in special accounts, as described under "Use of Segregated and Other Special Accounts."

Put Options. A put option gives the purchaser of the option, upon payment of a premium, the right to sell (and the writer the obligation to buy) the underlying security, commodity, index, currency or other instrument at the exercise price. A fund's purchase of a put option on a security, for example, might be designed to protect its holdings in the underlying instrument (or, in some cases, a similar instrument) against a substantial decline in the market value of such instrument by giving a fund the right to sell the instrument at the option exercise price.

If, and to the extent authorized to do so, a fund may, for various purposes, purchase and sell put options on securities (whether or not it holds the securities in its portfolio) and on securities indices, currencies and futures contracts. A fund will not sell put options if, as a result, more than 50% of the fund's assets would be required to be segregated to cover its potential obligations under put options other than those with respect to futures contracts.

Risk of Selling Put Options. In selling put options, a fund faces the risk that it may be required to buy the underlying security at a disadvantageous price above the market price.

Call Options. A call option, upon payment of a premium, gives the purchaser of the option the right to buy (and the seller the obligation to sell) the underlying instrument at the exercise price. A fund's purchase of a call option on an underlying instrument might be intended to protect a fund against an increase in the price of the underlying instrument that it intends to purchase in the future by fixing the price at which it may purchase the instrument. An "American" style put or call option may be exercised at any time during the option period, whereas a "European" style put or call option may be exercised only upon expiration or during a fixed period prior to expiration. If and to the extent authorized to do so, a fund may purchase and sell call options on securities (whether or not it holds the securities).

Partial Hedge or Income to a Fund. If a fund sells a call option, the premium that it receives may serve as a partial hedge, to the extent of the option premium, against a decrease in the value of the underlying securities or instruments held by a fund or will increase a fund's income. Similarly, the sale of put options also can provide fund gains.

Covering of Options. All call options sold by a fund must be "covered" (that is, the fund must own the securities or futures contract subject to the call or must otherwise meet the asset segregation requirements described below for so long as the call is outstanding).

Risk of Selling Call Options. Even though a fund will receive the option premium to help protect it against loss, a call option sold by a fund will expose it during the term of the option to possible loss of the opportunity to sell the underlying security or instrument with a gain.

Exchange-listed Options. Exchange-listed options are issued by a regulated intermediary such as the Options Clearing Corporation (the "OCC"), which guarantees the performance of the obligations of the parties to the options. The discussion below uses the OCC as an example, but also is applicable to other similar financial intermediaries.

OCC-issued and exchange-listed options, with certain exceptions, generally settle by physical delivery of the underlying security or currency, although in the future, cash settlement may become available. Index options and Eurodollar instruments (which are described below under "Eurodollar Instruments") are cash settled for the net amount, if any, by which the option is "in-the-money" at the time the option is exercised. "In-the-money" means the amount by which the value of the underlying instrument exceeds, in the case of a call option, or is less than, in the case of a put option, the exercise price of the option. Frequently, rather than taking or making delivery of the underlying instrument through the process of exercising the option, listed options are closed by entering into offsetting purchase or sale transactions that do not result in ownership of the new option.

A fund's ability to close out its position as a purchaser or seller of an OCC-issued or exchange-listed put or call option is dependent, in part, upon the liquidity of the particular option market. Among the possible reasons for the absence of a liquid option market on an exchange are:

- insufficient trading interest in certain options;
- restrictions on transactions imposed by an exchange;
- trading halts, suspensions or other restrictions imposed with respect to particular classes or series of options or underlying securities, including reaching daily price limits;
- interruption of the normal operations of the OCC or an exchange;
- inadequacy of the facilities of an exchange or the OCC to handle current trading volume; or
- a decision by one or more exchanges to discontinue the trading of options (or a particular class or series of options), in which event the relevant market for that option on that exchange would cease to exist, although any such outstanding options on that exchange would continue to be exercisable in accordance with their terms.

The hours of trading for listed options may not coincide with the hours during which the underlying financial instruments are traded. To the extent that the option markets close before the markets for the underlying financial instruments, significant price and rate movements can take place in the underlying markets that would not be reflected in the corresponding option markets.

OTC Options. OTC options are purchased from or sold to counterparties such as securities dealers or financial institutions through direct bilateral agreement with the counterparty. In contrast to exchange-listed options, which generally have standardized terms and performance mechanics, all of the terms of an OTC option, including such terms as method of settlement, term, exercise price, premium, guaranties and security, are determined by negotiation of the parties. It is anticipated that a fund authorized to use OTC options generally will only enter into OTC options that have cash settlement provisions, although it will not be required to do so.

Unless the parties provide for it, no central clearing or guaranty function is involved in an OTC option. As a result, if a counterparty fails to make or take delivery of the security, currency or other instrument underlying an OTC option it has entered into with a fund or fails to make a cash settlement payment due in accordance with the terms of that option, the fund will lose any premium it paid for the option as well as any anticipated benefit of the transaction. Thus, a subadvisor must assess the creditworthiness of each such counterparty or any guarantor or credit enhancement of the counterparty's credit to determine the likelihood that the terms of the OTC option will be met. A fund will enter into OTC option transactions only with U.S. government securities dealers recognized by the Federal Reserve Bank of New York as "primary dealers," or broker dealers, domestic or foreign banks, or other financial institutions that are deemed creditworthy by a subadvisor. In the absence of a change in the current position of the SEC's staff, OTC options purchased by a fund and the amount of the fund's obligation pursuant to an OTC option sold by the fund (the cost of the sell-back plus the in-the-money amount, if any) or the value of the assets held to cover such options will be deemed illiquid.

Types of Options That May Be Purchased. A fund may purchase and sell call options on securities indices, currencies, and futures contracts, as well as on Eurodollar instruments that are traded on U.S. and foreign securities exchanges and in the OTC markets.

General Characteristics of Futures Contracts and Options on Futures Contracts

A fund may trade financial futures contracts (including stock index futures contracts, which are described below) or purchase or sell put and call options on those contracts for the following purposes:

- as a hedge against anticipated interest rate, currency or market changes;
- for duration management;
- for risk management purposes; and
- to gain exposure to a securities market.

Futures contracts are generally bought and sold on the commodities exchanges where they are listed with payment of initial and variation margin as described below. The sale of a futures contract creates a firm obligation by a fund, as seller, to deliver to the buyer the specific type of financial instrument called for in the contract at a specific future time for a specified price (or, with respect to certain instruments, the net cash amount). Options on futures contracts are similar to options on securities except that an option on a futures contract gives the purchaser the right, in return for the premium paid, to assume a position in a futures contract and obligates the seller to deliver that position.

With respect to futures contracts that are not legally required to "cash settle," a fund may cover the open position by setting aside or earmarking liquid assets in an amount equal to the market value of the futures contract. With respect to futures that are required to "cash settle," such as Eurodollar, UK 90 day and Euribor futures; however, a fund is permitted to set aside or earmark liquid assets in an amount equal to the fund's daily marked to market (net) obligation, if any, (in other words, the fund's daily net liability, if any) rather than the market value of the futures contract. By setting aside assets equal to only its net obligation under cash-settled futures contracts, a fund will have the ability to employ such futures contracts to a greater extent than if the fund were required to segregate assets equal to the full market value of the futures contract.

A fund will engage in transactions in futures contracts and related options only to the extent such transactions are consistent with the requirements of the Code in order to maintain its qualification as a RIC for federal income tax purposes.

Margin. Maintaining a futures contract or selling an option on a futures contract will typically require a fund to deposit with a financial intermediary, as security for its obligations, an amount of cash or other specified assets ("initial margin") that initially is from 1% to 10% of the face amount of the contract (but may be higher in some circumstances). Additional cash or assets ("variation margin") may be required to be deposited thereafter daily as the mark-to-market value of the futures contract fluctuates. The purchase of an option on a financial futures contract involves payment of a premium for the option without any further obligation on the part of a fund. If a fund exercises an option on a futures contract it will be obligated to post initial margin (and potentially variation margin) for the resulting futures position just as it would for any futures position.

Settlement. Futures contracts and options thereon are generally settled by entering into an offsetting transaction, but no assurance can be given that a position can be offset prior to settlement or that delivery will occur.

Value of Futures Contracts Sold by a Fund. The value of all futures contracts sold by a fund (adjusted for the historical volatility relationship between such fund and the contracts) will not exceed the total market value of the fund's assets.

Stock Index Futures

Definition. A stock index futures contract (an "Index Future") is a contract to buy a certain number of units of the relevant index at a specified future date at a price agreed upon when the contract is made. A unit is the value at a given time of the relevant index.

Uses of Index Futures. Below are some examples of how a fund may use Index Futures:

- In connection with a fund's investment in equity securities, a fund may invest in Index Futures while a subadvisor seeks favorable terms from brokers to effect transactions in equity securities selected for purchase.
- A fund also may invest in Index Futures when a subadvisor believes that there are not enough attractive equity securities available to maintain the standards of diversity and liquidity set for the fund's pending investment in such equity securities when they do become available.
- Through the use of Index Futures, a fund may maintain a pool of assets with diversified risk without incurring the substantial brokerage costs that may be associated with investment in multiple issuers. This may permit a fund to avoid potential market and liquidity problems (e.g., driving up or forcing down the price by quickly purchasing or selling shares of a portfolio security) that may result from increases or decreases in positions already held by a fund.
- A fund also may invest in Index Futures in order to hedge its equity positions.

Hedging and other strategic transactions involving futures contracts, options on futures contracts and swaps will be purchased, sold or entered into primarily for bona fide hedging, risk management (including duration management) or appropriate portfolio management purposes, including gaining exposure to a particular securities market.

Options on Securities Indices and Other Financial Indices

A fund may purchase and sell call and put options on securities indices and other financial indices ("Options on Financial Indices"). In so doing, a fund may achieve many of the same objectives it would achieve through the sale or purchase of options on individual securities or other instruments.

Description of Options on Financial Indices. Options on Financial Indices are similar to options on a security or other instrument except that, rather than settling by physical delivery of the underlying instrument, Options on

Financial Indices settle by cash settlement. Cash settlement means that the holder has the right to receive, upon exercise of the option, an amount of cash if the closing level of the index upon which the option is based exceeds, in the case of a call (or is less than, in the case of a put) the exercise price of the option. This amount of cash is equal to the excess of the closing price of the index over the exercise price of the option, which also may be multiplied by a formula value. The seller of the option is obligated to make delivery of this amount. The gain or loss on an option on an index depends on price movements in the instruments comprising the market or other composite on which the underlying index is based, rather than price movements in individual securities, as is the case for options on securities. In the case of an OTC option, physical delivery may be used instead of cash settlement. By purchasing or selling Options on Financial Indices, a fund may achieve many of the same objectives it would achieve through the sale or purchase of options on individual securities or other instruments.

Yield Curve Options

A fund also may enter into options on the "spread," or yield differential, between two fixed-income securities, in transactions referred to as "yield curve" options. In contrast to other types of options, a yield curve option is based on the difference between the yields of designated securities, rather than the prices of the individual securities, and is settled through cash payments. Accordingly, a yield curve option is profitable to the holder if this differential widens (in the case of a call) or narrows (in the case of a put), regardless of whether the yields of the underlying securities increase or decrease.

Yield curve options may be used for the same purposes as other options on securities. Specifically, a fund may purchase or write such options for hedging purposes. For example, a fund may purchase a call option on the yield spread between two securities, if it owns one of the securities and anticipates purchasing the other security and wants to hedge against an adverse change in the yield spread between the two securities. A fund also may purchase or write yield curve options for other than hedging purposes (i.e., in an effort to increase its current income) if, in the judgment of a subadvisor, the fund will be able to profit from movements in the spread between the yields of the underlying securities. The trading of yield curve options is subject to all of the risks associated with the trading of other types of options. In addition, however, such options present risk of loss even if the yield of one of the underlying securities remains constant, if the spread moves in a direction or to an extent which was not anticipated. Yield curve options written by a fund will be "covered." A call (or put) option is covered if a fund holds another call (or put) option on the spread between the same two securities and owns liquid and unencumbered assets sufficient to cover the fund's net liability under the two options. Therefore, a fund's liability for such a covered option is generally limited to the difference between the amounts of the fund's liability under the option written by the fund less the value of the option held by it. Yield curve options also may be covered in such other manner as may be in accordance with the requirements of the counterparty with which the option is traded and applicable laws and regulations. Yield curve options are traded OTC.

Currency Transactions

A fund may be authorized to engage in currency transactions with counterparties to hedge the value of portfolio securities denominated in particular currencies against fluctuations in relative value, to gain exposure to a currency without purchasing securities denominated in that currency, to facilitate the settlement of equity trades or to exchange one currency for another. If a fund enters into a currency hedging transaction, the fund will comply with the asset segregation requirements described below under "Use of Segregated and Other Special Accounts."

Currency transactions may include:

- forward currency contracts;
- exchange-listed currency futures contracts and options thereon;
- exchange-listed and OTC options on currencies;
- currency swaps; and
- spot transactions (i.e., transactions on a cash basis based on prevailing market rates).

A forward currency contract involves a privately negotiated obligation to purchase or sell (with delivery generally required) a specific currency at a future date at a price set at the time of the contract. A currency swap is an agreement to exchange cash flows based on the notional difference among two or more currencies and operates similarly to an interest rate swap, which is described under "Swap Agreements and Options on Swap Agreements." A fund may enter into currency transactions only with counterparties that are deemed creditworthy by a subadvisor. Nevertheless, engaging in currency transactions will expose a fund to counterparty risk.

A fund's dealings in forward currency contracts and other currency transactions such as futures contracts, options, options on futures contracts and swaps may be used for hedging and similar purposes, possibly including transaction hedging, position hedging, cross hedging and proxy hedging. A fund also may use foreign currency options and foreign currency forward contracts to increase exposure to a foreign currency, to shift exposure to foreign currency fluctuation from one country to another or to facilitate the settlement of equity trades. A fund may elect to hedge less than all of its foreign portfolio positions as deemed appropriate by a subadvisor.

A fund also may engage in non-deliverable forward transactions to manage currency risk or to gain exposure to a currency without purchasing securities denominated in that currency. A non-deliverable forward is a transaction that represents an agreement between a fund and a counterparty (usually a commercial bank) to buy or sell a specified (notional) amount of a particular currency at an agreed-upon foreign exchange rate on an agreed-upon future date. Unlike other currency transactions, there is no physical delivery of the currency on the settlement of a non-deliverable forward transaction. Rather, the fund and the counterparty agree to net the settlement by making a payment in U.S. dollars or another fully convertible currency that represents any differential between the foreign exchange rate agreed upon at the inception of the non-deliverable forward agreement and the actual exchange rate on the agreed-upon future date. Thus, the actual gain or loss of a given non-deliverable forward transaction is calculated by multiplying the transaction's notional amount by the difference between the agreed-upon forward exchange rate and the actual exchange rate when the transaction is completed.

When a fund enters into a non-deliverable forward transaction, the fund will segregate liquid assets in an amount not less than the value of the fund's net exposure to such non-deliverable forward transactions. If the additional segregated assets decline in value or the amount of the fund's commitment increases because of changes in currency rates, additional cash or securities will be segregated on a daily basis so that the value of the account will equal the amount of the fund's commitments under the non-deliverable forward agreement.

Since a fund generally may only close out a non-deliverable forward with the particular counterparty, there is a risk that the counterparty will default on its obligation to pay under the agreement. If the counterparty defaults, the fund will have contractual remedies pursuant to the agreement related to the transaction, but there is no assurance that contract counterparties will be able to meet their obligations pursuant to such agreements or that, in the event of a default, the fund will succeed in pursuing contractual remedies. The fund thus assumes the risk that it may be delayed or prevented from obtaining payments owed to it pursuant to non-deliverable forward transactions.

In addition, where the currency exchange rates that are the subject of a given non-deliverable forward transaction do not move in the direction or to the extent anticipated, a fund could sustain losses on the non-deliverable forward transaction. A fund's investment in a particular non-deliverable forward transaction will be affected favorably or unfavorably by factors that affect the subject currencies, including economic, political and legal developments that impact the applicable countries, as well as exchange control regulations of the applicable countries. These risks are heightened when a non-deliverable forward transaction involves currencies of emerging market countries because such currencies can be volatile and there is a greater risk that such currencies will be devalued against the U.S. dollar or other currencies.

Transaction Hedging. Transaction hedging involves entering into a currency transaction with respect to specific assets or liabilities of a fund, which generally will arise in connection with the purchase or sale of the portfolio securities or the receipt of income from them.

Position Hedging. Position hedging involves entering into a currency transaction with respect to portfolio securities positions denominated or generally quoted in that currency.

Cross Hedging. A fund may be authorized to cross-hedge currencies by entering into transactions to purchase or sell one or more currencies that are expected to increase or decline in value relative to other currencies to which the fund has or in which the fund expects to have exposure.

Proxy Hedging. To reduce the effect of currency fluctuations on the value of existing or anticipated holdings of its securities, a fund also may be authorized to engage in proxy hedging. Proxy hedging is often used when the currency to which a fund's holdings are exposed is generally difficult to hedge or specifically difficult to hedge against the dollar. Proxy hedging entails entering into a forward contract to sell a currency, the changes in the value of which are generally considered to be linked to a currency or currencies in which some or all of a fund's securities are or are expected to be denominated, and to buy dollars. The amount of the contract would not exceed the market value of the fund's securities denominated in linked currencies.

Combined Transactions

A fund may be authorized to enter into multiple transactions, including multiple options transactions, multiple futures transactions, multiple currency transactions (including forward currency contracts), multiple interest rate transactions and any combination of futures, options, currency and interest rate transactions. A combined transaction usually will contain elements of risk that are present in each of its component transactions. Although a fund normally will enter into combined transactions to reduce risk or otherwise more effectively achieve the desired portfolio management goal, it is possible that the combination will instead increase the risks or hinder achievement of the fund's investment objective.

Swap Agreements and Options on Swap Agreements

Among the hedging and other strategic transactions into which a fund may be authorized to enter are swap transactions, including, but not limited to, swap agreements on interest rates, security or commodity indexes, specific securities and commodities, currency exchange rates, and credit and event-linked swaps. To the extent that a fund may invest in foreign currency-denominated securities, it also may invest in currency exchange rate swap agreements.

A fund may enter into swap transactions for any legal purpose consistent with its investment objective and policies, such as to attempt to obtain or preserve a particular return or spread at a lower cost than obtaining a return or spread through purchases and/or sales of instruments in other markets, to protect against currency fluctuations, as a duration management technique, to protect against any increase in the price of securities the fund anticipates purchasing at a later date, or to gain exposure to certain markets in the most economical way possible.

OTC swap agreements are two-party contracts entered into primarily by institutional investors for periods ranging from a few weeks to one or more years. In a standard "swap" transaction, two parties agree to exchange the returns (or differentials in rates of return) earned or realized on particular predetermined investments or instruments, which may be adjusted for an interest factor. The gross returns to be exchanged or "swapped" between the parties are generally calculated with respect to a "notional amount," i.e., the return on or increase in value of a particular dollar amount invested at a particular interest rate, in a particular foreign currency, or in a "basket" of securities or commodities representing a particular index. A "quanto" or "differential" swap combines both an interest rate and a currency transaction. Other forms of swap agreements include interest rate caps, under which, in return for a premium, one party agrees to make payments to the other to the extent that interest rates exceed a specified rate, or "cap"; interest rate floors, under which, in return for a premium, one party agrees to make payments to the other to the extent that interest rates fall below a specified rate, or "floor"; and interest rate collars, under which a party sells a cap and purchases a floor or vice versa in an attempt to protect itself against interest rate movements exceeding given minimum or maximum levels. Consistent with a fund's investment objectives and general investment policies, a fund may be authorized to invest in commodity swap agreements. For example, an investment in a commodity swap agreement may involve the exchange of floating-rate interest payments for the total return on a commodity index. In a total return commodity swap, a fund will receive the price appreciation of a commodity index, a portion of the index, or a single commodity in exchange for paying an agreed-upon fee. If the commodity swap is for one period, a fund may pay a fixed fee, established at the outset of the swap. However, if the term of the commodity swap is more than one period, with interim swap payments, a fund may pay an adjustable or floating fee. With a "floating" rate, the fee may be pegged to a base rate, such as LIBOR, and is adjusted each period. Therefore, if interest rates increase over the term of the swap contract, a fund may be required to pay a higher fee at each swap reset date.

A fund may be authorized to enter into options on swap agreements ("Swap Options"). A Swap Option is a contract that gives a counterparty the right (but not the obligation) in return for payment of a premium, to enter into a new swap agreement or to shorten, extend, cancel or otherwise modify an existing swap agreement, at some designated future time on specified terms. A fund also may be authorized to write (sell) and purchase put and call Swap Options.

Depending on the terms of the particular agreement, a fund generally will incur a greater degree of risk when it writes a Swap Option than it will incur when it purchases a Swap Option. When a fund purchases a swap option, it risks losing only the amount of the premium it has paid should it decide to let the option expire unexercised. However, when the fund writes a Swap Option, upon exercise of the option the fund will become obligated according to the terms of the underlying agreement. Most other types of swap agreements entered into by a fund would calculate the obligations of the parties to the agreement on a "net basis." Consequently, a fund's current obligations (or rights) under a swap agreement generally will be equal only to the net amount to be paid or received

under the agreement based on the relative values of the positions held by each party to the agreement (the "net amount"). A fund's current obligations under a swap agreement will be accrued daily (offset against any amounts owed to the fund) and any accrued but unpaid net amounts owed to a swap counterparty will be covered by the segregation or "earmarking" of liquid assets, to avoid any potential leveraging of a fund's investments. Obligations under swap agreements so covered will not be construed to be "senior securities" for purposes of a fund's investment restriction concerning senior securities.

Whether a fund's use of swap agreements or Swap Options will be successful in furthering its investment objective will depend on a subadvisor's ability to predict correctly whether certain types of investments are likely to produce greater returns than other investments. Because OTC swaps are two-party contracts and because they may have terms of greater than seven days, they may be considered to be illiquid. Moreover, a fund bears the risk of loss of the amount expected to be received under a swap agreement in the event of the default or bankruptcy of a swap agreement counterparty. A fund will enter into swap agreements only with counterparties that meet certain standards of creditworthiness. Certain restrictions imposed on a fund by the Code may limit its ability to use swap agreements. Current regulatory initiatives, described below, and potential future regulation could adversely affect a fund's ability to terminate existing swap agreements or to realize amounts to be received under such agreements. A fund will not enter into a swap agreement with any single party if the net amount owed to the fund under existing contracts with that party would exceed 5% of the fund's total assets.

Swaps are highly specialized instruments that require investment techniques, risk analyses, and tax planning different from those associated with traditional investments. The use of a swap requires an understanding not only of the referenced asset, rate, or index but also of the swap itself, without the benefit of observing the performance of the swap under all possible market conditions. Swap agreements may be subject to liquidity risk, which exists when a particular swap is difficult to purchase or sell. If a swap transaction is particularly large or if the relevant market is illiquid (as is the case with many OTC swaps), it may not be possible to initiate a transaction or liquidate a position at an advantageous time or price, which may result in significant losses. In addition, a swap transaction may be subject to a fund's limitation on investments in illiquid securities.

Like most other investments, swap agreements are subject to the risk that the market value of the instrument will change in a way detrimental to a fund's interest. A fund bears the risk that a subadvisor will not accurately forecast future market trends or the values of assets, reference rates, indexes, or other economic factors in establishing swap positions for it. If a subadvisor attempts to use a swap as a hedge against, or as a substitute for, an investment, the fund will be exposed to the risk that the swap will have or will develop imperfect or no correlation with the investment. This could cause substantial losses for the fund. While hedging strategies involving swap instruments can reduce the risk of loss, they also can reduce the opportunity for gain or even result in losses by offsetting favorable price movements in other investments.

The swaps market was largely unregulated prior to the enactment of federal legislation known as the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), which was enacted in 2010 in response to turmoil in the financial markets and other market events. Among other things, the Dodd-Frank Act sets forth a new regulatory framework for certain OTC derivatives, such as swaps, in which the funds may be authorized to invest. The Dodd-Frank Act requires many swap transactions to be executed on registered exchanges or through swap execution facilities, cleared through a regulated clearinghouse, and publicly reported. In addition, many market participants are now regulated as swap dealers or major swap participants, and are, or will be, subject to certain minimum capital and margin requirements and business conduct standards. The statutory requirements of the Dodd-Frank Act are being implemented primarily through rules and regulations adopted by the SEC and/or the CFTC. There is a prescribed phase-in period during which most of the mandated rulemaking and regulations are being implemented, and temporary exemptions from certain rules and regulations have been granted so that current trading practices will not be unduly disrupted during the transition period.

As of the date of this SAI, central clearing is required only for certain market participants trading certain instruments, although central clearing for additional instruments is expected to be implemented by the CFTC until the majority of the swaps market is ultimately subject to central clearing. In addition, as described below, uncleared OTC swaps may be subject to regulatory collateral requirements that could adversely affect a fund's ability to enter into swaps in the OTC market. These developments could cause a fund to terminate new or existing swap agreements, realize amounts to be received under such instruments at an inopportune time, or increase the costs associated with trading derivatives. Until the mandated rulemaking and regulations are implemented completely, it will not be possible to determine the complete impact of the Dodd-Frank Act and related regulations on the funds.

Swap dealers, major market participants, and swap counterparties may also experience other new and/or additional regulations, requirements, compliance burdens, and associated costs. The Dodd-Frank Act and rules promulgated thereunder may exert a negative effect on a fund's ability to meet its investment objective. The swap market could be disrupted or limited as a result of the legislation, and the new requirements may increase the cost of a fund's investments and of doing business, which could adversely affect the fund's ability to buy or sell OTC derivatives. The prudential regulators issued final rules that will require banks subject to their supervision to exchange variation and initial margin in respect of their obligations arising under uncleared swap agreements. The CFTC adopted similar rules that apply to CFTC-registered swap dealers and major swap participants that are not banks. Such rules generally require the funds to segregate additional assets in order to meet the new variation and initial margin requirements when they enter into uncleared swap agreements. The variation margin requirements became effective in 2017 and the initial margin requirements are being phased-in based on average daily aggregate notional amount of covered swaps between swap dealers, swap entities and major swap participants.

In addition, regulations adopted by the prudential regulators that took effect with regards to most funds in 2019 require certain banks to include in a range of financial contracts, including derivative and short-term funding transactions terms delaying or restricting a counterparty's default, termination and other rights in the event that the bank and/or its affiliates become subject to certain types of resolution or insolvency proceedings. The regulations could limit a fund's ability to exercise a range of cross-default rights if its counterparty, or an affiliate of the counterparty, is subject to bankruptcy or similar proceedings. Such regulations could further negatively impact the funds' use of derivatives.

Additional information about certain swap agreements that the funds may utilize is provided below.

Credit default swap agreements ("CDS"). CDS may have as reference obligations one or more securities that are not currently held by a fund. The protection "buyer" in a CDS is generally obligated to pay the protection "seller" an upfront or a periodic stream of payments over the term of the CDS provided that no credit event, such as a default, on a reference obligation has occurred. If a credit event occurs, the seller generally must pay the buyer the "par value" (full notional value) of the CDS in exchange for an equal face amount of deliverable obligations of the reference entity described in the CDS, or the seller may be required to deliver the related net cash amount, if the CDS is cash settled. A fund may be either the buyer or seller in the transaction. If a fund is a buyer and no credit event occurs, the fund may recover nothing if the CDS is held through its termination date. However, if a credit event occurs, the buyer generally may elect to receive the full notional value of the CDS in exchange for an equal face amount of deliverable obligations of the reference entity whose value may have significantly decreased. As a seller, a fund generally receives an upfront payment or a fixed rate of income throughout the term of the CDS, provided that there is no credit event. As the seller, a fund would effectively add leverage to the fund because, in addition to its total net assets, the fund would be subject to investment exposure on the notional amount of the CDS. If a fund enters into a CDS, the fund may be required to report the CDS as a "listed transaction" for tax shelter reporting purposes on the fund's federal income tax return. If the IRS were to determine that the CDS is a tax shelter, a fund could be subject to penalties under the Code.

A fund also may be authorized to enter into credit default swaps on index tranches. CDS on index tranches give the fund, as a seller of credit protection, the opportunity to take on exposures to specific segments of the CDS index default loss distribution. Each tranche has a different sensitivity to credit risk correlations among entities in the index. One of the main benefits of index tranches is higher liquidity. This has been achieved mainly through standardization, yet it is also due to the liquidity in the single-name CDS and CDS index markets. In contrast, possibly owing to the limited liquidity in the corporate bond market, securities referencing corporate bond indexes have not been traded actively.

CDS involve greater risks than if a fund had invested in the reference obligation directly since, in addition to general market risks, CDS are subject to illiquidity risk, counterparty risk and credit risk. A fund will enter into CDS only with counterparties that meet certain standards of creditworthiness. A buyer generally also will lose its investment and recover nothing should no credit event occur and the CDS is held to its termination date. If a credit event were to occur, the value of any deliverable obligation received by the seller, coupled with the upfront or periodic payments previously received, may be less than the full notional value it pays to the buyer, resulting in a loss of value to the seller. A fund's obligations under a CDS will be accrued daily (offset against any amounts owing to the fund). In connection with CDS in which a fund is the buyer, the fund will segregate or " earmark " cash or liquid assets, or enter into certain offsetting positions, with a value at least equal to the fund's exposure (any accrued but unpaid net amounts owed by the fund to any counterparty), on a mark-to-market basis. In connection with CDS in

which a fund is the seller, the fund will segregate or " earmark " cash or liquid assets, or enter into offsetting positions, with a value at least equal to the full notional amount of the CDS. Such segregation or " earmarking " will ensure that the fund has assets available to satisfy its obligations with respect to the transaction and will limit any potential leveraging of the fund's investments. Such segregation or " earmarking " will not limit the fund's exposure to loss.

Dividend swap agreements. A dividend swap agreement is a financial instrument where two parties contract to exchange a set of future cash flows at set dates in the future. One party agrees to pay the other the future dividend flow on a stock or basket of stocks in an index, in return for which the other party gives the first call options. Dividend swaps generally are traded OTC rather than on an exchange.

Inflation swap agreements. An inflation swap agreement is a contract in which one party agrees to pay the cumulative percentage increase in a price index (e.g., the CPI with respect to CPI swaps) over the term of the swap (with some lag on the inflation index), and the other pays a compounded fixed rate. Inflation swap agreements may be used to protect a fund's NAV against an unexpected change in the rate of inflation measured by an inflation index since the value of these agreements is expected to increase if unexpected inflation increases.

Interest rate swap agreements. An interest rate swap agreement involves the exchange of cash flows based on interest rate specifications and a specified principal amount, often a fixed payment for a floating payment that is linked to an interest rate. An interest rate lock specifies a future interest rate to be paid. In an interest rate cap, one party receives payments at the end of each period in which a specified interest rate on a specified principal amount exceeds an agreed-upon rate; conversely, in an interest rate floor, one party may receive payments if a specified interest rate on a specified principal amount falls below an agreed-upon rate. Caps and floors have an effect similar to buying or writing options. Interest rate collars involve selling a cap and purchasing a floor, or vice versa, to protect a fund against interest rate movements exceeding given minimum or maximum levels.

Total return swap agreements. A total return swap agreement is a contract whereby one party agrees to make a series of payments to another party based on the change in the market value of the assets underlying such contract (which can include a security, commodity, index or baskets thereof) during the specified period. In exchange, the other party to the contract agrees to make a series of payments calculated by reference to an interest rate and/or some other agreed-upon amount (including the change in market value of other underlying assets). A fund may use total return swaps to gain exposure to an asset without owning it or taking physical custody of it. For example, by investing in total return commodity swaps, a fund will receive the price appreciation of a commodity, commodity index or portion thereof in exchange for payment of an agreed-upon fee.

Variance swap agreements. Variance swap agreements involve an agreement by two parties to exchange cash flows based on the measured variance (or square of volatility) of a specified underlying asset. One party agrees to exchange a "fixed rate" or strike price payment for the "floating rate" or realized price variance on the underlying asset with respect to the notional amount. At inception, the strike price chosen is generally fixed at a level such that the fair value of the swap is zero. As a result, no money changes hands at the initiation of the contract. At the expiration date, the amount paid by one party to the other is the difference between the realized price variance of the underlying asset and the strike price multiplied by the notional amount. A receiver of the realized price variance would receive a payment when the realized price variance of the underlying asset is greater than the strike price and would make a payment when that variance is less than the strike price. A payer of the realized price variance would make a payment when the realized price variance of the underlying asset is greater than the strike price and would receive a payment when that variance is less than the strike price. This type of agreement is essentially a forward contract on the future realized price variance of the underlying asset.

Eurodollar Instruments

A fund may be authorized to invest in Eurodollar instruments which typically are dollar-denominated futures contracts or options on those contracts that are linked to LIBOR. In addition, foreign currency-denominated instruments are available from time to time. Eurodollar futures contracts enable purchasers to obtain a fixed rate for the lending of funds and sellers to obtain a fixed rate for borrowings. A fund might use Eurodollar futures contracts and options thereon to hedge against changes in LIBOR, to which many interest rate swaps and fixed income instruments are linked.

Warrants and Rights

Warrants and rights generally give the holder the right to receive, upon exercise and prior to the expiration date, a security of the issuer at a stated price. Funds typically use warrants and rights in a manner similar to their use of options on securities, as described in "General Characteristics of Options" above and elsewhere in this SAI. Risks associated with the use of warrants and rights are generally similar to risks associated with the use of options. Unlike most options, however, warrants and rights are issued in specific amounts, and warrants generally have longer terms than options. Warrants and rights are not likely to be as liquid as exchange-traded options backed by a recognized clearing agency. In addition, the terms of warrants or rights may limit a fund's ability to exercise the warrants or rights at such time, or in such quantities, as the fund would otherwise wish.

Non-Standard Warrants and Participatory Notes. From time to time, a fund may use non-standard warrants, including low exercise price warrants or low exercise price options ("LEPOs"), and participatory notes ("P-Notes") to gain exposure to issuers in certain countries. LEPOs are different from standard warrants in that they do not give their holders the right to receive a security of the issuer upon exercise. Rather, LEPOs pay the holder the difference in price of the underlying security between the date the LEPO was purchased and the date it is sold. P-Notes are a type of equity-linked derivative that generally are traded OTC and constitute general unsecured contractual obligations of the banks, broker dealers or other financial institutions that issue them. Generally, banks and broker dealers associated with non-U.S.-based brokerage firms buy securities listed on certain foreign exchanges and then issue P-Notes that are designed to replicate the performance of certain issuers and markets. The performance results of P-Notes will not replicate exactly the performance of the issuers or markets that the notes seek to replicate due to transaction costs and other expenses. The return on a P-Note that is linked to a particular underlying security generally is increased to the extent of any dividends paid in connection with the underlying security. However, the holder of a P-Note typically does not receive voting or other rights as it would if it directly owned the underlying security, and P-Notes present similar risks to investing directly in the underlying security. Additionally, LEPOs and P-Notes entail the same risks as other over-the-counter derivatives. These include the risk that the counterparty or issuer of the LEPO or P-Note may not be able to fulfill its obligations, that the holder and counterparty or issuer may disagree as to the meaning or application of contractual terms, or that the instrument may not perform as expected. See "Principal risks—Credit and Counterparty risk" in the Prospectus, as applicable, and "Risk of Hedging and Other Strategic Transactions" below. Additionally, while LEPOs or P-Notes may be listed on an exchange, there is no guarantee that a liquid market will exist or that the counterparty or issuer of a LEPO or P-Note will be willing to repurchase such instrument when a fund wishes to sell it.

Risk Associated with Specific Types of Derivative Debt Securities. Different types of derivative debt securities are subject to different combinations of prepayment, extension and/or interest rate risk. Conventional mortgage passthrough securities and sequential pay CMOs are subject to all of these risks, but typically are not leveraged. Thus, the magnitude of exposure may be less than for more leveraged mortgage-backed securities.

The risk of early prepayments is the primary risk associated with IOs, super floaters, other leveraged floating rate instruments and mortgage-backed securities purchased at a premium to their par value. In some instances, early prepayments may result in a complete loss of investment in certain of these securities. The primary risks associated with certain other derivative debt securities are the potential extension of average life and/or depreciation due to rising interest rates.

Derivative debt securities include floating rate securities based on the COFI floaters, other "lagging rate" floating rate securities, capped floaters, mortgage-backed securities purchased at a discount, leveraged inverse floating rate securities, POs, certain residual or support tranches of CMOs and index amortizing notes. Index amortizing notes are not mortgage-backed securities, but are subject to extension risk resulting from the issuer's failure to exercise its option to call or redeem the notes before their stated maturity date. Leveraged inverse IOs combine several elements of the mortgage-backed securities described above and present an especially intense combination of prepayment, extension and interest rate risks.

PAC and TAC CMO bonds involve less exposure to prepayment, extension and interest rate risk than other mortgage-backed securities, provided that prepayment rates remain within expected prepayment ranges or "collars." To the extent that prepayment rates remain within these prepayment ranges, the residual or support tranches of PAC and TAC CMOs assume the extra prepayment, extension and interest rate risk associated with the underlying mortgage assets.

Other types of floating rate derivative debt securities present more complex types of interest rate risks. For example, range floaters are subject to the risk that the coupon will be reduced to below market rates if a designated interest

rate floats outside of a specified interest rate band or collar. Dual index or yield curve floaters are subject to depreciation in the event of an unfavorable change in the spread between two designated interest rates. X-reset floaters have a coupon that remains fixed for more than one accrual period. Thus, the type of risk involved in these securities depends on the terms of each individual X-reset floater.

Risk of Hedging and Other Strategic Transactions

Hedging and other strategic transactions are subject to special risks, including:

- possible default by the counterparty to the transaction;
- markets for the securities used in these transactions could be illiquid; and
- to the extent a subadvisor's assessment of market movements is incorrect, the risk that the use of the hedging and other strategic transactions could result in losses to the fund.

Losses resulting from the use of hedging and other strategic transactions will reduce a fund's NAV, and possibly income. Losses can be greater than if hedging and other strategic transactions had not been used.

Options and Futures Transactions. Options transactions are subject to the following additional risks:

- option transactions could force the sale or purchase of portfolio securities at inopportune times or for prices higher than current market values (in the case of put options) or lower than current market values (in the case of call options), or could cause a fund to hold a security it might otherwise sell (in the case of a call option);
- calls written on securities that a fund does not own are riskier than calls written on securities owned by the fund because there is no underlying security held by the fund that can act as a partial hedge, and there also is a risk, especially with less liquid securities, that the securities may not be available for purchase; and
- options markets could become illiquid in some circumstances and certain OTC options could have no markets. As a result, in certain markets, a fund might not be able to close out a transaction without incurring substantial losses.

Futures transactions are subject to the following additional risks:

- the degree of correlation between price movements of futures contracts and price movements in the related securities position of a fund could create the possibility that losses on the hedging instrument are greater than gains in the value of the fund's position.
- futures markets could become illiquid. As a result, in certain markets, a fund might not be able to close out a transaction without incurring substantial losses.

Although a fund's use of futures and options for hedging should tend to minimize the risk of loss due to a decline in the value of the hedged position, at the same time, it will tend to limit the potential gain that might result from an increase in value.

Currency Hedging. In addition to the general risks of hedging and other strategic transactions described above, currency hedging transactions have the following risks:

- currency hedging can result in losses to a fund if the currency being hedged fluctuates in value to a degree or direction that is not anticipated;
- proxy hedging involves determining the correlation between various currencies. If a subadvisor's determination of this correlation is incorrect, a fund's losses could be greater than if the proxy hedging were not used; and
- foreign government exchange controls and restrictions on repatriation of currency can negatively affect currency transactions. These forms of governmental actions can result in losses to a fund if it is unable to deliver or receive currency or monies to settle obligations. Such governmental actions also could cause hedges it has entered into to be rendered useless, resulting in full currency exposure as well as incurring transaction costs.

Currency Futures Contracts and Options on Currency Futures Contracts. Currency futures contracts are subject to the same risks that apply to the use of futures contracts generally. In addition, settlement of a currency futures contract for the purchase of most currencies must occur at a bank based in the issuing nation. Trading options on currency futures contracts is relatively new, and the ability to establish and close out positions on these options is subject to the maintenance of a liquid market that may not always be available.

Risk of Hedging and Other Strategic Transactions Outside the United States

When conducted outside the United States, hedging and other strategic transactions will not only be subject to the risks described above, but also could be adversely affected by:

- foreign governmental actions affecting foreign securities, currencies or other instruments;
- less stringent regulation of these transactions in many countries as compared to the United States;
- the lack of clearing mechanisms and related guarantees in some countries for these transactions;
- more limited availability of data on which to make trading decisions than in the United States;
- delays in a fund's ability to act upon economic events occurring in foreign markets during non-business hours in the United States;
- the imposition of different exercise and settlement terms and procedures and margin requirements than in the United States; and
- lower trading volume and liquidity.

Use of Segregated and Other Special Accounts

Use of extensive hedging and other strategic transactions by a fund will require, among other things, that the fund post collateral with counterparties or clearinghouses, and/or segregate cash or other liquid assets with its custodian, or a designated subcustodian, to the extent that the fund's obligations are not otherwise "covered" through ownership of the underlying security, financial instrument or currency.

In general, either the full amount of any obligation by a fund to pay or deliver securities or assets under a transaction or series of transactions must be covered at all times by: (a) holding the securities, instruments or currency required to meet the fund's obligations under such transactions or series of transactions; or (b) subject to any regulatory restrictions, segregating an amount of cash or other liquid assets at least equal to the current amount of the obligation. The segregated assets cannot be sold or transferred unless equivalent assets are substituted in their place or it is no longer necessary to segregate them. Some examples of cover requirements are set forth below.

Call Options. A call option on securities written by a fund will require the fund to hold the securities subject to the call (or securities convertible into the needed securities without additional consideration) or to segregate cash or other liquid assets sufficient to purchase and deliver the securities if the call is exercised. A call option sold by a fund on an index will require the fund to own portfolio securities that correlate with the index or to segregate cash or other liquid assets equal to its obligations under the option.

Put Options. A put option on securities written by a fund will require the fund to segregate cash or other liquid assets equal to the exercise price.

OTC Options. OTC options entered into by a fund, including those on securities, currency, financial instruments or indices, and OTC-issued and exchange-listed index options generally will provide for cash settlement, although a fund will not be required to do so. As a result, when a fund sells these instruments it will segregate an amount of cash or other liquid assets equal to its obligations under the options. OTC-issued and exchange-listed options sold by a fund other than those described above generally settle with physical delivery, and the fund will segregate an amount of cash or liquid high grade debt securities equal to the full value of the option. OTC options settling with physical delivery or with an election of either physical delivery or cash settlement will be treated the same as other options settling with physical delivery.

Currency Contracts. Except when a fund enters into a forward contract in connection with the purchase or sale of a security denominated in a foreign currency or for other non-speculative purposes, which requires no segregation, a currency contract that obligates the fund to buy or sell a foreign currency generally will require the fund to hold an amount of that currency or liquid securities denominated in that currency equal to a fund's obligations or to segregate cash or other liquid assets equal to the amount of the fund's obligations.

Futures Contracts and Options on Futures Contracts. In the case of a futures contract or an option on a futures contract, a fund must deposit initial margin and, in some instances, daily variation margin, in addition to segregating assets sufficient to meet its obligations under the contract. These assets may consist of cash, cash equivalents, liquid debt, equity securities or other acceptable assets.

Swaps. A fund will calculate the net amount, if any, of its obligations relating to swaps on a daily basis and will segregate an amount of cash or other liquid assets having an aggregate value at least equal to this net amount.

Caps, Floors and Collars. Caps, floors and collars require segregation of assets with a value equal to a fund's net obligation, if any.

Hedging and other strategic transactions may be covered by means other than those described above when consistent with applicable regulatory policies. A fund also may enter into offsetting transactions so that its combined position, coupled with any segregated assets, equals its net outstanding obligation. A fund could purchase a put option, for example, if the exercise price of that option is the same or higher than the exercise price of a put option sold by the fund. In addition, if it holds a futures contract or forward contract, a fund could, instead of segregating assets, purchase a put option on the same futures contract or forward contract with an exercise price as high as or higher than the price of the contract held. Other hedging and strategic transactions also may be offset in combinations. If the offsetting transaction terminates on or after the time the primary transaction terminates, no segregation is required, but if it terminates prior to that time, assets equal to any remaining obligation would need to be segregated.

Risk of Additional Government Regulation of Derivatives

It is possible that additional government regulation of various types of derivative instruments, including futures, options on futures and swap agreements, may limit or prevent a fund from using such instruments as part of its investment strategy, which could negatively impact the fund. While many provisions of the Dodd-Frank Act have yet to be fully implemented and any regulatory or legislative activity may not necessarily have a direct, immediate effect upon a fund, it is possible that, upon implementation of these measures or any future measures, they could potentially limit or completely restrict the ability of a fund to use these instruments as a part of its investment strategy, increase the costs of using these instruments or make them less effective. In particular, new position limits imposed on a fund or its counterparty may impact the fund's ability to invest in futures, options, and swaps in a manner that efficiently meets its investment objective. In November 2019, the SEC proposed new regulations relating to a fund's use of derivatives and related instruments. These and other regulatory developments relating to a fund's use of derivatives may limit the availability or reduce the liquidity of derivatives, or may otherwise adversely affect the value or performance of derivatives and the fund. The November 2019 proposed new regulations may also make a fund's use of derivatives more costly.

Other Limitations

A fund will not maintain open short positions in futures contracts, call options written on futures contracts, and call options written on securities indices if, in the aggregate, the current market value of the open positions exceeds the current market value of that portion of its securities being hedged by those futures and options, plus or minus the unrealized gain or loss on those open positions. The gain or loss on these open positions will be adjusted for the historical volatility relationship between that portion of the fund and the contracts (e.g., the Beta volatility factor). In the alternative, however, a fund could maintain sufficient liquid assets in a segregated account equal at all times to the current market value of the open short position in futures contracts, call options written on futures contracts and call options written on securities indices, subject to any other applicable investment restrictions.

For purposes of this limitation, to the extent that a fund has written call options on specific securities in that portion of its portfolio, the value of those securities will be deducted from the current market value of that portion of the securities portfolio. If this limitation should be exceeded at any time, the fund will take prompt action to close out the appropriate number of open short positions to bring its open futures and options positions within this limitation.

INVESTMENT RESTRICTIONS

There are two classes of investment restrictions to which a fund is subject in implementing its investment policies: (a) fundamental; and (b) non-fundamental. Fundamental restrictions may be changed only by a vote of the lesser of: (i) 67% or more of the shares represented at a meeting at which more than 50% of the outstanding shares are represented; or (ii) more than 50% of the outstanding shares. Non-fundamental restrictions are subject to change by the Board without shareholder approval.

When submitting an investment restriction change to the holders of a fund's outstanding voting securities, the matter shall be deemed to have been effectively acted upon with respect to the fund if a majority of the outstanding voting securities of the fund votes for the approval of the matter, notwithstanding: (1) that the matter has not been approved by the holders of a majority of the outstanding voting securities of any other series of the Trust affected by the

matter; and (2) that the matter has not been approved by the vote of a majority of the outstanding voting securities of the Trust as a whole.

Fundamental Investment Restrictions

Unless a fund is specifically excepted by the terms of a restriction:

(1) **Concentration.** A fund may not concentrate its investments in a particular industry, as that term is used in the 1940 Act, as amended, and as interpreted or modified by regulatory authority having jurisdiction, from time to time.

(2) **Diversification.** Each fund has elected to be treated as a diversified investment company, as that term is used in the 1940 Act, as amended, and as interpreted or modified by regulatory authority having jurisdiction, from time to time. Each fund is subject to this restriction except as otherwise stated in a fund's Prospectus.

(3) **Borrowing.** A fund may not borrow money, except as permitted under the 1940 Act, as amended, and as interpreted or modified by regulatory authority having jurisdiction, from time to time.

(4) **Underwriting.** A fund may not engage in the business of underwriting securities issued by others, except to the extent that the fund may be deemed to be an underwriter in connection with the disposition of portfolio securities.

(5) **Real Estate.** A fund may not purchase or sell real estate, which term does not include securities of companies which deal in real estate or mortgages or investments secured by real estate or interests therein, except that each fund reserves freedom of action to hold and to sell real estate acquired as a result of the fund's ownership of securities.

(6) **Commodities.** A fund may not purchase or sell commodities, except as permitted under the 1940 Act, as amended, and as interpreted or modified by regulatory authority having jurisdiction, from time to time.

(7) **Loans.** A fund may not make loans except as permitted under the 1940 Act, as amended, and as interpreted or modified by regulatory authority having jurisdiction, from time to time.

(8) **Senior Securities.** A fund may not issue senior securities, except as permitted under the 1940 Act, as amended, and as interpreted or modified by regulatory authority having jurisdiction, from time to time.

For purposes of Fundamental Restriction No. 8, purchasing securities on a when-issued, forward commitment or delayed delivery basis and engaging in hedging and other strategic transactions will not be deemed to constitute the issuance of a senior security.

Additional Information Regarding Fundamental Restrictions

Concentration. While the 1940 Act does not define what constitutes "concentration" in an industry, the staff of the SEC takes the position that any fund that invests more than 25% of its total assets in a particular industry (excluding the U.S. government, its agencies or instrumentalities) is deemed to be "concentrated" in that industry. With respect to a fund's investment in loan participations, if any, the fund treats both the borrower and the financial intermediary under a loan participation as issuers for purposes of determining whether the fund has concentrated in a particular industry. For purposes of each fund of funds' fundamental restriction regarding concentration, the fund of funds will take into account the concentration policies of the underlying funds in which it invests.

Diversification. A diversified fund, as to at least 75% of the value of its total assets, generally may not, except with respect to government securities and securities of other investment companies, invest more than 5% of its total assets in the securities, or own more than 10% of the outstanding voting securities, of any one issuer. In determining the issuer of a municipal security, each state, each political subdivision, agency, and instrumentality of each state and each multi-state agency of which such state is a member is considered a separate issuer. In the event that securities are backed only by assets and revenues of a particular instrumentality, facility or subdivision, such entity is considered the issuer.

Borrowing. The 1940 Act permits a fund to borrow money in amounts of up to one-third of its total assets, at the time of borrowing, from banks for any purpose (a fund's total assets include the amounts being borrowed). To limit the risks attendant to borrowing, the 1940 Act requires a fund to maintain at all times an "asset coverage" of at least 300% of the amount of its borrowings, not including borrowings for temporary purposes in an amount not exceeding 5% of the value of its total assets. "Asset coverage" means the ratio that the value of a fund's total assets (including amounts borrowed), minus liabilities other than borrowings, bears to the aggregate amount of all borrowings.

Commodities. Under the federal securities and commodities laws, certain financial instruments such as futures contracts and options thereon, including currency futures, stock index futures or interest rate futures, and certain swaps, including currency swaps, interest rate swaps, swaps on broad-based securities indices, and certain credit default swaps, may, under certain circumstances, also be considered to be commodities. Nevertheless, the 1940 Act does not prohibit investments in physical commodities or contracts related to physical commodities. Funds typically invest in futures contracts and related options on these and other types of commodity contracts for hedging purposes, to implement tax or cash management strategies, or to enhance returns.

Loans. Although the 1940 Act does not prohibit a fund from making loans, SEC staff interpretations currently prohibit funds from lending more than one-third of their total assets, except through the purchase of debt obligations or the use of repurchase agreements. A repurchase agreement is an agreement to purchase a security, coupled with an agreement to sell that security back to the original seller on an agreed-upon date at a price that reflects current interest rates. The SEC frequently treats repurchase agreements as loans.

Senior Securities. "Senior securities" are defined as fund obligations that have a priority over a fund's shares with respect to the payment of dividends or the distribution of fund assets. The 1940 Act prohibits a fund from issuing any class of senior securities or selling any senior securities of which it is the issuer, except that a fund is permitted to borrow from a bank so long as, immediately after such borrowings, there is an asset coverage of at least 300% for all borrowings of a fund (not including borrowings for temporary purposes in an amount not exceeding 5% of the value of a fund's total assets). In the event that such asset coverage falls below this percentage, a fund must reduce the amount of its borrowings within three days (not including Sundays and holidays) so that the asset coverage is restored to at least 300%. The fundamental investment restriction regarding senior securities will be interpreted so as to permit collateral arrangements with respect to swaps, options, forward or futures contracts or other derivatives, or the posting of initial or variation margin.

Non-Fundamental Investment Restrictions

Unless a fund is specifically excepted by the terms of a restriction, each fund will not:

(9) Knowingly invest more than 15% of the value of its net assets in securities or other investments, including repurchase agreements maturing in more than seven days but excluding master demand notes, which are not readily marketable.

(10) Make short sales of securities or maintain a short position, if, when added together, more than 25% of the value of the fund's net assets would be: (i) deposited as collateral for the obligation to replace securities borrowed to effect short sales; and (ii) allocated to segregated accounts in connection with short sales, except that it may obtain such short-term credits as may be required to clear transactions. For purposes of this restriction, collateral arrangements with respect to hedging and other strategic transactions will not be deemed to involve the use of margin. Short sales "against-the-box" are not subject to this limitation.

(11) Pledge, hypothecate, mortgage or transfer (except as provided in restriction (7)) as security for indebtedness any securities held by the fund, except in an amount of not more than 10% of the value of the fund's total assets and then only to secure borrowings permitted by restrictions (2) and (10). For purposes of this restriction, collateral arrangements with respect to hedging and other strategic transactions will not be deemed to involve a pledge of assets.

For purposes of restriction (11), "other strategic transactions" can include short sales and derivative transactions intended for non-hedging purposes.

Except with respect to the fundamental investment restriction on borrowing, if a percentage restriction is adhered to at the time of an investment, a later increase or decrease in the investment's percentage of the value of a fund's total assets resulting from a change in such values or assets will not constitute a violation of the percentage restriction. Any subsequent change in a rating assigned by any rating service to a security (or, if unrated, any change in a subadvisor's assessment of the security), or change in the percentage of fund assets invested in certain securities or other instruments, or change in the average duration of a fund's investment fund, resulting from market fluctuations or other changes in a fund's total assets will not require the fund to dispose of an investment until a subadvisor determines that it is practicable to sell or close out the investment without undue market or tax consequences to the fund. In the event that rating services assign different ratings to the same security, a subadvisor will determine which rating it believes best reflects the security's quality and risk at that time, which may be the highest of the several assigned ratings.

PORTFOLIO TURNOVER

The annual rate of portfolio turnover will normally differ for each fund and may vary from year to year as well as within a year. A high rate of portfolio turnover (100% or more) generally involves correspondingly greater brokerage commission expenses, which must be borne directly by the fund. Portfolio turnover is calculated by dividing the lesser of purchases or sales of portfolio securities during the fiscal period by the monthly average of the value of the fund's portfolio securities. (Excluded from the computation are all securities, including options, with maturities at the time of acquisition of one year or less). Portfolio turnover rates can change from year to year due to various factors, including among others, portfolio adjustments made in response to market conditions. Because the funds are newly formed, no portfolio turnover rates are available.

THOSE RESPONSIBLE FOR MANAGEMENT

The business of the Trust, an open-end management investment company, is managed by the Board, including certain Trustees who are not "interested persons" (as defined in the 1940 Act) of the funds or the Trust (the "Independent Trustees"). The Trustees elect officers who are responsible for the day-to-day operations of the funds or the Trust and who execute policies formulated by the Trustees. Several of the Trustees and officers of the Trust also are officers or directors of the Advisor or the Distributor. Each Trustee oversees all of the funds and other funds in the John Hancock Fund Complex (as defined below).

The tables below present certain information regarding the Trustees and officers of the Trust, including their principal occupations which, unless specific dates are shown, are of at least five years' duration. In addition, the table includes information concerning other directorships held by each Trustee in other registered investment companies or publicly traded companies. Information is listed separately for each Trustee who is an "interested person" (as defined in the 1940 Act) of the Trust (each a "Non-Independent Trustee") and the Independent Trustees. As of August 31, 2020, the "John Hancock Fund Complex" consisted of 195 funds (including separate series of series mutual funds). Each Trustee, other than Andrew G. Arnott, James R. Boyle, and Marianne Harrison, was most recently elected to serve on the Board at a shareholder meeting held on November 15, 2012. The Board appointed Mr. Arnott and Ms. Harrison to serve as Non-Independent Trustees on June 20, 2017 and June 19, 2018, respectively, and Ms. Rathke to serve as Independent Trustee on September 15, 2020. In addition, although James R. Boyle initially was designated a Non-Independent Trustee, as of March 22, 2018, he is considered an Independent Trustee. The address of each Trustee and officer of the Trust is 200 Berkeley Street, Boston, Massachusetts 02116.

Name (Birth Year)	Position(s) with the Trust ¹	Principal Occupation(s) and Other Directorships During the Past 5 Years	Number of Funds in John Hancock Fund Complex Overseen by Trustee
Non-Independent Trustees			
Andrew G. Arnott ² (1971)	Trustee (since 2017); President (since 2014); Executive Vice President (2007–2014, including prior positions)	Head of Wealth and Asset Management, United States and Europe, for John Hancock and Manulife (since 2018); Executive Vice President, John Hancock Financial Services (since 2009, including prior positions); Director and Executive Vice President, John Hancock Investment Management LLC (since 2005, including prior positions); Director and Executive Vice President, John Hancock Variable Trust Advisers LLC (since 2006, including prior positions); President, John Hancock Investment Management Distributors LLC (since 2004, including prior positions); President of various trusts within the John Hancock Fund Complex (since 2007, including prior positions). Trustee of various trusts within the John Hancock Fund Complex (since 2017).	195
Marianne Harrison ² (1963)	Trustee (since 2018)	President and CEO, John Hancock (since 2017); President and CEO, Manulife Canadian Division (2013–2017); Member, Board of Directors, CAE Inc. (since 2019); Member, Board of Directors, MA Competitive Partnership Board (since 2018); Member, Board of Directors, American Council of Life Insurers (ACLI) (since 2018); Member, Board of Directors, Communitech, an industry-led innovation center that fosters technology companies in Canada (2017–2019); Member, Board of Directors, Manulife Assurance Canada (2015–2017); Board Member, St. Mary's General Hospital Foundation (2014–2017); Member, Board of Directors, Manulife Bank of Canada (2013–2017); Member, Standing Committee of the	195

		Canadian Life & Health Assurance Association (2013–2017); Member, Board of Directors, John Hancock USA, John Hancock Life & Health, John Hancock New York (2012–2013). Trustee of various trusts within the John Hancock Fund Complex (since 2018).	
Independent Trustees			
Name (Birth Year)	Position(s) with the Trust¹	Principal Occupation(s) and Other Directorships During the Past 5 Years	Number of Funds in John Hancock Fund Complex Overseen by Trustee
Charles L. Bardelis (1941)	Trustee (since 2005)	Director, Island Commuter Corp. (marine transport). Trustee of various trusts within the John Hancock Fund Complex (since 1988).	195
James R. Boyle (1959)	Trustee (since 2015)	Chief Executive Officer, Foresters Financial (since 2018); Chairman and Chief Executive Officer, Zillion Group, Inc. (formerly HealthFleet, Inc.) (healthcare) (2014–2018); Executive Vice President and Chief Executive Officer, U.S. Life Insurance Division of Genworth Financial, Inc. (insurance) (January 2014–July 2014); Senior Executive Vice President, Manulife Financial, President and Chief Executive Officer, John Hancock (1999–2012); Chairman and Director, John Hancock Investment Management LLC, John Hancock Investment Management Distributors LLC, and John Hancock Variable Trust Advisers LLC (2005–2010). Trustee of various trusts within the John Hancock Fund Complex (2005–2014 and since 2015).	195
Peter S. Burgess (1942)	Trustee (since 2005)	Consultant (financial, accounting, and auditing matters) (since 1999); Certified Public Accountant; Partner, Arthur Andersen (independent public accounting firm) (prior to 1999); Director, Lincoln Educational Services Corporation (since 2004); Director, Symetra Financial Corporation (2010–2016); Director, PMA Capital Corporation (2004–2010). Trustee of various trusts within the John Hancock Fund Complex (since 2005).	195
William H. Cunningham (1944)	Trustee (2005–2006 and since 2012)	Professor, University of Texas, Austin, Texas (since 1971); former Chancellor, University of Texas System and former President of the University of Texas, Austin, Texas; Chairman (since 2009) and Director (since 2006), Lincoln National Corporation (insurance); Director, Southwest Airlines (since 2000); former Director, LIN Television (2009–2014). Trustee of various trusts within the John Hancock Fund Complex (since 1986).	195
Grace K. Fey (1946)	Trustee (since 2008)	Chief Executive Officer, Grace Fey Advisors (since 2007); Director and Executive Vice President, Frontier Capital Management Company (1988–2007); Director, Fiduciary Trust (since 2009). Trustee of various trusts within the John Hancock Fund Complex (since 2008).	195
Deborah C. Jackson (1952)	Trustee (since 2012)	President, Cambridge College, Cambridge, Massachusetts (since 2011); Board of Directors, Massachusetts Women's Forum (since 2018); Board of Directors, National Association of Corporate Directors/New England (since 2015); Board of Directors, Association of Independent Colleges and Universities of Massachusetts (2014–2017); Chief Executive Officer, American Red Cross of Massachusetts Bay (2002–2011); Board of Directors of Eastern Bank Corporation (since 2001); Board of Directors of Eastern Bank Charitable Foundation (since 2001); Board of Directors of American Student Assistance Corporation (1996–2009); Board of Directors of Boston Stock Exchange (2002–2008); Board of Directors of Harvard Pilgrim Healthcare (health benefits company) (2007–2011). Trustee of various trusts within the John Hancock Fund Complex (since 2008).	195
Hassell H. McClellan (1945)	Trustee (since 2005) and Chairperson of the Board (since 2017)	Director/Trustee, Virtus Funds (since 2008); Director, The Barnes Group (since 2010); Associate Professor, The Wallace E. Carroll School of Management, Boston College (retired 2013). Trustee (since 2005) and Chairperson of the Board (since 2017) of various trusts within the John Hancock Fund Complex.	195

James M. Oates (1946)	Trustee (since 2005)	Managing Director, Wydown Group (financial consulting firm) (since 1994); Chairman and Director, Emerson Investment Management, Inc. (2000–2015); Independent Chairman, Hudson Castle Group, Inc. (formerly IBEX Capital Markets, Inc.) (financial services company) (1997–2011); Director, Stifel Financial (since 1996); Director, Investor Financial Services Corporation (1995–2007); Director, Connecticut River Bancorp (1998–2014); Director/Trustee, Virtus Funds (since 1988). Trustee (since 2004) and Chairperson of the Board (2005–2016) of various trusts within the John Hancock Fund Complex.	195
Steven R. Pruchansky (1944)	Trustee and Vice Chairperson of the Board (since 2012)	Managing Director, Pru Realty (since 2017); Chairman and Chief Executive Officer, Greenscapes of Southwest Florida, Inc. (2014–2020); Director and President, Greenscapes of Southwest Florida, Inc. (until 2000); Member, Board of Advisors, First American Bank (until 2010); Managing Director, Jon James, LLC (real estate) (since 2000); Partner, Right Funding, LLC (2014–2017); Director, First Signature Bank & Trust Company (until 1991); Director, Mast Realty Trust (until 1994); President, Maxwell Building Corp. (until 1991). Trustee (since 1992), Chairperson of the Board (2011–2012), and Vice Chairperson of the Board (since 2012) of various trusts within the John Hancock Fund Complex.	195
Frances G. Rathke (1960)	Trustee (since 2020)	Director, Northern New England Energy Corporation (since 2017); Director, Audit Committee Chair and Compensation Committee Member, Green Mountain Power Corporation (since 2016); Director, Treasurer and Finance & Audit Committee Chair, Flynn Center for Performing Arts (since 2016); Director, Audit Committee Chair and Compensation Committee Member, Planet Fitness (since 2016); Director, Citizen Cider, Inc. (high-end hard cider and hard seltzer company) (since 2016); Chief Financial Officer and Treasurer, Keurig Green Mountain, Inc. (2003–retired 2015); Independent Financial Consultant, Frances Rathke Consulting (strategic and financial consulting services) (2001–2003); Chief Financial Officer and Secretary, Ben & Jerry's Homemade, Inc. (1989–2000, including prior positions); Senior Manager, Coopers & Lybrand, LLC (independent public accounting firm) (1982–1989). Trustee of various trusts within the John Hancock Fund Complex (since 2020).	195
Gregory A. Russo (1949)	Trustee (since 2012)	Director and Audit Committee Chairman (2012–2020), and Member, Audit Committee and Finance Committee (2011–2020), NCH Healthcare System, Inc. (holding company for multi-entity healthcare system); Director and Member (2012–2018), and Finance Committee Chairman (2014–2018), The Moorings, Inc. (nonprofit continuing care community); Vice Chairman, Risk & Regulatory Matters, KPMG LLP (KPMG) (2002–2006); Vice Chairman, Industrial Markets, KPMG (1998–2002); Chairman and Treasurer, Westchester County, New York, Chamber of Commerce (1986–1992); Director, Treasurer and Chairman of Audit and Finance Committees, Putnam Hospital Center (1989–1995); Director and Chairman of Fundraising Campaign, United Way of Westchester and Putnam Counties, New York (1990–1995). Trustee of various trusts within the John Hancock Fund Complex (since 2008).	195

1 Because the Trust does not hold regular annual shareholder meetings, each Trustee holds office for an indefinite term until his or her successor is duly elected and qualified or until he or she dies, retires, resigns, is removed or becomes disqualified. Trustees may be removed from the Trust (provided the aggregate number of Trustees after such removal shall not be less than one) with cause or without cause, by the action of two-thirds of the remaining Trustees or by action of two-thirds of the outstanding shares of the Trust.

2 The Trustee is a Non-Independent Trustee due to current or former positions with the Advisor and certain of its affiliates.

Principal Officers who are not Trustees

The following table presents information regarding the current principal officers of the Trust who are not Trustees, including their principal occupations which, unless specific dates are shown, are of at least five years' duration. Each of the officers is an affiliated person of the Advisor. All of the officers listed are officers or employees of the Advisor or its affiliates. All of the officers also are officers of all of the other funds for which the Advisor serves as investment advisor.

Name (Birth Year)	Position(s) with the Trust ¹	Principal Occupation(s) During Past 5 Years
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Charles A. Rizzo (1957)	Chief Financial Officer (since 2007)	Vice President, John Hancock Financial Services (since 2008); Senior Vice President, John Hancock Investment Management LLC and John Hancock Variable Trust Advisers LLC (since 2008); Chief Financial Officer of various trusts within the John Hancock Fund Complex (since 2007).
Salvatore Schiavone (1965)	Treasurer (2007–2009 and since 2010, including prior positions)	Assistant Vice President, John Hancock Financial Services (since 2007); Vice President, John Hancock Investment Management LLC and John Hancock Variable Trust Advisers LLC (since 2007); Treasurer of various trusts within the John Hancock Fund Complex (since 2007, including prior positions).
Christopher (Kit) Sechler (1973)	Secretary and Chief Legal Officer (since 2018); Assistant Secretary (2009–2018)	Vice President and Deputy Chief Counsel, John Hancock Investment Management (since 2015); Assistant Vice President and Senior Counsel (2009–2015), John Hancock Variable Trust Advisers LLC; Chief Legal Officer and Secretary of various trusts within the John Hancock Fund Complex (since 2018); Assistant Secretary of John Hancock Investment Management LLC and John Hancock Variable Trust Advisers LLC (since 2009).
Trevor Swanberg (1979)	Chief Compliance Officer (since 2020)	Chief Compliance Officer, various trusts within the John Hancock Fund Complex, John Hancock Investment Management LLC, and John Hancock Variable Trust Advisers LLC (since 2020); Deputy Chief Compliance Officer, various trusts within the John Hancock Fund Complex (2018 – 2020); Deputy Chief Compliance Officer, John Hancock Investment Management LLC and John Hancock Variable Trust Advisers LLC (2019 – 2020); Assistant Chief Compliance Officer, various trusts within the John Hancock Fund Complex (2016 – 2018); Assistant Chief Compliance Officer, John Hancock Investment Management LLC and John Hancock Variable Trust Advisers LLC (2016 – 2019); Vice President, State Street Global Advisors (2015 – 2016).

1 Each officer holds office for an indefinite term until his or her successor is duly elected and qualified or until he or she dies, retires, resigns, is removed or becomes disqualified.

Additional Information about the Trustees

In addition to the description of each Trustee's Principal Occupation(s) and Other Directorships set forth above, the following provides further information about each Trustee's specific experience, qualifications, attributes or skills with respect to the Trust. The information in this section should not be understood to mean that any of the Trustees is an "expert" within the meaning of the federal securities laws.

There are no specific required qualifications for Board membership. The Board believes that the different perspectives, viewpoints, professional experience, education, and individual qualities of each Trustee represent a diversity of experiences and a variety of complementary skills. Each Trustee has experience as a Trustee of the Trust as well as experience as a Trustee of other John Hancock funds. It is the Trustees' belief that this allows the Board, as a whole, to oversee the business of the funds and the other funds in the John Hancock Fund Complex in a manner consistent with the best interests of the funds' shareholders. When considering potential nominees to fill vacancies on the Board, and as part of its annual self-evaluation, the Board reviews the mix of skills and other relevant experiences of the Trustees.

Independent Trustees

Charles L. Bardelis – As a director and former chief executive of an operating company, Mr. Bardelis has experience with a variety of financial, staffing, regulatory and operational issues. He also has experience as a director of publicly traded companies.

James R. Boyle – Through his former positions as chairman and director of the Advisor, position as a senior executive of MFC, the Advisor's parent company, and positions with other affiliates of the Advisor, Mr. Boyle has experience in the development and management of registered investment companies, variable annuities and retirement products, enabling him to provide management input to the Board. He also has experience as a senior executive of healthcare and insurance companies.

Peter S. Burgess – As a financial consultant, certified public accountant, and former partner in a major international public accounting firm, Mr. Burgess has experience in the auditing of financial services companies and mutual funds. He also has experience as a director of publicly traded operating companies.

William H. Cunningham – Mr. Cunningham has management and operational oversight experience as a former Chancellor and President of a major university. Mr. Cunningham regularly teaches a graduate course in corporate governance at the law school and at the Red McCombs School of Business at The University of Texas at Austin. He also has oversight and corporate governance experience as a current and former director of a number of operating companies, including an insurance company.

Grace K. Fey – As a consultant to nonprofit and corporate boards, and as a former director and executive of an investment management firm, Ms. Fey has experience in the investment management industry. She also has experience as a director of an operating company.

Deborah C. Jackson – Ms. Jackson has management and operational oversight experience as the president of a college and as the former chief executive officer of a major charitable organization. She also has oversight and corporate governance experience as a current and former director of various corporate organizations, including a bank, an insurance company, a regional stock exchange, and nonprofit entities.

Hassell H. McClellan – As a former professor of finance and policy in the graduate management department of a major university, a current director of a public company, and as a former director of several privately held companies, Mr. McClellan has experience in corporate and financial matters. He also has experience as a director of other investment companies not affiliated with the Trust.

James M. Oates – As a senior officer and director of investment management companies, Mr. Oates has experience in investment management. Mr. Oates previously served as chief executive officer of one bank and president and chief operating officer of another bank. He also has experience as a director of publicly traded companies and investment companies not affiliated with the Trust.

Steven R. Pruchansky – Mr. Pruchansky has entrepreneurial, executive and financial experience as a chief executive officer of an operating services company and a current and former director of real estate and banking companies.

Frances G. Rathke – Through her former positions in senior financial roles, as a former certified public accountant, and as a consultant on strategic and financial matters, Ms. Rathke has experience as a leader overseeing, conceiving, implementing, and analyzing strategic and financial growth plans, and financial statements. Ms. Rathke also has experience in the auditing of financial statements and related materials. In addition, she has experience as a director of various organizations, including a publicly traded company and a non-profit entity.

Gregory A. Russo – As a retired certified public accountant and former partner in a major independent registered public accounting firm, Mr. Russo has accounting and executive experience. He also has experience as a current and former director of various operating entities.

Non-Independent Trustees

Andrew G. Arnott – Through his positions as Executive Vice President of John Hancock Financial Services; Director and Executive Vice President of the Advisor and an affiliated investment advisor, John Hancock Variable Trust Advisers LLC; President of John Hancock Investment Management Distributors LLC; and President of the John Hancock Fund Complex, Mr. Arnott has experience in the management of investments, registered investment companies, variable annuities and retirement products, enabling him to provide management input to the Board.

Marianne Harrison – Through her position as President and CEO, John Hancock, and previous experience as President and CEO, Manulife Canadian Division, President and General Manager for John Hancock Long-Term Care Insurance, and Executive Vice President and Controller for Manulife, Ms. Harrison has experience as a strategic business builder expanding product offerings and distribution, enabling her to provide management input to the Board.

Duties of Trustees; Committee Structure

The Trust is organized as a Massachusetts business trust. Under the Declaration of Trust, the Trustees are responsible for managing the affairs of the Trust, including the appointment of advisors and subadvisors. Each Trustee has the experience, skills, attributes or qualifications described above (see "Principal Occupation(s) and Other Directorships" and "Additional Information about the Trustees" above). The Board appoints officers who

assist in managing the day-to-day affairs of the Trust. The Board met five times during the fiscal year ended August 31, 2020.

The Board has appointed an Independent Trustee as Chairperson. The Chairperson presides at meetings of the Trustees and may call meetings of the Board and any Board committee whenever he deems it necessary. The Chairperson participates in the preparation of the agenda for meetings of the Board and the identification of information to be presented to the Board with respect to matters to be acted upon by the Board. The Chairperson also acts as a liaison with the funds' management, officers, attorneys, and other Trustees generally between meetings. The Chairperson may perform such other functions as may be requested by the Board from time to time. The Board also has designated a Vice Chairperson to serve in the absence of the Chairperson. Except for any duties specified in this SAI or pursuant to the Trust's Declaration of Trust or By-laws, or as assigned by the Board, the designation of a Trustee as Chairperson or Vice Chairperson does not impose on that Trustee any duties, obligations or liability that are greater than the duties, obligations or liability imposed on any other Trustee, generally. The Board has designated a number of standing committees as further described below, each of which has a Chairperson. The Board also may designate working groups or ad hoc committees as it deems appropriate.

The Board believes that this leadership structure is appropriate because it allows the Board to exercise informed and independent judgment over matters under its purview, and it allocates areas of responsibility among committees or working groups of Trustees and the full Board in a manner that enhances effective oversight. The Board considers leadership by an Independent Trustee as Chairperson to be integral to promoting effective independent oversight of the funds' operations and meaningful representation of the shareholders' interests, given the specific characteristics and circumstances of the funds. The Board also believes that having a super-majority of Independent Trustees is appropriate and in the best interest of the funds' shareholders. Nevertheless, the Board also believes that having interested persons serve on the Board brings corporate and financial viewpoints that are, in the Board's view, helpful elements in its decision-making process. In addition, the Board believes that Ms. Harrison and Messrs. Arnott and Boyle, as current or former senior executives of the Advisor and the Distributor (or of their parent company, MFC), and of other affiliates of the Advisor and the Distributor, provide the Board with the perspective of the Advisor and the Distributor in managing and sponsoring all of the Trust's series. The leadership structure of the Board may be changed, at any time and in the discretion of the Board, including in response to changes in circumstances or the characteristics of the Trust.

Board Committees

The Board has established an Audit Committee; Compliance Committee; Contracts, Legal & Risk Committee; Nominating and Governance Committee; and Investment Committee. The current membership of each committee is set forth below.

Audit Committee. The Board has a standing Audit Committee composed solely of Independent Trustees (Messrs. Bardelis, Burgess, and Oates, and Ms. Rathke). Mr. Burgess serves as Chairperson of this Committee. This Committee reviews the internal and external accounting and auditing procedures of the Trust and, among other things, considers the selection of an independent registered public accounting firm for the Trust, approves all significant services proposed to be performed by its independent registered public accounting firm and considers the possible effect of such services on its independence. This Committee met four times during the fiscal year ended August 31, 2020.

Compliance Committee. The Board also has a standing Compliance Committee (Mses. Fey and Jackson and Mr. Cunningham). Ms. Fey serves as Chairperson of this Committee. This Committee reviews and makes recommendations to the full Board regarding certain compliance matters relating to the Trust. This Committee met four times during the fiscal year ended August 31, 2020.

Contracts, Legal & Risk Committee. The Board also has a standing Contracts, Legal & Risk Committee (Messrs. Boyle, Pruchansky, and Russo). Mr. Russo serves as Chairperson of this Committee. This Committee oversees the initiation, operation, and renewal of the various contracts between the Trust and other entities. These contracts include advisory and subadvisory agreements, custodial and transfer agency agreements and arrangements with other service providers.

The Committee also reviews the significant legal affairs of the funds, as well as any significant regulatory and legislative actions or proposals affecting or relating to the funds or their service providers. The Committee also assists the Board in its oversight role with respect to the processes pursuant to which the Advisor and the

subadvisors identify, manage and report the various risks that affect or could affect the funds. This Committee met four times during the fiscal year ended August 31, 2020.

Nominating and Governance Committee. The Board also has a Nominating and Governance Committee composed of all of the Independent Trustees. This Committee will consider nominees recommended by Trust shareholders. Nominations should be forwarded to the attention of the Secretary of the Trust at 200 Berkeley Street, Boston, Massachusetts 02116. Any shareholder nomination must be submitted in compliance with all of the pertinent provisions of Rule 14a-8 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), in order to be considered by this Committee. This Committee met five times during the fiscal year ended August 31, 2020.

Investment Committee. The Board also has an Investment Committee composed of all of the Trustees. The Investment Committee has five subcommittees with the Trustees divided among the five subcommittees (each an "Investment Sub-Committee"). Ms. Jackson and Messrs. Bardelis, Boyle, Cunningham, and Oates serve as Chairpersons of the Investment Sub-Committees. Each Investment Sub-Committee reviews investment matters relating to a particular group of funds in the John Hancock Fund Complex and coordinates with the full Board regarding investment matters. The Investment Committee met five times during the fiscal year ended August 31, 2020.

Annually, the Board evaluates its performance and that of its Committees, including the effectiveness of the Board's Committee structure.

Risk Oversight

As registered investment companies, the funds are subject to a variety of risks, including investment risks (such as, among others, market risk, credit risk and interest rate risk), financial risks (such as, among others, settlement risk, liquidity risk and valuation risk), compliance risks, and operational risks. As a part of its overall activities, the Board oversees the funds' risk management activities that are implemented by the Advisor, the funds' CCO and other service providers to the funds. The Advisor has primary responsibility for the funds' risk management on a day-to-day basis as a part of its overall responsibilities. Each fund's subadvisor, subject to oversight of the Advisor, is primarily responsible for managing investment and financial risks as a part of its day-to-day investment responsibilities, as well as operational and compliance risks at their firms. The Advisor and the CCO also assist the Board in overseeing compliance with investment policies of the funds and regulatory requirements and monitor the implementation of the various compliance policies and procedures approved by the Board as a part of its oversight responsibilities.

The Advisor identifies to the Board the risks that it believes may affect the funds and develops processes and controls regarding such risks. However, risk management is a complex and dynamic undertaking and it is not always possible to comprehensively identify and/or mitigate all such risks at all times since risks are at times impacted by external events. In discharging its oversight responsibilities, the Board considers risk management issues throughout the year with the assistance of its various Committees as described below. Each Committee meets at least quarterly and presents reports to the Board, which may prompt further discussion of issues concerning the oversight of the funds' risk management. The Board as a whole also reviews written reports or presentations on a variety of risk issues as needed and may discuss particular risks that are not addressed in the Committee process.

The Board has established an Investment Committee, which consists of five Investment Sub-Committees. Each Investment Sub-Committee assists the Board in overseeing the significant investment policies of the relevant funds and the performance of their subadvisors. The Advisor monitors these policies and subadvisor activities and may recommend changes in connection with the funds to each relevant Investment Sub-Committee in response to subadvisor requests or other circumstances. On at least a quarterly basis, each Investment Sub-Committee reviews reports from the Advisor regarding the relevant funds' investment performance, which include information about investment and financial risks and how they are managed, and from the CCO or his/her designee regarding subadvisor compliance matters. In addition, each Investment Sub-Committee meets periodically with the portfolio managers of the funds' subadvisors to receive reports regarding management of the funds, including with respect to risk management processes.

The Audit Committee assists the Board in reviewing with the independent auditors, at various times throughout the year, matters relating to the funds' financial reporting. In addition, this Committee oversees the process of each fund's valuation of its portfolio securities, assisted by the funds' Pricing Committee (composed of officers of the Trust), which calculates fair value determinations pursuant to procedures adopted by the Board.

The Compliance Committee assists the Board in overseeing the activities of the Trust's CCO with respect to the compliance programs of the funds, the Advisor, the subadvisors, and certain of the funds' other service providers (the Distributor and transfer agent). This Committee and the Board receive and consider periodic reports from the CCO throughout the year, including the CCO's annual written report, which, among other things, summarizes material compliance issues that arose during the previous year and any remedial action taken to address these issues, as well as any material changes to the compliance programs.

The Contracts, Legal & Risk Committee assists the Board in its oversight role with respect to the processes pursuant to which the Advisor and the subadvisors identify, assess, manage and report the various risks that affect or could affect the funds. This Committee reviews reports from the funds' Advisor on a periodic basis regarding the risks facing the funds, and makes recommendations to the Board concerning risks and risk oversight matters as the Committee deems appropriate. This Committee also coordinates with the other Board Committees regarding risks relevant to the other Committees, as appropriate.

In addressing issues regarding the funds' risk management between meetings, appropriate representatives of the Advisor communicate with the Chairperson of the Board, the relevant Committee Chair, or the Trust's CCO, who is directly accountable to the Board. As appropriate, the Chairperson of the Board, the Committee Chairs and the Trustees confer among themselves, with the Trust's CCO, the Advisor, other service providers, external fund counsel, and counsel to the Independent Trustees, to identify and review risk management issues that may be placed on the full Board's agenda and/or that of an appropriate Committee for review and discussion.

In addition, in its annual review of the funds' advisory, subadvisory and distribution agreements, the Board reviews information provided by the Advisor, the subadvisors and the Distributor relating to their operational capabilities, financial condition, risk management processes and resources.

The Board may, at any time and in its discretion, change the manner in which it conducts its risk oversight role.

The Advisor also has its own, independent interest in risk management. In this regard, the Advisor has appointed a Risk and Investment Operations Committee, consisting of senior personnel from each of the Advisor's functional departments. This Committee reports periodically to the Board and the Contracts, Legal & Risk Committee on risk management matters. The Advisor's risk management program is part of the overall risk management program of John Hancock, the Advisor's parent company. John Hancock's Chief Risk Officer supports the Advisor's risk management program, and at the Board's request will report on risk management matters.

Compensation of Trustees

Trustees are reimbursed for travel and other out-of-pocket expenses. Each Independent Trustee receives in the aggregate from the Trust and the other open-end funds in the John Hancock Fund Complex an annual retainer of \$240,000, a fee of \$22,000 for each regular meeting of the Trustees that he or she attends in person and a fee of \$5,000 for each special meeting of the Trustees that he or she attends in person. The Chairperson of the Board receives an additional retainer of \$160,000. The Vice Chairperson of the Board receives an additional retainer of \$20,000. The Chairperson of each of the Audit Committee, Compliance Committee, and Contracts, Legal & Risk Committee receives an additional \$40,000 retainer. The Chairperson of each Investment Sub-Committee receives an additional \$20,000 retainer.

The following table provides information regarding the compensation paid by the Trust and the other investment companies in the John Hancock Fund Complex to the Independent Trustees for their services during the fiscal year ended August 31, 2020.

Compensation Table¹

Name of Trustee	Total Compensation from Trust	Total Compensation from Trust and the John Hancock Fund Complex ²
Independent Trustees		
Charles L. Bardelis	\$ 129,104	\$ 410,000
James R. Boyle	\$ 129,104	\$410,000

Peter S. Burgess	\$ 136,150	\$ 430,000
William H. Cunningham	\$ 129,104	\$ 410,000
Grace K. Fey	\$ 136,150	\$ 430,000
Deborah C. Jackson	\$ 129,104	\$ 410,000
Hassell H. McClellan	\$ 178,432	\$ 550,000
James M. Oates	\$ 129,104	\$ 410,000
Steven R. Pruchansky	\$ 129,104	\$ 410,000
Frances G. Rathke ³	\$0	\$0
Gregory A. Russo	\$ 136,150	\$ 430,000
Non-Independent Trustees		
Andrew G. Arnott	\$0	\$0
Marianne Harrison	\$0	\$0

¹ The Trust does not have a pension or retirement plan for any of its Trustees or officers.

² There were 195 series in the John Hancock Fund Complex as of August 31, 2020.

³ Appointed as Independent Trustee effective as of September 15, 2020.

Trustee Ownership of Shares of the Funds

The table below sets forth the dollar range of the value of the shares of each fund (only funds in which the Trustees owned shares is listed), and the dollar range of the aggregate value of the shares of all funds in the John Hancock Fund Complex overseen by a Trustee, owned beneficially by the Trustees as of December 31, 2019. For purposes of this table, beneficial ownership is defined to mean a direct or indirect pecuniary interest. Trustees may own shares beneficially through group annuity contracts. Exact dollar amounts of securities held are not listed in the table. Rather, dollar ranges are identified.

Trust/Funds	Multimanager 2065 Lifetime Portfolio	Multi-Index 2065 Lifetime Portfolio	Multi-Index 2065 Preservation Portfolio	Total – John Hancock Fund Complex
Independent Trustees				
Charles L. Bardelis	None	None	None	Over \$100,000
James R. Boyle	None	None	None	Over \$100,000
Peter S. Burgess	None	None	None	Over \$100,000
William H. Cunningham	None	None	None	Over \$100,000
Grace K. Fey	None	None	None	Over \$100,000
Deborah C. Jackson	None	None	None	Over \$100,000
Hassell H. McClellan	None	None	None	Over \$100,000
James M. Oates	None	None	None	Over \$100,000

Steven R. Pruchansky	None	None	None	Over \$100,000
Frances G. Rathke ¹	N/A	N/A	N/A	N/A
Gregory A. Russo	None	None	None	Over \$100,000
Non-Independent Trustees				
Andrew G. Arnott	None	None	None	Over \$100,000
Marianne Harrison	None	None	None	Over \$100,000

¹ Appointed as Independent Trustee effective as of September 15, 2020.

SHAREHOLDERS OF THE FUNDS

The Fund will commence operations on or following the date of this SAI and, therefore, the officers and Trustees of the Trust as a group beneficially owned no shares of any class of the Fund as of the date of this SAI. The Advisor (or an affiliate thereof) will own all of the outstanding shares of the Fund on the commencement date and, therefore, will be deemed to control the Fund. A shareholder who owns beneficially more than 25% of any class of the Fund is deemed to control that class and therefore could determine the outcome of a shareholder meeting with respect to a proposal directly affecting that share class.

INVESTMENT MANAGEMENT ARRANGEMENTS AND OTHER SERVICES

Advisory Agreement

The Advisor serves as investment advisor to the funds and is responsible for the supervision of the subadvisor services to the funds pursuant to the Advisory Agreement. Pursuant to the Advisory Agreement and subject to general oversight by the Board, the Advisor manages and supervises the investment operations and business affairs of the funds. The Advisor provides the funds with all necessary office facilities and equipment and any personnel necessary for the oversight and/or conduct of the investment operations of the funds. The Advisor also coordinates and oversees the services provided to the funds under other agreements, including custodial, administrative and transfer agency services. Additionally, the Advisor provides certain administrative and other non-advisory services to the funds pursuant to a separate Service Agreement, as discussed below.

The Advisor is responsible for overseeing and implementing a fund's investment program and provides a variety of advisory oversight and investment research services, including: (i) monitoring fund portfolio compositions and risk profiles and (ii) evaluating fund investment characteristics, such as investment strategies, and recommending to the Board potential enhancements to such characteristics. The Advisor provides management and transition services associated with certain fund events (e.g., strategy, portfolio manager or subadvisor changes).

The Advisor has the responsibility to oversee the subadvisors and recommend to the Board: (i) the hiring, termination, and replacement of a subadvisor; and (ii) the allocation and reallocation of a fund's assets among multiple subadvisors, when appropriate. In this capacity, the Advisor negotiates with potential subadvisors and, once retained, among other things: (i) monitors the compliance of the subadvisor with the investment objectives and related policies of the funds; (ii) reviews the performance of the subadvisor; and (iii) reports periodically on such performance to the Board. The Advisor utilizes the expertise of a team of investment professionals in manager research and oversight who provide these research and monitoring services.

The Advisor is not liable for any error of judgment or mistake of law or for any loss suffered by a fund in connection with the matters to which the Advisory Agreement relates, except a loss resulting from willful misfeasance, bad faith or gross negligence on the part of the Advisor in the performance of its duties or from its reckless disregard of its obligations and duties under the Advisory Agreement.

Under the Advisory Agreement, a fund may use the name "John Hancock" or any name derived from or similar to it only for so long as the Advisory Agreement or any extension, renewal or amendment thereof remains in effect. If the Advisory Agreement is no longer in effect, the fund (to the extent that it lawfully can) will cease to use such name or

any other name indicating that it is advised by or otherwise connected with the Advisor. In addition, the Advisor or JHLICO U.S.A., a subsidiary of Manulife Financial, may grant the nonexclusive right to use the name "John Hancock" or any similar name to any other corporation or entity, including but not limited to any investment company of which the JHLICO U.S.A. or any subsidiary or affiliate thereof or any successor to the business of any subsidiary or affiliate thereof shall be the investment advisor.

The continuation of the Advisory Agreement and the Distribution Agreement (discussed below) were each approved by all Trustees. The Advisory Agreement and the Distribution Agreement will continue in effect from year to year, provided that each Agreement's continuance is approved annually both: (i) by the holders of a majority of the outstanding voting securities of the Trust or by the Trustees; and (ii) by a majority of the Trustees who are not parties to the Agreement, or "interested persons" of any such parties. Each of these Agreements may be terminated on 60 days' written notice by any party or by a vote of a majority of the outstanding voting securities of the funds and will terminate automatically if assigned.

The Trust bears all costs of its organization and operation, including but not limited to expenses of preparing, printing and mailing all shareholders' reports, notices, prospectuses, proxy statements and reports to regulatory agencies; expenses relating to the issuance, registration and qualification of shares; government fees; interest charges; expenses of furnishing to shareholders their account statements; taxes; expenses of redeeming shares; brokerage and other expenses connected with the execution of portfolio securities transactions; expenses pursuant to a fund's plan of distribution; fees and expenses of custodians including those for keeping books and accounts maintaining a committed line of credit and calculating the NAV of shares; fees and expenses of transfer agents and dividend disbursing agents; legal, accounting, financial, management, tax and auditing fees and expenses of the funds (including an allocable portion of the cost of the Advisor's employees rendering such services to the funds); the compensation and expenses of officers and Trustees (other than persons serving as President or Trustee who are otherwise affiliated with the funds the Advisor or any of their affiliates); expenses of Trustees' and shareholders' meetings; trade association memberships; insurance premiums; and any extraordinary expenses.

Securities held by a fund also may be held by other funds or investment advisory clients for which the Advisor, the subadvisor or their respective affiliates provide investment advice. Because of different investment objectives or other factors, a particular security may be bought for one or more funds or clients when one or more are selling the same security. If opportunities for purchase or sale of securities by the Advisor or subadvisor for a fund or for other funds or clients for which the Advisor or subadvisor renders investment advice arise for consideration at or about the same time, transactions in such securities will be made, insofar as feasible, for the respective fund, funds or clients in a manner deemed equitable to all of them. To the extent that transactions on behalf of more than one client of the Advisor or subadvisor or their respective affiliates may increase the demand for securities being purchased or the supply of securities being sold, there may be an adverse effect on price.

Advisor Compensation. As compensation for its advisory services under the Advisory Agreement, the Advisor receives a fee from the funds, computed separately for each fund. The fee for each fund is stated as an annual percentage of the current value of the "aggregate net assets" of the fund. "Aggregate net assets" of a fund include the net assets of the fund and, in many cases, the net assets of one or more other funds (or portions thereof) advised by the Advisor, but in each case only for the period during which the Advisor also serves as the advisor to the other fund(s) (or portions thereof). The fee for each fund is based on the applicable annual rate that, for each day, is equal to: (i) the sum of the amounts determined by applying the annual percentage rates for the fund to the applicable portions of aggregate net assets divided by: (ii) aggregate net assets (totaling the "Applicable Annual Fee Rate"). The fee for each fund accrues and is paid daily to the Advisor for each calendar day. The daily fee accruals are computed by multiplying the fraction of one over the number of calendar days in the year by the Applicable Annual Fee Rate, and multiplying this product by the net assets of the fund. The management fees that each fund currently is obligated to pay the Advisor are as set forth in its Prospectus.

The Advisor has contractually agreed to reduce its management fee for each fund of funds or, if necessary, make payment to a fund of funds in an amount equal to the amount by which certain expenses of the fund of funds, including those expenses attributable to investments in underlying funds ("Acquired Fund Fees and Expenses") exceed the percentage of average daily net assets (on an annualized basis) of the fund of funds as set forth in the prospectus. For purposes of this contractual limitation on fund expenses, Acquired Fund Fees and Expenses will be calculated monthly per the formulation below, and provided to the funds' custodian for use in determining the amount of the expense limitation. The calculation of AFFE represents the indirect expenses of a fund's investments in underlying investment companies. Acquired Fund Fees and Expenses are determined based on the sum of the

average investment in an underlying fund for the previous month during the fiscal year and by taking the product of the underlying fund's operating expense ratio as determined from the most recent published financial statement over the fund of funds' average monthly net assets. The formula to determine the Acquired Fund Fees and Expenses is as follows:

$$\frac{\text{Latest Underlying Fund expense ratio} \times [\text{Sum of Underlying Fund market value for the month} / \text{\# of business days in the month}]}{\text{Fund of Funds' Monthly Average Market Value}}$$

From time to time, the Advisor may reduce its fee or make other arrangements to limit a fund's expenses to a specified percentage of average daily net assets. The Advisor retains the right to re-impose a fee and recover any other payments to the extent that, during the fiscal year in which such expense limitation is in place, the fund's annual expenses fall below this limit.

Service Agreement

Pursuant to a Service Agreement, the Advisor is responsible for providing, at the expense of the Trust, certain financial, accounting and administrative services such as legal services, tax, accounting, valuation, financial reporting and performance, compliance and service provider oversight. Pursuant to the Service Agreement, the Advisor shall determine, subject to Board approval, the expenses to be reimbursed by each fund, including an overhead allocation. The payments under the Service Agreement are not intended to provide a profit to the Advisor. Instead, the Advisor provides the services under the Service Agreement because it also provides advisory services under the Advisory Agreement. The reimbursement shall be calculated and paid monthly in arrears.

The Advisor is not liable for any error of judgment or mistake of law or for any loss suffered by a fund in connection with the matters to which the Service Agreement relates, except losses resulting from willful misfeasance, bad faith or negligence by the Advisor in the performance of its duties or from reckless disregard by the Advisor of its obligations under the Agreement.

The Service Agreement had an initial term of two years, and continues thereafter so long as such continuance is specifically approved at least annually by a majority of the Board and a majority of the Independent Trustees. The Trust, on behalf of any or all of the funds, or the Advisor may terminate the Agreement at any time without penalty on 60 days' written notice to the other party. The Agreement may be amended by mutual written agreement of the parties, without obtaining shareholder approval.

Subadvisory Agreements

Duties of the Subadvisor. Under the terms of each of the current subadvisory agreements (each a "Subadvisory Agreement" and collectively, the "Subadvisory Agreements"), the subadvisors manage the investment and reinvestment of the assets of the funds, subject to the supervision of the Board and the Advisor. In addition, for a fund with a sub-subadvisory arrangement as indicated in its Prospectus, the activities of the sub-subadvisor are subject to the supervision of that fund's subadvisor. The subadvisor formulates a continuous investment program for each such fund consistent with its investment objectives and policies outlined in the Prospectus. The subadvisor implements such programs by purchases and sales of securities and regularly reports to the Advisor and the Board with respect to the implementation of such programs. The subadvisor, at its expense, furnishes all necessary investment and management facilities, including salaries of personnel required for it to execute its duties, as well as administrative facilities, including bookkeeping, clerical personnel, and equipment necessary for the conduct of the investment affairs of the assigned funds. Additional information about the funds' portfolio managers, including other accounts managed, ownership of fund shares, and compensation structure, can be found at Appendix B to this SAI.

The Advisor has delegated to the subadvisors the responsibility to vote all proxies relating to the securities held by the funds. See "Other Services — Proxy Voting" below, for additional information.

Subadvisory Fees. As compensation for their services, the subadvisor receives fees from the Advisor computed separately for each fund.

Affiliated Subadvisors. The Advisor and the Affiliated Subadvisors are controlled by Manulife Financial.

Advisory arrangements involving Affiliated Subadvisors and investment in affiliated underlying funds present certain conflicts of interest. For each fund subadvised by an Affiliated Subadvisor, the Affiliated Subadvisor will benefit from increased subadvisory fees. In addition, MFC will benefit, not only from the net advisory fee retained by the Advisor but also from the subadvisory fee paid by the Advisor to the Affiliated Subadvisor. Consequently, the Affiliated Subadvisors and MFC may be viewed as benefiting financially from: (i) the appointment of or continued service of Affiliated Subadvisors to manage the funds; and (ii) the allocation of the assets of the funds to the funds having Affiliated Subadvisors. Similarly, the Advisor may be viewed as having a conflict of interest in the allocation of the assets of the funds to affiliated underlying funds as opposed to unaffiliated underlying funds. However, both the Advisor, in recommending to the Board the appointment or continued service of Affiliated Subadvisors, and such Subadvisors, in allocating the assets of the funds, have a fiduciary duty to act in the best interests of the funds and their shareholders. The Advisor has a duty to recommend that Affiliated Subadvisors be selected, retained, or replaced only when the Advisor believes it is in the best interests of shareholders. In addition, under the Trust's "Manager of Managers" exemptive order received from the SEC, the Trust is required to obtain shareholder approval of any subadvisory agreement appointing an Affiliated Subadvisor as the subadvisor except as otherwise permitted by applicable SEC No-Action Letter to a fund (in the case of a new fund, the initial sole shareholder of the fund, an affiliate of the Advisor and MFC, may provide this approval). Similarly, each Affiliated Subadvisor has a duty to allocate assets to Affiliated Subadvised 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 are aware of and monitor these conflicts of interest.

Additional Information Applicable to Subadvisory Agreement

Term of the Subadvisory Agreement. The Subadvisory Agreement will initially continue in effect as to a fund for a period no more than two years from the date of its execution (or the execution of an amendment making the agreement applicable to that fund) and thereafter if such continuance is specifically approved at least annually either: (a) by the Trustees; or (b) by the vote of a majority of the outstanding voting securities of that fund. In either event, such continuance also shall be approved by the vote of the majority of the Trustees who are not interested persons of any party to the Subadvisory Agreement.

Any required shareholder approval of any continuance of the Subadvisory Agreement shall be effective with respect to any fund if a majority of the outstanding voting securities of that fund votes to approve such continuance, even if such continuance may not have been approved by a majority of the outstanding voting securities of: (a) any other series of the Trust affected by the Subadvisory Agreement; or (b) all of the series of the Trust.

Failure of Shareholders to Approve Continuance of any Subadvisory Agreement. If the outstanding voting securities of any fund fail to approve any continuance of any Subadvisory Agreement, the party may continue to act as investment subadvisor with respect to such fund pending the required approval of the continuance of the Subadvisory Agreement or a new agreement with either that party or a different subadvisor, or other definitive action.

Termination of a Subadvisory Agreement. The Subadvisory Agreement may be terminated at any time without the payment of any penalty on 60 days' written notice to the other party or parties to the Agreement, and also to the relevant fund. The following parties may terminate the Subadvisory Agreement:

- the Board;
- with respect to any fund, a majority of the outstanding voting securities of such fund;
- the Advisor; and
- the subadvisor.

The Subadvisory Agreement will automatically terminate in the event of its assignment or upon termination of the Advisory Agreement.

Amendments to the Subadvisory Agreements. The Subadvisory Agreement may be amended by the parties to the agreement, provided that the amendment is approved by the vote of a majority of the outstanding voting securities of the relevant fund (except as noted below) and by the vote of a majority of the Independent Trustees. The required shareholder approval of any amendment to the Subadvisory Agreement shall be effective with respect to any fund if

a majority of the outstanding voting securities of that fund votes to approve the amendment, even if the amendment may not have been approved by a majority of the outstanding voting securities of: (a) any other series of the Trust affected by the amendment; or (b) all the series of the Trust.

As noted under "Who's who — Investment advisor" in the Prospectus, an SEC order permits the Advisor, subject to approval by the Board and a majority of the Independent Trustees, to appoint a subadvisor (other than an Affiliated Subadvisor), or change a subadvisory fee or otherwise amend a subadvisory agreement (other than with an Affiliated Subadvisor) pursuant to an agreement that is not approved by shareholders.

Other Services

Proxy Voting. Based on the terms of the current Subadvisory Agreement, the Trust's proxy voting policies and procedures (the "Trust Procedures") delegate to the subadvisors of each of its funds the responsibility to vote all proxies relating to securities held by that fund in accordance with the subadvisor's proxy voting policies and procedures. The subadvisor has a duty to vote or not vote such proxies in the best interests of the fund it subadvisees and its shareholders, and to avoid the influence of conflicts of interest. In the event that the Advisor assumes day-to-day management responsibilities for the fund, the Trust's Procedures delegate proxy voting responsibilities to the Advisor. Complete descriptions of the Trust Procedures and the proxy voting procedures of the Advisor and the subadvisors are set forth in Appendix C to this SAI.

It is possible that conflicts of interest could arise for a subadvisor when voting proxies. Such conflicts could arise, for example, when a subadvisor or its affiliate has an existing 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 also could arise when a fund, its Advisor or principal underwriter or any of their affiliates has an interest in the vote.

In the event a subadvisor becomes aware of a material conflict of interest, the Trust Procedures generally require the subadvisor to follow any conflicts procedures that may be included in the subadvisor's proxy voting procedures. Although conflicts procedures will vary among subadvisors, they generally include one or more of the following:

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

The specific conflicts procedures of the subadvisor is set forth in its proxy voting procedures included in Appendix C. While these conflicts procedures may reduce the influence of conflicts of interest on proxy voting, such influence will not necessarily be eliminated.

Although a subadvisor may have a duty to vote all proxies on behalf of the fund that it subadvisees, it is possible that the subadvisor 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 a subadvisor from trading the shares in the marketplace for a period of time, the subadvisor may determine that it is not in the best interests of the fund to vote the proxies. In addition, consistent with its duty to vote proxies in the best interests of a fund's shareholders, the subadvisor may refrain from voting one or more of the fund's proxies if the subadvisor believes that the costs of voting such proxies may outweigh the potential benefits. For example, the subadvisor may choose not to recall securities where the subadvisor believes the costs of voting may outweigh the potential benefit of voting. A subadvisor also may 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 securities were recalled.

Information regarding how a fund voted proxies relating to portfolio securities during the most recent 12-month period ended June 30th is available: (1) without charge, on www.jhinvestments.com and (2) on the SEC's website at sec.gov.

DISTRIBUTION AGREEMENTS

The Trust has a Distribution Agreement with John Hancock Investment Management Distributors LLC, an affiliate of the Advisor, located at 200 Berkeley Street, Boston, Massachusetts 02116. Under the Distribution Agreement, the Distributor is obligated to use its best efforts to sell shares of each class of the funds. Shares of the funds also are

sold by selected broker-dealers, banks and registered investment advisors ("Selling Firms") that have entered into selling agreements with the Distributor. These Selling Firms are authorized to designate other intermediaries to receive purchase and redemption orders on behalf of the funds. The Distributor accepts orders for the purchase of the shares of the funds that are continually offered at the NAV next determined, plus any applicable sales charge. Class 1, Class I, Class R2, Class R4, Class R5, and Class R6 shares of the funds are offered without a front-end sales load or CDSC. In connection with the sale of Class A shares, the Distributor and Selling Firms receive compensation from a sales charge imposed at the time of sale. In the case of Class R2, Class R4, and Class R5 shares, the Selling Firms receive compensation monthly. Neither the Distributor nor Selling Firms receive any compensation with respect to the sale of Class R6 shares of the funds.

With respect to share classes other than Class R6, the Distributor may make, either from Rule 12b-1 distribution fees, if applicable, or out of its own resources, additional payments to financial intermediaries (firms), such as broker-dealers, banks, registered investment advisors, independent financial planners, and retirement plan administrators. These payments are sometimes referred to as "revenue sharing." No such payments are made with respect to the funds' Class R6 shares.

The funds do not issue share certificates. Shares are electronically recorded. The Board reserves the right to change or waive a fund's minimum investment requirements and to reject any order to purchase shares (including purchase by exchange) when, in the judgment of the Advisor or the relevant subadvisor, such rejection is in the fund's best interest.

Distribution Plans. The Board has adopted distribution plans with respect to Class A, Class R2, Class R4, Class R5, and Class 1 shares pursuant to Rule 12b-1 under the 1940 Act (the "Rule 12b-1 Plans"). Under the Rule 12b-1 Plans, a fund may pay distribution and service fees based on average daily net assets attributable to those classes, at the maximum aggregate annual rates shown in the following table. However, the service portion of the Rule 12b-1 fees borne by a class of shares of a fund will not exceed 0.25% of average daily net assets attributable to such class of shares.

Share Class	Rule 12b-1 Fee (%)
Class A	0.30
Class R2	0.25
Class R4 ¹	0.25
Class R5	0.00
Class 1	0.05

¹ The Distributor has contractually agreed to limit the Rule 12b-1 distribution and service fees for Class R4 shares of the fund to 0.15% until December 31, 2021.

The distribution portion of the fees payable pursuant to the Rule 12b-1 Plans may be spent on any activities or expenses primarily intended to result in the sale of shares of the particular class, including but not limited to: (i) compensation to Selling Firms and others (including affiliates of the Distributor) that are engaged in or support the sale of fund shares; and (ii) marketing, promotional and overhead expenses incurred in connection with the distribution of fund shares. The service portion of the fees payable pursuant to the Rule 12b-1 Plans may be used to compensate Selling Firms and others for providing personal and account maintenance services to shareholders. The fees paid under the Class 1 shares' Rule 12b-1 Plans also may be used for certain shareholder and administrative services.

The Rule 12b-1 Plans and all amendments were approved by the Board, including a majority of the Independent Trustees, by votes cast in person at meetings called for the purpose of voting on the Rule 12b-1 Plans. Pursuant to the Rule 12b-1 Plans, at least quarterly, the Distributor provides the Board with a written report of the amounts expended under the Rule 12b-1 Plans and the purpose for which these expenditures were made. The Board reviews these reports on a quarterly basis to determine the continued appropriateness of such expenditures.

Each Rule 12b-1 Plan provides that it will continue in effect only so long as its continuance is approved at least annually by a majority of both the Board and the Independent Trustees. Each Rule 12b-1 Plan provides that it may be terminated without penalty: (a) by a vote of a majority of the Independent Trustees; and (b) by a vote of a majority of the fund's outstanding shares of the applicable class, in each case upon 60 days' written notice to the Distributor. Each Rule 12b-1 Plan further provides that it may not be amended to increase materially the maximum amount of the fees for the services described therein without the approval of a majority of the outstanding shares of the class of a fund that has voting rights with respect to the Rule 12b-1 Plan. The Rule 12b-1 Plans provide that no material amendment to the Rule 12b-1 Plans will be effective unless it is approved by a majority vote of the Board and the Independent Trustees of the Trust. The holders of Class A, Class R2, Class R4, Class R5, and Class I shares have exclusive voting rights with respect to the Rule 12b-1 Plans applicable to their class of shares. In adopting the Rule 12b-1 Plans, the Board, including the Independent Trustees, concluded that, in their judgment, there is a reasonable likelihood that the Rule 12b-1 Plans will benefit the holders of the applicable classes of shares of each fund.

Class I, and Class R6 shares of the funds are not subject to any Rule 12b-1 Plan. Expenses associated with the obligation of the Distributor to use its best efforts to sell Class 5, Class I, and Class R6 shares will be paid by the Advisor or by the Distributor and will not be paid from the fees paid under the Rule 12b-1 Plan for any other class of shares. In addition, expenses associated with the obligation of the Distributor to use its best efforts to sell Class R5 shares will be paid by the Advisor or by the Distributor and will not be paid by the funds.

Amounts paid to the Distributor by any class of shares of a fund will not be used to pay the expenses incurred with respect to any other class of shares of that fund; provided, however, that expenses attributable to the fund as a whole will be allocated, to the extent permitted by law, according to a formula based upon gross sales dollars and/or average daily net assets of each such class, as may be approved from time to time by vote of a majority of the Trustees. From time to time, a fund may participate in joint distribution activities with other funds and the costs of those activities will be borne by the fund in proportion to the relative NAVs of the fund and the other funds.

Each Rule 12b-1 Plan recognizes that the Advisor may use its management fee revenue under the Advisory Agreement with a fund as well as its past profits or other resources from any source to make payments with respect to expenses incurred in connection with the distribution of shares of the fund. To the extent that the payment of management fees by a fund to the Advisor should be deemed to be the indirect financing of any activity primarily intended to result in the sale of shares of a class within the meaning of Rule 12b-1, such payments are deemed to be authorized by the Rule 12b-1 Plan.

Class R Service Plans. The Trust has adopted a separate service plan with respect to Class R2, Class R4 and Class R5 shares of the applicable funds (the "Class R Service Plans"). The Class R Service Plans authorize a fund to pay securities dealers, plan administrators or other service organizations who agree to provide certain services to retirement plans, or plan participants holding shares of the fund a service fee of up to a specified percentage of the fund's average daily net assets attributable to the applicable class of shares held by such plan participants. The percentages are 0.25% for Class R2 shares, 0.10% for Class R4 shares, and 0.05% for Class R5 shares. The services may include (a) acting, directly or through an agent, as the shareholder and nominee for all plan participants; (b) maintaining account records for each plan participant that beneficially owns the applicable class of shares; (c) processing orders to purchase, redeem and exchange the applicable class of shares on behalf of plan participants, and handling the transmission of funds representing the purchase price or redemption proceeds; (d) addressing plan participant questions regarding their accounts and the funds; and (e) other services related to servicing such retirement plans.

SALES COMPENSATION

As part of their business strategy, the funds, along with the Distributor, pay compensation to Selling Firms that sell the shares of the funds. These firms typically pass along a portion of this compensation to the shareholder's broker or financial professional.

The primary sources of Selling Firm compensation payments for sales of shares of the funds are: (1) the Rule 12b-1 fees that are applicable to the class of shares being sold and that are paid out of a fund's assets; and (2) in the case of Class A shares, sales charges paid by investors. The sales charges and Rule 12b-1 fees are detailed in the relevant Prospectus and under "Distribution Agreements," "Sales Charges on Class A Shares," and "Deferred Sales Charge on Class A Shares" in this SAI. For Class I shares, the Distributor may make a one-time payment at the time of

initial purchase out of its own resources to a Selling Firm that sells Class I shares of the funds. This payment may not exceed 0.15% of the amount invested.

Initial Compensation. Whenever an investor purchases Class A shares of a fund, the Selling Firm receives a reallocation/payment/commission as described in the section "First Year Broker or Other Selling Firm Compensation."

Annual Compensation. Except as provided below, for Class A share purchases of a fund, beginning with the first year an investment is made, the Selling Firm receives an annual Rule 12b-1 fee of 0.25% of its average daily net assets invested in the fund. This Rule 12b-1 fee is paid monthly in arrears.

For Class A investments of \$1 million or more and investments by certain retirement plans. The term "(aged) assets" used in this context refers to investments of \$1 million or more in Class A shares that are held for more than one year and therefore would not be subject to the relevant CDSC upon redemption.

For Class R2 shares of a fund, beginning in the first year after an investment is made, the Selling Firm receives an annual Rule 12b-1 service fee of 0.25% of its average daily net (aged) assets, except that the annual Rule 12b-1 distribution fee payable to Selling Firms for Class R4 shares of certain funds is limited to 0.15% of the average daily net assets of Class R4 shares for each such fund until December 31, 2021, as described in each such fund's Class R4 Prospectus. For more information, see the table below under the column captioned "Selling Firm receives Rule 12b-1 service fees." These service and distribution fees are paid monthly in arrears.

The Distributor may pay all or part of the Rule 12b-1 fees applicable to Class 1 shares of a fund to one or more affiliated and unaffiliated insurance companies that have issued group annuity contracts for which the fund serves as an investment vehicle as compensation for providing some or all of the types of services contemplated by the Class 1 Rule 12b-1 Plan. In addition, as further compensation for providing these services, the Advisor, but not any of the funds, pays each Affiliated Insurance Company an administrative fee equal to 0.25% of the total average daily net assets of the funds attributable to variable contracts issued by the Affiliated Insurance Company.

Additional Payments to Financial Intermediaries. Shares of the funds are primarily sold through financial intermediaries (firms), such as broker-dealers, banks, registered investment advisors, independent financial planners, and retirement plan administrators. In addition to sales charges, which are payable by shareholders, and Rule 12b-1 distribution fees, which are paid by the funds, the Advisor, the Distributor or another affiliate makes additional payments to firms out of its own resources. These payments are sometimes referred to as "revenue sharing." Many firms involved in the sale of fund shares receive one or more types of these cash payments. The categories of payments that the Advisor, the Distributor or another affiliate provides to firms are described below. These categories are not mutually exclusive and the Advisor, the Distributor or another affiliate may make additional types of revenue sharing payments in the future. Some firms receive payments under more than one or all categories. These payments assist in the efforts of the Advisor, the Distributor or another affiliate to promote the sale of the funds' shares. The Advisor, the Distributor or another affiliate 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 and are an important factor in a firm's willingness to support the sale of the funds through its distribution system. To the extent firms receiving such payments purchase shares of the funds on behalf of their clients, the Advisor and/or the Distributor benefit from increased management and other fees with respect to those assets. The Advisor, the Distributor or another affiliate determines which firms to make payments to and the extent of the payments it is willing to make. The Advisor, the Distributor or another affiliate generally chooses to compensate firms that have a strong capability to distribute shares of the funds and that are willing to cooperate with the promotional efforts of the Advisor, the Distributor or another affiliate. The Advisor, the Distributor or another affiliate does not make an independent assessment of the cost of providing such services.

The provision of these additional payments, the varying fee structures and the basis on which a firm compensates its registered representatives or salespersons creates an incentive for a particular firm, registered representative, or salesperson to highlight, feature or recommend funds, including the funds, or other investments based, at least in part, on the level of compensation paid. Additionally, if greater payments are made with respect to one mutual fund complex than another, a firm has an incentive to recommend one fund complex over another. Similarly, if a firm receives greater compensation for one share class versus another, that firm has an incentive to recommend the share class with the greater compensation. Shareholders should consider whether such incentives exist when evaluating any recommendations from a firm to purchase or sell shares of the funds and when considering which share class is

most appropriate. Shareholders should ask their salesperson or visit their firm's website for more information about the additional payments they receive and any potential conflicts of interest, as well as for information regarding any fees and/or commissions the firm charges. Firms may categorize and disclose these arrangements differently than the Distributor and its affiliates.

As of August 31, 2020, the following member firms of the Financial Industry Regulatory Authority, Inc. ("FINRA") have arrangements in effect with the Advisor, the Distributor or another affiliate pursuant to which the firm is entitled to a revenue sharing payment at an annual rate of up to 0.25% of the value of the fund shares sold or serviced by the firm:

Business Partner Firms
Advisor Group-FSC Securities Corporation
Advisor Group-Royal Alliance Associates, Inc.
Advisor Group-Sagepoint Financial, Inc.
Advisor Group-Woodbury Financial Services
Advisor Group-Securities America, Inc.
Advisor Group-Triad Advisors, LLC.
Advisor Group-Investacorp, Inc.
Advisor Group-KMS Financial Services, Inc.
Advisor Group-Securities Service Network, LLC
Ameriprise Financial Services, Inc.
Avantax Wealth Management
Banc of America/Merrill Lynch
BOK Financial Securities, Inc.
Centaurus Financial, Inc.
Cetera - Advisor Network LLC
Cetera - Advisors LLC
Cetera - Financial Institutions
Cetera - Financial Specialists, Inc.
Cetera - First Allied Securities, Inc.
Cetera - Summit Brokerage Services, Inc.
Charles Schwab
Commonwealth Financial Network
Crown Capital Securities L.P.
DA Davidson & Co Inc.
Edward D. Jones & Co. LP
Fidelity - Fidelity Brokerage Services LLC
Fidelity - Fidelity Investments Institutional Operations Company, Inc.
Fidelity - National Financial Services LLC
Fifth Third Securities, Inc.
First Command Financial Planning
First Tennessee Brokerage, Inc.
Geneos Wealth Management
GWFS Equities, Inc.
Independent Financial Group
Infinex Investments Inc.
J.P. Morgan Securities LLC
Key Investment Services
Leumi Investment Services, Inc.
LPL Financial LLC

MML Investor Services, Inc.
Money Concepts Capital Corp.
Morgan Stanley Wealth Management, LLC
Northwestern Mutual Investment Services, LLC
ProEquities, Inc.
Raymond James and Associates, Inc.
Raymond James Financial Services, Inc.
RBC Capital Markets Corporation
Robert W. Baird & Co.
Stifel, Nicolaus, & Co, Inc.
TD Ameritrade
The Investment Center, Inc.
Transamerica Financial Advisors, Inc.
UBS Financial Services, Inc.
Unionbanc Investment Services
Wells Fargo Advisors

The Advisor, the Distributor or another affiliate also has arrangements with intermediaries that are not members of FINRA.

The Advisor, the Distributor or another affiliate may revise the terms of any existing revenue sharing arrangement, and may enter into additional revenue sharing arrangements with other firms in the future.

Sales and Asset Based Payments. The Advisor, the Distributor or another affiliate makes revenue sharing payments as incentives to certain firms to promote and sell shares of the funds. The Advisor, the Distributor or another affiliate hopes to benefit from revenue sharing by increasing the funds' net assets, which, as well as benefiting the funds, would result in additional management and other fees for the Advisor and its affiliates. In consideration for revenue sharing compensation, some firms will feature certain funds in their sales systems or give the Advisor, the Distributor or another affiliate additional access to members of their sales forces or management. In addition, some firms agree to participate in the marketing efforts of the Advisor, the Distributor or another affiliate by allowing the Advisor, the Distributor or another affiliate to participate in conferences, seminars or other programs attended by the firm's sales force. Although certain firms seek revenue sharing payments to offset costs incurred by the firm in servicing the firm's clients that have invested in the funds, such firms may still earn a profit on these payments. Revenue sharing payments provide a firm with an incentive to recommend the funds.

The payments to firms generally are negotiated based on a number of factors including, but not limited to, quality of service, reputation in the industry, ability to attract and retain assets, target markets, customer relationships, and relationship with the Advisor, the Distributor or another affiliate. No one factor is determinative of the type or amount of additional compensation to be provided. The amount of these payments, as determined from time to time by the Advisor, the Distributor or another affiliate in its sole discretion, may be different for different firms. For example, one way in which revenue sharing payments made by the Advisor, the Distributor or another affiliate are calculated is on sales of shares of the funds ("Sales-Based Payments"). Such payments can also be calculated on the average daily net assets of the applicable funds attributable to that particular financial intermediary or on another subset of assets of funds in the John Hancock Fund Complex ("Asset- Based Payments"). Sales-Based Payments primarily create incentives for firms to sell shares of the funds and Asset-Based Payments primarily create incentives for firms to retain previously sold shares of the funds in investor accounts. The Advisor, the Distributor or another affiliate pays firms either or both Sales-Based Payments and Asset-Based Payments. The compensation arrangements described in this section are not mutually exclusive, and a single firm may receive multiple types of compensation. Such payments may be calculated by reference to the gross or net sales by such person, the average net assets of shares held by the customers of such person, the number of accounts of the funds attributable to such person, on the basis of a flat fee or a negotiated lump sum payment for services provided, or otherwise.

Administrative, Technology, and Processing Support Payments. The Advisor, the Distributor or another affiliate also pays certain firms that sell shares of the funds for certain administrative services, including recordkeeping and sub-accounting shareholder accounts, to the extent that the funds do not pay for these costs directly. The Advisor,

the Distributor or another affiliate also makes payments to certain firms that sell shares of the funds in connection with client account maintenance support, statement preparation and transaction processing. The types of payments that the Advisor, the Distributor or another affiliate makes under this category include, among others, payment of ticket charges per purchase or exchange order placed by a financial intermediary, payment of networking fees in connection with certain fund trading systems, or one-time payments for ancillary services such as setting up funds on a firm's fund trading system. The Advisor, the Distributor or another affiliate also makes platform support payments to some firms for the purpose of supporting services provided by a financial firm's servicing of shareholder accounts, including, but not limited to, platform education and communications, relationship management support, development to support new or changing products, eligibility for inclusion on sample fund line-ups, trading or order taking platforms and related infrastructure/technology and/or legal, risk management and regulatory compliance infrastructure in support of investment related products, programs and services. In addition, the Advisor, the Distributor or another affiliate may pay for certain services including technology, operations, tax, "due diligence," or audit consulting services.

Retirement Plan Program Servicing Payments. The Advisor, the Distributor or another affiliate may make payments to certain financial intermediaries who sell fund shares through retirement plan programs. A financial intermediary may perform retirement plan program services itself or may arrange with a third party to perform retirement plan program services. In addition to participant recordkeeping, reporting or transaction processing, retirement plan program services may include: services rendered to a plan in connection with fund/investment selection and monitoring; employee enrollment and education; plan balance rollover or separation; or other similar services.

Marketing Support Payments. The Advisor, the Distributor or another affiliate makes payments to some firms for marketing support services, including: providing periodic and ongoing education and training and support of firm personnel regarding the funds; disseminating to firm personnel information and product marketing materials regarding the funds; explaining to firms' clients the features and characteristics of the funds; conducting due diligence regarding the funds; granting access (in some cases on a preferential basis over other competitors) to sales meetings, sales representatives and management representatives of the firm; and providing business planning assistance, marketing support, advertising and other services.

Other Cash Payments. From time to time, the Advisor, the Distributor or another affiliate provides, either from Rule 12b-1 distribution fees or out of its own resources, additional compensation to firms that sell or arrange for the sale of shares of the funds. Such compensation provided by the Advisor, the Distributor or another affiliate may take various forms, including payments for the receipt of analytical data in relation to sales of fund shares, financial assistance to firms that enable the Advisor, the Distributor or another affiliate to participate in and/or present at conferences or seminars, sales or training programs for invited registered representatives and other employees, client entertainment, client and investor events, and other firm-sponsored events, and travel expenses, including lodging incurred by registered representatives and other employees in connection with client prospecting, retention and due diligence trips. Other compensation may be offered to the extent not prohibited by federal or state laws or any self-regulatory agency, such as FINRA. The Advisor, the Distributor or another affiliate makes payments for entertainment events it deems appropriate, subject to its guidelines and applicable law. These payments vary depending upon the nature of the event or the relationship.

In certain circumstances, the Advisor, the Distributor or another affiliate has other relationships with some firms relating to the provisions of services to the funds, such as providing omnibus account services or transaction processing services, or effecting portfolio transactions for the funds. If a firm provides these services, the Advisor or the funds may compensate the firm for these services. In addition, in certain circumstances, some firms have other compensated or uncompensated relationships with the Advisor or its affiliates that are not related to the funds.

First Year Broker or Other Selling Firm Compensation				
	Investor pays sales charge (% of offering price)	Selling Firm receives commission ¹	Selling Firm receives Rule 12b-1 service fee	Total Selling Firm compensation ²
Class A investments				
Up to \$49,999	5.00% ³	4.05%	0.30% ⁴	4.30%

\$50,000 - \$99,999	4.50% ³	3.05%	0.30% ⁴	3.30%
\$100,000 - \$249,999	3.50% ³	2.55%	0.30% ⁴	2.80%
\$250,000 - \$499,999	2.50% ³	0.75%	0.30% ⁴	1.00%
\$500,000 \$999,999	2.00%	1.61%	0.25%	1.85%
Class A investments of \$1 million or more⁶				
First \$1M - \$4,999,999	—	0.75%	0.30% ⁴	1.00%
Next \$1 - \$5M above that	—	0.25%	0.30% ⁴	0.50%
Next \$1 or more above that	—	0.00%	0.30% ⁴	0.25%
Class R2 investments⁷ All Amounts	—	0.00%	0.25% ⁴	0.25%
Class R4 investments⁷ All Amounts	—	0.00%	0.15% ⁴	0.15%
Class R5 investments All Amounts	—	0.00%	0.00% ⁴	0.00%
Class R6 investments All Amounts	—	0.00%	0.00% ⁴	0.00%
Class I investments⁸ All Amounts	—	0.00%	0.00% ⁴	0.00%
Class 1 investments All Amounts	—	0.00%	0.00% ⁴	0.00%

1 For Class A investments under \$1 million a portion of the Selling Firm's commission is paid out of the front-end sales charge.

2 The Distributor retains the balance.

3 See "Sales Charges on Class A Shares" for discussion on how to qualify for a reduced sales charge. The Distributor may take recent redemptions into account in determining if an investment qualifies as a new investment.

4 Selling Firm commission, Rule 12b-1 service fee, and any underwriter fee percentages are calculated from different amounts, and therefore may not equal the total Selling Firm compensation percentages due to rounding, when combined using simple addition.

5 For Class A shares, the Selling Firm receives Rule 12b-1 fees in the first year as a percentage of the amount invested and after the first year as a percentage of average daily net eligible assets. Monthly payments are made in arrears. In certain circumstances, Rule 12b-1 fees are paid in the first year as a percentage of average daily net eligible assets. This compensation applies to the following: Selling Firms that roll over assets from a terminated participant's qualified plan, which is funded by certain John Hancock group annuity contracts, to a John Hancock custodial IRA or John Hancock custodial Roth IRA investing in John Hancock funds. Monthly payments are made in arrears.

6 Certain retirement platforms may invest in Class A shares without being subject to sales charges. Purchases via these platforms may pay a commission from the first dollar invested. Additionally, commissions (up to 1.00%) are paid to dealers who initiate and are responsible for certain Class A share purchases not subject to sales charges. In both cases, the Selling Firm receives Rule 12b-1 fees in the first year as a percentage of the amount invested. After the first year, the Selling Firm receives Rule 12b-1 fees as a percentage of average daily net eligible assets paid monthly in arrears.

7 For purchases of Class A, Class R2, and Class R4 shares, beginning with the first year an investment is made, the Selling Firm receives an annual Rule 12b-1 service fee paid monthly in arrears. See "Distribution Agreements" for a description of Class A, Class R2, Class R4, and Class R5 Service Plan charges and payments.

8 The Distributor may make a one-time payment at time of initial purchase out of its own resources to a Selling Firm that sells Class I shares of the funds. This payment may be up to 0.15% of the amount invested.

CDSC revenues collected by the Distributor may be used to pay Selling Firm commissions when there is no initial sales charge.

NET ASSET VALUE

The NAV for each class of shares of each fund is normally determined once daily as of the close of regular trading on the NYSE (typically 4:00 p.m. Eastern time, on each business day that the NYSE is open). Each class of shares

of each fund has its own NAV, which is computed by dividing the total assets, minus liabilities, allocated to each share class by the number of fund shares outstanding for that class. The current NAV of the fund is available on our website at jhinvestments.com.

In case of emergency or other disruption resulting in the NYSE not opening for trading or the NYSE closing at a time other than the regularly scheduled close, the NAV may be determined as of the regularly scheduled close of the NYSE pursuant to the funds' Valuation Policies and Procedures. The time at which shares and transactions are priced and until which orders are accepted may vary to the extent permitted by the SEC and applicable regulations. On holidays or other days when the NYSE is closed, the NAV is not calculated and the fund does not transact purchase or redemption requests. Trading of securities that are primarily listed on foreign exchanges may take place on weekends and U.S. business holidays on which the fund's NAV is not calculated. Consequently, the fund's portfolio securities may trade and the NAV of the fund's shares may be significantly affected on days when a shareholder will not be able to purchase or redeem shares of the fund.

Portfolio securities are valued by various methods that are generally described below. Portfolio securities also may be fair valued by the funds' Pricing Committee in certain instances pursuant to procedures established by the Trustees. Equity securities are generally valued at the last sale price or, for certain markets, the official closing price as of the close of the relevant exchange. Securities not traded on a particular day are valued using last available bid prices. A security that is listed or traded on more than one exchange is typically valued at the price on the exchange where the security was acquired or most likely will be sold. In certain instances, the Pricing Committee may determine to value equity securities using prices obtained from another exchange or market if trading on the exchange or market on which prices are typically obtained did not open for trading as scheduled, or if trading closed earlier than scheduled, and trading occurred as normal on another exchange or market. Equity securities traded principally in foreign markets are typically valued using the last sale price or official closing price in the relevant exchange or market, as adjusted by an independent pricing vendor to reflect fair value. On any day a foreign market is closed and the NYSE is open, any foreign securities will typically be valued using the last price or official closing price obtained from the relevant exchange on the prior business day adjusted based on information provided by an independent pricing vendor to reflect fair value. Debt obligations are typically valued based on evaluated prices provided by an independent pricing vendor. The value of securities denominated in foreign currencies is converted into U.S. dollars at the exchange rate supplied by an independent pricing vendor. Forward foreign currency contracts are valued at the prevailing forward rates which are based on foreign currency exchange spot rates and forward points supplied by an independent pricing vendor. Exchange-traded options are valued at the mid-price of the last quoted bid and ask prices. Futures contracts are typically valued at the last traded price on the exchange on which they trade. Foreign equity index futures that trade in the electronic trading market subsequent to the close of regular trading may be valued at the last traded price in the electronic trading market as of 4:00 P.M. Eastern time, or may be fair valued based on fair value adjustment factors provided by an independent pricing vendor in order to adjust for events that may occur between the close of foreign exchanges or markets and the close of the NYSE. Swaps and unlisted options are generally valued using evaluated prices obtained from an independent pricing vendor. Shares of other open-end investment companies that are not ETFs (underlying funds) are valued based on the NAVs of such underlying funds.

Pricing vendors may use matrix pricing or valuation models that utilize certain inputs and assumptions to derive values, including transaction data, broker-dealer quotations, credit quality information, general market conditions, news, and other factors and assumptions. Special valuation considerations may apply with respect to a fund's "odd-lot" positions, as the fund may receive different prices when it sells such positions than it would receive for sales of institutional round lot positions. Pricing vendors generally value securities assuming orderly transactions of institutional round lot sizes, but a fund may hold or transact in such securities in smaller, odd lot sizes.

The Pricing Committee engages in oversight activities with respect to pricing vendors, which includes, among other things, monitoring significant or unusual price fluctuations above predetermined tolerance levels from the prior day, back-testing of pricing vendor prices against actual trades, conducting periodic due diligence meetings and reviews, and periodically reviewing the inputs, assumptions and methodologies used by these vendors. Nevertheless, market quotations, official closing prices, or information furnished by a pricing vendor could be inaccurate, which could lead to a security being valued incorrectly.

If market quotations, official closing prices, or information furnished by a pricing vendor are not readily available or are otherwise deemed unreliable or not representative of the fair value of such security because of market- or issuer-specific events, a security will be valued at its fair value as determined in good faith by the Trustees. The Trustees

are assisted in their responsibility to fair value securities by the funds' Pricing Committee, and the actual calculation of a security's fair value may be made by the Pricing Committee acting pursuant to the procedures established by the Trustees. In certain instances, therefore, the Pricing Committee may determine that a reported valuation does not reflect fair value, based on additional information available or other factors, and may accordingly determine in good faith the fair value of the assets, which may differ from the reported valuation.

Fair value pricing of securities is intended to help ensure that a fund's NAV reflects the fair market value of the fund's portfolio securities as of the close of regular trading on the NYSE (as opposed to a value that no longer reflects market value as of such close), thus limiting the opportunity for aggressive traders or market timers to purchase shares of the fund at deflated prices reflecting stale security valuations and promptly sell such shares at a gain, thereby diluting the interests of long term shareholders. However, a security's valuation may differ depending on the method used for determining value, and no assurance can be given that fair value pricing of securities will successfully eliminate all potential opportunities for such trading gains.

The use of fair value pricing has the effect of valuing a security based upon the price a fund might reasonably expect to receive if it sold that security in an orderly transaction between market participants, but does not guarantee that the security can be sold at the fair value price. Further, because of the inherent uncertainty and subjective nature of fair valuation, a fair valuation price may differ significantly from the value that would have been used had a readily available market price for the investment existed and these differences could be material.

Regarding a fund's investment in an underlying fund that is not an ETF, which (as noted above) is valued at such underlying fund's NAV, the prospectus for such underlying fund explains the circumstances and effects of fair value pricing for that underlying fund.

POLICY REGARDING DISCLOSURE OF PORTFOLIO HOLDINGS

The Board has adopted a Policy Regarding Disclosure of Portfolio Holdings, to protect the interests of the shareholders of the funds and to address potential conflicts of interest that could arise between the interests of shareholders and the interests of the Advisor, or the interests of the funds' subadvisors, principal underwriter or affiliated persons of the Advisor, subadvisors or principal underwriter. The Trust's general policy with respect to the release of a fund's portfolio holdings to unaffiliated persons is to do so only in limited circumstances and only to provide nonpublic information regarding portfolio holdings to any person, including affiliated persons, on a "need to know" basis and, when released, to release such information only as consistent with applicable legal requirements and the fiduciary duties owed to shareholders. The Trust applies its policy uniformly to all potential recipients of such information, including individual and institutional investors, intermediaries, affiliated persons of a fund, and all third party service providers and rating agencies.

Each Trust posts to its website at jhinvestments.com complete portfolio holdings a number of days after each calendar month end as described in the Prospectus. Each fund also discloses its complete portfolio holdings information as of the end of the third month of every fiscal quarter on Form N-PORT within 60 days of the end of the fiscal quarter and on Form N-CSR within 70 days after the second and fourth quarter ends of the Trust's fiscal year. The portfolio holdings information in Form N-PORT is not required to be delivered to shareholders, but is made public through the SEC electronic filings. Shareholders receive either complete portfolio holdings information or summaries of a fund's portfolio holdings with their annual and semiannual reports.

Portfolio holdings information for a fund that is not publicly available will be released only pursuant to the exceptions described in the Policy Regarding Disclosure of Portfolio Holdings. A fund's material nonpublic holdings information may be provided to the following unaffiliated persons as part of the investment activities of the fund: entities that, by explicit agreement, are required to maintain the confidentiality of the information disclosed; rating organizations, such as Moody's, S&P, Fitch, Morningstar and Lipper, Vestek (Thomson Financial) or other entities for the purpose of compiling reports and preparing data; proxy voting services for the purpose of voting proxies; entities providing computer software; courts (including bankruptcy courts) or regulators with jurisdiction over the Trust and its affiliates; and institutional traders to assist in research and trade execution. Exceptions to the portfolio holdings release policy can be approved only by the Trust's CCO or the CCO's duly authorized delegate after considering: (a) the purpose of providing such information; (b) the procedures that will be used to ensure that such information remains confidential and is not traded upon; and (c) whether such disclosure is in the best interest of the shareholders.

As of September 1, 2020, the entities that may receive information described in the preceding paragraph, and the purpose for which such information is disclosed, are as presented in the table below. Portfolio holdings information is provided as frequently as daily with a one-day lag.

Vendor Name	Disclosure Purpose
Bloomberg L.P.	Pricing/Order Management
BNP Paribas S.A.	Leverage Provider, Pledging
Broadridge Financial Solutions	Proxy Voting, Software Vendor
Brown Brothers Harriman & Co.	Reconciliation, Securities Lending
Capital Institutional Services (CAPIS)	Broker Dealer, Commission Recapture, Transition Services
Confluence Technologies	Consulting
DG3	Financial Reporting, Type Setting
Donnelley Financial Solutions	Financial Reporting, Printing
Electra Information Systems	Reconciliation
Ernst & Young	Tax Reporting
FactSet	Data Gathering / Analytics, Performance
Failstation	Matched/Unmatched Trades Reporting
Foley Hoag	Foreign Currency Trade Review
Gainskeeper	Wash Sales / REIT Data
Institutional Shareholder Services (ISS)	Class Action Services/Proxy Voting
Interactive Data	Pricing
KPMG	Tax Reporting
Law Firm of Davis and Harman	Development of Revenue Ruling
LindeData	Service Provider-NAV Oversight
Lipper	Ratings / Survey Service
Markit	Service Provider-Electronic Data Management
Milestone	Service Provider-Valuation Oversight
Morningstar, Inc.	Ratings/Surveys
MSCI Inc.	Liquidity Risk Management, Performance
PricewaterhouseCoopers LLP	Audit Services
RSM US LLP	Consulting
Russell Implementation Services	Transition Services
SS&C Advent /Technologies	Cash & Securities Reconciliation/Analytics/Data Gathering
Star Compliance	Service Provider-Compliance
State Street Bank	Service Provider-IBOR
State Street Closed End Financing	All SS lending funds
SunGard	Securities Lending Analytics
SWIFT	Accounting Messages, Custody Messages, Trade Messaging
Thomson Reuters	Analytics
Wolters Kluwer	Audit Services, Tax Reporting

The CCO is required to pre-approve the disclosure of nonpublic information regarding a fund's portfolio holdings to any affiliated persons of the Trust. The CCO will use the same three considerations stated above before approving disclosure of a fund's nonpublic information to affiliated persons.

The CCO shall report to the Board whenever additional disclosures of a fund's portfolio holdings are approved. The CCO's report shall be at the Board meeting following such approval.

When the CCO believes that the disclosure of a fund's nonpublic information to an unaffiliated person presents a potential conflict of interest between the interest of the shareholders and the interest of affiliated persons of the Trust, the CCO shall refer the potential conflict to the Board. The Board shall then permit such disclosure of a fund's nonpublic information only if in its reasonable business judgment it concludes that such disclosure will be in the best interests of the Trust's shareholders.

The receipt of compensation by a fund, the Advisor, a subadvisor or an affiliate as consideration for disclosing a fund's nonpublic portfolio holdings information is not deemed a legitimate business purpose and is strictly forbidden.

Registered investment companies and separate accounts that are advised or subadvised by the funds' subadvisors may have investment objectives and strategies and, therefore, portfolio holdings, that potentially are similar to those of a fund. Neither such registered investment companies and separate accounts nor the funds' subadvisors are subject to the Trust's Policy Regarding Disclosure of Portfolio Holdings, and may be subject to different portfolio holdings disclosure policies. The funds' subadvisors may not, and the Trust's Board cannot, exercise control over policies applicable to separate subadvised funds and accounts.

In addition, the Advisor or the funds' subadvisors may receive compensation for furnishing to separate account clients (including sponsors of wrap accounts) model portfolios, the composition of which may be similar to those of a particular fund. Such clients have access to their portfolio holdings and are not subject to the Trust's Policy Regarding Disclosure of Portfolio Holdings. In general, the provision of portfolio management services and/or model portfolio information to wrap program sponsors is subject to contractual confidentiality provisions that the sponsor will only use such information in connection with the program, although there can be no assurance that this would be the case in an agreement between any particular fund subadvisor that is not affiliated with the Advisor and a wrap account sponsor. Finally, the Advisor or the funds' subadvisors may distribute to investment advisory clients analytical information concerning a model portfolio, which information may correspond substantially to the characteristics of a particular fund's portfolio, provided that the applicable fund is not identified in any manner as being the model portfolio.

The potential provision of information in the various ways discussed in the preceding paragraph is not subject to the Trust's Policy Regarding Disclosure of Portfolio Holdings, as discussed above, and is not deemed to be the disclosure of a fund's nonpublic portfolio holdings information. As a result of the funds' inability to control the disclosure of information as noted above, there can be no guarantee that this information would not be used in a way that adversely impacts a fund. Nonetheless, each fund has oversight processes in place to attempt to minimize this risk.

SALES CHARGES ON CLASS A SHARES

Class A, shares of the fund are offered at a price equal to their NAV plus a sales charge that, in the case of Class A shares, is imposed at the time of purchase (the "initial sales charge"). The Trustees reserve the right to change or waive the fund's minimum investment requirements and to reject any order to purchase shares (including purchase by exchange) when in the judgment of the Advisor such rejection is in the fund's best interest.

The availability of certain sales charge waivers and discounts will depend on whether you purchase your shares directly from the fund or through a financial intermediary. Intermediaries may have different policies and procedures regarding the availability of front-end sales charge waivers or CDSC waivers (See Appendix 1 to the Prospectus, "Intermediary sales charge waivers," which includes information about specific sales charge waivers applicable to the intermediaries identified therein).

The sales charges applicable to purchases of Class A shares of the fund are described in the Prospectus. Please note, these waivers are distinct from those described in Appendix 1 to the Prospectus, "Intermediary sales charge waivers," and are not intended to describe the sales load cost structure of, or be exclusive to, any particular intermediary. Methods of obtaining reduced sales charges referred to generally in the Prospectus are described in detail below. In calculating the sales charge applicable to current purchases of Class A shares of the fund, the

investor is entitled to accumulate current purchases with the current offering price of the Class A, Class B, Class C, Class I, Class I2, Class R6, Class ADV, or all Class R shares of the John Hancock funds owned by the investor (see "Combination and Accumulation Privileges" below).

In order to receive the reduced sales charge, the investor must notify his or her financial professional and/or the financial professional must notify the fund's transfer agent, John Hancock Signature Services, Inc. ("Signature Services") at the time of purchase of the Class A shares, about any other John Hancock funds owned by the investor, the investor's spouse and their children under the age of 21 (see "Combination and Accumulation Privileges" below).

This includes investments held in an IRA, including those held at a broker or financial professional other than the one handling the investor's current purchase. Additionally, individual purchases by a trustee(s) or other fiduciary(ies) also may be aggregated if the investments are for a single trust estate or for a group retirement plan. Assets held within a group retirement plan may not be combined with any assets held by those same participants outside of the plan.

John Hancock will credit the combined value, at the current offering price, of all eligible accounts to determine whether an investor qualifies for a reduced sales charge on the current purchase. Signature Services will automatically link certain accounts registered in the same client name, with the same taxpayer identification number, for the purpose of qualifying an investor for lower initial sales charge rates. An investor must notify Signature Services and his or her broker-dealer (financial advisor) at the time of purchase of any eligible accounts held by the investor's spouse or children under 21 in order to ensure these assets are linked to the investor's accounts. Also, see Appendix 1 to the Prospectus, "Intermediary sales charge waivers," for more information regarding the availability of sales charge waivers through particular intermediaries.

Without Sales Charges. Class A shares may be offered without a front-end sales charge or CDSC to various individuals and institutions as follows:

- A Trustee or officer of the Trust; a director or officer of the Advisor and its affiliates, subadvisors or Selling Firms; employees or sales representatives of any of the foregoing; retired officers, employees or directors of any of the foregoing; a member of the immediate family (spouse, child, grandparent, grandchild, parent, sibling, mother-in-law, father-in-law, daughter-in-law, son-in-law, brother-in-law, sister-in-law, niece, nephew and same sex domestic partner; "Immediate Family") of any of the foregoing; or any fund, pension, profit sharing or other benefit plan for the individuals described above.
- A broker, dealer, financial planner, consultant or registered investment advisor that uses fund shares in certain eligible retirement platforms, fee-based investment products or services made available to their clients.
- Financial intermediaries who offer shares to self-directed investment brokerage accounts that may or may not be charged a transaction fee. Also, see Appendix 1 to the Prospectus, "Intermediary sales charge waivers," for more information regarding the availability of sales charge waivers through particular intermediaries.
- Individuals transferring assets held in a SIMPLE IRA, SEP, or SARSEP invested in John Hancock funds directly to an IRA.
- Individuals converting assets held in an IRA, SIMPLE IRA, SEP, or SARSEP invested in John Hancock funds directly to a Roth IRA.
- Individuals recharacterizing assets from an IRA, Roth IRA, SEP, SARSEP or SIMPLE IRA invested in John Hancock funds back to the original account type from which it was converted.
- Terminating participants in a pension, profit sharing or other plan qualified under Section 401(a) of the Code, or described in Section 457(b) of the Code, (i) that is funded by certain John Hancock group annuity contracts, (ii) for which John Hancock Trust Company serves as trustee or custodian, or (iii) the trustee or custodian of which has retained RPS as a service provider, rolling over assets (directly or within 60 days after distribution) from such a plan (or from a John Hancock Managed IRA into which such assets have already been rolled over) to a John Hancock custodial IRA or John Hancock custodial Roth IRA that invests in John Hancock funds, or the subsequent establishment of or any rollover into a new John Hancock fund account by such terminating participants and/or their Immediate Family (as defined above), including subsequent investments into such accounts and which are held directly at John Hancock funds or at the PFS Financial Center.
- Participants in a terminating pension, profit sharing or other plan qualified under Section 401(a) of the Code, or described in Section 457(b) of the Code (the assets of which, immediately prior to such plan's

termination, were (a) held in certain John Hancock group annuity contracts, (b) in trust or custody by John Hancock Trust Company, or (c) by a trustee or custodian which has retained John Hancock RPS as a service provider, but have been transferred from such contracts or trust funds and are held either: (i) in trust by a distribution processing organization; or (ii) in a custodial IRA or custodial Roth IRA sponsored by an authorized third party trust company and made available through John Hancock), rolling over assets (directly or within 60 days after distribution) from such a plan to a John Hancock custodial IRA or John Hancock custodial Roth IRA that invests in John Hancock funds, or the subsequent establishment of or any rollover into a new John Hancock fund account by such participants and/or their Immediate Family (as defined above), including subsequent investments into such accounts and which are held directly at John Hancock funds or at the PFS Financial Center.

- Participants actively enrolled in a John Hancock RPS plan account rolling over or transferring assets into a new John Hancock custodial IRA or John Hancock custodial Roth IRA that invests in John Hancock funds through John Hancock PFS (to the extent such assets are otherwise prohibited from rolling over or transferring into the John Hancock RPS plan account), including subsequent investments into such accounts and which are held directly at John Hancock funds or at the John Hancock PFS Financial Center.
- Individuals rolling over assets held in a John Hancock custodial 403(b)(7) account into a John Hancock custodial IRA account.
- Individuals exchanging shares held in an eligible fee-based program for Class A Shares, provided however, subsequent purchases in Class A Shares will be subject to applicable sales charges.
- Former employees/associates of John Hancock, its affiliates or agencies rolling over (directly or indirectly within 60 days after distribution) to a new John Hancock custodial IRA or John Hancock custodial Roth IRA from the John Hancock Employee Investment-Incentive Plan (TIP), John Hancock Savings Investment Plan (SIP) or the John Hancock Pension Plan and such participants and their Immediate Family (as defined above) subsequently establishing or rolling over assets into a new John Hancock account through John Hancock PFS, including subsequent investments into such accounts and which are held directly at John Hancock funds or at the John Hancock PFS Financial Center.
- Participants in group retirement plans that are eligible and permitted to purchase Class A shares. This waiver is contingent upon the group retirement plan being in a recordkeeping arrangement and does not apply to group retirement plans transacting business with a fund through a brokerage relationship in which sales charges are customarily imposed. In addition, this waiver does not apply to a group retirement plan that leaves its current recordkeeping arrangement and subsequently transacts business with the fund through a brokerage relationship in which sales charges are customarily imposed. Whether a sales charge waiver is available to your group retirement plan through its record keeper depends upon the policies and procedures of your intermediary. Please consult your financial professional for further information.

NOTE: Rollover investments to Class A shares from assets withdrawn from SIMPLE 401(k), TSA, 457, 403(b), 401(k), Money Purchase Pension Plan, Profit-Sharing Plan, and any other qualified plans as described in Code Sections 401(a), 403(b), or 457 and not specified above as waiver-eligible, will be subject to applicable sales charges.

- A member of a class action lawsuit against insurance companies who is investing settlement proceeds.
- Retirement plans investing through the PruSolutionSM program.

In-Kind Re-Registrations. A shareholder who has previously paid a sales charge, withdraws funds via a tax-reportable transaction from one John Hancock fund account and reregisters those assets directly to another John Hancock fund account, without the assets ever leaving the John Hancock Fund Complex, may do so without paying a sales charge. The beneficial owner must remain the same, i.e., in-kind.

NOTE: Rollover investments to Class A shares from assets withdrawn from SIMPLE 401(k), TSA, 457, 403(b), 401(k), Money Purchase Pension Plan, Profit-Sharing Plan, and any other qualified plans as described in Sections 401(a), 403(b), or 457 of the Code are not eligible for this provision, and will be subject to applicable sales charges.

Class A shares also may be purchased without an initial sales charge in connection with certain liquidation, merger or acquisition transactions involving other investment companies or personal holding companies.

Reducing Class A Sales Charges

Combination and Accumulation Privileges. In calculating the sales charge applicable to purchases of Class A shares made at one time, the purchases will be combined to reduce sales charges if made by an individual, his or her spouse, and their children under the age of 21 when purchasing securities in the following:

- his or her own individual or their joint account;
- his or her trust account of which one of the above persons is the grantor or the beneficial owner;
- a Uniform Gift/Transfer to Minor Account or Coverdell Education Savings Account ("ESA") in which one of the above persons is the custodian or beneficiary;
- a single participant retirement/benefit plan account, as long as it is established solely for the benefit of the individual account owner;
- an IRA, including traditional IRAs, Roth IRAs, and SEP IRAs; and
- his or her sole proprietorship.

Group Retirement Plans, including 403(b)(7), Money Purchase Pension Plans, Profit-Sharing Plans, SARSEPs, and Simple IRAs with multiple participants may combine Class A share purchases to reduce their sales charge.

Individual qualified and non-qualified investments can be combined to take advantage of this privilege; however, assets held within a group retirement plan may not be combined with any assets held by those same participants outside of the plan.

Class A investors also may reduce their Class A sales charge by taking into account not only the amount being invested but also the current offering price of all the Class A, Class B, Class C, Class I, Class I2, Class R6, Class ADV, and all Class R shares of all funds in the John Hancock Fund Complex already held by such persons. However, Class A shares of John Hancock Money Market Fund, a series of John Hancock Current Interest (the "Money Market Fund"), will be eligible for the accumulation privilege only if the investor has previously paid a sales charge on the amount of those shares. To receive a reduced sales charge, the investor must tell his or her financial professional or Signature Services at the time of the purchase about any other John Hancock funds held by that investor, his or her spouse, and their children under the age of 21. Further information about combined purchases, including certain restrictions on combined group purchases, is available from Signature Services or a Selling Firm's representative.

Group Investment Program. Under the Combination and Accumulation Privileges, all members of a group may combine their individual purchases of Class A shares to potentially qualify for breakpoints in the sales charge schedule. This feature is provided to any group that: (1) has been in existence for more than six months, (2) has a legitimate purpose other than the purchase of fund shares at a discount for its members, (3) utilizes salary deduction or similar group methods of payment, and (4) agrees to allow sales materials of the funds in its mailings to its members at a reduced or no cost to the Distributor.

Letter of Intention. Reduced Class A sales charges are applicable to investments made pursuant to an LOI, which should be read carefully prior to its execution by an investor. All investors have the option of making their investments over a specified period of thirteen (13) months. An individual's non-retirement and qualified retirement plan investments can be combined to satisfy an LOI. The retirement accounts eligible for combination include traditional IRAs, Roth IRAs, Coverdell ESAs, SEPs, SARSEPs, and SIMPLE IRAs. Since some assets are held in omnibus accounts, an investor wishing to count those eligible assets towards a Class A purchase must notify Signature Services and his or her financial professional of these holdings. The aggregate amount of such an investment must be equal to or greater than a Fund's first breakpoint level (generally \$50,000 or \$100,000 depending on the specific fund) over a period of 13 months from the date of the LOI. Any shares for which no sales charge was paid will not be credited as purchases made under the LOI.

The sales charge applicable to all amounts invested after an LOI is signed is computed as if the aggregate amount intended to be invested had been invested immediately. If such aggregate amount is not actually invested, the difference in the sales charge actually paid and the sales charge that would have been paid had the LOI not been in effect is due from the investor. In such cases, the sales charge applicable will be assessed based on the amount actually invested. However, for the purchases actually made within the specified period of 13 months, the applicable sales charge will not be higher than that which would have applied (including accumulations and combinations) had the LOI been for the amount actually invested. The asset inclusion criteria stated under the Combination and

Accumulation Privilege applies to accounts eligible under the LOI. If such assets exceed the LOI amount at the conclusion of the LOI period, the LOI will be considered to have been met.

The LOI authorizes Signature Services to hold in escrow sufficient Class A shares (approximately 5% of the aggregate) to make up any difference in sales charges on the amount intended to be invested and the amount actually invested, until such investment is completed within the 13-month period. At that time, the escrowed shares will be released. If the total investment specified in the LOI is not completed, the shares held in escrow may be redeemed and the proceeds used as required to pay such sales charge as may be due. By signing the LOI, the investor authorizes Signature Services to act as his or her attorney-in-fact to redeem any escrowed Class A shares and adjust the sales charge, if necessary. An LOI does not constitute a binding commitment by an investor to purchase, or by a fund to sell, any additional Class A shares, and may be terminated at any time.

DEFERRED SALES CHARGE ON CLASS A SHARES

Class A shares are available with no front-end sales charge on investments of \$1 million or more. Also, see Appendix 1 to the Prospectus "Intermediary sales charge waivers," for more information regarding the availability of sales charge waivers through particular intermediaries.

Contingent Deferred Sales Charge. There is a CDSC on any Class A shares upon which a commission or finder's fee was paid that are sold within one year of purchase. The CDSC will be assessed on an amount equal to the lesser of the current market value or the original purchase cost of the Class A shares being redeemed. No CDSC will be imposed on increases in account value above the initial purchase prices or on shares derived from reinvestment of dividends or capital gains distributions.

Waiver of Contingent Deferred Sales Charge. The CDSC will be waived on redemptions of Class A shares, unless stated otherwise, in the circumstances defined below:

For all account types:

- Redemptions of Class A shares made after one year from the inception date of a retirement plan at John Hancock.
- Redemptions of Class A shares by retirement plans that invested through the PruSolutionsSM program.
- Redemptions made pursuant to a fund's right to liquidate an account if the investor owns shares worth less than the stated account minimum in the section "Small accounts" in the Prospectus.
- Redemptions made under certain liquidation, merger or acquisition transactions involving other investment companies or personal holding companies.
- Redemptions due to death or disability. (Does not apply to trust accounts unless trust is being dissolved.)
- Redemptions made under the Reinstatement Privilege, as described in "Sales Charge Reductions and Waivers" in the Prospectus.
- Rollovers, contract exchanges or transfers of John Hancock custodial 403(b)(7) account assets required by Signature Services as a result of its decision to discontinue maintaining and administering 403(b)(7) accounts.

For Retirement Accounts (such as traditional, Roth IRAs and Coverdell ESAs, SIMPLE IRAs, SIMPLE 401(k), Rollover IRA, TSA, 457, 403(b), 401(k), Money Purchase Pension Plan, Profit-Sharing Plan and other plans as described in the Code) unless otherwise noted.

- Redemptions made to effect mandatory or life expectancy distributions under the Code. (Waiver based on required minimum distribution calculations for John Hancock mutual fund IRA assets only.)
- Returns of excess contributions made to these plans.
- Redemptions made to effect certain distributions, as outlined in the following table, to participants or beneficiaries from employer sponsored retirement plans under sections 401(a) (such as Money Purchase Pension Plans and Profit-Sharing Plan/401(k) Plans), 403(b), 457 and 408 (SEPs and SIMPLE IRAs) of the Code.

Please see the following table for some examples.

Type of Distribution	401(a) Plan (401(k), MPP, PSP) & 457	403(b)	Roth IRA & Coverdell ESA	IRA, SEP IRA & Simple IRA	Non-retirement
Death or Disability	Waived	Waived	Waived	Waived	Waived

Over 70½ (or 72, in the case of individuals for whom the minimum distribution requirements begin at age 72)	Waived	Waived	Waived ¹	Waived ¹	12% of account value annually in periodic payments
Between 59½ and 70½ (or 72, in the case of individuals for whom the minimum distribution requirements begin at age 72)	Waived	Waived	12% of account value annually in periodic payments	Waived for Life Expectancy or 12% of account value annually in periodic payments	12% of account value annually in periodic payments
Termination of Plan	Not Waived	Waived	N/A	N/A	N/A
Hardships	Waived	Waived	N/A	N/A	N/A
Qualified Domestic Relations Orders	Waived	Waived	N/A	N/A	N/A
Termination of Employment Before Normal Retirement Age	Waived	Waived	N/A	N/A	N/A
Return of Excess	Waived	Waived	Waived	Waived	N/A

¹ External direct rollovers and transfer of assets are excluded.

² Refers to withdrawals from retirement accounts under Section 72(t) of the Code.

SPECIAL REDEMPTIONS

Although it would not normally do so, each fund has the right to pay the redemption price of its shares in whole or in part in portfolio securities as prescribed by the Trustees. When a shareholder sells any securities received in a redemption of fund shares, the shareholder will incur a brokerage charge. Any such securities would be valued for the purposes of fulfilling such a redemption request in the same manner as they are in computing the fund's NAV.

The Trust has adopted Procedures Regarding Redemptions in Kind by Affiliates (the "Procedures") to facilitate the efficient and cost effective movement of assets of a fund and other funds managed by the Advisor or its affiliates ("affiliated funds") in connection with certain investment and marketing strategies. It is the position of the SEC that the 1940 Act prohibits an investment company, such as each fund, from satisfying a redemption request from a shareholder that is affiliated with the investment company by means of an in-kind distribution of portfolio securities. However, under a no-action letter issued by the SEC staff, a redemption in kind to an affiliated shareholder is permissible provided certain conditions are met. The Procedures, which are intended to conform to the requirements of this no-action letter, allow for in-kind redemptions by fund and affiliated fund shareholders subject to specified conditions, including that:

- the distribution is effected through a pro rata distribution of securities of the distributing fund or affiliated fund;
- the distributed securities are valued in the same manner as they are in computing the fund's or affiliated fund's NAV;
- neither the affiliated shareholder nor any other party with the ability and the pecuniary incentive to influence the redemption in kind may select or influence the selection of the distributed securities; and
- the Board, including a majority of the Independent Trustees, must determine on a quarterly basis that any redemptions in kind to affiliated shareholders made during the prior quarter were effected in accordance with the Procedures, did not favor the affiliated shareholder to the detriment of any other shareholder and were in the best interests of the fund and the affiliated fund.

Potential Adverse Effects of Large Shareholder Transactions

A fund may from time to time sell to one or more investors, including other funds advised by the Advisor or third parties, a substantial amount of its shares, and may thereafter be required to satisfy redemption requests by such shareholders. Such sales and redemptions may be very substantial relative to the size of such fund. While it is not possible to predict the overall effect of such sales and redemptions over time, such transactions may adversely affect such fund's performance to the extent that the fund is required to invest cash received in connection with a sale or to sell portfolio securities to facilitate a redemption at, in either case, a time when the fund otherwise would not invest or sell. As a result, the fund may have greater or lesser market exposure than would otherwise be the case. Such transactions also may increase a fund's transaction costs, which would detract from fund performance.

Large shareholder redemptions may negatively impact a fund's net asset value and liquidity. If a fund is forced to sell portfolio securities that have appreciated in value, such sales may accelerate the realization of taxable income to shareholders if such sales of investments result in gains. If a fund has difficulty selling portfolio securities in a timely manner to meet a large redemption request, the fund may have to borrow money to do so. In such an instance, the fund's remaining shareholders would bear the costs of such borrowings, and such costs could reduce the fund's returns. In addition, a large redemption could result in a fund's current expenses being allocated over a smaller asset base, leading to an increase in the fund's expense ratio and possibly resulting in the fund's becoming too small to be economically viable.

Non-U.S. market closures and redemptions. Market closures during regular holidays in an applicable non-U.S. market that are not holidays observed in the U.S. market may prevent the fund from executing securities transactions within the normal settlement period. Unforeseeable closures of applicable non-U.S. markets may have a similar impact. During such closures, the fund may be required to rely on other methods to satisfy shareholder redemption requests, including the use of its line of credit, interfund lending facility, redemptions in kind, or such other liquidity means or facilities as the fund may have in place from time to time, or the delivery of redemption proceeds may be extended beyond the normal settlement cycle.

ADDITIONAL SERVICES AND PROGRAMS

Exchange Privilege. The Trust permits exchanges of shares of any class of a fund for shares of the same class of any other fund within the John Hancock Fund Complex offering that same class at the time of the exchange. Class I, Class R2, Class R4, Class R5, or Class R6 shareholders also may exchange their shares for Class A shares of Money Market Fund. If a shareholder exchanges into Class A shares of the Money Market Fund, any future exchanges out of Money Market Fund Class A shares must be to the same share class from which they were originally exchanged.

The registration for both accounts involved must be identical. Identical registration is determined by having the same beneficial owner on both accounts involved in the exchange.

Exchanges between funds are based on their respective NAVs. No sales charge is imposed, except on exchanges of Class A shares from Money Market Fund to another John Hancock fund, if a sales charge has not previously been paid on those shares. Shares acquired in an exchange will be subject to the CDSC rate and holding schedule of the fund in which such shares were originally purchased if and when such shares are redeemed. For Class A shares, certain funds within the John Hancock Fund Complex have different CDSC rates and holding schedules and shareholders should review the Prospectus for funds with Class A shares before considering an exchange. For purposes of determining the holding period for calculating the CDSC, shares will continue to age from their original purchase date.

If a retirement plan exchanges its Class A account in its entirety from a fund to a non-John Hancock investment, the one-year CDSC applies.

Each fund reserves the right to require that previously exchanged shares (and reinvested dividends) be in the fund for 90 days before a shareholder is permitted a new exchange.

An exchange of shares is treated as a redemption of shares of one fund and the purchase of shares of another for federal income tax purposes. An exchange may result in a taxable gain or loss. See "Additional Information Concerning Taxes."

Conversion Privilege. Provided a fund's eligibility requirements are met, and to the extent the referenced share class is offered by the fund, an investor in the fund pursuant to a fee-based, wrap, or other investment platform program of certain firms, as determined by the fund, may be afforded an opportunity to make a conversion of (i)

Class A and/or Class C shares (not subject to a CDSC) also owned by the investor in the same fund to Class I shares or Class R6 shares of the fund; or (ii) Class I shares also owned by the investor to Class R6 shares of the same fund. Investors that no longer participate in a fee-based, wrap, or other investment platform program of certain firms may be afforded an opportunity to make a conversion to Class A shares of the same fund. Class C shares may be converted to Class A at the request of the applicable financial intermediary after the expiration of the CDSC period, provided that the financial intermediary through which a shareholder purchased or holds Class C shares has records verifying that the Class C share CDSC period has expired and the position is held in an omnibus or dealer-controlled account. The fund may in its sole discretion permit a conversion of one share class to another share class of the same fund in certain circumstances other than those described above.

In addition, Trustees, employees of the Advisor or its affiliates, employees of the subadvisor, members of the fund's portfolio management team and the spouses and children (under age 21) of the aforementioned, may make a conversion of Class A or Class I shares also owned by the investor in the same fund to Class R6 shares or, if Class R6 shares are unavailable, Class I shares of that fund.

The conversion of one share class to another share class of the same fund in the particular circumstances described above, should not cause the investor to realize taxable gain or loss. For further details, see "Additional Information Concerning Taxes" for information regarding the tax treatment of such conversions.

Systematic Withdrawal Plan. The Trust permits the establishment of a Systematic Withdrawal Plan. Payments under this plan represent proceeds arising from the redemption of fund shares. Since the redemption price of fund shares may be more or less than the shareholder's cost, depending upon the market value of the securities owned by a fund at the time of redemption, the distribution of cash pursuant to this plan may result in realization of gain or loss for purposes of federal, state and local income taxes. The maintenance of a Systematic Withdrawal Plan concurrently with purchases of additional shares of a fund could be disadvantageous to a shareholder because of the initial sales charge payable on such purchases of Class A shares and because redemptions are taxable events. Therefore, a shareholder should not purchase shares at the same time that a Systematic Withdrawal Plan is in effect. Each fund reserves the right to modify or discontinue the Systematic Withdrawal Plan of any shareholder on 30 days' prior written notice to such shareholder, or to discontinue the availability of such plan in the future. The shareholder may terminate the plan at any time by giving proper notice to Signature Services.

Monthly Automatic Accumulation Program ("MAAP"). This program is explained in a Prospectus that describes Class A shares. The program, as it relates to automatic investment checks, is subject to the following conditions:

- The investments will be drawn on or about the day of the month indicated;
- The privilege of making investments through the MAAP may be revoked by Signature Services without prior notice if any investment is not honored by the shareholder's bank. The bank shall be under no obligation to notify the shareholder as to the nonpayment of any checks; and
- The program may be discontinued by the shareholder either by calling Signature Services or upon written notice to Signature Services that is received at least five (5) business days prior to the due date of any investment.

Reinstatement or Reinvestment Privilege. If Signature Services and the financial professional are notified prior to reinvestment, a shareholder who has redeemed fund shares may, within 120 days after the date of redemption, reinvest, without payment of a sales charge any part of the redemption proceeds in shares back into the same share class of the same John Hancock fund and account from which it was removed, subject to the minimum investment limit of that fund. The proceeds from the redemption of Class A shares of a fund may be reinvested at NAV without paying a sales charge for Class A shares of the fund. If a CDSC was paid upon a redemption, a shareholder may reinvest the proceeds from this redemption at NAV in additional shares of the same class, fund, and account from which the redemption was made. The shareholder's account will be credited with the amount of any CDSC charged upon the prior redemption and the new shares will continue to be subject to the CDSC. The holding period of the shares acquired through reinvestment will, for purposes of computing the CDSC payable upon a subsequent redemption, include the holding period of the redeemed shares.

Redemption proceeds that are otherwise prohibited from being reinvested in the same account or the same fund may be invested in another account for the same shareholder in the same share class of the same fund (or different John Hancock fund if the original fund is no longer available) without paying a sales charge. Any such reinvestment is subject to the minimum investment limit.

A fund may refuse any reinvestment request and may change or cancel its reinvestment policies at any time.

A redemption or exchange of fund shares is a taxable transaction for federal income tax purposes even if the reinvestment privilege is exercised, and any gain or loss realized by a shareholder on the redemption or other disposition of fund shares will be treated for tax purposes as described under the caption "Additional Information Concerning Taxes."

Section 403(b)(7) Accounts:

Section 403(b)(7) of the Code permits public school employers and employers of certain types of tax-exempt organizations to establish for their eligible employees custodial accounts for the purpose of providing for retirement income for such employees. Treasury regulations impose certain conditions on exchanges between one custodial account intended to qualify under Section 403(b)(7) (the "exchanged account") and another contract or custodial account intended to qualify under Section 403(b) (the "replacing account") under the same employer plan (a "Section 403(b) Plan"). Specifically, the replacing account agreement must include distribution restrictions that are no less stringent than those imposed under the exchanged account agreement, and the employer must enter into an agreement with the custodian (or other issuer) of the replacing account under which the employer and the custodian (or other issuer) of the replacing account will from time to time in the future provide each other with certain information.

Due to Treasury regulations:

1. The funds do not accept requests to establish new John Hancock custodial 403(b)(7) accounts intended to qualify as a Section 403(b) Plan.
2. The funds do not accept requests for exchanges or transfers into John Hancock custodial 403(b)(7) accounts (i.e., where the investor holds the replacing account).
3. The funds require certain signed disclosure documentation in the event:
 - A shareholder established a John Hancock custodial 403(b)(7) account with a fund prior to September 24, 2007; and
 - A shareholder directs the fund to exchange or transfer some or all of the John Hancock custodial 403(b)(7) account assets to another custodial 403(b) contract or account (i.e., where the exchanged account is with the fund).
4. The funds do not accept salary deferrals into custodial 403(b)(7) accounts.

In the event that a fund does not receive the required documentation, and the fund is nonetheless directed to proceed with the transfer, the transfer may be treated as a taxable transaction.

PURCHASES AND REDEMPTIONS THROUGH THIRD PARTIES

Shares of the funds may be purchased or redeemed through certain Selling Firms. Selling Firms may charge the investor additional fees for their services. A fund will be deemed to have received a purchase or redemption order when an authorized Selling Firm, or if applicable, a Selling Firm's authorized designee, receives the order. Orders may be processed at the NAV next calculated after the Selling Firm receives the order. The Selling Firm must segregate any orders it receives after the close of regular trading on the NYSE and transmit those orders to the fund for execution at the NAV next determined. Some Selling Firms that maintain network/omnibus/nominee accounts with a fund for their clients charge an annual fee on the average net assets held in such accounts for accounting, servicing, and distribution services they provide with respect to the underlying fund shares. This fee is paid by the Advisor, the fund and/or the Distributor.

Certain accounts held on a fund's books, known as omnibus accounts, contain the investments of multiple underlying clients that are invested in shares of the funds. These underlying client accounts are maintained by entities such as financial intermediaries. Indirect investments in a John Hancock fund through a financial intermediary such as, but not limited to: a broker-dealer, a bank (including a bank trust department), an investment advisor, a record keeper or trustee of a retirement plan or qualified tuition plan or a sponsor of a fee-based program that maintains an omnibus account with a fund for trading on behalf of its customers, may be subject to guidelines, conditions, services and restrictions that are different from those discussed in a fund's Prospectus. These differences may include, but are not limited to: (i) eligibility standards to purchase, exchange, and sell shares depending on that intermediary's policies; (ii) availability of sales charge waivers and fees; (iii) minimum and maximum initial and subsequent purchase amounts; and (iv) unavailability of LOI privileges. With respect to the availability of sales charge waivers and fees, and LOI privileges, see Appendix 1 to the Prospectus, "Intermediary sales charge waivers." Additional conditions may apply to an investment in a fund, and the investment professional or intermediary may

charge a transaction-based, administrative or other fee for its services. These conditions and fees are in addition to those imposed by a fund and its affiliates.

DESCRIPTION OF FUND SHARES

The Trustees are responsible for the management and supervision of the Trust. The Declaration of Trust permits the Trustees to issue an unlimited number of full and fractional shares of beneficial interest of each fund or other series of the Trust without par value. Under the Declaration of Trust, the Trustees have the authority to create and classify shares of beneficial interest in separate series and classes without further action by shareholders. As of the date of this SAI, the Trustees have authorized shares of 97 series of the Trust. Additional series may be added in the future. The Trustees also have authorized the issuance of seven classes of shares of the funds, designated as Class A, Class 1, Class R2, Class R4, Class R5, Class R6, and Class I. Additional classes of shares may be authorized in the future.

Each share of each class of a fund represents an equal proportionate interest in the aggregate net assets attributable to that class of the fund. Holders of each class of shares have certain exclusive voting rights on matters relating to their respective distribution plan, if any. The different classes of a fund may bear different expenses relating to the cost of holding shareholder meetings necessitated by the exclusive voting rights of any class of shares.

Dividends paid by a fund, if any, with respect to each class of shares will be calculated in the same manner, at the same time and on the same day and will be in the same amount, except for differences resulting from the fact that: (i) the distribution and service fees, if any, relating to each class of shares will be borne exclusively by that class, and (ii) each class of shares will bear any class expenses properly allocable to that class of shares. Similarly, the NAV per share may vary depending on which class of shares is purchased. No interest will be paid on uncashed dividend or redemption checks.

In the event of liquidation, shareholders of each class are entitled to share pro rata in the net assets of a fund that are available for distribution to these shareholders. Shares entitle their holders to one vote per share (and fractional votes for fractional shares), are freely transferable and have no preemptive, subscription or conversion rights. When issued, shares are fully paid and non-assessable, except as set forth below.

Unless otherwise required by the 1940 Act or the Declaration of Trust, the Trust has no intention of holding annual meetings of shareholders. Trust shareholders may remove a Trustee by the affirmative vote of at least two-thirds of the Trust's outstanding shares and the Trustees shall promptly call a meeting for such purpose when requested to do so in writing by the record holders of not less than 10% of the outstanding shares of the Trust. Shareholders may, under certain circumstances, communicate with other shareholders in connection with a request for a special meeting of shareholders. However, at any time that less than a majority of the Trustees holding office were elected by the shareholders, the Trustees will call a special meeting of shareholders for the purpose of electing Trustees.

Under Massachusetts law, shareholders of a Massachusetts business trust could, under certain circumstances, be held personally liable for acts or obligations of such trust or a series thereof. However, the Declaration of Trust contains an express disclaimer of shareholder liability for acts, obligations or affairs of the Trust. The Declaration of Trust also provides for indemnification out of the Trust's assets for all losses and expenses of any shareholder held personally liable by reason of being or having been a shareholder. The Declaration of Trust also provides that no series of the Trust shall be liable for the liabilities of any other series. Furthermore, no series of the Trust shall be liable for the liabilities of any other fund within the John Hancock Fund Complex. Liability is therefore limited to circumstances in which a fund itself would be unable to meet its obligations, and the possibility of this occurrence is remote.

The Declaration of Trust also provides that the Board may approve the merger of a Multi-Index Lifetime, Multi-Index Preservation, or Multimanager Lifetime Portfolio with another series of the Trust without shareholder approval, in accordance with the 1940 Act. This provision will permit the merger of such a fund of funds with another series of the Trust without shareholder approval in certain circumstances to avoid incurring the expense of soliciting proxies when a combination does not raise significant issues for shareholders. For example, this provision would permit the combination of such a fund of funds with another series of the Trust having the same portfolio managers, the same investment objectives and the same fee structure in order to achieve economies of scale and thereby reduce fund expenses borne by shareholders. Such a merger will still require the Board of Trustees of the

Trust (including a majority of the Independent Trustees) to determine that the merger is in the best interests of the combining series and will not dilute the interest of existing shareholders. The Trustees would evaluate any and all information reasonably necessary to make their determination and consider and give appropriate weight to all pertinent factors in fulfilling their duty of care to shareholders.

Shareholders of a Multi-Index Lifetime, Multi-Index Preservation, or Multimanager Lifetime Portfolio will still be required to approve a combination that would result in a change in a fundamental investment policy, a material change to the terms of an advisory agreement, the institution of or an increase in Rule 12b-1 fees, or when the board of the surviving fund does not have a majority of independent trustees who were elected by its shareholders. Under Massachusetts law, shareholder approval is not required for fund mergers, consolidation, or sales of assets. Shareholder approval nevertheless will be obtained for combinations of affiliated funds when required by the 1940 Act.

Each fund reserves the right to reject any application that conflicts with the fund's internal policies or the policies of any regulatory authority. The Distributor does not accept starter, credit card, or third party checks. All checks returned by the post office as undeliverable will be reinvested at NAV in the fund or funds from which a redemption was made or dividend paid. Information provided on the account application may be used by the funds to verify the accuracy of the information or for background or financial history purposes. A joint account will be administered as a joint tenancy with right of survivorship, unless the joint owners notify Signature Services of a different intent. A shareholder's account is governed by the laws of The Commonwealth of Massachusetts. For telephone transactions, the transfer agent will take measures to verify the identity of the caller, such as asking for name, account number, Social Security, or other taxpayer ID number and other relevant information. If appropriate measures are taken, the transfer agent is not responsible for any losses that may occur to any account due to an unauthorized telephone call. Also, for shareholders' protection, telephone redemptions are not permitted on accounts whose names or addresses have changed within the past 30 days. Proceeds from telephone transactions can be mailed only to the address of record.

Except as otherwise provided, shares of a fund generally may be sold only to U.S. citizens, U.S. residents, and U.S. domestic corporations, partnerships, trusts or estates. For purposes of this policy, U.S. citizens and U.S. residents must reside in the U.S. and U.S. domestic corporations, partnerships, trusts, and estates must have a U.S. address of record.

Effective January 22, 2016, the Board amended and restated in its entirety the Declaration of Trust. The amendments to the Declaration of Trust include, among other changes, provisions that: (i) clarify certain duties, responsibilities, and powers of the Trustees; (ii) clarify that, other than as provided under federal securities laws, the shareholders may only bring actions involving a fund derivatively; (iii) provide that any action brought by a shareholder related to a fund will be brought in Massachusetts state or federal court, and that, if a claim is brought in a different jurisdiction and subsequently changed to a Massachusetts venue, the shareholder will be required to reimburse the fund for such expenses; and (iv) clarify that shareholders are not intended to be third-party beneficiaries of fund contracts. The foregoing description of the Declaration of Trust is qualified in its entirety by the full text of the Declaration of Trust, effective as of January 22, 2016, which is available by writing to the Secretary of the Trust at 200 Berkeley Street, Boston, Massachusetts 02116, and also on the SEC's and Secretary of the Commonwealth of Massachusetts' websites.

SAMPLE CALCULATION OF MAXIMUM OFFERING PRICE

Class A shares are sold with a maximum initial sales charge of 5.00%. Class 1, Class I, Class R2, Class R4, Class R5, and Class R6 shares of each fund, as applicable, are sold at NAV without any initial sales charges or CDSCs.

ADDITIONAL INFORMATION CONCERNING TAXES

The following discussion is a general and abbreviated summary of certain tax considerations affecting the funds and their shareholders. No attempt is made to present a detailed explanation of all federal, state, local and foreign tax concerns, and the discussions set forth here and in the Prospectus do not constitute tax advice. Investors are urged to consult their own tax advisors with specific questions relating to federal, state, local or foreign taxes.

Each fund and underlying fund is treated as a separate entity for accounting and tax purposes, and intends to qualify as a RIC under Subchapter M of the Code for each taxable year. In order to qualify for the special tax treatment accorded RICs and their shareholders, a fund or underlying fund must, among other things:

- (a) derive at least 90% of its gross income from dividends, interest, payments with respect to certain securities loans, and gains from the sale or other disposition of stock, securities, and foreign currencies, or other income (including but not limited to gains from options, futures, or forward contracts) derived with respect to its business of investing in such stock, securities, or currencies, and net income derived from interests in qualified publicly traded partnerships (as defined below);
- (b) distribute with respect to each taxable year at least the sum of 90% of its investment company taxable income (as that term is defined in the Code without regard to the deduction for dividends paid—generally, taxable ordinary income and the excess, if any, of net short-term capital gains over net long-term capital losses) and 90% of net tax-exempt interest income, for such year; and
- (c) diversify its holdings so that, at the end of each quarter of the fund's taxable year: (i) at least 50% of the market value of the fund's total assets is represented by cash and cash items, U.S. government securities, securities of other RICs, and other securities limited in respect of any one issuer to a value not greater than 5% of the value of the fund's total assets and not more than 10% of the outstanding voting securities of such issuer; and (ii) not more than 25% of the value of the fund's total assets is invested (x) in the securities (other than those of the U.S. government or other RICs) of any one issuer or of two or more issuers that the fund controls and that are engaged in the same, similar, or related trades or businesses, or (y) in the securities of one or more qualified publicly traded partnerships (as defined below).

With respect to gains from the sale or other disposition of foreign currencies, the Treasury Department can, by regulation, exclude from qualifying income foreign currency gains which are not directly related to a RIC's principal business of investing in stock (or options or futures with respect to stock or securities), but no regulations have been proposed or adopted pursuant to this grant of regulatory authority.

In general, for purposes of the 90% gross income requirement described in paragraph (a) above, income derived from a partnership will be treated as qualifying income only to the extent such income is attributable to items of income of the partnership which would be qualifying income if realized by the RIC. However, 100% of the net income derived from an interest in a "qualified publicly traded partnership" will be treated as qualifying income. A "qualified publicly traded partnership" is a publicly traded partnership that satisfies certain requirements with respect to the type of income it produces. In addition, although in general the passive loss rules of the Code do not apply to RICs, such rules do apply to a RIC with respect to items attributable to an interest in a qualified publicly traded partnership. Finally, for purposes of paragraph (c) above, the term "outstanding voting securities of such issuer" will include the equity securities of a qualified publicly traded partnership. If a fund invests in publicly traded partnerships, it might be required to recognize in its taxable year income in excess of its cash distributions from such publicly traded partnerships during that year. Such income, even if not reported to a fund by the publicly traded partnerships until after the end of that year, would nevertheless be subject to the RIC income distribution requirements and would be taken into account for purposes of the 4% excise tax described below.

Each fund may use "equalization payments" in determining the portion of its net investment income and net realized capital gains that have been distributed. A fund that elects to use equalization payments will allocate a portion of its investment income and capital gains to the amounts paid in redemption of fund shares, and such income and gains will be deemed to have been distributed by the fund for purposes of the distribution requirements described above. This may have the effect of reducing the amount of income and gains that the fund is required to distribute to shareholders in order for the fund to avoid federal income tax and excise tax and also may defer the recognition of taxable income by shareholders. This process does not affect the tax treatment of redeeming shareholders and, since the amount of any undistributed income and/or gains will be reflected in the value of the fund's shares, the total return on a shareholder's investment will not be reduced as a result of the fund's distribution policy. The IRS has not published any guidance concerning the methods to be used in allocating investment income and capital gain to redemptions of shares. In the event that the IRS determines that a fund is using an improper method of allocation

and has under-distributed its net investment income or net realized capital gains for any taxable year, such fund may be liable for additional federal income or excise tax or may jeopardize its treatment as a RIC.

As a result of qualifying as a RIC, a fund will not be subject to U.S. federal income tax on its net investment income (i.e., its investment company taxable income, as that term is defined in the Code, determined without regard to the deduction for dividends paid) and net capital gain (i.e., the excess of its net realized long-term capital gain over its net realized short-term capital loss), if any, that it distributes to its shareholders in each taxable year, provided that it distributes to its shareholders at least the sum of 90% of its investment company taxable income and 90% of its net exempt interest income for such taxable year.

A fund will be subject to a non-deductible 4% excise tax to the extent that the fund does not distribute by the end of each calendar year: (a) at least 98% of its ordinary income for the calendar year; (b) at least 98.2% of its capital gain net income for the one-year period ending, as a general rule, on October 31 of each year; and (c) 100% of the undistributed ordinary income and capital gain net income from the preceding calendar years (if any). For this purpose, any income or gain retained by a fund that is subject to corporate tax will be considered to have been distributed by year-end. To the extent possible, each fund intends to make sufficient distributions to avoid the application of both corporate income and excise taxes. Under current law, distributions of net investment income and net capital gain are not taxed to a life insurance company to the extent applied to increase the reserves for the company's variable annuity and life insurance contracts.

If a fund failed to meet the annual gross income test or asset diversification test or fails to satisfy the 90% distribution requirement as described above, for any taxable year, the fund would incur regular corporate income tax on its taxable income and net capital gains for that year, it would lose its deduction for dividends paid to shareholders, and it would be subject to certain gain recognition and distribution requirements upon requalification. Further distributions of income by the fund to its shareholders would be treated as dividend income, although such dividend income would constitute qualified dividend income subject to reduced federal income tax rates if the shareholder satisfies certain holding period requirements with respect to its shares in the fund. Compliance with the RIC 90% qualifying income test and with the asset diversification requirements is carefully monitored by the Advisor and the subadvisors and it is intended that each fund will comply with the requirements for qualification as a RIC.

If a fund fails to meet the annual gross income test described above, the fund will nevertheless be considered to have satisfied the test if (i) (a) such failure is due to reasonable cause and not due to willful neglect and (b) the fund reports the failure, and (ii) the fund pays an excise tax equal to the excess non-qualifying income. If a fund fails to meet the asset diversification test described above with respect to any quarter, the fund will nevertheless be considered to have satisfied the requirements for such quarter if the fund cures such failure within six months and either: (i) such failure is *de minimis*; or (ii) (a) such failure is due to reasonable cause and not due to willful neglect; and (b) the fund reports the failure and pays an excise tax.

A fund may make investments that produce income that is not matched by a corresponding cash distribution to the fund, such as investments in pay-in-kind bonds or in obligations such as certain Brady Bonds and zero-coupon securities having OID (i.e., an amount equal to the excess of the stated redemption price of the security at maturity over its issue price), or market discount (i.e., an amount equal to the excess of the stated redemption price at maturity of the security (appropriately adjusted if it also has OID) over its basis immediately after it was acquired) if the fund elects to accrue market discount on a current basis. In addition, income may continue to accrue for federal income tax purposes with respect to a non-performing investment. Any such income would be treated as income earned by the fund and therefore would be subject to the distribution requirements of the Code. Because such income may not be matched by a corresponding cash distribution to the fund, the fund may be required to borrow money or dispose of other securities to be able to make distributions to its investors. In addition, if an election is not made to currently accrue market discount with respect to a market discount bond, all or a portion of any deduction for any interest expense incurred to purchase or hold such bond may be deferred until such bond is sold or otherwise disposed of.

Investments in debt obligations that are at risk of or are in default present special tax issues for a fund. Tax rules are not entirely clear about issues such as when a fund may cease to accrue interest, OID, or market discount, when and to what extent deductions may be taken for bad debts or worthless securities, how payments received on obligations in default should be allocated between principal and income, and whether exchanges of debt obligations in a

workout context are taxable. These and other issues will be addressed by a fund that holds such obligations in order to reduce the risk of distributing insufficient income to preserve its status as a RIC and seek to avoid becoming subject to federal income or excise tax.

A fund may make investments in convertible securities and exchange traded notes. Convertible debt ordinarily is treated as a "single property" consisting of a pure debt interest until conversion, after which the investment becomes an equity interest. If the security is issued at a premium (i.e., for cash in excess of the face amount payable on retirement), the creditor-holder may amortize the premium over the life of the bond. If the security is issued for cash at a price below its face amount, the creditor-holder must accrue OID in income over the life of the debt. The creditor-holder's exercise of the conversion privilege is treated as a nontaxable event. Mandatorily convertible debt, such as an exchange traded note issued in the form of an unsecured obligation that pays a return based on the performance of a specified market index, currency or commodity, is often treated as a contract to buy or sell the reference property rather than debt. Similarly, convertible preferred stock with a mandatory conversion feature is ordinarily, but not always, treated as equity rather than debt. In general, conversion of preferred stock for common stock of the same corporation is tax-free. Conversion of preferred stock for cash is a taxable redemption. Any redemption premium for preferred stock that is redeemable by the issuing company might be required to be amortized under OID principles.

A fund may invest in certain commodity investments including commodity-based ETFs. Under an IRS revenue ruling effective after September 30, 2006, income from certain commodities-linked derivatives in which certain funds invest is not considered qualifying income for purposes of the 90% qualifying income test. This ruling limits the extent to which a fund may receive income from such commodity-linked derivatives to a maximum of 10% of its annual gross income.

Certain funds may engage in hedging or derivatives transactions involving foreign currencies, forward contracts, options and futures contracts (including options, futures and forward contracts on foreign currencies) and short sales (see "Hedging and Other Strategic Transactions"). Such transactions will be subject to special provisions of the Code that, among other things, may affect the character of gains and losses realized by a fund (that is, may affect whether gains or losses are ordinary or capital), accelerate recognition of income of a fund and defer recognition of certain of the fund's losses. With respect to gains from the sale or other disposition of foreign currencies, the Treasury Department can, by regulation, exclude from qualifying income foreign currency gains which are not directly related to a RIC's principal business of investing in stock (or options or futures with respect to stock or securities), but no regulations have been proposed or adopted pursuant to this grant of regulatory authority. These rules could therefore affect the character, amount and timing of distributions to shareholders. The futures that are traded on a regulated exchange, such as NYSE or NASDAQ, will be treated as Code Section 1256 contracts, and the capital gain/loss will be reflected as 40% short-term capital gain/loss and 60% long-term capital gain/loss. Any futures that are not traded on a regulated exchange will follow the 365 day rule of short-term capital or long-term capital treatment. In addition, these provisions: (1) will require a fund to "mark-to-market" certain types of positions in its portfolio (that is, treat them as if they were closed out); and (2) may cause a fund to recognize income without receiving cash with which to pay dividends or make distributions in amounts necessary to satisfy the distribution requirement and avoid the 4% excise tax. Each fund intends to monitor its transactions, will make the appropriate tax elections and will make the appropriate entries in its books and records when it acquires any option, futures contract, forward contract or hedged investment in order to mitigate the effect of these rules.

Foreign exchange gains and losses realized by a fund in connection with certain transactions involving foreign currency-denominated debt securities, certain foreign currency options, foreign currency forward contracts, foreign currencies, or payables or receivables denominated in a foreign currency are subject to Section 988 of the Code, which generally causes such gains and losses to be treated as ordinary income and losses and may affect the amount, timing and character of distributions to shareholders. If the net foreign exchange loss for a year treated as ordinary loss under Section 988 were to exceed a fund's investment company taxable income computed without regard to such loss, the resulting overall ordinary loss for such year would not be deductible by the fund or its shareholders in future years. Under such circumstances, distributions paid by the fund could be deemed return of capital.

Certain funds may be required to account for their transactions in forward rolls or swaps, caps, floors and collars in a manner that, under certain circumstances, may limit the extent of their participation in such transactions. Additionally, a fund may be required to recognize gain, but not loss, if a swap or other transaction is treated as a constructive sale of an appreciated financial position in a fund's portfolio. Additionally, some countries restrict repatriation which may make it difficult or impossible for a fund to obtain cash corresponding to its earnings or

assets in those countries. However, a fund must distribute to shareholders for each taxable year substantially all of its net income and net capital gains, including such income or gain, to qualify as a RIC and avoid liability for any federal income or excise tax. Therefore, a fund may have to dispose of its portfolio securities under disadvantageous circumstances to generate cash, or borrow cash, to satisfy these distribution requirements.

Certain funds may invest in REITs and/or MLPs. Effective for taxable years beginning after December 31, 2017 and before January 1, 2026, the Code generally allows individuals and certain non-corporate entities a deduction for 20% of "qualified publicly traded partnership income," such as income from MLPs, and a deduction for 20% of qualified REIT dividends. [Treasury](#) regulations allow a RIC to pass the character of its qualified REIT dividends through to its shareholders provided certain holding period requirements are met. A similar pass-through by RICs of qualified publicly traded partnership income is not currently available. As a result, an investor who invests directly in MLPs will be able to receive the benefit of such deductions, while a shareholder in a fund that invests in MLPs currently will not.

If a fund invests in stock (including an option to acquire stock such as is inherent in a convertible bond) in certain foreign corporations that receive at least 75% of their annual gross income from passive sources (such as interest, dividends, certain rents and royalties or capital gain) or hold at least 50% of their assets in investments producing such passive income ("passive foreign investment companies" or "PFIC"), the fund could be subject to federal income tax and additional interest charges on "excess distributions" received from such companies or gain from the sale of stock in such companies, even if all income or gain actually received by the fund is timely distributed to its shareholders. The fund would not be able to pass through to its shareholders any credit or deduction for such a tax.

If a fund were to invest in a PFIC and elected to treat the PFIC as a "qualified electing fund" under the Code, in lieu of the foregoing requirements, the fund would be required to include in income each year a portion of the ordinary earnings and net capital gain of the qualified electing fund, even if not distributed to the fund. Alternatively, a fund can elect to mark-to-market at the end of each taxable year its shares in a PFIC; in this case, the fund would recognize as ordinary income any increase in the value of such shares, and as ordinary loss any decrease in such value to the extent it did not exceed prior increases included in income. Under either election, a fund might be required to recognize in a year income in excess of its distributions from PFICs and its proceeds from dispositions of PFIC stock during that year, and such income would nevertheless be subject to the distribution requirements and would be taken into account for purposes of the 4% excise tax.

A fund may be subject to withholding and other taxes imposed by foreign countries with respect to its investments in foreign securities. Some tax conventions between certain countries and the U.S. may reduce or eliminate such taxes. If more than 50% of the value of a fund's total assets at the close of any taxable year consists of stock or securities of foreign corporations, the fund will be able to pass such taxes through to the shareholders or to a qualified fund of funds (as additional income) along with a corresponding entitlement to a foreign tax credit or deduction. A qualified fund of funds is a RIC that has at least 50% of the value of its total interests invested in other RICs at the end of each quarter for the taxable year. A fund will deduct the foreign taxes in determining the amount it has available to distribute to shareholders.

If this election is made, a shareholder generally subject to tax will be required to include in gross income (in addition to taxable dividends actually received) his or her pro rata share of the foreign taxes paid by the fund, and may be entitled either to deduct (as an itemized deduction) his or her pro rata share of foreign taxes in computing his or her taxable income or to use it (subject to limitations) as a foreign tax credit against his or her U.S. federal income tax liability. No deduction for foreign taxes may be claimed by a shareholder who does not itemize deductions. Each shareholder will be notified after the close of the fund's taxable year whether the foreign taxes paid by the fund will "pass-through" for that taxable year.

For United States federal income tax purposes, distributions paid out of a fund's current or accumulated earnings and profits will, except in the case of distributions of qualified dividend income and capital gain dividends described below, be taxable as ordinary dividend income. Certain income distributions paid by a fund (whether paid in cash or reinvested in additional fund shares) to individual taxpayers are taxed at rates applicable to net long-term capital gains (currently 20%, 15%, or 0%, depending on an individual's level of income). This tax treatment applies only if certain holding period requirements and other requirements are satisfied by the shareholder and the dividends are attributable to qualified dividend income received by the fund itself. For this purpose, "qualified dividend income" means dividends received by a fund from United States corporations and "qualified foreign corporations," as well as certain dividends from underlying funds that are designated as qualified dividend income, provided that the fund satisfies certain holding period and other requirements in respect of the stock of such corporations and underlying

funds. There can be no assurance as to what portion of a fund's dividend distributions will qualify for this favorable treatment. Dividends paid by funds that primarily invest in bonds and other debt securities generally will not qualify for the reduced tax rate applicable to qualified dividend income and will not qualify for the corporate dividends-received deduction.

If a fund should have dividend income that qualifies for the reduced tax rate applicable to qualified dividend income, the maximum amount allowable will be reported by the fund. This amount will be reflected on Form 1099-DIV for the applicable calendar year.

For purposes of the dividends received deduction available to corporations, dividends received by a fund, if any, from U.S. domestic corporations in respect of the stock of such corporations held by the fund, for U.S. federal income tax purposes, for at least 46 days (91 days in the case of certain preferred stock) during a prescribed period extending before and after each such dividend and distributed and reported by the fund may be treated as qualifying dividends. Corporate shareholders must meet the holding period requirements stated above with respect to their shares of a fund for each dividend in order to qualify for the deduction and, if they have any debt that is deemed under the Code directly attributable to such shares, may be denied a portion of the dividends received deduction. Additionally, any corporate shareholder should consult its tax advisor regarding the possibility that its tax basis in its shares may be reduced, for federal income tax purposes, by reason of "extraordinary dividends" received with respect to the shares and, to the extent such basis would be reduced below zero, that current recognition of income would be required.

Shareholders receiving any distribution from a fund in the form of additional shares pursuant to a dividend reinvestment plan will be treated as receiving a taxable distribution in an amount equal to the fair market value of the shares received, determined as of the reinvestment date. Shareholders who have chosen automatic reinvestment of their distributions will have a federal tax basis in each share received pursuant to such a reinvestment equal to the amount of cash they would have received had they elected to receive the distribution in cash, divided by the number of shares received in the reinvestment.

For federal income tax purposes, a fund is permitted to carry forward a net capital loss incurred in any year to offset net capital gains, if any, in any subsequent year until such loss carry forwards have been fully used. Capital losses carried forward will retain their character as either short-term or long-term capital losses. A fund's ability to utilize capital losses in a given year or in total may be limited. To the extent subsequent net capital gains are offset by such losses, they would not result in federal income tax liability to a fund and would not be distributed as such to shareholders.

Distributions of net capital gain, if any, reported as capital gains dividends are taxable to a shareholder as long-term capital gains, regardless of how long the shareholder has held fund shares. A distribution of an amount in excess of a fund's current and accumulated earnings and profits will be treated by a shareholder as a return of capital which is applied against and reduces the shareholder's basis in his or her shares. To the extent that the amount of any such distribution exceeds the shareholder's basis in his or her shares, the excess will be treated by the shareholder as gain from a sale or exchange of the shares. Distributions of gains from the sale of investments that a fund owned for one year or less will be taxable as ordinary income.

A fund may elect to retain its net capital gain or a portion thereof for investment and be taxed at corporate rates on the amount retained. In such case, it may designate the retained amount as undistributed capital gains in a notice to its shareholders who will be treated as if each received a distribution of his pro rata share of such gain, with the result that each shareholder will: (i) be required to report his pro rata share of such gain on his tax return as long-term capital gain; (ii) receive a refundable tax credit for his pro rata share of tax paid by the fund on the gain; and (iii) increase the tax basis for his shares by an amount equal to the deemed distribution less the tax credit.

Selling shareholders generally will recognize gain or loss in an amount equal to the difference between the shareholder's adjusted tax basis in the shares sold and the sale proceeds. Such gain or loss will be treated as capital gain or loss if the shares are capital assets in the shareholder's hands and will be long-term or short-term, depending upon the shareholder's tax holding period for the shares and subject to the special rules described below. The maximum tax rate applicable to net capital gains recognized by individuals and other non-corporate taxpayers is generally 20% for gains recognized on the sale of capital assets held for more than one year (as well as certain capital gain distributions) (15% or 0% for individuals at certain income levels).

A shareholder exchanging shares of one fund for shares of another fund will be treated for tax purposes as having sold the shares of the first fund, realizing tax gain or loss on such exchange. A shareholder exercising a right to convert one class of fund shares to a different class of shares of the same fund should not realize taxable gain or loss.

Any loss realized upon the sale or exchange of fund shares with a holding period of six months or less will be treated as a long-term capital loss to the extent of any capital gain distributions received (or amounts designated as undistributed capital gains) with respect to such shares. In addition, all or a portion of a loss realized on a sale or other disposition of fund shares may be disallowed under "wash sale" rules to the extent the shareholder acquires other shares of the same fund (whether through the reinvestment of distributions or otherwise) within a period of 61 days beginning 30 days before and ending 30 days after the date of disposition of the shares. Any disallowed loss will result in an adjustment to the shareholder's tax basis in some or all of the other shares acquired.

Sales charges paid upon a purchase of shares cannot be taken into account for purposes of determining gain or loss on a sale of the shares before the 91st day after their purchase to the extent a sales charge is reduced or eliminated in a subsequent acquisition of shares of a fund, during the period beginning on the date of such sale and ending on January 31 of the calendar year following the calendar year in which such sale was made, pursuant to a reinvestment or exchange privilege. Any disregarded amounts will result in an adjustment to the shareholder's tax basis in some or all of any other shares acquired.

The benefits of the reduced tax rates applicable to long-term capital gains and qualified dividend income may be impacted by the application of the alternative minimum tax to individual shareholders.

Certain net investment income received by an individual having adjusted gross income in excess of \$200,000 (or \$250,000 for married individuals filing jointly) will be subject to a tax of 3.8%. Undistributed net investment income of trusts and estates in excess of a specified amount also will be subject to this tax. Dividends and capital gains distributed by a fund, and gain realized on redemption of fund shares, will constitute investment income of the type subject to this tax.

Special tax rules apply to investments through defined contribution plans and other tax-qualified plans. Shareholders should consult their tax advisor to determine the suitability of shares of a fund as an investment through such plans.

Dividends and distributions on a fund's shares are generally subject to federal income tax as described herein to the extent they do not exceed the fund's realized income and gains, even though such dividends and distributions may economically represent a return of a particular shareholder's investment. Such distributions are likely to occur in respect of shares purchased at a time when a fund's net asset value reflects gains that are either unrealized or realized but not distributed. Such realized gains may be required to be distributed even when a fund's net asset value also reflects unrealized losses. Such gains could be substantial, and the taxes incurred by a shareholder with respect to such distributions could have a material impact on the value of the shareholder's investment.

Certain distributions declared in October, November or December to shareholders of record of such month and paid in the following January will be taxed to shareholders as if received on December 31 of the year in which they were declared. In addition, certain other distributions made after the close of a taxable year of a fund may be "spilled back" and treated as paid by the fund (except for purposes of the non-deductible 4% federal excise tax) during such taxable year. In such case, shareholders will be treated as having received such dividends in the taxable year in which the distributions were actually made.

A fund will inform its shareholders of the source and tax status of all distributions promptly after the close of each calendar year.

Each fund (or its administrative agent) must report to the IRS and furnish to shareholders the cost basis information and holding period for such fund's shares purchased on or after January 1, 2012, and repurchased by the fund on or after that date. A fund will permit shareholders to elect from among several permitted cost basis methods. In the absence of an election, each fund will use an average cost as its default cost basis method. The cost basis method that a shareholder elects may not be changed with respect to a repurchase of shares after the settlement date of the repurchase. Shareholders should consult with their tax advisors to determine the best permitted cost basis method for their tax situation and to obtain more information about how the new cost basis reporting rules apply to them.

A fund generally is required to withhold and remit to the U.S. Treasury a percentage of the taxable dividends and other distributions paid to and proceeds of share sales, exchanges, or redemptions made by any individual shareholder (including foreign individuals) who fails to furnish the fund with a correct taxpayer identification number, who has under-reported dividends or interest income, or who fails to certify to the fund that he or she is a

United States person and is not subject to such withholding. The backup withholding tax rate is 24%. Distributions will not be subject to backup withholding to the extent they are subject to the withholding tax on foreign persons described in the next paragraph. Any tax withheld as a result of backup withholding does not constitute an additional tax imposed on the record owner of the account and may be claimed as a credit on the record owner's federal income tax return.

Non-U.S. investors not engaged in a U.S. trade or business with which their investment in a fund is effectively connected will be subject to U.S. federal income tax treatment that is different from that described above. Such non-U.S. investors may be subject to withholding tax at the rate of 30% (or a lower rate under an applicable tax treaty) on amounts treated as ordinary dividends from a fund. Capital gain distributions, if any, are not subject to the 30% withholding tax. Unless an effective IRS Form W-8BEN or other authorized withholding certificate is on file, backup withholding will apply to certain other payments from a fund. Non-U.S. investors should consult their tax advisors regarding such treatment and the application of foreign taxes to an investment in a fund.

Properly-reported dividends generally are exempt from U.S. federal withholding tax where they are (i) "interest-related dividends" paid in respect of a fund's "qualified net interest income" (generally, a fund's U.S. source interest income, other than certain contingent interest and interest from obligations of a corporation or partnership in which the fund is at least a 10% shareholder, reduced by expenses that are allocable to such income) or (ii) "short-term capital gain dividends" paid in respect of a fund's "qualified short-term gains" (generally, the excess of a fund's net short-term capital gain over the fund's long-term capital loss for such taxable year). Depending on its circumstances, a fund may designate all, some or none of its potentially eligible dividends as such interest-related dividends or as short-term capital gain dividends and/or treat such dividends, in whole or in part, as ineligible for this exemption from withholding.

Under legislation known as FATCA, a 30% U.S. withholding tax may apply to any U.S.-source "withholdable payments" made to a non-U.S. entity unless the non-U.S. entity enters into an agreement with either the IRS or a governmental authority in its own country, as applicable, to collect and provide substantial information regarding the entity's owners, including "specified United States persons" and "United States owned foreign entities," or otherwise demonstrates compliance with or exemption from FATCA. The term "withholdable payment" includes any payment of interest (even if the interest is otherwise exempt from the withholding rules described above) or dividends, in each case with respect to any U.S. investment. The withholding tax regime went into effect on July 1, 2014 with respect to U.S.-source income. The IRS has issued proposed regulations, which have immediate effect, to eliminate the withholding tax that was scheduled to begin in 2019 with respect to U.S.-source investment sale proceeds. A specified United States person is essentially any U.S. person, other than publicly traded corporations, their affiliates, tax-exempt organizations, governments, banks, real estate investment trusts, RICs, and common trust funds. A United States owned foreign entity is a foreign entity with one or more "substantial United States owners," generally defined as United States person owning a greater than 10% interest. Non-U.S. investors should consult their own tax advisers regarding the impact of this legislation on their investment in a fund.

If a shareholder realizes a loss on disposition of a fund's shares of \$2 million or more for an individual shareholder or \$10 million or more for a corporate shareholder, the shareholder must file with the IRS a disclosure statement on Form 8886. Direct shareholders of portfolio securities are in many cases excepted from this reporting requirement, but under current guidance, shareholders of a RIC are not excepted. Future guidance may extend the current exception from this reporting requirement to shareholders of most or all RICs.

The foregoing is a general and abbreviated summary of the applicable provisions of the Code and Treasury Regulations currently in effect. It is not intended to be a complete explanation or a substitute for consultation with individual tax advisors. For the complete provisions, reference should be made to the pertinent Code sections and the Treasury Regulations promulgated thereunder. The Code and Treasury Regulations are subject to change, possibly with retroactive effect.

PORTFOLIO BROKERAGE

Pursuant to the Subadvisory Agreements, the subadvisors are responsible for placing all orders for the purchase and sale of portfolio securities of the funds. The subadvisors have no formula for the distribution of the funds' 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 applicable fund. The cost of securities transactions for each fund will consist primarily of brokerage commissions or dealer or underwriter spreads. Fixed-income securities 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 OTC market, the subadvisors 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 subadvisors 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 subadvisor, either in terms of a particular transaction or the subadvisor's overall responsibilities with respect to the fund and any other accounts managed by the subadvisor, could result in the applicable fund 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, the subadvisors 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 subadvisor. In placing a purchase or sale order, unless prohibited by applicable law, the subadvisor may use a broker whose commission in effecting the transaction is higher than that of some other broker if the subadvisor 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 subadvisor's overall responsibilities with respect to a fund and any other accounts managed by the subadvisor. In addition to statistical, quotation, brokerage or valuation services, a subadvisor may receive from brokers or dealers products or research that are used for both research and other purposes, such as administration or marketing. In such case, the subadvisor 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 subadvisor. 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 subadvisor 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 MiFID II, EU investment managers, including certain subadvisors to funds in the John Hancock Fund Complex, 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 is expected to limit the use of soft dollars by subadvisors located in the EU, if applicable, and in certain circumstances may result in other subadvisors reducing the use of soft dollars as to certain groups of clients or as to all clients.

The subadvisors 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 a fund. 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 subadvisor in advising several of its clients (including the funds), although not all of these services are necessarily useful and of value in managing the funds. The management fee paid by a fund is not reduced because a subadvisor and its affiliates receive such services.

As noted above, a subadvisor may purchase new issues of securities for a fund in underwritten fixed price offerings. In these situations, the underwriter or selling group member may provide the subadvisor with research in addition to selling the securities (at the fixed public offering price) to the funds 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 fund, other subadvisor clients, and the subadvisor without incurring additional costs.

These arrangements may not fall within the safe harbor in Section 28(e) of the Exchange Act, 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 advisors 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 subadvisor by or through a broker.

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

Allocation of Trades by the Subadvisors. The subadvisors manage a number of accounts other than the funds. Although investment determinations for the funds will be made by a subadvisor independently from the investment determinations it makes for any other account, investments deemed appropriate for the funds by a subadvisor 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 the funds and other accounts. In such circumstances, a subadvisor may determine that orders for the purchase or sale of the same security for the funds 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 subadvisor to be equitable and in the best interests of the funds and such other accounts. While in some instances combined orders could adversely affect the price or volume of a security, each fund believes that its participation in such transactions on balance will produce better overall results for the fund.

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 funds or the size of the position obtainable for it. On the other hand, to the extent permitted by law, a subadvisor may aggregate securities to be sold or purchased for the funds with those to be sold or purchased for other clients that it manages in order to obtain best execution.

Affiliated Underwriting Transactions by a Subadvisor. The Trust has approved procedures in conformity with Rule 10f-3 under the 1940 Act whereby a fund may purchase securities that are offered in underwritings in which an affiliate of the subadvisors participates. These procedures prohibit a fund from directly or indirectly benefiting

a subadvisor affiliate in connection with such underwritings. In addition, for underwritings where a subadvisor affiliate participates as a principal underwriter, certain restrictions may apply that could, among other things, limit the amount of securities that the funds could purchase.

Affiliated Brokerage. Pursuant to procedures determined by the Trustees and consistent with the above policy of obtaining best net results, a fund may execute portfolio transactions with or through brokers affiliated with the Advisor or subadvisor ("Affiliated Brokers"). Affiliated Brokers may act as broker for the funds on exchange transactions, subject, however, to the general policy set forth above and the procedures adopted by the Trustees pursuant to the 1940 Act. Commissions paid to an Affiliated Broker must be at least as favorable as those that the Trustees 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 the fund 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 fund, as determined by a majority of the Trustees who are not "interested persons" (as defined in the 1940 Act) of the fund, the Advisor, the subadvisor or the Affiliated Broker. Because the Advisor or subadvisor that is affiliated with the Affiliated Broker has, as an investment advisor to the funds, 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.

The Advisor's indirect parent, Manulife Financial, is the parent of a broker dealer, JH Distributors. JH Distributors is considered an Affiliated Broker.

Commission Recapture Program. The Board has approved each fund's participation in a commission recapture program. Commission recapture is a form of institutional discount brokerage that returns commission dollars directly to a fund. It provides a way to gain control over the commission expenses incurred by a subadvisor, which can be significant over time and thereby reduces expenses, improves cash flow and conserves assets. A fund 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 funds.

TRANSFER AGENT SERVICES

John Hancock Signature Services, Inc., P.O. Box 219909, Kansas City, MO 64121-9909, a wholly-owned indirect subsidiary of MFC, is the transfer and dividend paying agent for the Class A, Class I, Class R2, Class R4, Class R5, and Class R6 shares of the funds, as applicable.

The fees paid to Signature Services are determined based on the cost to Signature Services of providing services to the fund and to all other John Hancock affiliated funds for which Signature Services serves as transfer agent ("Signature Services Cost"). Signature Services Cost includes: (i) an allocable portion of John Hancock corporate overhead; and (ii) out-of-pocket expenses, including payments made by Signature Services to intermediaries and other third-parties ("Subtransfer Agency Fees") whose clients and/or customers invest in one or more funds for sub-transfer agency and administrative services provided to those clients/customers. Signature Services Cost is calculated monthly and allocated by Signature Services among four different categories as described below based generally on the Signature Services Cost associated with providing services to each category in the aggregate. Within each category, Signature Services Cost is allocated across all of the John Hancock affiliated funds and/or classes for which Signature Services provides transfer agent services, on the basis of relative average net assets.

Retail Share and Institutional Classes of Non-Municipal Bond Funds. An amount equal to the total Signature Services Cost associated with providing services to Class A, Class B, Class C, Class ADV, Class I, and Class I2 shares of all non-municipal series of the Trust and of all other John Hancock affiliated funds for which it serves as transfer agent is allocated pro-rata based upon assets of all Class A, Class B, Class C, Class ADV, Class I, and Class I2 shares in the aggregate, without regard to fund or class. The funds do not offer Class I2 or Class ADV shares.

Class R6 Shares. An amount equal to the total Signature Services Cost associated with providing services to Class R6 shares of the Trust and all other John Hancock affiliated funds for which it serves as transfer agent, is allocated pro-rata based upon assets of all such shares in the aggregate, without regard to fund.

Retirement Share Classes. An amount equal to the total Signature Services Cost associated with providing services to Class R1, Class R2, Class R3, Class R4, and Class R5 shares of the Trust and all other John Hancock affiliated funds for which it serves as transfer agent is allocated pro-rata based upon assets of all such shares in the aggregate, without regard to fund or class. In addition, payments made to intermediaries and/or record keepers under Class R Service plans will be made by each relevant fund on a fund- and class- specific basis pursuant to the applicable plan.

Municipal Bond Funds. An amount equal to the total Signature Services Cost associated with providing services to Class A, Class B, Class C, and Class I shares of all John Hancock affiliated municipal bond funds for which it serves as transfer agent, including out-of-pocket expenses for Subtransfer Agency Fees, is allocated pro-rata based upon assets of all such shares in the aggregate, without regard to fund or class. John Hancock municipal bond funds currently only offer Class A, Class B, Class C, Class I, and Class R6 shares. The allocation of Signature Services Costs for Class R6 shares of the municipal bond funds is described above. The Trust currently does not offer any municipal bond funds.

In applying the foregoing methodology, Signature Services seeks to operate its aggregate transfer agency operations on an "at cost" or "break even" basis. The allocation of aggregate transfer agency costs to categories of funds and/or classes assets seeks to ensure that shareholders of each class within each category will pay the same or a very similar level of transfer agency fees for the delivery of similar services. Under this methodology, the actual costs associated with providing particular services to a particular fund and/or share classes during a period of time, including payments to intermediaries for sub-transfer agency services to clients or customers whose assets are invested in a particular fund or share class, are not charged to and borne by that particular fund or share classes during that period. Instead, they are included in Signature Services Cost, which is then allocated to the applicable aggregate asset category described above and then allocated to all assets in that category based on relative net assets. Applying this methodology could result in some funds and/or classes having higher or lower transfer agency fees than they would have had if they bore only fund- or class-specific costs directly or indirectly attributable to them.

LEGAL AND REGULATORY MATTERS

There are no legal proceedings to which the Trust, the Advisor, or the Distributor is a party that are likely to have a material adverse effect on the funds or the ability of either the Advisor or the Distributor to perform its contract with the funds.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

PricewaterhouseCoopers LLP, independent registered public accounting firm, has been appointed as the independent registered public accounting firm for the Fund. PricewaterhouseCoopers LLP has offices at 101 Seaport Boulevard, Suite 500, Boston, Massachusetts 02210.

CUSTODY OF PORTFOLIO SECURITIES

State Street, State Street Financial Center, One Lincoln Street, Boston, Massachusetts 02111, currently acts as custodian and bookkeeping agent with respect to each fund's assets. State Street has selected various banks and trust companies in foreign countries to maintain custody of certain foreign securities. Each fund also may use special purpose custodian banks from time to time for certain assets. State Street is authorized to use the facilities of the Depository Trust Company, the Participants Trust Company, and the book-entry system of the Federal Reserve Banks.

CODES OF ETHICS

The Trust, the Advisor, the Distributor and the subadvisor to the funds have adopted Codes of Ethics that comply with Rule 17j-1 under the 1940 Act. Each Code of Ethics permits personnel subject to the Code of Ethics to invest in securities, including securities that may be purchased or held by a fund.

APPENDIX A – DESCRIPTION OF BOND RATINGS

DESCRIPTIONS OF CREDIT RATING SYMBOLS AND DEFINITIONS

The ratings of Moody's Investors Service, Inc. ("Moody's"), Standard & Poor's Ratings Services ("S&P Global Ratings") and Fitch Ratings ("Fitch") represent their respective opinions as of the date they are expressed and not statements of fact as to the quality of various long-term and short-term debt instruments they undertake to rate. It should be emphasized that ratings are general and are not absolute standards of quality. Consequently, debt instruments with the same maturity, coupon and rating may have different yields while debt instruments of the same maturity and coupon with different ratings may have the same yield.

Ratings do not constitute recommendations to buy, sell, or hold any security, nor do they comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of any payments of any security.

IN GENERAL

Moody's. Ratings assigned on Moody's global long-term and short-term rating scales are forward-looking opinions of the relative credit risks of financial obligations issued by non-financial corporates, financial institutions, structured finance vehicles, project finance vehicles, and public sector entities.

Note that the content of this Appendix A, to the extent that it relates to the ratings determined by Moody's, is derived directly from Moody's electronic publication of "Ratings Symbols and Definitions" which is available at: https://www.moody's.com/researchdocumentcontentpage.aspx?docid=PBC_79004.

S&P Global Ratings. An S&P Global Ratings issue credit rating is a forward-looking opinion about the creditworthiness of an obligor with respect to a specific financial obligation, a specific class of financial obligations, or a specific financial program (including ratings on medium-term note programs and commercial paper programs). It takes into consideration the creditworthiness of guarantors, insurers, or other forms of credit enhancement on the obligation and takes into account the currency in which the obligation is denominated. The opinion reflects S&P Global Ratings' view of the obligor's capacity and willingness to meet its financial commitments as they come due, and this opinion may assess terms, such as collateral security and subordination, which could affect ultimate payment in the event of default.

Issue ratings are an assessment of default risk but may incorporate an assessment of relative seniority or ultimate recovery in the event of default. Junior obligations are typically rated lower than senior obligations, to reflect the lower priority in bankruptcy.

Note that the content of this Appendix A, to the extent that it relates to the ratings determined by S&P Global Ratings, is derived directly from S&P Global Ratings' electronic publication of "S&P's Global Ratings Definitions," which is available at: https://www.standardandpoors.com/en_US/web/guest/article/-/view/sourceId/504352.

Fitch. Fitch's opinions are forward looking and include Fitch's views of future performance. In many cases, these views on future performance may include forecasts, which may in turn (i) be informed by non-disclosable management projections, (ii) be based on a trend (sector or wider economic cycle) at a certain stage in the cycle, or (iii) be based on historical performance. As a result, while ratings may include cyclical considerations and attempt to assess the likelihood of repayment at "ultimate/final maturity," material changes in economic conditions and expectations (for a particular issuer) may result in a rating change.

The terms "investment grade" and "speculative grade" have established themselves over time as shorthand to describe the categories 'AAA' to 'BBB' (investment grade) and 'BB' to 'D' (speculative grade). The terms investment grade and speculative grade are market conventions and do not imply any recommendation or endorsement of a specific security for investment purposes. Investment grade categories indicate relatively low to moderate credit risk, while ratings in the speculative categories either signal a higher level of credit risk or that a default has already occurred. For the convenience of investors, Fitch may also include issues relating to a rated issuer that are not and have not been rated on its web page. Such issues are also denoted as 'NR'.

Note that the content of this Appendix A, to the extent that it relates to the ratings determined by Fitch, is derived directly from Fitch's electronic publication of "Definitions of Ratings and Other Forms of Opinion" which is

available at: <https://www.fitchratings.com/site/dam/jcr:6b03c4cd-611d-47ec-b8f1-183c01b51b08/Rating%20Definitions%20-%20Jan%2024%202018.pdf>.

GENERAL PURPOSE RATINGS

LONG-TERM ISSUE RATINGS

MOODY'S GLOBAL LONG-TERM RATING SCALE

Long-term ratings are assigned to issuers or obligations with an original maturity of one year or more and reflect both on the likelihood of a default or impairment on contractual financial obligations and the expected financial loss suffered in the event of default or impairment.

Aaa: Obligations rated Aaa are judged to be of the highest quality, subject to the lowest level of credit risk.

Aa: Obligations rated Aa are judged to be of high quality and are subject to very low credit risk.

A: Obligations rated A are considered upper-medium grade and are subject to low credit risk.

Baa: Obligations rated Baa are judged to be medium-grade and subject to moderate credit risk and as such may possess certain speculative characteristics.

Ba: Obligations rated Ba are judged to be speculative and are subject to substantial credit risk.

B: Obligations rated B are considered speculative and are subject to high credit risk.

Caa: Obligations rated Caa are judged to be speculative of poor standing and are subject to very high credit risk.

Ca: Obligations rated Ca are highly speculative and are likely in, or very near, default, with some prospect of recovery of principal and interest.

C: Obligations rated C are the lowest rated and are typically in default, with little prospect for recovery of principal or interest.

Note: Addition of a Modifier 1, 2 or 3: Moody's appends numerical modifiers 1, 2 and 3 to each generic rating classification from Aa through Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category. Additionally, a "(hyb)" indicator is appended to all ratings of hybrid securities issued by banks, insurers, finance companies, and securities firms. By their terms, hybrid securities allow for the omission of scheduled dividends, interest, or principal payments, which can potentially result in impairment if such an omission occurs. Hybrid securities may also be subject to contractually allowable write-downs of principal that could result in impairment.

Together with the hybrid indicator, the long-term obligation rating assigned to a hybrid security is an expression of the relative credit risk associated with that security.

S&P GLOBAL RATINGS LONG-TERM ISSUE CREDIT RATINGS

Long-term ratings are assigned to issuers or obligations with an original maturity of one year or more and reflect both on the likelihood of a default or impairment on contractual financial obligations and the expected financial loss suffered in the event of default or impairment.

AAA: An obligation rated 'AAA' has the highest rating assigned by S&P Global Ratings. The obligor's capacity to meet its financial commitment on the obligation is extremely strong.

AA: An obligation rated 'AA' differs from the highest-rated obligations only to a small degree. The obligor's capacity to meet its financial commitment on the obligation is very strong.

A: An obligation rated 'A' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher-rated categories. However, the obligor's capacity to meet its financial commitment on the obligation is still strong.

BBB: An obligation rated 'BBB' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments on the obligation.

BB, B, CCC, CC and C: Obligations rated 'BB', 'B', 'CCC', 'CC' and 'C' are regarded as having significant speculative characteristics. 'BB' indicates the least degree of speculation and 'C' the highest. While such obligations will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposures to adverse conditions.

BB: An obligation rated 'BB' is less vulnerable to nonpayment than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions that could lead to the obligor's inadequate capacity to meet its financial commitment on the obligation.

B: An obligation rated 'B' is more vulnerable to nonpayment than obligations rated 'BB', but the obligor currently has the capacity to meet its financial commitments on the obligation. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitments on the obligation.

CCC: An obligation rated 'CCC' is currently vulnerable to nonpayment and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitments on the obligation. In the event of adverse business, financial or economic conditions, the obligor is not likely to have the capacity to meet its financial commitments on the obligation.

CC: An obligation rated 'CC' is currently highly vulnerable to nonpayment. The 'CC' rating is used when a default has not yet occurred but S&P Global Ratings expects default to be a virtual certainty, regardless of the anticipated time to default.

C: An obligation rated 'C' is currently highly vulnerable to nonpayment, and the obligation is expected to have lower relative seniority or lower ultimate recovery compared to obligations that are rated higher.

D: An obligation rated 'D' is in default or in breach of an imputed promise. For non-hybrid capital instruments, the 'D' rating category is used when payments on an obligation are not made on the date due, unless S&P Global Ratings believes that such payments will be made within five business days in the absence of a stated grace period or within the earlier of the stated grace period or 30 calendar days. The 'D' rating also will be used upon the filing of a bankruptcy petition or taking of similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. An obligation's rating is lowered to 'D' if it is subject to a distressed exchange offer.

Note: Addition of a Plus (+) or minus (-) sign: The ratings from 'AA' to 'CCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

Dual Ratings – Dual ratings may be assigned to debt issues that have a put option or demand feature. The first component of the rating addresses the likelihood of repayment of principal and interest as due, and the second component of the rating addresses only the demand feature. The first component of the rating can relate to either a short-term or long-term transaction and accordingly use either short-term or long-term rating symbols. The second component of the rating relates to the put option and is assigned a short-term rating symbol (for example, 'AAA/A-1+' or 'A-1+/A-1'). With U. S. municipal short-term demand debt, the U.S. municipal short-term note rating symbols are used for the first component of the rating (for example, 'SP-1+/A-1+').

FITCH CORPORATE FINANCE OBLIGATIONS – LONG-TERM RATING SCALES

Ratings of individual securities or financial obligations of a corporate issuer address relative vulnerability to default on an ordinal scale. In addition, for financial obligations in corporate finance, a measure of recovery given default on that liability is also included in the rating assessment. This notably applies to covered bond ratings, which incorporate both an indication of the probability of default and of the recovery given a default of this debt instrument.

AAA: Highest credit quality. 'AAA' ratings denote the lowest expectation of credit risk. They are assigned only in cases of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.

AA: Very high credit quality. 'AA' ratings denote expectations of very low credit risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.

A: High credit quality. 'A' ratings denote expectations of low credit risk. The capacity for payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings.

BBB: Good credit quality. 'BBB' ratings indicate that expectations of credit risk are currently low. The capacity for payment of financial commitments is considered adequate but adverse business or economic conditions are more likely to impair this capacity.

BB: Speculative. 'BB' ratings indicate an elevated vulnerability to credit risk, particularly in the event of adverse changes in business or economic conditions over time; however, business or financial alternatives may be available to allow financial commitments to be met.

B: Highly speculative. 'B' ratings indicate that material credit risk is present.

CCC: Substantial credit risk. "CCC" ratings indicate that substantial credit risk is present.

CC: Very high levels of credit risk. "CC" ratings indicate very high levels of credit risk.

C: Exceptionally high levels of credit risk. "C" indicates exceptionally high levels of credit risk.

Corporate finance defaulted obligations typically are not assigned 'RD' or 'D' ratings but are instead rated in the 'CCC' to 'C' rating categories, depending on their recovery prospects and other relevant characteristics. This approach better aligns obligations that have comparable overall expected loss but varying vulnerability to default and loss.

Note: Addition of a Plus (+) or minus (-) sign: Within rating categories, Fitch may use modifiers. The modifiers "+" or "-" may be appended to a rating to denote relative status within major rating categories. For example, the rating category 'AA' has three notch-specific rating levels ('AA+', 'AA'; 'AA-'; each a rating level). Such suffixes are not added to 'AAA' ratings and ratings below the 'CCC' category. For the short-term rating category of 'F1', a '+' may be appended. For Viability Ratings, the modifiers '+' or '-' may be appended to a rating to denote relative status within categories from 'aa' to 'ccc'.

CORPORATE AND TAX-EXEMPT COMMERCIAL PAPER RATINGS

SHORT-TERM ISSUE RATINGS

MOODY'S GLOBAL SHORT-TERM RATING SCALE

Ratings assigned on Moody's global long-term and short-term rating scales are forward-looking opinions of the relative credit risks of financial obligations issued by non-financial corporates, financial institutions, structured finance vehicles, project finance vehicles, and public sector entities. Short-term ratings are assigned to obligations with an original maturity of thirteen months or less and reflect both the likelihood of a default or impairment on contractual financial obligations and the expected financial loss suffered in the event of default or impairment.

Moody's employs the following designations to indicate the relative repayment ability of rated issuers:

P-1: Issuers (or supporting institutions) rated Prime-1 have a superior ability to repay short-term debt obligations.

P-2: Issuers (or supporting institutions) rated Prime-2 have a strong ability to repay short-term debt obligations.

P-3: Issuers (or supporting institutions) rated Prime-3 have an acceptable ability to repay short-term obligations.

NP: Issuers (or supporting institutions) rated Not Prime do not fall within any of the Prime rating categories.

The following table indicates the long-term ratings consistent with different short-term ratings when such long-term ratings exist. (Note: Structured finance short-term ratings are usually based either on the short-term rating of a support provider or on an assessment of cash flows available to retire the financial obligation).

LONG-TERM RATING SHORT-TERM RATING

Aaa	}	
Aa1		
Aa2		
Aa3		Prime-1
A1		
A2	}	
A3		Prime-2
Baa1		
Baa2	}	Prime-3
Baa3		

Ba1, Ba2, Ba3	
B1, B2, B3	Not Prime
Caa1, Caa2, Caa3	
Ca, C	

S&P'S SHORT-TERM ISSUE CREDIT RATINGS

S&P Global Ratings' short-term ratings are generally assigned to those obligations considered short-term in the relevant market. Short-term ratings are also used to indicate the creditworthiness of an obligor with respect to put features on long-term obligations. Medium term notes are assigned long-term ratings. Ratings are graded into several categories, ranging from 'A' for the highest-quality obligations to 'D' for the lowest. These categories are as follows:

A-1: A short-term obligation rated 'A-1' is rated in the highest category by S&P Global Ratings. The obligor's capacity to meet its financial commitment on the obligation is strong. Within this category, certain obligations are designated with a plus sign (+). This indicates that the obligor's capacity to meet its financial commitments on these obligations is extremely strong.

A-2: A short-term obligation rated 'A-2' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rating categories. However, the obligor's capacity to meet its financial commitments on the obligation is satisfactory.

A-3: A short-term obligation rated 'A-3' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to weaken an obligor's capacity to meet its financial commitments on the obligation.

B: A short-term obligation rated 'B' is regarded as vulnerable and has significant speculative characteristics. The obligor currently has the capacity to meet its financial commitments; however, it faces major ongoing uncertainties that could lead to the obligor's inadequate capacity to meet its financial commitments.

C: A short-term obligation rated 'C' is currently vulnerable to nonpayment and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitments on the obligation.

D: A short-term obligation rated 'D' is in default or in breach of an imputed promise. For non-hybrid capital instruments, the 'D' rating category is used when payments on an obligation are not made on the date due, unless S&P Global Ratings believes that such payments will be made within any stated grace period. However, any stated grace period longer than five business days will be treated as five business days. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of a similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. An obligation's rating is lowered to 'D' if it is subject to a distressed exchange offer.

Dual Ratings - Dual ratings may be assigned to debt issues that have a put option or demand feature. The first component of the rating addresses the likelihood of repayment of principal and interest as due, and the second

component of the rating addresses only the demand feature. The first component of the rating can relate to either a short-term or long-term transaction and accordingly use either short-term or long-term rating symbols. The second component of the rating relates to the put option and is assigned a short-term rating symbol (for example, 'AAA/A-1+' or 'A-1+/A-1'). With U.S. municipal short-term demand debt, the U.S. municipal short-term note rating symbols are used for the first component of the rating (for example, 'SP-1+/A-1+').

FITCH'S SHORT-TERM ISSUER OR OBLIGATION RATINGS

A short-term issuer or obligation rating is based in all cases on the short-term vulnerability to default of the rated entity and relates to the capacity to meet financial obligations in accordance with the documentation governing the relevant obligation. Short-term deposit ratings may be adjusted for loss severity. Short-term deposit ratings may be adjusted for loss severity. Short-Term Ratings are assigned to obligations whose initial maturity is viewed as "short term" based on market convention. Typically, this means up to 13 months for corporate, sovereign, and structured obligations, and up to 36 months for obligations in U.S. public finance markets.

F1: Highest short-term credit quality.

Indicates the strongest intrinsic capacity for timely payment of financial commitments; may have an added ("+") to denote any exceptionally strong credit feature.

F2: Good short-term credit quality.

Good intrinsic capacity for timely payment of financial commitments.

F3: Fair short-term credit quality.

The intrinsic capacity for timely payment of financial commitments is adequate.

B: Speculative short-term credit quality.

Minimal capacity for timely payment of financial commitments, plus heightened vulnerability to near term adverse changes in financial and economic conditions.

C: High short-term default risk.

Default is a real possibility.

RD: Restricted default.

Indicates an entity that has defaulted on one or more of its financial commitments, although it continues to meet other financial obligations. Typically applicable to entity ratings only.

D: Default.

Indicates a broad-based default event for an entity, or the default of a short-term obligation.

TAX-EXEMPT NOTE RATINGS

MOODY'S U.S. MUNICIPAL SHORT-TERM DEBT RATINGS

While the global short-term 'prime' rating scale is applied to US municipal tax-exempt commercial A-8 paper, these programs are typically backed by external letters of credit or liquidity facilities and their short-term prime ratings usually map to the long-term rating of the enhancing bank or financial institution and not to the municipality's rating. Other short-term municipal obligations, which generally have different funding sources for repayment, are rated using two additional short-term rating scales (i.e., the MIG and VMIG scale discussed below).

The Municipal Investment Grade (MIG) scale is used to rate US municipal bond anticipation notes of up to five years maturity. Municipal notes rated on the MIG scale may be secured by either pledged revenues or proceeds of a take-out financing received prior to note maturity. MIG ratings expire at the maturity of the obligation, and the issuer's long-term rating is only one consideration in assigning the MIG rating. MIG ratings are divided into three levels—MIG 1 through MIG 3—while speculative grade short-term obligations are designated SG.

MIG 1: This designation denotes superior credit quality. Excellent protection is afforded by established cash flows, highly reliable liquidity support, or demonstrated broad-based access to the market for refinancing.

MIG 2: This designation denotes strong credit quality. Margins of protection are ample, although not as large as in the preceding group.

MIG 3: This designation denotes acceptable credit quality. Liquidity and cash-flow protection may be narrow, and market access for refinancing is likely to be less well-established.

SG: This designation denotes speculative-grade credit quality. Debt instruments in this category may lack sufficient margins of protection.

Variable Municipal Investment Grade (VMIG) ratings of demand obligations with unconditional liquidity support are mapped from the short-term debt rating (or counterparty assessment) of the support provider, or the underlying obligor in the absence of third party liquidity support, with VMIG 1 corresponding to P-1, VMIG 2 to P-2, VMIG 3 to P-3 and SG to not prime. For example, the VMIG rating for an industrial revenue bond with Company XYZ as the underlying obligor would normally have the same numerical modifier as Company XYZ's prime rating.

Transitions of VMIG ratings of demand obligations with conditional liquidity support, as shown in the diagram below, differ from transitions on the Prime scale to reflect the risk that external liquidity support will terminate if the issuer's long-term rating drops below investment grade.

VMIG 1: This designation denotes superior credit quality. Excellent protection is afforded by the superior short-term credit strength of the liquidity provider and structural and legal protections that ensure the timely payment of purchase price upon demand.

VMIG 2: This designation denotes strong credit quality. Good protection is afforded by the strong short-term credit strength of the liquidity provider and structural and legal protections that ensure the timely payment of purchase price upon demand.

VMIG 3: This designation denotes acceptable credit quality. Adequate protection is afforded by the satisfactory short-term credit strength of the liquidity provider and structural and legal protections that ensure the timely payment of purchase price upon demand.

SG: This designation denotes speculative-grade credit quality. Demand features rated in this category may be supported by a liquidity provider that does not have an investment grade short-term rating or may lack the structural and/or legal protections necessary to ensure the timely payment of purchase price upon demand.

* For VRDBs supported with conditional liquidity support, short-term ratings transition down at higher long-term ratings to reflect the risk of termination of liquidity support as a result of a downgrade below investment grade.

VMIG ratings of VRDBs with unconditional liquidity support reflect the short-term debt rating (or counterparty assessment) of the liquidity support provider with VMIG 1 corresponding to P-1, VMIG 2 to P-2, VMIG 3 to P-3 and SG to not prime.

For more complete discussion of these rating transitions, please see Annex B of Moody's Methodology titled Variable Rate Instruments Supported by Conditional Liquidity Facilities.

US Municipal Short-Term Versus Long-Term Ratings

NOTES	LONG-TERM RATING	DEMAND OBLIGATIONS WITH CONDITIONAL LIQUIDITY SUPPORT
MIG 1	Aaa	VMIG 1
	Aa1	
	Aa2	
	Aa3	
	A1	
	A2	
MIG 2	A3	VMIG 2
	Baa1	VMIG3*
MIG3	Baa2	SG
	Baa3	
	Ba1, Ba2, Ba3	
	B1, B2, B3	
SG	Caa1, Caa2, Caa3	
	Ca, C	

* For SBPA-backed VRDBs, The rating transitions are higher to allow for distance to downgrade to below investment grade due to the

presence of automatic termination events in the SBPAs.

S&P GLOBAL RATINGS' MUNICIPAL SHORT-TERM NOTE RATINGS

An S&P Global Ratings municipal note rating reflects S&P Global Ratings' opinion about the liquidity factors and market access risks unique to the notes. Notes due in three years or less will likely receive a note rating. Notes with an original maturity of more than three years will most likely receive a long-term debt rating. In determining which type of rating, if any, to assign, S&P Global Ratings' analysis will review the following considerations:



Amortization schedule – the larger the final maturity relative to other maturities, the more likely it will be treated as a note; and



Source of payment – the more dependent the issue is on the market for its refinancing, the more likely it will be treated as a note.

Note rating symbols are as follows:

SP-1: Strong capacity to pay principal and interest. An issue determined to possess a very strong capacity to pay debt service is given a plus (+) designation.

SP-2: Satisfactory capacity to pay principal and interest, with some vulnerability to adverse financial and economic changes over the term of the notes.

SP-3: Speculative capacity to pay principal and interest.

D: 'D' is assigned upon failure to pay the note when due, completion of a distressed exchange offer, or the filing of a bankruptcy petition or the taking of similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions.

FITCH PUBLIC FINANCE RATINGS

See FITCH SHORT-TERM ISSUER OR OBLIGATIONS RATINGS above.

APPENDIX B – PORTFOLIO MANAGER INFORMATION

MANULIFE IM (US)

Robert Sykes, CFA and Nathan Thooft, CFA, are jointly and primarily responsible for the day-to-day management of the funds.

The following table reflects information regarding other accounts for which each listed portfolio manager has day-to-day management responsibilities. Accounts are grouped into three categories: (i) other investment companies (and series thereof); (ii) other pooled investment vehicles; and (iii) other accounts. To the extent that any of these accounts pays advisory fees that are based on account performance ("performance-based fees"), information on those accounts is specifically broken out. In addition, any assets denominated in foreign currencies have been converted into U.S. dollars using the exchange rates as of the applicable date. Also shown below the table is each portfolio manager's investment in the funds and similarly managed accounts.

The following table reflects information as of August 31, 2020:

Portfolio Manager	Other Registered Investment Companies		Other Pooled Investment Vehicles		Other Accounts	
	Number of Accounts	Assets (in millions)	Number of Accounts	Assets (in millions)	Number of Accounts	Assets (in millions)
Robert Sykes	52	\$72,249	0	\$0	0	\$0
Nathan Thooft	54	\$76,426	59	\$12,716	5	\$25

None of these accounts pay a performance-based fee.

Ownership of the Funds and Similarly Managed Accounts

The following table shows the dollar range of fund shares and shares of similarly managed accounts beneficially owned by the portfolio managers listed above as of August 31, 2020. For purposes of this table, "similarly managed accounts" include all accounts that are managed (i) by the same portfolio managers that are jointly and primarily responsible for the day-to-day management of the Fund; and (ii) with an investment style, objective, policies and strategies substantially similar to those that are used to manage the Fund. The portfolio manager's ownership of fund shares is stated in the footnote that follows the table.

Portfolio Manager	Dollar Range of Shares Owned by Fund ¹
Robert Sykes	\$100,001-\$500,000
Nathan Thooft	Over \$1,000,000

¹ As of August 31, 2020, the portfolio managers did not beneficially own shares of the fund.

POTENTIAL CONFLICTS OF INTEREST

When a portfolio manager is responsible for the management of more than one account, the potential arises for the portfolio manager to favor one account over another. The principal types of potential conflicts of interest that may arise are discussed below. For the reasons outlined below, the Trust does not believe that any material conflicts are likely to arise out of a portfolio manager's responsibility for the management of a Portfolio as well as one or more other accounts. The Advisor and Manulife IM (US) have adopted procedures that are intended to monitor compliance with the policies referred to in the following paragraphs. Generally, the risks of such conflicts of interests are increased to the extent that a portfolio manager has a financial incentive to favor one account over another. The Advisor and Manulife IM (US) have structured their compensation arrangements in a manner that is intended to limit such potential for conflicts of interests. See "Compensation" below.

- A portfolio manager could favor one account over another in allocating new investment opportunities that have limited supply, such as initial public offerings and private placements. If, for example, an initial

public offering that was expected to appreciate in value significantly shortly after the offering was allocated to a single account, that account may be expected to have better investment performance than other accounts that did not receive an allocation on the initial public offering. Manulife IM (US) has policies that require a portfolio manager to allocate such investment opportunities in an equitable manner and generally to allocate such investments proportionately among all accounts with similar investment objectives.

- A portfolio manager could favor one account over another in the order in which trades for the accounts are placed. If a portfolio manager determines to purchase a security for more than one account in an aggregate amount that may influence the market price of the security, accounts that purchased or sold the security first may receive a more favorable price than accounts that made subsequent transactions. The less liquid the market for the security or the greater the percentage that the proposed aggregate purchases or sales represent of average daily trading volume, the greater the potential for accounts that make subsequent purchases or sales to receive a less favorable price. When a portfolio manager intends to trade the same security for more than one account, the policies of Manulife IM (US) generally require that such trades be "bunched," which means that the trades for the individual accounts are aggregated and each account receives the same price. There are some types of accounts as to which bunching may not be possible for contractual reasons (such as directed brokerage arrangements). Circumstances may also arise where the trader believes that bunching the orders may not result in the best possible price. Where those accounts or circumstances are involved, Manulife IM (US) will place the order in a manner intended to result in as favorable a price as possible for such client.
- A portfolio manager could favor an account if the portfolio manager's compensation is tied to the performance of that account rather than all accounts managed by the portfolio manager. If, for example, the portfolio manager receives a bonus based upon the performance of certain accounts relative to a benchmark while other accounts are disregarded for this purpose, the portfolio manager will have a financial incentive to seek to have the accounts that determine the portfolio manager's bonus achieve the best possible performance to the possible detriment of other accounts. Similarly, if Manulife IM (US) receives a performance-based advisory fee, the portfolio manager may favor that account, whether or not the performance of that account directly determines the portfolio manager's compensation. The investment performance on specific accounts is not a factor in determining the portfolio manager's compensation. See "Compensation" below. Neither the Advisor nor Manulife IM (US) receives a performance-based fee with respect to any of the accounts managed by the portfolio managers.
- A portfolio manager could favor an account if the portfolio manager has a beneficial interest in the account, in order to benefit a large client or to compensate a client that had poor returns. For example, if the portfolio manager held an interest in an investment partnership that was one of the accounts managed by the portfolio manager, the portfolio manager would have an economic incentive to favor the account in which the portfolio manager held an interest. Manulife IM (US) imposes certain trading restrictions and reporting requirements for accounts in which a portfolio manager or certain family members have a personal interest in order to confirm that such accounts are not favored over other accounts.
- If the different accounts have materially and potentially conflicting investment objectives or strategies, a conflict of interest may arise. For example, if a portfolio manager purchases a security for one account and sells the same security short for another account, such trading pattern could disadvantage either the account that is long or short. In making portfolio manager assignments, Manulife IM (US) seeks to avoid such potentially conflicting situations. However, where a portfolio manager is responsible for accounts with differing investment objectives and policies, it is possible that the portfolio manager will conclude that it is in the best interest of one account to sell a portfolio security while another account continues to hold or increase the holding in such security.

COMPENSATION

Manulife IM (US) has adopted a system of compensation for portfolio managers and others involved in the investment process that is applied systematically among investment professionals. At Manulife IM (US), the structure of compensation of investment professionals is currently comprised of the following basic components: base salary and an annual investment bonus plan as well as customary benefits that are offered generally to all full-time employees of Manulife IM (US). A limited number of senior investment professionals, who serve as officers of both Manulife IM (US) and its parent company, may also receive options or restricted stock grants of common shares of Manulife Financial. The following describes each component of the compensation package for the individuals identified as a portfolio manager for the Portfolios.

- **Base salary.** Base compensation is fixed and normally reevaluated on an annual basis. Manulife IM (US) seeks to set compensation at market rates, taking into account the experience and responsibilities of the investment professional.
- **Investment Bonus Plan.** Only investment professionals are eligible to participate in the Investment Bonus Plan. Under the plan, investment professionals are eligible for an annual bonus. The plan is intended to provide a competitive level of annual bonus compensation that is tied to the investment professional achieving superior investment performance and aligns the financial incentives of Manulife IM (US) and the investment professional. Any bonus under the plan is completely discretionary, with a maximum annual bonus that may be well in excess of base salary. Payout of a portion of this bonus may be deferred for up to five years. While the amount of any bonus is discretionary, the following factors are generally used in determining bonuses under the plan:
 - **Investment Performance:** The investment performance of all accounts managed by the investment professional over one, three and five year periods are considered. The pre-tax performance of each account is measured relative to an appropriate peer group benchmark (for example a Morningstar large cap growth peer group if the fund invests primarily in large cap stocks with a growth strategy). With respect to fixed income accounts, relative yields are also used to measure performance.
 - **The Profitability of Manulife IM (US):** The profitability of Manulife IM (US) and its parent company also are considered in determining bonus awards.
 - **Non-Investment Performance:** To a lesser extent, intangible contributions, including the investment professional's support of client service and sales activities, new fund/strategy idea generation, professional growth and development, and management, where applicable, are also evaluated when determining bonus awards.
- **Options and Stock Grants.** A limited number of senior investment professionals may receive options to purchase shares of Manulife Financial stock. Generally, such option would permit the investment professional to purchase a set amount of stock at the market price on the date of grant. The option can be exercised for a set period (normally a number of years or until termination of employment) and the investment professional would exercise the option if the market value of Manulife Financial stock increases. Some investment professionals may receive restricted stock grants, where the investment professional is entitled to receive the stock at no or nominal cost, provided that the stock is forgone if the investment professional's employment is terminated prior to a vesting date.

Manulife IM (US) also permits investment professionals to participate on a voluntary basis in a deferred compensation plan, under which the investment professional may elect on an annual basis to defer receipt of a portion of their compensation until retirement. Participation in the plan is voluntary.

APPENDIX C – PROXY VOTING POLICIES AND PROCEDURES

JOHN HANCOCK FUNDS PROXY VOTING POLICIES AND PROCEDURES (Updated December 10, 2019)

General

The Majority of the Independent Board of Trustees (the "Board") of each registered investment company of the Trusts, has adopted these proxy voting policies and procedures (the "Trust Proxy Policy").

Each fund of the Trust or any other registered investment company (or series thereof) (each, a "fund") is required to disclose its proxy voting policies and procedures in its registration statement and, pursuant to Rule 30b1-4 under the 1940 Act, file annually with the Securities and Exchange Commission and make available to shareholders its actual proxy voting record. In this regard, the Trust Policy is set forth below.

Policy

It is the Advisers' policy to comply with Rule 206(4)-6 of the Advisers Act and Rule 30b1-4 of the 1940 Act as described above. In general, Advisers defer proxy voting decisions to the sub-advisers managing the Funds. It is the policy of the Trusts to delegate the responsibility for voting proxies relating to portfolio securities held by a Fund to the Fund's respective Adviser or, if the Fund's Adviser has delegated portfolio management responsibilities to one or more investment sub-adviser(s), to the fund's sub-adviser(s), subject to the Board's continued oversight. The sub-adviser for each Fund shall vote all proxies relating to securities held by each Fund and in that connection, and subject to any further policies and procedures contained herein, shall use proxy voting policies and procedures adopted by each sub-adviser in conformance with Rule 206(4)-6 under the Advisers Act.

If an instance occurs where a conflict of interest arises between the shareholders and the designated sub-adviser, however, Advisers retain the right to influence and/or direct the conflicting proxy voting decisions in the best interest of shareholders.

Investment Company Act

An investment company is required to disclose in its SAI either (a) a summary of the policies and procedures that it uses to determine how to vote proxies relating to portfolio securities or (b) a copy of its proxy voting policies.

A fund is also required by Rule 30b1-4 of the Investment Company Act of 1940 to file Form N-PX annually with the SEC, which contains a record of how the fund voted proxies relating to portfolio securities. For each matter relating to a portfolio security considered at any shareholder meeting, Form N-PX is required to include, among other information, the name of the issuer of the security, a brief identification of the matter voted on, whether and how the fund cast its vote, and whether such vote was for or against management. In addition, a fund is required to disclose in its SAI and its annual and semi-annual reports to shareholders that such voting record may be obtained by shareholders, either by calling a toll-free number or through the fund's website, at the fund's option.

Advisers Act

Under Advisers Act Rule 206(4)-6, investment advisers are required to adopt proxy voting policies and procedures, and investment companies typically rely on the policies of their advisers or sub-advisers.

Delegation of Proxy Voting Responsibilities

It is the policy of the Trust to delegate the responsibility for voting proxies relating to portfolio securities held by a fund to the fund's investment adviser ("adviser") or, if the fund's adviser has delegated portfolio management responsibilities to one or more investment sub-adviser(s), to the fund's sub-adviser(s), subject to the Board's continued oversight. The sub-adviser for each fund shall vote all proxies relating to securities held by each fund and in that connection, and subject to any further policies and procedures contained herein, shall use proxy voting policies and procedures adopted by each sub-adviser in conformance with Rule 206(4)-6 under the Investment Advisers Act of 1940, as amended (the "Advisers Act").

Except as noted below under Material Conflicts of Interest, the Trust Proxy Policy with respect to a Fund shall incorporate that adopted by the Fund's sub-adviser with respect to voting proxies held by its clients (the "Sub-adviser Proxy Policy"). Each Sub-adviser Policy, as it may be amended from time to time, is hereby incorporated by

reference into the Trust Proxy Policy. Each sub-adviser to a Fund is directed to comply with these policies and procedures in voting proxies relating to portfolio securities held by a fund, subject to oversight by the Fund's adviser and by the Board. Each Adviser to a Fund retains the responsibility, and is directed, to oversee each sub-adviser's compliance with these policies and procedures, and to adopt and implement such additional policies and procedures as it deems necessary or appropriate to discharge its oversight responsibility. Additionally, the Trust's Chief Compliance Officer ("CCO") shall conduct such monitoring and supervisory activities as the CCO or the Board deems necessary or appropriate in order to appropriately discharge the CCO's role in overseeing the sub-advisers' compliance with these policies and procedures.

The delegation by the Board of the authority to vote proxies relating to portfolio securities of the funds is entirely voluntary and may be revoked by the Board, in whole or in part, at any time.

Voting Proxies of Underlying Funds of a Fund of Funds

A. Where the Fund of Funds is not the Sole Shareholder of the Underlying Fund

With respect to voting proxies relating to the shares of an underlying fund (an "Underlying Fund") held by a Fund of the Trust operating as a fund of funds (a "Fund of Funds") in reliance on Section 12(d)(1)(G) of the 1940 Act where the Underlying Fund has shareholders other than the Fund of Funds which are not other Fund of Funds, the Fund of Funds will vote proxies relating to shares of the Underlying Fund in the same proportion as the vote of all other holders of such Underlying Fund shares.

B. Where the Fund of Funds is the Sole Shareholder of the Underlying Fund

In the event that one or more Funds of Funds are the sole shareholders of an Underlying Fund, the Adviser to the Fund of Funds or the Trusts will vote proxies relating to the shares of the Underlying Fund as set forth below unless the Board elects to have the Fund of Funds seek voting instructions from the shareholders of the Funds of Funds in which case the Fund of Funds will vote proxies relating to shares of the Underlying Fund in the same proportion as the instructions timely received from such shareholders.

1. Where Both the Underlying Fund and the Fund of Funds are Voting on Substantially Identical Proposals

In the event that the Underlying Fund and the Fund of Funds are voting on substantially identical proposals (the "Substantially Identical Proposal"), then the Adviser or the Fund of Funds will vote proxies relating to shares of the Underlying Fund in the same proportion as the vote of the shareholders of the Fund of Funds on the Substantially Identical Proposal.

2. Where the Underlying Fund is Voting on a Proposal that is Not Being Voted on by the Fund of Funds

(a) Where there is No Material Conflict of Interest Between the Interests of the Shareholders of the Underlying Fund and the Adviser Relating to the Proposal

In the event that the Fund of Funds is voting on a proposal of the Underlying Fund and the Fund of Funds is not also voting on a substantially identical proposal and there is no material conflict of interest between the interests of the shareholders of the Underlying Fund and the Adviser relating to the Proposal, then the Adviser will vote proxies relating to the shares of the Underlying Fund pursuant to its Proxy Voting Procedures.

(b) Where there is a Material Conflict of Interest Between the Interests of the Shareholders of the Underlying Fund and the Adviser Relating to the Proposal

In the event that the Fund of Funds is voting on a proposal of the Underlying Fund and the Fund of Funds is not also voting on a substantially identical proposal and there is a material conflict of interest between the interests of the shareholders of the Underlying Fund and the Adviser relating to the Proposal, then the Fund of Funds will seek voting instructions from the shareholders of the Fund of Funds on the proposal and will vote proxies relating to shares of the Underlying Fund in the same proportion as the instructions timely received from such shareholders. A material conflict is generally defined as a proposal involving a matter in which the Adviser or one of its affiliates has a material economic interest.

Material Conflicts of Interest

If (1) a sub-adviser to a Fund becomes aware that a vote presents a material conflict between the interests of (a) shareholders of the Fund; and (b) the Fund's Adviser, sub-adviser, principal underwriter, or any of their affiliated persons, and (2) the sub-adviser does not propose to vote on the particular issue in the manner prescribed by its Sub-adviser Proxy Policy or the material conflict of interest procedures set forth in its Sub-adviser Proxy Policy are

otherwise triggered, then the sub-adviser will follow the material conflict of interest procedures set forth in its Sub-adviser Proxy Policy when voting such proxies.

If a Sub-adviser Proxy Policy provides that in the case of a material conflict of interest between Fund shareholders and another party, the sub-adviser will ask the Board to provide voting instructions, the sub-adviser shall vote the proxies, in its discretion, as recommended by an independent third party, in the manner prescribed by its Sub-adviser Proxy Policy or abstain from voting the proxies.

Proxy Voting Committee(s)

The Advisers will from time to time, and on such temporary or longer-term basis as they deem appropriate, establish one or more Proxy Voting Committees. A Proxy Voting Committee shall include the Advisers' CCO and may include legal counsel. The terms of reference and the procedures under which a Proxy Voting Committee will operate will be reviewed from time to time by the Legal and Compliance Department. Records of the deliberations and proxy voting recommendations of a Proxy Voting Committee will be maintained in accordance with applicable law, if any, and these Proxy Procedures. Requested shareholder proposals or other Shareholder Advocacy in the name of a Fund must be submitted for consideration pursuant to the Shareholder Advocacy Policy and Procedures.

Securities Lending Program

Certain of the Funds participate in a securities lending program with the Trusts through an agent lender. When a Fund's securities are out on loan, they are transferred into the borrower's name and are voted by the borrower, in its discretion. Where a sub-adviser determines, however, that a proxy vote (or other shareholder action) is materially important to the client's account, the sub-adviser should request that the agent recall the security prior to the record date to allow the sub-adviser to vote the securities.

Disclosure of Proxy Voting Policies and Procedures in the Trust's Statement of Additional Information ("SAI")

The Trust shall include in its SAI a summary of the Trust Proxy Policy and of the Sub-adviser Proxy Policy included therein. (In lieu of including a summary of these policies and procedures, the Trust may include each full Trust Proxy Policy and Sub-adviser Proxy Policy in the SAI.)

Disclosure of Proxy Voting Policies and Procedures in Annual and Semi-Annual Shareholder Reports

The Trusts shall disclose in annual and semi-annual shareholder reports that a description of the Trust Proxy Policy, including the Sub-adviser Proxy Policy, and the Trusts' proxy voting record for the most recent 12 months ended June 30 are available on the Securities and Exchange Commission's ("SEC") website, and without charge, upon request, by calling a specified toll-free telephone number. The Trusts will send these documents within three business days of receipt of a request, by first-class mail or other means designed to ensure equally prompt delivery. The Fund Administration Department is responsible for preparing appropriate disclosure regarding proxy voting for inclusion in shareholder reports and distributing reports. The Legal Department supporting the Trusts is responsible for reviewing such disclosure once it is prepared by the Fund Administration Department.

Filing of Proxy Voting Record on Form N-PX

The Trusts will annually file their complete proxy voting record with the SEC on Form N-PX. The Form N-PX shall be filed for the twelve months ended June 30 no later than August 31 of that year. The Fund Administration department, supported by the Legal Department supporting the Trusts, is responsible for the annual filing.

Procedure

Review of Sub-advisers' Proxy Voting

The Trusts have delegated proxy voting authority with respect to Fund portfolio securities in accordance with the Trust Policy, as set forth above.

Consistent with this delegation, each sub-adviser is responsible for the following:

1. Implementing written policies and procedures, in compliance with Rule 206(4)-6 under the Advisers Act, reasonably designed to ensure that the sub-adviser votes portfolio securities in the best interest of shareholders of the Trusts.
2. Providing the Advisers with a copy and description of the Sub-adviser Proxy Policy prior to being approved by the Board as a sub-adviser, accompanied by a certification that represents that the Sub-adviser Proxy Policy has been adopted in conformance with Rule 206(4)-6 under the Advisers Act. Thereafter, providing the Advisers with notice of any amendment or revision to that Sub-adviser Proxy Policy or with a description thereof. The Advisers

are required to report all material changes to a Sub-adviser Proxy Policy quarterly to the Board. The CCO's annual written compliance report to the Board will contain a summary of the material changes to each Sub-adviser Proxy Policy during the period covered by the report.

3. Providing the Adviser with a quarterly certification indicating that the sub-adviser did vote proxies of the funds and that the proxy votes were executed in a manner consistent with the Sub-adviser Proxy Policy. If the sub-adviser voted any proxies in a manner inconsistent with the Sub-adviser Proxy Policy, the sub-adviser will provide the Adviser with a report detailing the exceptions.

Adviser Responsibilities

The Trusts have retained a proxy voting service to coordinate, collect, and maintain all proxy-related information, and to prepare and file the Trust's reports on Form N-PX with the SEC.

The Advisers, in accordance with their general oversight responsibilities, will periodically review the voting records maintained by the proxy voting service in accordance with the following procedures:

1. Receive a file with the proxy voting information directly from each sub-adviser on a quarterly basis.
2. Select a sample of proxy votes from the files submitted by the sub-advisers and compare them against the proxy voting service files for accuracy of the votes.
3. Deliver instructions to shareholders on how to access proxy voting information via the Trust's semi-annual and annual shareholder reports.

The Fund Administration Department, in conjunction with the Legal Department supporting the Trusts, is responsible for the foregoing procedures.

Proxy Voting Service Responsibilities

Proxy voting services retained by the Trusts are required to undertake the following procedures:

• Aggregation of Votes:

The proxy voting service's proxy disclosure system will collect fund-specific and/or account-level voting records, including votes cast by multiple sub-advisers or third-party voting services.

• Reporting:

The proxy voting service's proxy disclosure system will provide the following reporting features:

1. multiple report export options;
2. report customization by fund-account, portfolio manager, security, etc.; and
3. account details available for vote auditing.

• Form N-PX Preparation and Filing:

The Advisers will be responsible for oversight and completion of the filing of the Trusts' reports on Form N-PX with the SEC. The proxy voting service will prepare the EDGAR version of Form N-PX and will submit it to the adviser for review and approval prior to filing with the SEC. The proxy voting service will file Form N-PX for each twelve-month period ending on June 30. The filing must be submitted to the SEC on or before August 31 of each year. The Fund Administration Department, in conjunction with the Legal Department supporting the Trusts, is responsible for the foregoing procedures.

The Fund Administration Department in conjunction with the CCO oversees compliance with this policy.

The Fund Administration Department maintains operating procedures affecting the administration and disclosure of the Trusts' proxy voting records.

The Trusts' Chief Legal Counsel is responsible for including in the Trusts' SAI information regarding the Advisers' and each sub-advisers proxy voting policies as required by applicable rules and form requirements.

The Fund Administration Department and The CCO's Office is responsible for maintaining all documentation created in connection with this policy. Documents will be maintained for the period set forth in the Records Retention Schedule.

**JOHN HANCOCK VARIABLE TRUST ADVISERS LLC
JOHN HANCOCK INVESTMENT MANAGEMENT LLC
PROXY VOTING POLICIES AND PROCEDURES
Updated December 1, 2019**

General

The SEC adopted Rule 206(4)-6 under the Advisers Act, which requires investment advisers with voting authority to adopt and implement written policies and procedures that are reasonably designed to ensure that the investment adviser votes client securities in the best interest of clients. The procedures must include how the investment adviser addresses material conflicts that may arise between the interests of the investment adviser and those of its clients. The Advisers are registered investment advisers under the Advisers Act and serve as the investment advisers to the Funds. The Advisers generally retain one or more sub-advisers to manage the assets of the Funds, including voting proxies with respect to a Fund's portfolio securities. From time to time, however, the Advisers may elect to manage directly the assets of a Fund, including voting proxies with respect to such Fund's portfolio securities, or a Fund's Board may otherwise delegate to the Advisers authority to vote such proxies. Rule 206(4)-6 under the Advisers Act requires that a registered investment adviser adopt and implement written policies and procedures reasonably designed to ensure that it votes proxies with respect to a client's securities in the best interest of the client.

Firms are required by Advisers Act Rule 204-2(c)(2) to maintain records of their voting policies and procedures, a copy of each proxy statement that the investment adviser receives regarding client securities, a record of each vote cast by the investment adviser on behalf of a client, a copy of any document created by the investment adviser that was material to making a decision how to vote proxies on behalf of a client, and a copy of each written client request for information on how the adviser voted proxies on behalf of the client, as well as a copy of any written response by the investment adviser to any written or oral client request for information on how the adviser voted that client's proxies.

Investment companies must disclose information about the policies and procedures used to vote proxies on the investment company's portfolio securities and must file the fund's proxy voting record with the SEC annually on Form N-PX.

Pursuant thereto, the Advisers have adopted and implemented these proxy voting policies and procedures (the "Proxy Procedures").

Policy

It is the Advisers' policy to comply with Rule 206(4)-6 and Rule 204-2(c)(2) under the Advisers Act as described above. In general, the Advisers delegate proxy voting decisions to the sub-advisers managing the funds. If an instance occurs where a conflict of interest arises between the shareholders and a particular sub-adviser, however, the Adviser retains the right to influence and/or direct the conflicting proxy voting decisions.

Procedure

Fiduciary Duty

The Advisers have a fiduciary duty to vote proxies on behalf of a Fund in the best interest of the Fund and its shareholders.

Voting of Proxies - Advisers

The Advisers will vote proxies with respect to a Fund's portfolio securities when authorized to do so by the Fund and subject to the Fund's proxy voting policies and procedures and any further direction or delegation of authority by the Fund's Board. The decision on how to vote a proxy will be made by the person(s) to whom the Advisers have from time to time delegated such responsibility (the "Designated Person"). The Designated Person may include the Fund's portfolio manager(s) or a Proxy Voting Committee, as described below.

When voting proxies with respect to a Fund's portfolio securities, the following standards will apply:

- The Designated Person will vote based on what it believes is in the best interest of the Fund and its shareholders and in accordance with the Fund's investment guidelines.

- Each voting decision will be made independently. To assist with the analysis of voting issues and/or to carry out the actual voting process the Designated Person may enlist the services of (1) reputable professionals (who may include persons employed by or otherwise associated with the Advisers or any of its affiliated persons) or (2) independent proxy evaluation services such as Institutional Shareholder Services. However, the ultimate decision as to how to vote a proxy will remain the responsibility of the Designated Person.
- The Advisers believe that a good management team of a company will generally act in the best interests of the company. Therefore, the Designated Person will take into consideration as a key factor in voting proxies with respect to securities of a company that are held by the Fund the quality of the company's management. In general, the Designated Person will vote as recommended by company management except in situations where the Designated Person believes such recommended vote is not in the best interests of the Fund and its shareholders.
- As a general principle, voting with respect to the same portfolio securities held by more than one Fund should be consistent among those Funds having substantially the same investment mandates.
- The Advisers will provide the Fund, from time to time in accordance with the Fund's proxy voting policies and procedures and any applicable laws and regulations, a record of the Advisers' voting of proxies with respect to the Fund's portfolio securities.

Material Conflicts of Interest

In carrying out its proxy voting responsibilities, the Advisers will monitor and resolve potential material conflicts ("Material Conflicts") between the interests of (a) a Fund and (b) the Advisers or any of its affiliated persons. Affiliates of the Advisers include Manulife Financial Corporation and its subsidiaries. Material Conflicts may arise, for example, if a proxy vote relates to matters involving any of these companies or other issuers in which the Advisers or any of their affiliates has a substantial equity or other interest.

If the Advisers or a Designated Person become aware that a proxy voting issue may present a potential Material Conflict, the issue will be referred to the Advisers' Legal Department and/or the Office of the CCO. If the Legal Department and/or the Office of the CCO, as applicable determines that a potential Material Conflict does exist, a Proxy Voting Committee will be appointed to consider and resolve the issue. The Proxy Voting Committee may make any determination that it considers reasonable and may, if it chooses, request the advice of an independent, third-party proxy service on how to vote the proxy.

Voting Proxies of Underlying Funds of a Fund of Funds

The Advisers or the Designated Person will vote proxies with respect to the shares of a Fund that are held by another Fund that operates as a Fund of Funds") in the manner provided in the proxy voting policies and procedures of the Fund of Funds (including such policies and procedures relating to material conflicts of interest) or as otherwise directed by the board of trustees or directors of the Fund of Funds.

Proxy Voting Committee(s)

The Advisers will from time to time, and on such temporary or longer-term basis as they deem appropriate, establish one or more Proxy Voting Committees. A Proxy Voting Committee shall include the Advisers' CCO and may include legal counsel. The terms of reference and the procedures under which a Proxy Voting Committee will operate will be reviewed from time to time by the Legal and Compliance Department. Records of the deliberations and proxy voting recommendations of a Proxy Voting Committee will be maintained in accordance with applicable law, if any, and these Proxy Procedures. Requested shareholder proposals or other Shareholder Advocacy must be submitted for consideration pursuant to the Shareholder Advocacy Policy and Procedures.

Records Retention

The Advisers will retain (or arrange for the retention by a third party of) such records relating to proxy voting pursuant to these Proxy Procedures as may be required from time to time by applicable law and regulations, including the following:

1. These Proxy Procedures and all amendments hereto;
2. All proxy statements received regarding Fund portfolio securities;
3. Records of all votes cast on behalf of a Fund;
4. Records of all Fund requests for proxy voting information;

5. Any documents prepared by the Designated Person or a Proxy Voting Committee that were material to or memorialized the basis for a voting decision;
6. All records relating to communications with the Funds regarding Conflicts; and
7. All minutes of meetings of Proxy Voting Committees.

The Office of the CCO, and/or the Legal Department are responsible for maintaining the documents set forth above as needed and deemed appropriate. Such documents will be maintained in the Office of the CCO, and/or the Legal Department for the period set forth in the Records Retention Schedule.

Voting of Proxies - SubAdvisers

In the case of proxies voted by a sub-adviser to a Fund pursuant to the Fund's proxy voting procedures, the Advisers will request the sub-adviser to certify to the Advisers that the sub-adviser has voted the Fund's proxies as required by the Fund's proxy voting policies and procedures and that such proxy votes were executed in a manner consistent with these Proxy Procedures and to provide the Advisers with a report detailing any instances where the sub-adviser voted any proxies in a manner inconsistent with the Fund's proxy voting policies and procedures. The COO of the Advisers will then report to the Board on a quarterly basis regarding the sub-adviser certification and report to the Board any instance where the sub-adviser voted any proxies in a manner inconsistent with the Fund's proxy voting policies and procedures.

The Fund Administration Department maintains procedures affecting all administration functions for the mutual funds. These procedures detail the disclosure and administration of the Trust's proxy voting records.

The Trust's Chief Legal Counsel is responsible for including, in the SAI of each Trust, information about the proxy voting of the Advisers and each sub-adviser.

Reporting to Fund Boards

The CCO of the Advisers will provide the Board with a copy of these Proxy Procedures, accompanied by a certification that represents that the Proxy Procedures have been adopted by the Advisers in conformance with Rule 206(4)-6 under the Advisers Act. Thereafter, the Advisers will provide the Board with notice and a copy of any amendments or revisions to the Procedures and will report quarterly to the Board all material changes to these Proxy Procedures.

The CCO's annual written compliance report to the Board will contain a summary of material changes to the Proxy Procedures during the period covered by the report.

If the Advisers or the Designated Person vote any proxies in a manner inconsistent with either these Proxy Procedures or a Fund's proxy voting policies and procedures, the CCO will provide the Board with a report detailing such exceptions.

MANULIFE INVESTMENT MANAGEMENT GLOBAL PROXY VOTING POLICIES AND PROCEDURES

March 2020

Executive Summary

Each investment team at Manulife Investment Management ("Manulife IM")¹ is responsible for investing in line with its investment philosophy and clients' objectives. Manulife IM's approach to proxy voting aligns with its organizational structure and encourages best practices in governance and management of environmental and social risks and opportunities. Manulife IM has adopted and implemented proxy voting policies and procedures to ensure that proxies are voted in the best interests of its clients for whom it has proxy voting authority.

This Global Proxy Voting Policy and Procedures ("Policy") applies to each of the Manulife IM advisory affiliates listed in Appendix A. In seeking to adhere to local regulatory requirements of the jurisdiction in which an advisory affiliate operates, additional procedures specific to that affiliate may be implemented to ensure compliance, where applicable. The Policy is not intended to cover every possible situation that may arise in the course of business, but rather to act as a decision-making guide. It is therefore subject to change and interpretation from time-to-time as facts and circumstances dictate.

Statement of Policy

- The right to vote is a basic component of share ownership and is an important control mechanism to ensure that a company is managed in the best interests of its shareholders. Where clients delegate proxy voting authority to Manulife IM, Manulife IM has a fiduciary duty to exercise voting rights responsibly.
- Where Manulife IM is granted and accepts responsibility for voting proxies for client accounts, it will seek to ensure proxies are received and voted in the best interests of the client with a view to maximize the economic value of their equity securities, unless it determines that it is in the best interests of the client to refrain from voting a given proxy.
- If there is any potential material proxy-related conflict of interest between Manulife IM and its clients, identification and resolution processes are in place to provide for determination in the best interests of the client.
- Manulife IM will disclose information about its proxy voting policies and procedures to its clients.
- Manulife IM will maintain certain records relating to proxy voting.

Philosophy on Sustainable Investing

Manulife IM's commitment to sustainable investment² is focused on protecting and enhancing the value of our clients' investments and, as active owners in the companies in which we invest, we believe that voting at shareholder meetings can contribute to the long-term sustainability of our investee companies. Manulife IM will seek to exercise the rights and responsibilities associated with equity ownership, on behalf of its clients, with a focus on maximizing long-term shareholder returns, as well as enhancing and improving the operating strength of the companies to create sustainable value for shareholders.

Manulife IM invests in a wide range of securities across the globe, ranging from large multinationals to smaller early stage companies, and from well-developed markets to emerging and frontier markets. Expectations of those companies vary by market to reflect local standards, regulations and laws. Manulife IM believes, however, that successful companies across regions are generally better positioned over the long-term if they have:

- Robust oversight including a strong and effective board with independent and objective leaders working on behalf of shareholders;
- Mechanisms to mitigate risk such as effective internal controls, board expertise covering a firm's unique risk profile, and routine use of KPIs to measure and assess long-term risks;
- A management team aligned with shareholders through remuneration structures that incentivize long-term performance through the judicious and sustainable stewardship of company resources;
- Transparent and thorough reporting of the components of the business that are most significant to shareholders and stakeholders with focus on the firm's long-term success and,
- Management focused on all forms of capital including environmental, social and human capital.

The Manulife Investment Management Voting Principles ("Voting Principles") outlined in Appendix B provide guidance for our voting decisions. An active decision to invest in a firm reflects a positive conviction in the investee company and we generally expect to be supportive of management for that reason. Manulife IM may seek to challenge management's recommendations, however, if they contravene these Voting Principles or Manulife IM otherwise determines that doing so is in the best interest of its clients.

Manulife IM also regularly engages with boards and management on environmental, social or corporate governance issues consistent with the principles stipulated in our Sustainable Investing Statement and our ESG Engagement Policy. Manulife IM may, through these engagements, request certain changes of the portfolio company to mitigate risks or maximize opportunities. In the context of preparing for a shareholder meeting, Manulife IM will review progress on requested changes for those companies engaged. In an instance where Manulife IM determines that the issuer has not made sufficient improvements on an issue, then we may take voting action to demonstrate our concerns.

In rare circumstances Manulife IM may consider filing, or co-filing, a shareholder resolution at an investee company. This may occur where our team has engaged with management regarding a material sustainability risk or opportunity, and where we determine that the company has not made satisfactory progress on the matter within a reasonable time period. Any such decision will be in the sole discretion of Manulife IM and acted on where we believe filing, or co-filing, a proposal is in the best interests of our clients.

Manulife IM may also divest of holdings in a company where Portfolio Managers are dissatisfied with company financial performance, strategic direction and/or management of material sustainability risks or opportunities.

Procedures

Receipt of Ballots and Proxy Materials

Proxies received are reconciled against the client's holdings, and the custodian bank will be notified if proxies have not been forwarded to the proxy service provider when due.

Voting Proxies

Manulife IM has adopted the Voting Principles contained in Appendix B of this Policy.

Manulife IM has deployed the services of a proxy voting services provider to ensure the timely casting of votes, and to provide relevant and timely proxy voting research to inform our voting decisions. Manulife IM periodically reviews the detailed policies created by the proxy voting service provider to ensure consistency with our Voting Principles, to the extent this is possible.

Portfolio managers actively review voting options and make voting decisions for their holdings. Where Manulife IM holds a significant ownership position in an issuer, the rationale for a portfolio manager's voting decision is specifically recorded, including whether the vote cast aligns with the recommendations of the proxy voting services provider or has been voted differently. A significant ownership position in an investment is defined as those cases where Manulife IM holds at least 2% of a company's issued share capital in aggregate across all Manulife IM client accounts.

The Manulife IM ESG Research and Integration Team ("ESG Team") is an important resource for portfolio management teams on proxy matters. This team provides advice on specific proxy votes for individual issuers if needed. ESG Team advice is supplemental to the research and recommendations provided by our proxy voting services provider. In particular, ESG analysts actively review voting resolutions for companies in which:

- Manulife IM's aggregated holdings across all client accounts represent 2% or greater of issued capital;
- A meeting agenda includes shareholder resolutions related to environmental and social risk management issues, or where the subject of a shareholder resolution is deemed to be material to our investment decision; or
- The issuer has been engaged by Manulife IM within the past two years seeking a change in behavior.

After review, the ESG Team may provide research and advice to investment staff in line with the Voting Principles.

Manulife IM also has an internal Proxy Voting Working Group ("Working Group") comprising senior managers from across Manulife IM including the equity investment team, Legal, Compliance, and the ESG Team. The Working Group operates under the auspices of the Manulife IM Public Markets Sustainable Investing Committee. The Working Group regularly meets to review and discuss voting decisions on shareholder proposals or instances where a portfolio manager recommends a vote different than the recommendation of the proxy voting services provider.

Manulife IM clients retain the authority, and may choose, to lend shareholdings. Manulife IM, however, generally retains the ability to recall shares in order to execute proxy votes. Manulife IM will, where feasible, weigh the benefit of casting votes at a given meeting when deciding whether to recall lent shares for voting.

Manulife IM may refrain from voting a proxy where we have agreed with a client in advance to limit the situations in which we will execute votes. Manulife may also refrain from voting due to logistical considerations that may have a detrimental effect on our ability to vote. These issues may include, but are not limited to:

- Costs associated with voting the proxy exceed the expected benefits to clients;
- Underlying securities have been lent out pursuant to a client's securities lending program and have not been subject to recall;
- Short notice of a shareholder meeting;
- Requirements to vote proxies in person;
- Restrictions on a non-national's ability to exercise votes, determined by local market regulation;
- Restrictions on the sale of securities in proximity to the shareholder meeting (i.e. "share blocking");
- Requirements to disclose commercially sensitive information that may be made public (i.e. "re-registration");
- Requirements to provide local agents with power of attorney to facilitate the voting instructions (such proxies are voted on a best-efforts basis); or
- Inability of a client's custodian to forward and process proxies electronically.

If a Manulife IM portfolio manager believes it is in the best interest of a client to vote proxies in a manner inconsistent with the Policy, the portfolio manager will submit new voting instructions to a member of the ESG Team with rationale for the new instructions. The ESG Team will then support the portfolio manager in developing voting decision rationale that aligns with this Policy and the Voting Principles. The ESG Team will then submit the vote change to the Working Group. The Working Group will review the change and ensure that the rationale is sound, and the decision will promote the long-term success of the issuer.

On occasion, there may be proxy votes which are not within the research and recommendation coverage universe of the proxy voting service provider. Portfolio managers responsible for the proxy votes will provide voting recommendations to the ESG Team and those items may be escalated to the Working Group for review to ensure that the voting decision rationale is sound, and the decision will promote the long-term success of the issuer. the Manulife IM Proxy Operations Team will be notified of the voting decisions and execute the votes accordingly.

Manulife IM does not engage in the practice of "empty voting" (a term embracing a variety of factual circumstances that result in a partial, or total, separation of the right to vote at a shareholders meeting from beneficial ownership of the shares on the meeting date). Manulife IM prohibits investment managers from creating large hedge positions solely to gain the vote while avoiding economic exposure to the market. Manulife IM will not knowingly vote borrowed shares (for example, shares borrowed for short sales and hedging transactions).

Engagement of the Proxy Voting Service Provider

Manulife IM has contracted with a third-party proxy service provider to assist with the proxy voting process. Except in instances where a client retains voting authority, Manulife IM will instruct custodians of client accounts to forward all proxy statements and materials received in respect of client accounts to the proxy service provider.

Manulife IM has engaged its proxy voting service provider to:

- Research and make voting recommendations;
- Ensure proxies are voted and submitted in a timely manner;
- Perform other administrative functions of proxy voting;
- Maintain records of proxy statements and provide copies of such proxy statements promptly upon request;
- Maintain records of votes cast; and
- Provide recommendations with respect to proxy voting matters in general.

Scope of Proxy Voting Authority

Manulife IM and our clients shape the proxy voting relationship by agreement provided there is full and fair disclosure and informed consent. Manulife IM may agree with clients to other proxy voting arrangements in which Manulife IM does not assume proxy voting responsibility or will only vote in limited circumstances.³

While the application of our fiduciary duty in the context of proxy voting will vary with the scope of the voting authority we assume, we acknowledge the relationship in all cases remains that of a fiduciary to the client. Beyond the general discretion retained by Manulife IM to withhold from voting as outlined above, Manulife IM may enter a specific agreement with a client not to exercise voting authority on certain matters where the cost of voting would be high or the benefit to the client would be low.

Disclosure of Proxy Votes

Manulife IM may inform company management of our voting intentions ahead of casting the vote. This is in line with Manulife IM's objective to provide the opportunity for companies to better understand our investment process, policies and objectives.

We will not intentionally disclose to anyone else, including other investors, our voting intention prior to casting the vote.

Manulife IM keeps records of proxy voting available for inspection by clients, regulatory authorities or government agencies.

Manulife IM will annually disclose voting records aggregated across funds.

Conflicts of Interest

Manulife IM has an established infrastructure designed to identify conflicts of interest throughout all aspects of the business. Proxy voting proposals may raise conflicts between the interests of Manulife IM's clients and the interests of Manulife IM, its affiliates, or employees. Apparent conflicts are reviewed by the Working Group to determine whether there is a conflict of interest and, if so, whether the conflict is material. Manulife IM shall consider any of the following circumstances a potential material conflict of interest:

- Manulife IM has a business relationship or potential relationship with the issuer;
- Manulife IM has a business relationship with the proponent of the proxy proposal; or
- Manulife IM members, employees or consultants have a personal or other business relationship with managers of the business such as top-level executives, corporate directors or director candidates.

In addressing any such potential material conflict Manulife IM will seek to ensure proxy votes are cast in the advisory client's best interests and are not affected by Manulife IM's potential conflict. In the event a potential material conflict of interest exists, the Working Group or its designee will either (i) review the proxy voting decisions to ensure robust rationale, that the voting decision will protect or enhance shareholder value over the long-term, and is in line with the best interest of the client; (ii) vote such proxy according to the specific recommendation of the proxy voting services provider; (iii) abstain; or (iv) request the client vote such proxy. The basis for the voting decision, including the process for the determination of the decision that is in the best interests of the client, is recorded.

Voting Shares of Manulife Financial Corporation

Manulife Financial Corporation ("MFC") is the publicly listed parent company of Manulife IM. Generally, legislation restricts the ability of a public company (and its subsidiaries) to hold shares in itself within its own accounts. Accordingly, the MFC Share Investment Policy outlines the limited circumstances in which MFC or its subsidiaries may, or may not, invest or hold shares in MFC on behalf of MFC or its subsidiaries.⁴

The MFC Share Investment Policy does not apply to investments made on behalf of unaffiliated third parties, which remain assets of the client.⁵ Such investing may be restricted, however, by specific client guidelines, other Manulife policies or other applicable laws.

Where Manulife IM is charged with voting MFC shares we will execute votes in proportion with all other shareholders (i.e. proportional or 'echo' vote). This is intended to neutralize the effect of our vote on the meeting outcome.

Policy Responsibility and Oversight

The Working Group oversees and monitors the Policy and Manulife IM's proxy voting function. The Working Group is responsible for reviewing regular reports, potential conflicts of interest, vote changes and non-routine proxy voting items. The Working Group also oversees the third-party proxy voting service provider. The Working

Group will meet at least monthly and report to the Manulife IM Public Markets Sustainable Investing Committee and, where requested, the Manulife IM Operating Committee.

Manulife IM's Proxy Operations Team is responsible for the daily administration of the proxy voting process for all Manulife IM operations that have contracted with a third-party proxy voting services provider. Significant proxy voting issues identified by Manulife IM's Proxy Operations Team are escalated to the Chief Compliance Officer or its designee, and the Working Group.

The Working Group is responsible for the proper oversight of any service providers hired by Manulife IM to assist it in the proxy voting process. This oversight includes:

Annual Due Diligence: Manulife IM conducts an annual due diligence review of the proxy voting research service provider. This oversight includes an evaluation of the service provider's industry reputation, points of risk, compliance with laws and regulations and technology infrastructure. Manulife IM also reviews the provider's capabilities to meet Manulife IM's requirements including reporting competencies; the adequacy and quality of the proxy advisory firm's staffing and personnel; the quality and accuracy of sources of data and information; the strength of policies and procedures that enable it to make proxy voting recommendations based on current and accurate information; and the strength of policies and procedures to address conflicts of interest of the service provider related to its voting recommendations.

Regular Updates: Manulife also requests that the proxy voting research service provider deliver updates regarding any business changes that alter that firm's ability to provide independent proxy voting advice and services aligned with our policies.

Additional Oversight in Process: Manulife IM has additional control mechanisms built into the proxy voting process to act as checks on the service provider and ensure that decisions are made in the best interest of our clients. These mechanisms include:

- **Sampling pre-populated votes:** Where we utilize a third-party research provider for either voting recommendations or voting execution (or both), we may assess "pre-populated" votes shown on the vendor's electronic voting platform before such votes are cast to ensure alignment with the Voting Principles.
- **Consideration of additional information:** Where Manulife IM utilizes a proxy service provider for voting recommendations, we consider additional information that may become available regarding voting items. This additional information may include filings by an issuer or shareholder proponent that are issued subsequent to the filing of meeting materials.
- **Decision scrutiny from the Working Group:** Where our voting policies and procedures do not address how to vote on a particular matter, or where the matter is highly contested or controversial (e.g. major acquisitions involving takeovers or contested director elections where a shareholder has proposed its own slate of directors), review by the Working Group may be necessary or appropriate to ensure votes cast on behalf of its client are cast in the client's best interest.

Record Keeping and Reporting

Manulife IM provides clients with a copy of the Voting Policy upon request and it is also available on our website at manulifeim.com/institutional. Manulife IM describes its proxy voting procedures to its clients in the relevant or required disclosure document and discloses to its clients the process to obtain information on how Manulife IM voted that client's proxies.

Manulife IM keeps records of proxy voting activities and those records include proxy voting policies and procedures, records of votes cast on behalf of clients, records of client requests for proxy voting information; and any documents generated in making a vote decision. These documents are available for inspection by clients, regulatory authorities or government agencies.

Manulife IM will disclose voting records on its website and those records will be updated on an annual basis. The voting records will generally reflect the voting decisions made for retail, institutional and other client funds in the aggregate.

Policy Amendments and Exceptions

This policy is subject to periodic review by the Proxy Voting Working Group. The Working Group may suggest amendments to this Policy and any such amendments must be approved by the Manulife IM Public Markets Sustainable Investing Committee and the Manulife IM Operating Committee.

Any deviation from this Policy will only be permitted with the prior approval of the Chief Investment Officer or Chief Administrative Officer (or their designee), with the counsel of the Chief Compliance Officer/General Counsel.

APPENDIX A – Manulife IM Advisory Affiliates in Scope of Policy

+Investment management business only.

Manulife Investment Management Limited
Manulife Investment Management (North America) Limited
Manulife Investment Management (Hong Kong) Limited
PT Manulife Aset Manajemen Indonesia*
Manulife Investment Management (Japan) Limited
Manulife Investment Management (Malaysia) Bhd.
Manulife Investment Management and Trust Corporation
Manulife Investment Management (Singapore) Pte. Ltd.
Manulife IM (Switzerland) LLC
Manulife Investment Management (Taiwan) Co., Ltd.*
Manulife Investment Management (Europe) Limited
Manulife Investment Management (US) LLC
Manulife Investment Fund Management (Vietnam) Company Limited*

*By reason of certain local regulations and laws with respect to voting, e.g.: manual/physical voting processes or the absence of a third-party proxy voting service provider for those jurisdictions, Manulife Investment Fund Management (Vietnam) Company Limited, and PT Manulife Aset Manajemen Indonesia do not engage a third-party service provider to assist in their proxy voting processes. Manulife Investment Management (Taiwan) Co., Ltd. Uses the third-party proxy voting service provider to execute votes for non-Taiwanese entities only.

APPENDIX B – Manulife IM Voting Principles

Manulife Investment Management ("Manulife IM") believes that strong management of all forms of corporate capital, whether financial, social or environmental will mitigate risks, create opportunities and drive value over the long-term. Manulife IM reviews and considers environmental, social and corporate governance risks and opportunities in our investment decisions. Once invested, Manulife IM continues its oversight through active ownership which includes portfolio company engagement and proxy voting of underlying shares. We believe proxy voting is a vital component of this continued oversight as it provides a voice for minority shareholders regarding management actions.

Manulife IM has developed some key principles that drive our proxy voting decisions and engagements. We believe these principles preserve value and generally lead to outcomes that drive positive firm performance. These principles dictate our voting on issues ranging from director elections and executive compensation to the preservation of shareholder rights and stewardship of environmental and social capital. The facts and circumstances of each issuer are unique, and Manulife IM may deviate from these principles where we believe doing so will preserve or create value over the long-term. These principles also do not address the specific content of all proposals voted around the globe, but provide a general lens of value preservation, value creation, risk management and protection of shareholder rights through which Manulife IM analyzes all voting matters.

I. Boards and Directors: Manulife IM uses the following principles to review proposals covering director elections and board structure in the belief that they encourage engaged and accountable leadership of a firm.

a. **Board Independence:** The most effective boards are composed of directors with a diverse skill set that can provide an objective view of the business, oversee management, and make decisions in the best interest of the shareholder body at large. To create and preserve this voice, boards should have a significant number of non-executive, independent directors. The actual number of independent directors can vary by market and Manulife IM accounts for these differences when reviewing the independence of the board. Ideally, however, there is an independent majority among directors at a given firm.

b. **Committee Independence:** Manulife IM also prefers that key board committees are composed of independent directors. Specifically, the audit, nomination and compensation committees should be entirely or majority composed of independent directors.

c. **Attendance:** A core part of a director's duties is to remain an engaged and productive participant at board and committee meetings. Directors should, therefore, attend at least 75% of board and committee meetings in the aggregate over the course of a calendar year.

d. **Gender Diversity:** In line with the principles expressed in relation to 'Board Independence' above, Manulife IM believes boards with strong gender representation are better equipped to manage risks and oversee business resilience over the long-term compared to firms with low gender balance. Manulife IM generally expects boards to have at least one woman on the board and encourages companies to aspire to a higher balance of gender representation.

e. **Classified/Staggered Boards:** Manulife IM prefers that directors be subject to election and re-election on an annual basis. Annual elections operate to hold directors accountable for their actions in a given year in a timely manner. Shareholders should have the ability to voice concerns through a director vote and to potentially remove problematic directors if necessary. Manulife IM generally opposes the creation of classified or staggered director election cycles designed to extend director terms beyond one year. Manulife IM also supports proposals to eliminate these structures.

f. **Overboarding:** Manulife IM believes directors should limit their outside board seats in order to ensure that they have the time and attention to provide their director role at a firm in question. Generally, this means directors should not sit on more than 5 public company boards. The role of CEO requires an individual's significant time and attention. Directors holding the role of CEO at any public firm, therefore, should not sit on more than 3 public company boards inclusive of the firm at which they hold the CEO role.

g. **Independent Chair/CEO:** Governance failures can occur where a manager has firm control over a board through the combination of the Chair/CEO roles. Manulife IM generally supports the separation of the Chair/CEO roles as a means to prevent board 'capture' by management. We will evaluate proposals to separate the Chair/CEO roles on a case-by-case basis, for example, however considering such factors as the establishment of a strong lead independent director role or the temporary need for the combination of the CEO/Chair roles to help the firm through a leadership transition.

h. **Vote Standard:** Manulife IM supports a vote standard that allows resolutions to pass, or fail, based on a majority voting standard. Manulife IM expects companies to adopt a majority vote standard for director elections and supports the elimination of a plurality vote standard except in the case of contested elections.

i. **Contested Elections:** Where there is a proxy contest or a director's election is otherwise contested, Manulife IM evaluates the proposals on a case-by-case basis. Consideration is given to firm performance, whether there have been significant failures of oversight, and whether the proponent for change makes a compelling case that board turnover will drive firm value.

j. **Significant and Problematic Actions or Omissions:** Manulife IM believes boards should be held accountable to shareholders in instances where there is a significant failure of oversight that has led to a loss of firm value or otherwise curtailed shareholder rights. Manulife IM considers withholding from, or voting against, certain directors where the board acted, or failed to act, in a way that significantly affected shareholder rights or otherwise negatively affected firm value. Some examples of actions that might warrant a vote against directors include, but are not limited to, the following:

i. **Failure of Oversight:** Manulife IM may take action against directors where there has been a significant negative event leading to a loss of shareholder value and stakeholder confidence. A failure may manifest itself in multiple ways including adverse auditor opinions, material misstatements, failures of leadership and governance and environmental or human rights violations.

ii. **Adoption of Anti-Takeover Mechanism:** Boards should generally review takeover offers independently and objectively in consideration of the potential value created or lost for shareholders. Manulife IM holds boards

accountable when they create or prolong certain mechanisms, bylaws or article amendments that act to frustrate genuine offers that may lead to value creation for shareholders. These can include 'poison pills'; classes of shares with differential voting rights; classified, or staggered, board structures; unilateral bylaw amendments and supermajority voting provisions.

iii. ***Problematic Executive Compensation Practices:*** Manulife IM encourages companies to adopt best practices for executive compensation in the markets in which they operate. Generally, this means that pay should be aligned with performance. Manulife IM may hold directors accountable where this alignment is not robust. We may also hold boards accountable where they have not adequately responded to shareholder votes against a previous proposal on remuneration or have adopted problematic agreements or practices (e.g. 'golden parachutes', repricing of options).

iv. ***Bylaw/Article Adoption and Amendments:*** Shareholders should have the ability to vote on any change to company articles or bylaws that will materially change their rights as shareholders. Any amendments should require only a majority of votes to pass. Manulife IM will hold directors accountable where a board has amended or adopted bylaw and/or article provisions that significantly curtail shareholder rights.

v. ***Engagement Responsiveness:*** Manulife IM regularly engages with issuers to discuss ESG risks and opportunities and may request changes from firms during these discussions. Manulife IM may vote against certain directors where we have engaged with an issuer and requested certain changes, but the firm has not made sufficient progress on those matters.

II. Environmental and Social Proposals: Manulife IM expects its portfolio companies to manage material environmental and social issues affecting its business, whether risks or opportunities, with a view towards long-term value preservation and creation.⁶ Manulife IM expects firms to identify material environmental and social risks and opportunities specific to their business, to develop strategies to manage those matters, and to provide meaningful, substantive reporting while demonstrating progress year-over-year against their plans. Proposals touching on management of risks and opportunities related to environmental and social issues are often put forth as shareholder proposals but can be proposed by management as well. Manulife IM reviews these proposals on a case-by-case basis considering, among other factors:

a. **The Magnitude of the Risk/Opportunity:** Manulife IM evaluates the level of materiality of a certain environmental or social issue identified in a proposal as it pertains to the firm's ability to generate value over the long-term. This review includes deliberation of the effect an issue will have on the financial statements and/or the cost of capital.

b. **The Firm's Current Management of the Risk/Opportunity:** Manulife IM analyzes a firm's current approach to an issue to determine whether the firm has robust plans, infrastructure and reporting to mitigate the risk or embrace the opportunity.

c. **Firm's Current Disclosure Framework:** Manulife IM expects firms to disclose enough information for shareholders to assess the company's management of environmental and social risks and opportunities material to the business. Manulife IM may support proposals calling for enhanced firm disclosure regarding environmental and social issues where additional information would help our evaluation of a company's exposure, and response, to those factors.

d. **Legislative or Regulatory Action of a Risk/Opportunity:** When reviewing proposals on environmental or social factors, Manulife IM considers whether a given risk or opportunity is currently addressed by local regulation or law in the markets in which a firm operates and whether those rules are designed to adequately manage an issue. Manulife IM also considers whether a firm should proactively address a matter in anticipation of future legislation or regulation.

e. **Cost to, or Disruption of, the Business:** When reviewing environmental and social proposals Manulife IM assesses the potential cost of the requested action against the benefit provided to the firm and its shareholders. Particular attention is paid to proposals that request actions that are overly prescriptive on management or that request a firm exit markets or operations that are essential to its business.

III. Shareholder Rights: Manulife IM generally supports management or shareholder proposals that protect, or improve, shareholder rights and opposes proposals that remove, or curtail, existing rights.

a. **Shareholder Rights Plans ("Poison Pills"):** Manulife IM opposes mechanisms intended to frustrate genuine takeover offers. Manulife IM may, however, support shareholder rights plans where the plan has a trigger of 20% ownership or more and will expire in three years or less. In conjunction with these requirements Manulife IM evaluates the company's strategic rationale for adopting the poison pill.

b. **Supermajority Voting:** Shareholders should have the ability to direct change at a firm based on a majority vote. Manulife IM opposes the creation, or continuation, of any bylaw, charter or article provisions that require approval of more than a majority of shareholders for amendment of those documents. Manulife IM may consider supporting such a standard where the supermajority requirement is intended to protect minority shareholders.

c. **Proxy Access:** Manulife IM believes that shareholders have a right to appoint representatives to the board that best protect their interests. The power to propose nominees without holding a proxy contest is a way to protect that right and is potentially less costly to management and shareholders. Accordingly, Manulife IM supports creation of a proxy access right (or similar power at non-U.S. firms) provided there are reasonable thresholds of ownership and a reasonable number of shareholders can aggregate ownership to meet those thresholds.

d. **Written Consent:** Written consent provides shareholders the power to formally demand board action outside of the context of an annual general meeting. Shareholders can use written consent as a nimble method of holding boards accountable. Manulife IM supports the right of written consent so long as that right is reasonably tailored to reflect the will of a majority of shareholders. Manulife IM may not support such a right, however, where there is a holder with a significant, or controlling, stake. Manulife IM evaluates the substance of any written actual consent proposal in-line with these principles.

e. **Right to Call a Special Meeting:** Manulife IM is supportive of the shareholder right to call a special meeting. This right allows shareholders to quickly respond to events which can significantly affect firm value. Manulife IM believes that a 10% ownership threshold to call a special meeting reasonably protects this shareholder right while reducing the possibility of undue distraction for management.

IV. Executive Compensation: Manulife IM encourages companies to align executive incentives with shareholder interests when designing executive compensation plans. Companies should provide shareholders with transparent, comprehensive and substantive disclosure regarding executive compensation that aids shareholder assessment of the alignment between executive pay and firm performance. Companies should also have the flexibility to design remuneration programs that fit a firm's business model, business sector and industry and overall corporate strategy. No one template of executive remuneration can fit all companies.

a. **Advisory Votes on Executive Compensation:** While acknowledging that there is no singular model for executive compensation, Manulife IM scrutinizes companies closely that have certain practices. Some concerning practices can include:

i. ***Misalignment Between Pay and Company Performance:*** Pay should generally move in tandem with corporate performance. Firms where CEO pay remains flat, or increases, though corporate performance remains down relative to peers are particularly concerning.

ii. ***One-Time Grants:*** A firm's one-time grant to an executive, outside of the normal salary, bonus and long-term award structure, may be indicative of an overall failure of the board to design an effective remuneration plan. A company should have a robust justification for making grants outside of the normal remuneration framework.

iii. ***Significant Quantity of Non-Performance Based Pay:*** Executive pay should generally be weighted more heavily towards performance-based remuneration to create the alignment between pay and performance. Companies should provide a robust explanation for any significant awards made that vest solely based on time or are not otherwise tied to performance.

iv. ***Lack of Rigor in Performance Targets:*** Performance targets should challenge managers to improve corporate performance and outperform peers. Targets should, where applicable, generally align with, or even outpace, guidance; incentivize outperformance against a peer group; and otherwise remain challenging.

v. ***Lack of Disclosure:*** Transparency is essential to shareholder analysis and understanding of executive remuneration at a company. Manulife IM expects firms to clearly disclose all major components of remuneration. This includes disclosure of amounts, performance metrics and targets, vesting terms, and pay outcomes.

vi. ***Repricing of Options:*** Resetting the exercise price of outstanding options significantly undermines the incentive nature of the initial option grant. Though a firm may have a strong justification for repricing options, Manulife IM believes that firms should put such decisions to a shareholder vote. Manulife IM may oppose an advisory vote on executive compensation where a company has repriced outstanding options for executives without that shareholder approval.

vii. ***Adoption of Problematic Severance Agreements ("Golden Parachutes"):*** Manulife IM believes managers should be incentivized to pursue and complete transactions that may benefit shareholders. Severance agreements, if structured appropriately, can provide such inducements. At the same time, however, the significant payment associated with severance agreements could potentially drive managers to pursue transactions at the expense of shareholder value. Manulife IM may oppose an executive remuneration proposal where a firm has adopted, or amended, an agreement with an executive that contains an excise tax gross-up provision, permits accelerated vesting of equity upon a change-in-control, allows an executive to unilaterally trigger the severance payment, or pays out in an amount greater than 300% of salary and bonus combined.

V. Capital Structure: Manulife IM believes firms should balance the need to raise capital and encourage investment with the rights and interests of the existing shareholder body. Evaluation of proposals to issue shares, repurchase shares, conduct stock splits or otherwise restructure capital are evaluated on a case-by-case basis with some specific requests covered here:

a. **Common Stock Authorization:** Requests to increase the pool of shares authorized for issuance are evaluated on a case-by-case basis with consideration given to the size of the current pool, recent use of authorized shares by management, and the company rationale for the proposed increase. Manulife IM also supports these increases where the company intends to execute a split of shares or pay a stock dividend.

b. **Reverse Stock Splits:** Manulife IM generally supports proposals for a reverse stock split if the company plans to proportionately reduce the number of shares authorized for issue in order to mitigate against the risk of excessive dilution to our holdings. We may also support these proposals in instances where the firm needs to quickly raise capital in order to continue operations.

c. **Dual Class Voting Structure:** Voting power should align with economic interest at a given firm. Manulife IM opposes the creation of new classes of stock with differential voting rights and supports the elimination of these structures.

VI. Corporate Transactions and Restructurings: Manulife IM reviews mergers, acquisitions, restructurings and reincorporations on a case-by-case basis through the lens of whether the transaction will create shareholder value. Considerations include fairness of the terms, valuation of the event, changes to management and leadership, realization of synergies and efficiencies and whether the rationale for a strategic shift is compelling.

VII. Audit-related Issues: Manulife IM believes that an effective auditor will remain independent and objective in their review of company reporting. Firms should be transparent regarding auditor fees and other services provided by an auditor which may create a conflict of interest. Manulife IM uses the below principles to guide voting decisions related to auditors.

a. **Auditor Ratification:** Manulife IM generally approves the reappointment of the auditor absent evidence that they have either failed in their duties or appear to have a conflict that may not allow independent and objective oversight of a firm.

b. **Auditor Rotation:** If Manulife IM believes that the independence and objectivity of an auditor may be impaired at a firm, we may support a proposal requesting a rotation of auditor. Reasons to support the rotation of the auditor can include a significant failure in the audit function and excessive tenure of the auditor at the firm.

1. Manulife Investment Management is the unified global brand for Manulife's Global Wealth and Asset Management (GWAM) business which serves individual investors and institutional clients in three businesses: Retirement, Retail and Institutional Asset Management (Public Markets and Private Markets)

2. Further information on Sustainable Investing at Manulife IM can be found at manulifeim.com/institutional.

3. We acknowledge SEC guidance on this issue from August 2019 which lists several non-exhaustive examples of possible voting arrangements between the client and investment advisor including: (i) an agreement with the client to exercise voting authority pursuant to specific parameters designed to serve the client's best interest; (ii) an agreement with the client to vote in favor of all proposals made by particular shareholder proponents; or (iii) an agreement with the client to vote in accordance with the voting recommendations of management of the issuer. All such arrangements could be subject to conditions depending on instruction from the client.

4. This includes general funds, affiliated segregated funds or separate accounts, and affiliated mutual / pooled funds.

5. This includes assets managed or advised for unaffiliated third parties, such as unaffiliated mutual/pooled funds and unaffiliated institutional advisory portfolios.

6. For more information on issues generally of interest to our firm please see the Manulife Investment Management Engagement Policy and the Manulife Investment Management Sustainable Investing Policy.