

John Hancock Variable Insurance Trust

Statement of Additional Information

April 27, 2020

	Series I	Series II	Series NAV
500 Index Trust	JFIVX	N/A	N/A
Active Bond Trust	—	N/A	N/A
Blue Chip Growth Trust	—	N/A	N/A
Capital Appreciation Trust	—	N/A	N/A
Capital Appreciation Value Trust	—	N/A	N/A
Core Bond Trust	—	N/A	N/A
Disciplined Value International Trust (formerly International Value Trust)	—	N/A	N/A
Emerging Markets Value Trust	—	N/A	N/A
Equity Income Trust	—	N/A	N/A
Financial Industries Trust	JEFSX	N/A	N/A
Fundamental All Cap Core Trust	JEQAX	N/A	N/A
Fundamental Large Cap Value Trust	—	N/A	N/A
Global Trust	JFEGX	N/A	N/A
Global Equity Trust (formerly Mutual Shares Trust)	—	N/A	N/A
Health Sciences Trust	JEHSX	N/A	N/A
High Yield Trust	—	N/A	N/A
International Equity Index Trust	JIEQX	N/A	N/A
International Small Company Trust	—	N/A	N/A
Investment Quality Bond Trust	—	N/A	N/A
Lifestyle Aggressive Portfolio	—	N/A	N/A
Lifestyle Balanced Portfolio	JHBPX	N/A	N/A
Lifestyle Conservative Portfolio	JHCIX	N/A	N/A
Lifestyle Growth Portfolio	JHGPX	N/A	N/A
Lifestyle Moderate Portfolio	JHMPX	N/A	N/A
Managed Volatility Aggressive Portfolio	—	N/A	N/A
Managed Volatility Balanced Portfolio	JELBX	N/A	N/A
Managed Volatility Conservative Portfolio	JELCX	N/A	N/A
Managed Volatility Growth Portfolio	JELGX	N/A	N/A
Managed Volatility Moderate Portfolio	JELMX	N/A	N/A
Mid Cap Index Trust	JECIX	N/A	N/A
Mid Cap Stock Trust	—	N/A	N/A
Mid Value Trust	JEMUX	N/A	N/A
Money Market Trust	JHOXX	N/A	N/A
Opportunistic Fixed Income Trust (formerly Global Bond Trust)	—	N/A	N/A
Real Estate Securities Trust	—	N/A	N/A
Science & Technology Trust	JESTX	N/A	N/A
Select Bond Trust	—	N/A	N/A
Short Term Government Income Trust	—	N/A	N/A
Small Cap Index Trust	JESIX	N/A	N/A
Small Cap Opportunities Trust	—	N/A	N/A
Small Cap Stock Trust	JESGX	N/A	N/A
Small Cap Value Trust	JESVX	N/A	N/A
Small Company Value Trust	—	N/A	N/A
Strategic Equity Allocation Trust	—	N/A	N/A

	Series I	Series II	Series NAV
Strategic Income Opportunities Trust	JESNX	N/A	N/A
Total Bond Market Trust	JTBMX	N/A	N/A
Total Stock Market Index Trust	JETSX	N/A	N/A
Ultra Short Term Bond Trust	JUSAX	N/A	N/A

This Statement of Additional Information (“SAI”) provides information about each fund listed above (each a “fund” and collectively, the “funds”). Each fund is a series of the Trust indicated above. The information in this SAI is in addition to the information that is contained in each fund’s prospectus dated April 27, 2020, as amended and supplemented from time to time (collectively, the “Prospectus”). The funds may offer other share classes that are described in separate prospectuses and SAIs.

This SAI is not a prospectus. It should be read in conjunction with the Prospectus. This SAI incorporates by reference the financial statements of each fund for the period ended December 31, 2019, as well as the related opinion of the fund’s independent registered public accounting firm, as included in the fund’s most recent annual report to shareholders (each an “Annual Report”). A copy of a Prospectus or an Annual Report can be obtained free of charge by contacting:

John Hancock Variable Insurance Trust
200 Berkeley Street
Boston, Massachusetts 02116
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TABLE OF CONTENTS

GLOSSARY	1
ORGANIZATION OF THE TRUST	3
ADDITIONAL INVESTMENT POLICIES AND OTHER INSTRUMENTS	4
RISK FACTORS	30
REGULATION OF COMMODITY INTERESTS	51
HEDGING AND OTHER STRATEGIC TRANSACTIONS	51
INVESTMENT RESTRICTIONS	64
PORTFOLIO TURNOVER	66
THOSE RESPONSIBLE FOR MANAGEMENT	67
INVESTMENT MANAGEMENT ARRANGEMENTS AND OTHER SERVICES	76
DISTRIBUTION AGREEMENTS	85
NET ASSET VALUE	88
POLICY REGARDING DISCLOSURE OF PORTFOLIO HOLDINGS	90
SHAREHOLDERS OF JHVIT	94
SPECIAL REDEMPTIONS	95
DESCRIPTION OF FUND SHARES	95
ADDITIONAL INFORMATION CONCERNING TAXES	96
PORTFOLIO BROKERAGE	101
LEGAL AND REGULATORY MATTERS	109
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	109
FINANCIAL STATEMENTS	109
CUSTODY OF PORTFOLIO SECURITIES	109
CODES OF ETHICS	109
MANAGEMENT OF OTHER FUNDS BY THE ADVISOR/SUBADVISOR	110
APPENDIX A – DESCRIPTION OF BOND RATINGS	110
APPENDIX B – PORTFOLIO MANAGER INFORMATION	118
APPENDIX C – PROXY VOTING POLICIES AND PROCEDURES	157

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 Variable Trust Advisers LLC (formerly, John Hancock Investment Management Services, 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 Distributors, 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 advised by an entity other than John Hancock's investment advisor or its affiliates
"underlying funds"	Funds in which the Funds of Funds invest

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. The Board and shareholders of the Trust have approved the conversion of the Trust into a Delaware limited liability company. The Trust may implement the conversion at such time as its management considers appropriate and does not expect that the conversion will have any adverse effect on the values of variable contracts that are determined by investment in the funds or any adverse federal income tax consequences for the owners of those contracts. Real Estate Securities Trust is a non-diversified series of the Trust and each other fund is a diversified series of the Trust, as those terms are used in the 1940 Act, and as interpreted or modified by regulatory authority having jurisdiction, from time to time. The following table sets forth the date the Trust was organized:

Trust	Date of Organization
John Hancock Variable Insurance Trust	September 29, 1988

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 December 31, 2019, it had 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.

The following table sets forth each fund's inception date:

Fund Name	Commencement of Operations
500 Index Trust	May 1, 1996
Active Bond Trust	March 29, 1986
Blue Chip Growth Trust	December 11, 1992
Capital Appreciation Trust	November 1, 2000
Capital Appreciation Value Trust	April 28, 2008
Core Bond Trust	May 2, 2005
Disciplined Value International Trust	May 3, 1999
Emerging Markets Value Trust	May 1, 2007
Equity Income Trust	February 19, 1993
Financial Industries Trust	April 30, 2001
Fundamental All Cap Core Trust	May 5, 2003
Fundamental Large Cap Value Trust	May 3, 2004
Global Trust	March 18, 1988
Global Equity Trust	January 29, 2008
Health Sciences Trust	April 30, 2001
High Yield Trust	January 2, 1997
International Equity Index Trust	April 29, 2005
International Small Company Trust	May 1, 2006
Investment Quality Bond Trust	June 19, 1985

Fund Name	Commencement of Operations
Lifestyle Aggressive Portfolio	November 1, 2013
Lifestyle Balanced Portfolio	April 29, 2011
Lifestyle Conservative Portfolio	April 29, 2011
Lifestyle Growth Portfolio	April 29, 2011
Lifestyle Moderate Portfolio	April 29, 2011
Managed Volatility Aggressive Portfolio	January 8, 1997
Managed Volatility Balanced Portfolio	January 8, 1997
Managed Volatility Conservative Portfolio	January 8, 1997
Managed Volatility Growth Portfolio	January 8, 1997
Managed Volatility Moderate Portfolio	January 8, 1997
Mid Cap Index Trust	May 2, 2000
Mid Cap Stock Trust	May 3, 1999
Mid Value Trust	May 1, 1998
Money Market Trust	June 18, 1985
Opportunistic Fixed Income Trust	March 21, 1988
Real Estate Securities Trust	April 30, 1987
Science & Technology Trust	January 1, 1997
Select Bond Trust	July 29, 2009
Short Term Government Income Trust	January 5, 2009
Small Cap Index Trust	May 2, 2000
Small Cap Opportunities Trust	May 5, 2003
Small Cap Stock Trust	May 1, 1996
Small Cap Value Trust	August 31, 1999
Small Company Value Trust	October 1, 1997
Strategic Equity Allocation Trust	April 16, 2012
Strategic Income Opportunities Trust	May 3, 2004
Total Bond Market Trust	May 1, 1998
Total Stock Market Index Trust	May 2, 2000
Ultra Short Term Bond Trust	July 29, 2010

If a fund or share class has been in operation for a period that is shorter than the three-year fiscal period covered in this SAI, information is provided for the period the fund or share class, as applicable, was in operation.

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 instruments and investment policies below 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.

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.

The risks of an investment in a CDO depend largely on the type of the collateral securities and the class of the CDO 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 a CDO to qualify for treatment as liquid under Rule 144A under the 1933 Act. In addition to the normal risks associated with fixed-income securities discussed elsewhere in the SAI and the Prospectus (e.g., interest rate risk and default risk), CDOs carry additional risks including, but 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) the funds may invest in CDOs that are subordinate to other classes; and (iv) the complex structure of the security may not be fully understood at the time of investment and may produce disputes with the issuer or unexpected investment results.

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

Commercial paper consists of unsecured promissory notes issued by corporations to finance short-term credit needs. Commercial paper is issued in bearer form with maturities generally not exceeding nine months.

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.

Except in the case of the Opportunistic Fixed Income Trust, 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.

Emerging Markets Value Trust - Approved Markets

Emerging Markets Value Trust's subadvisor has an investment committee that designates emerging markets for the fund to invest in companies that are associated with those markets ("Approved Markets"). Pending the investment of new

capital in Approved Market securities, the fund will typically invest in money market instruments or other highly liquid debt instruments, including those denominated in U.S. dollars (including, without limitation, repurchase agreements) and money market mutual funds. In addition, the fund may, for liquidity, or for temporary defensive purposes during periods in which market or economic or political conditions warrant, purchase highly liquid debt instruments or hold currencies, although the fund does not expect the aggregate of all such amounts to exceed 20% of its net assets under normal circumstances. The fund also may invest in futures contracts, exchange-traded funds (“ETFs”) and similarly structured pooled investments that provide exposure to Approved Markets or other equity markets, including the United States, while maintaining liquidity.

This fund also may invest up to 10% of its total assets in shares of other investment companies that invest in one or more Approved Markets, although it intends to do so only where access to those markets is otherwise significantly limited. In some Approved Markets, it may be necessary or advisable for the fund to establish a wholly-owned subsidiary or trust for the purpose of investing in the local markets.

Even though a company’s stock may meet the applicable market capitalization criterion for the fund’s criterion for investment, it may not be included for one or more reasons. For example, in the subadvisor’s judgment, the issuer may be considered in extreme financial difficulty, a material portion of its securities may be closely held and not likely available to support market liquidity. To this extent, there will be the exercise of discretion and consideration by the subadvisor in purchasing securities in an Approved Market and in determining the allocation of investments among Approved Markets.

Event-Linked Exposure

A fund may have event-linked exposure by investing in “event-linked bonds” or “event-linked swaps” or by implementing “event-linked strategies.” Event-linked exposure results in gains or losses that typically are contingent, or formulaically related to defined trigger events. Examples of trigger events include hurricanes, earthquakes, weather-related phenomena, or statistics relating to such events. Some event-linked bonds are commonly referred to as “catastrophe bonds.” If a trigger event occurs, a fund may lose a portion or its entire principal invested in the bond or notional amount on a swap. Event-linked exposure often provides for an extension of maturity to process and audit loss claims where a trigger event has, or possibly has, occurred. An extension of maturity may increase volatility. Event-linked exposure also may expose a fund to certain unanticipated risks including credit risk, counterparty risk, adverse regulatory or jurisdictional interpretations, and adverse tax consequences. Event-linked exposures also may be subject to liquidity risk.

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.

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.

Funds of Funds Investments

A fund may serve as an underlying investment for one or more John Hancock funds of funds that seek to achieve their investment objectives by investing in, among other things, other John Hancock funds. The funds of funds periodically re-allocate their investments among underlying investments. In an effort to be fully invested at all times and also to avoid temporary periods of under-investment, a fund may buy securities and other instruments in anticipation of or with knowledge of future purchases of fund shares resulting from a re-allocation of assets by the fund of funds to an underlying fund. Until such purchases of fund shares by a fund of funds settle (normally between one and two days), a fund may have investment exposure in excess of its net assets. Shareholders who transact with a fund during the period beginning when a fund first starts buying securities in anticipation of a purchase order from a fund of funds 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.

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

Money Market Trust may not invest more than 5% 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 ("illiquid securities"). No other 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.

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.

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.

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.

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.

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.

Blue Chip Growth Trust, Capital Appreciation Value Trust, Equity Income Trust, Health Sciences Trust, Mid Value Trust, Science & Technology Trust, and Small Company Trust also may invest in shares of certain internal T. Rowe Price funds (collectively, the "T. Rowe Funds"), consistent with each such fund's investment objective and policies. In order to prevent these funds from paying duplicate management fees, the value of shares of the T. Rowe Funds held in a T. Rowe Price-subadvised fund's portfolio will be excluded from the fund's total assets in calculating the subadvisory fees payable to T. Rowe Price.

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." Because shares of the funds are held directly by insurance companies affiliated with the Advisor, such insurance companies, rather than individuals who select the funds as investment options under variable insurance contracts, would receive the benefit of any DRD. As a result, a decision by the Advisor or an affiliated subadvisor for a particular fund to refrain from securities lending could benefit the affiliated insurance companies (which would receive the DRD) to the detriment of contract holders who have selected that fund (as they would not receive the benefit of securities lending income, including substitute payments). However, the Advisor and the affiliated subadvisors have a fiduciary duty to independently assess whether engaging in securities lending is in the best interests of a fund, which should act to limit this conflict of interest.

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.

For each fund that engaged in securities lending activities during the fiscal period ended December 31, 2019, the following tables detail the amounts of income and fees/compensation related to such activities during the period.

Fund Name	500 Index Trust	Active Bond Trust	Blue Chip Growth Trust	Capital Appreciation Trust
Gross Income from securities lending activities (\$)	431,451	208,842	461,553	335,816
Fees and/or compensation for securities lending activities and related services				
Fees paid to securities lending agent from a revenue split (\$)	21,078	6,831	19,500	9,660
Fees paid for any cash collateral management service (including fees deducted from a pooled cash collateral reinvestment vehicle) that are not included in the revenue split (\$)	9,947	7,160	11,406	10,671
Administrative fees not included in revenue split				
Indemnification fee not included in revenue split				
Rebate (paid to borrower) (\$)	238,588	131,571	255,186	227,510
Other fees not included in revenue split (specify)				
Aggregate fees/compensation for securities lending activities (\$)	269,613	145,563	286,093	247,842
Net Income from securities lending activities (\$)	161,838	63,280	175,460	87,974

Fund Name	Capital Appreciation Value Trust	Core Bond Trust	Disciplined Value International Trust	Emerging Markets Value Trust
Gross Income from securities lending activities (\$)	101,321	129,545	230,399	165,575
Fees and/or compensation for securities lending activities and related services				
Fees paid to securities lending agent from a revenue split (\$)	5,917	2,796	9,859	10,105
Fees paid for any cash collateral management service (including fees deducted from a pooled cash collateral reinvestment vehicle) that are not included in the revenue split (\$)	2,242	4,502	6,189	4,127
Administrative fees not included in revenue split				
Indemnification fee not included in revenue split				
Rebate (paid to borrower) (\$)	39,866	96,689	125,545	68,566
Other fees not included in revenue split (specify)				
Aggregate fees/compensation for securities lending activities (\$)	48,024	103,987	141,593	82,799
Net Income from securities lending activities (\$)	53,297	25,558	88,806	82,776

Fund Name	Equity Income Trust	Financial Industries Trust	Global Trust	Global Equity Trust
Gross Income from securities lending activities (\$)	541,050	17,664	237,612	77,692
Fees and/or compensation for securities lending activities and related services				
Fees paid to securities lending agent from a revenue split (\$)	13,162	1,040	11,400	3,595
Fees paid for any cash collateral management service (including fees deducted from a pooled cash collateral reinvestment vehicle) that are not included in the revenue split (\$)	17,705	344	5,612	1,944
Administrative fees not included in revenue split				
Indemnification fee not included in revenue split				
Rebate (paid to borrower) (\$)	391,935	8,411	116,619	39,706
Other fees not included in revenue split (specify)				
Aggregate fees/compensation for securities lending activities (\$)	422,802	9,795	133,630	45,245
Net Income from securities lending activities (\$)	118,248	7,869	103,981	32,448

Fund Name	High Yield Trust	International Equity Index Trust	International Small Company Trust	Investment Quality Bond Trust
Gross Income from securities lending activities (\$)	269,130	766,624	353,610	32,114
Fees and/or compensation for securities lending activities and related services				
Fees paid to securities lending agent from a revenue split (\$)	8,729	35,931	24,628	675
Fees paid for any cash collateral management service (including fees deducted from a pooled cash collateral reinvestment vehicle) that are not included in the revenue split (\$)	8,828	19,944	7,544	1,144
Administrative fees not included in revenue split				
Indemnification fee not included in revenue split				
Rebate (paid to borrower) (\$)	172,720	387,377	99,558	24,190
Other fees not included in revenue split (specify)				
Aggregate fees/compensation for securities lending activities (\$)	190,278	443,252	131,731	26,009
Net Income from securities lending activities (\$)	78,852	323,372	221,880	6,105

Fund Name	Lifestyle Aggressive Portfolio	Managed Volatility Balanced Portfolio	Managed Volatility Growth Portfolio	Mid Cap Index Trust
Gross Income from securities lending activities (\$)	10,958	737	5,338	823,653
Fees and/or compensation for securities lending activities and related services				
Fees paid to securities lending agent from a revenue split (\$)	430	90	649	21,804
Fees paid for any cash collateral management service (including fees deducted from a pooled cash collateral reinvestment vehicle) that are not included in the revenue split (\$)	399	8	70	26,623
Administrative fees not included in revenue split				
Indemnification fee not included in revenue split				
Rebate (paid to borrower) (\$)	6,632	–	–	585,224
Other fees not included in revenue split (specify)				
Aggregate fees/compensation for securities lending activities (\$)	7,461	98	719	633,651
Net Income from securities lending activities (\$)	3,497	639	4,619	190,002

Fund Name	Mid Cap Stock Trust	Mid Value Trust	Real Estate Securities Trust	Science & Technology Trust
Gross Income from securities lending activities (\$)	1,169,342	600,628	–	941,781
Fees and/or compensation for securities lending activities and related services				
Fees paid to securities lending agent from a revenue split (\$)	26,056	11,812	–	27,146
Fees paid for any cash collateral management service (including fees deducted from a pooled cash collateral reinvestment vehicle) that are not included in the revenue split (\$)	38,364	20,438	–	30,748
Administrative fees not included in revenue split				
Indemnification fee not included in revenue split				
Rebate (paid to borrower) (\$)	867,386	461,484	–	638,367
Other fees not included in revenue split (specify)				
Aggregate fees/compensation for securities lending activities (\$)	931,806	493,735	–	696,261

Fund Name	Mid Cap Stock Trust	Mid Value Trust	Real Estate Securities Trust	Science & Technology Trust
Net Income from securities lending activities (\$)	237,536	106,893	–	245,520

Fund Name	Select Bond Trust	Short Term Government Income Trust	Small Cap Index Trust	Small Cap Opportunities Trust
Gross Income from securities lending activities (\$)	2,812,852	25,561	1,185,606	61,207
Fees and/or compensation for securities lending activities and related services				
Fees paid to securities lending agent from a revenue split (\$)	114,694	357	82,846	4,107
Fees paid for any cash collateral management service (including fees deducted from a pooled cash collateral reinvestment vehicle) that are not included in the revenue split (\$)	95,226	947	25,673	1,344
Administrative fees not included in revenue split				
Indemnification fee not included in revenue split				
Rebate (paid to borrower) (\$)	1,558,193	21,054	454,435	24,985
Other fees not included in revenue split (specify)				
Aggregate fees/compensation for securities lending activities (\$)	1,768,113	22,358	562,954	30,436
Net Income from securities lending activities (\$)	1,044,740	3,203	622,652	30,771

Fund Name	Small Cap Stock Trust	Small Cap Value Trust	Small Company Value Trust	Strategic Equity Allocation Trust
Gross Income from securities lending activities (\$)	616,149	142,391	229,263	5,210,630
Fees and/or compensation for securities lending activities and related services				
Fees paid to securities lending agent from a revenue split (\$)	14,069	2,507	10,445	217,132
Fees paid for any cash collateral management service (including fees deducted from a pooled cash collateral reinvestment vehicle) that are not included in the revenue split (\$)	20,221	4,929	5,779	140,243
Administrative fees not included in revenue split				
Indemnification fee not included in revenue split				
Rebate (paid to borrower) (\$)	454,383	112,173	118,727	2,912,914
Other fees not included in revenue split (specify)				
Aggregate fees/compensation for securities lending activities (\$)	488,674	119,609	134,951	3,270,288
Net Income from securities lending activities (\$)	127,476	22,782	94,312	1,940,341

Fund Name	Strategic Income Opportunities Trust	Total Bond Market Trust	Total Stock Market Index Trust	Ultra Short Term Bond Trust
Gross Income from securities lending activities (\$)	146,484	115,925	428,638	63,138
Fees and/or compensation for securities lending activities and related services				
Fees paid to securities lending agent from a revenue split (\$)	5,155	3,348	34,201	762
Fees paid for any cash collateral management service (including fees deducted from a pooled cash collateral reinvestment vehicle) that are not included in the revenue split (\$)	4,579	3,878	7,491	1,916
Administrative fees not included in revenue split				
Indemnification fee not included in revenue split				
Rebate (paid to borrower) (\$)	92,907	78,457	135,219	53,560
Other fees not included in revenue split (specify)				

Fund Name	Strategic Income Opportunities Trust	Total Bond Market Trust	Total Stock Market Index Trust	Ultra Short Term Bond Trust
Aggregate fees/compensation for securities lending activities (\$)	102,641	85,683	176,911	56,238
Net Income from securities lending activities (\$)	43,843	30,242	251,727	6,900

Loans and Other Direct Debt Instruments

A fund may invest in loans and other direct debt instruments to the extent authorized by its investment policies. 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 also 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.

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.

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, High Yield Trust and Opportunistic Fixed Income Trust 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. Each of High Yield Trust, Investment Quality Bond Trust, and Opportunistic Fixed Income Trust may invest in 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 subadvisors' 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.

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.

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.

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 sell a security it does not own in anticipation of a decline in the market value of that security (a "short sale"). A fund may make short sales of securities or maintain a short position, provided that at all times when a short position is open, a fund owns an equal amount of such securities or securities convertible into or exchangeable, without payment of any further consideration, for an equal amount of the securities of the same issuer as the securities sold short (often referred to as a short sale "against-the-box").

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.

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.

Standby Commitment Agreements

Standby commitment agreements are agreements that obligate a party, for a set period of time, to buy a certain amount of a security that may be issued and sold at the option of the issuer. The price of a security purchased pursuant to a standby commitment agreement is set at the time of the agreement. In return for its promise to purchase the security, a fund receives a commitment fee based upon a percentage of the purchase price of the security. The fund receives this fee whether or not it is ultimately required to purchase the security. There is no guarantee that the securities subject to a standby commitment agreement will be issued or, if such securities are issued, the value of the securities on the date of issuance may be more or less than the purchase price. A fund will limit its investments in standby commitment agreements with remaining terms exceeding seven days pursuant to the limitation on investments in illiquid securities. A fund will record the purchase of a standby commitment agreement, and will reflect the value of the security in the fund’s net asset value, on the date on which the security can reasonably be expected to be issued.

Trade Claims

The funds may purchase trade claims and similar obligations or claims against companies in bankruptcy proceedings. Trade claims are non-securitized rights of payment arising from obligations that typically arise when vendors and suppliers extend credit to a company by offering payment terms for products and services. If the company files for bankruptcy, payments on these trade claims stop and the claims are subject to compromise along with the other debts of the company. Trade claims may be purchased directly from the creditor or through brokers. There is no guarantee that a debtor will ever be able to satisfy its trade claim obligations. Trade claims are subject to the risks associated with low-quality obligations.

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.

Bank Capital Securities

Bank capital securities are issued by banks to help fulfill their regulatory capital requirements. Bank capital securities are issued by banks to help fulfill their regulatory capital requirements. There are two common types of bank capital: Tier I and Tier II. Bank capital is generally, but not always, of investment grade quality. Tier I securities often take the form of trust preferred securities. Tier II securities are commonly thought of as hybrids of debt and preferred stock, are often

perpetual (with no maturity date), callable and, under certain conditions, allow for the issuer bank to withhold payment of interest until a later date.

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, each 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, each 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, each 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, each 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.

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).

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.

Floating rate loans risk

Floating rate loans are generally rated below investment-grade, or if unrated, determined by the manager to be of comparable quality. They are generally considered speculative because they present a greater risk of loss, including default, than higher quality debt instruments. Such investments may, under certain circumstances, be particularly susceptible to liquidity and valuation risks. Although certain floating rate loans are collateralized, there is no guarantee that the value of the collateral will be sufficient or available to satisfy the borrower's obligation. In times of unusual or adverse market, economic or political conditions, floating rate loans may experience higher than normal default rates. In the event of a serious credit event the value of the fund's investments in floating rate loans are more likely to decline. The secondary market for floating rate loans is limited and, therefore, the fund's ability to sell or realize the full value of its investment in these loans to reinvest sale proceeds or to meet redemption obligations may be impaired. In addition, floating rate loans generally are subject to extended settlement periods that may be longer than seven days. As a result, the fund may be adversely affected by selling other investments at an unfavorable time and/or under unfavorable

conditions to meet redemption requests or pursue other investment opportunities. In addition, certain floating rate loans may be “covenant-lite” loans that may contain fewer or less restrictive covenants on the borrower or may contain other borrower-friendly characteristics. The fund may experience relatively greater difficulty or delays in enforcing its rights on its holdings of certain covenant-lite loans and debt securities than its holdings of loans or securities with the usual covenants.

In certain circumstances, floating rate loans may not be deemed to be securities. As a result, the fund may not have the protection of the anti-fraud provisions of the federal securities laws. In such cases, the fund generally must rely on the contractual provisions in the loan agreement and common-law fraud protections under applicable state law.

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”).

High Yield (High Risk) Securities and Securities of Distressed Companies

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. Investments in securities rated below-investment-grade that are eligible for purchase by certain funds are described as “speculative” by Moody’s, S&P, and Fitch. Investment in lower rated corporate debt securities (“high yield securities” or “junk bonds”) and securities of distressed companies generally provides greater income and increased opportunity for capital appreciation than investments in higher quality securities, but they also typically entail greater price volatility and principal and income risk. Securities of distressed companies include both debt and equity securities. High yield securities and debt securities of distressed companies are regarded as predominantly speculative with respect to the issuer’s continuing ability to meet principal and interest payments. Issuers of high yield and distressed company securities may be involved in restructurings or bankruptcy proceedings that may not be successful. Analysis of the creditworthiness of issuers of debt securities that are high yield or debt securities of distressed companies may be more complex than for issuers of higher quality debt securities.

High yield securities and debt securities of distressed companies may be more susceptible to real or perceived adverse economic and competitive industry conditions than investment grade securities. The prices of these securities have been found to be less sensitive to interest-rate changes than higher-rated investments, but more sensitive to adverse economic downturns or individual corporate developments. A projection of an economic downturn or of a period of rising interest rates, for example, could cause a decline in prices of high yield securities and debt securities of distressed companies because the advent of a recession could lessen the ability of a highly leveraged company to make principal and interest payments on its debt securities. If an issuer of securities defaults, in addition to risking payment of all or a portion of interest and principal, the funds, by investing in such securities, may incur additional expenses to seek recovery of their respective investments. In the case of securities structured as zero-coupon or pay-in-kind securities, their market prices are affected to a greater extent by interest rate changes, and therefore tend to be more volatile than securities which pay interest periodically and in cash. The funds seek to reduce these risks through diversification, credit analysis and attention to current developments and trends in both the economy and financial markets.

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.

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.

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.

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 these 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 international political developments, energy conservation, the success of exploration projects, commodity prices, and tax and government regulations.

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 funds 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 funds 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.

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 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. 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.

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.

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.

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.

TBA Mortgage Contracts. Similar to when-issued or delayed-delivery securities, a TBA mortgage contract is a security that is purchased or sold for a fixed price with the underlying securities to be announced at a future date. The seller does not specify the particular securities to be delivered, however. Instead, the buyer agrees to accept any securities that meet the specified terms. For example, in a TBA mortgage contract transaction, a buyer and seller would agree upon the issuer, interest rate and terms of the underlying mortgages, but the seller would not identify the specific underlying security until it issues the security. Unsettled TBA purchase commitments are valued at the current market value of the underlying securities. TBA mortgage contracts involve a risk of loss if the value of the underlying security to be purchased declines prior to delivery date. The yield obtained for such securities may be higher or lower than yields available in the market on delivery date.

Inverse Interest-Only Securities. The coupons (stated interest rates) of interest-only securities fluctuate inversely with specified interest rate indices. For example, the coupon on an inverse interest-only security might equal 10% minus one month LIBOR. As interest rates rise, the security's coupon decreases and when interest rates fall, the security's coupon increases. Such securities also may be structured so that small changes in interest rates lead to larger changes in the coupon. Issuers of mortgage backed securities holding fixed rate mortgage collateral sometimes issue offsetting interest-only securities and inverse interest-only securities. Thus, the fixed return on the collateral can be split into offsetting floating and inverse floating coupons. Inverse interest-only securities that are mortgage-backed securities are subject to the same risks as other mortgage backed-securities. In addition, the coupon on an inverse interest-only security can be extremely sensitive to changes in prevailing interest rates.

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 historically have been prone to major natural disasters, such as hurricanes, earthquakes, typhoons, flooding, tidal waves, tsunamis, erupting volcanoes, wildfires, or droughts, and have been 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.

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

A fund that is non-diversified is not limited as to the percentage of its assets that may be invested in any one issuer, or 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

As permitted by Section 12 of the 1940 Act, the funds of funds may invest in shares of other John Hancock funds ("Underlying JH Funds"), and the funds of funds may reallocate or rebalance assets among the Underlying JH Funds (collectively, "Rebalancings"). 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.

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 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 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.

Trust Preferred Securities

The funds may invest in trust preferred securities. Trust preferred securities have the characteristics of both subordinated debt and preferred stock. Generally, trust preferred securities are issued by a trust that is wholly-owned by a financial institution or other corporate entity, typically a bank holding company. The financial institution creates the trust and owns the trust's common securities. The trust uses the sale proceeds of its common securities to purchase subordinated debt issued by the financial institution. The financial institution uses the proceeds from the subordinated debt sale to increase its capital while the trust receives periodic interest payments from the financial institution for holding the subordinated debt. The trust uses the funds received to make dividend payments to the holders of the trust preferred

securities. The primary advantage of this structure is that the trust preferred securities are treated by the financial institution as debt securities for tax purposes and as equity for the calculation of capital requirements.

Trust preferred securities typically bear a market rate coupon comparable to interest rates available on debt of a similarly rated issuer. Typical characteristics include long-term maturities, early redemption by the issuer, periodic fixed or variable interest payments, and maturities at face value. Holders of trust preferred securities have limited voting rights to control the activities of the trust and no voting rights with respect to the financial institution. The market value of trust preferred securities may be more volatile than those of conventional debt securities. Trust preferred securities may be issued in reliance on Rule 144A under the 1933 Act and subject to restrictions on resale. There can be no assurance as to the liquidity of trust preferred securities and the ability of holders, such as a fund, to sell their holdings. The condition of the financial institution is looked at to identify the risks of the trust preferred securities as the trust typically has no business operations other than to issue the trust preferred securities. If the financial institution defaults on interest payments to the trust, the trust will not be able to make dividend payments to holders of its securities, such as a fund.

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.

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) Each fund (except Financial Industries Trust, Health Sciences Trust, and Real Estate Securities Trust) may not concentrate, as that term is used in the 1940 Act, its investments in a particular industry in violation of the requirements of the 1940 Act, as amended, as interpreted or modified by the SEC from time to time.

(2) Each fund (except Real Estate Securities Trust) has elected to be treated 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.

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

(5) Each 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) Each 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) Each 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) Each 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 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.

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.

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 the subadvisor's assessment of the security), or change in the percentage of portfolio assets invested in certain securities or other instruments, or change in the average duration of a fund's investment portfolio, resulting from market fluctuations or other changes in the fund's total assets will not require the fund to dispose of an investment until the 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, the 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.

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, that are not readily marketable, except that Money Market Trust may not invest in excess of 10% of its net assets in such securities or other investments.

(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. The Opportunistic Fixed Income, Real Return and Total Return Bond Trusts will engage in short selling to the extent permitted by the federal securities laws and rules and interpretations thereunder.

In addition to the above policies, Money Market Trust is subject to certain restrictions required by Rule 2a-7 under the 1940 Act. In order to comply with such restrictions, Money Market Trust will not, among other things, purchase the securities of any issuer if it would cause:

- more than 5% of its total assets to be invested in the securities of any one issuer (excluding U.S. Government securities and repurchase agreements fully collateralized by U.S. Government securities), except as permitted by Rule 2a-7 for certain securities for a period of up to three business days after purchase,
- more than 3% of its total assets to be invested in “second tier securities,” as defined by Rule 2a-7, or
- more than 0.5% of its total assets to be invested in the second tier securities of that issuer.

(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 (3) 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.

Investment Policy that May Be Changed Only on 60 Days’ Notice to Shareholders or with Shareholder Approval

In order to comply with Rule 35d-1 under the 1940 Act, the 80% investment policy for each of 500 Index Trust, Active Bond Trust, Blue Chip Growth Trust, Core Bond Trust, Emerging Markets Value Trust, Equity Income Trust, Financial Industries Trust, Global Equity Trust, Health Sciences Trust, High Yield Trust, International Equity Index Trust, International Small Company Trust, Investment Quality Bond Trust, Mid Cap Index Trust, Mid Cap Stock Trust, Opportunistic Fixed Income Trust, Real Estate Securities Trust, Science & Technology Trust, Select Bond Trust, Small Cap Index Trust, Small Cap Opportunities Trust, Small Cap Stock Trust, Small Cap Value Trust, Small Company Value Trust, Total Bond Market Trust, Total Stock Market Index Trust, and Ultra Short Term Bond Trust is subject to change only upon 60 days’ prior notice to shareholders. Refer to the applicable Prospectus for each fund’s “Principal investment strategies.”

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. The portfolio turnover rates for the funds for the fiscal periods ended December 31, 2019 and December 31, 2018 were as follows:

Fund	2019 %	2018 %
500 Index Trust	3	4
Active Bond Trust	88	63
Blue Chip Growth Trust	29	35
Capital Appreciation Trust	40	37
Capital Appreciation Value Trust	45	78
Core Bond Trust	446	336
Disciplined Value International Trust	36	34
Emerging Markets Value Trust	23	14
Equity Income Trust	18	18
Financial Industries Trust	28	25
Fundamental All Cap Core Trust	15	24
Fundamental Large Cap Value Trust	13	31
Global Trust	20	30
Global Equity Trust	26	24
Health Sciences Trust	34	42
High Yield Trust	57	54

Fund	2019 %	2018 %
International Equity Index Trust	5	2
International Small Company Trust	12	20
Investment Quality Bond Trust	45	44
Lifestyle Aggressive Portfolio	20	16
Lifestyle Balanced Portfolio	11	8
Lifestyle Conservative Portfolio	21	21
Lifestyle Growth Portfolio	7	5
Lifestyle Moderate Portfolio	15	8
Managed Volatility Aggressive Portfolio	15	58
Managed Volatility Balanced Portfolio	8	36
Managed Volatility Conservative Portfolio	8	34
Managed Volatility Growth Portfolio	8	37
Managed Volatility Moderate Portfolio	8	35
Mid Cap Index Trust	15	15
Mid Cap Stock Trust	64	69
Mid Value Trust	33	35
Money Market Trust	—	—
Opportunistic Fixed Income Trust	45	35
Real Estate Securities Trust	129	164
Science & Technology Trust	87	108
Select Bond Trust	137	83
Short Term Government Income Trust	54	28
Small Cap Index Trust	14	24
Small Cap Opportunities Trust	16	23
Small Cap Stock Trust	81	88
Small Cap Value Trust	19	13
Small Company Value Trust	30	23
Strategic Equity Allocation Trust	4	5
Strategic Income Opportunities Trust	95	61
Total Bond Market Trust	36	22
Total Stock Market Index Trust	3	2
Ultra Short Term Bond Trust	64	59

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 December 31, 2019, the “John Hancock Fund Complex” consisted of 205 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. 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 Trust¹	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).	205
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 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).	205
Independent Trustees			
Charles L. Bardelis (1941)	Trustee (since 1988)	Director, Island Commuter Corp. (marine transport). Trustee of various trusts within the John Hancock Fund Complex (since 1988).	205
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).	205
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).	205

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
William H. Cunningham (1944)	Trustee (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).	205
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).	205
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).	205
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.	205
James M. Oates (1946)	Trustee (since 2004)	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.	205
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. (since 2014); 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.	205

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
Gregory A. Russo (1949)	Trustee (since 2012)	Director and Audit Committee Chairman (since 2012), and Member, Audit Committee and Finance Committee (since 2011), 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).	205

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 Trust¹	Principal Occupation(s) During Past 5 Years
Francis V. Knox, Jr. (1947)	Chief Compliance Officer (since 2005)	Vice President, John Hancock Financial Services (since 2005); Chief Compliance Officer, various trusts within the John Hancock Fund Complex, John Hancock Investment Management LLC, and John Hancock Variable Trust Advisers LLC (since 2005).
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).

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.

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 six times during the fiscal year ended December 31, 2019.

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). 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 December 31, 2019.

Compliance Committee. The Board also has a standing Compliance Committee (Meses. 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 December 31, 2019.

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 December 31, 2019.

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 four times during the fiscal year ended December 31, 2019.

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 December 31, 2019.

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 December 31, 2019.

Compensation Table¹

Name of Trustee	Total Compensation from JHVIT (\$)	Total Compensation from the Trust and the John Hancock Fund Complex ² (\$)
Independent Trustees		
Charles L. Bardelis	104,395	395,000
James R. Boyle	101,416	385,000
Peter S. Burgess	110,351	415,000
William H. Cunningham	104,395	395,000
Grace K. Fey	110,351	415,000
Theron S. Hoffman ³	58,957	227,333
Deborah C. Jackson	104,395	395,000
Hassell H. McClellan	146,085	535,000
James M. Oates	104,395	395,000
Steven R. Pruchansky	102,910	390,000

Compensation Table¹

Name of Trustee	Total Compensation from JHVIT (\$)	Total Compensation from the Trust and the John Hancock Fund Complex ² (\$)
Gregory A. Russo	108,866	410,000
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 approximately 205 series in the John Hancock Fund Complex as of December 31, 2019.

3 Retired from the Board effective as of August 31, 2019.

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.

Name of Trustees	500 Index Trust	Financial Industries Trust	Global Trust	International Equity Index Trust	Lifestyle Aggressive Portfolio	Lifestyle Balanced Portfolio
Independent Trustees						
Charles L. Bardelis	None	None	None	None	None	None
James R. Boyle	Over \$100,000	None	None	Over \$100,000	None	None
Peter S. Burgess	None	None	None	None	\$50,001 - \$100,000	None
William H. Cunningham	None	None	None	None	None	None
Grace K. Fey	None	None	None	None	None	Over \$100,000
Deborah C. Jackson	None	None	None	None	None	None
Hassell H. McClellan	None	\$10,001 - \$50,000	\$10,001 - \$50,000	None	\$10,001 - \$50,000	None
James M. Oates	None	None	None	None	None	None
Steven R. Pruchansky	None	None	None	None	None	None
Gregory A. Russo	None	None	None	None	None	None
Non-Independent Trustees						
Andrew G. Arnott	\$50,001 - \$100,000	None	None	None	None	None
Marianne Harrison	None	None	None	None	None	None

Name of Trustees	Lifestyle Growth Portfolio	Managed Volatility Aggressive Portfolio	Managed Volatility Balanced Portfolio	Science & Technology Trust	Small Company Value Trust
Independent Trustees					
Charles L. Bardelis	None	None	None	None	None
James R. Boyle	Over \$100,000	None	None	None	None
Peter S. Burgess	None	\$10,001 - \$50,000	\$50,001 - \$100,000	Over \$100,000	None
William H. Cunningham	None	None	None	None	None
Grace K. Fey	None	None	None	None	None
Deborah C. Jackson	None	None	None	None	None
Hassell H. McClellan	None	None	None	None	\$50,001 - \$100,000
James M. Oates	None	None	None	None	None
Steven R. Pruchansky	None	None	None	None	None

Name of Trustees	Lifestyle Growth Portfolio	Managed Volatility Aggressive Portfolio	Managed Volatility Balanced Portfolio	Science & Technology Trust	Small Company Value Trust
Gregory A. Russo	None	None	None	None	None
Non-Independent Trustees					
Andrew G. Arnott	None	None	None	None	None
Marianne Harrison	None	None	None	None	None

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 shares of each fund are sold only to insurance companies and their separate accounts as the underlying investment option for variable annuity, group annuity, and variable life insurance contracts ("variable contracts"). Two of these insurance companies, John Hancock Life Insurance Company (U.S.A.) and John Hancock Life Insurance Company of New York, are affiliates of the Advisor (the "Affiliated Insurance Companies"). Under a service agreement, the Affiliated Insurance Companies perform administrative services for the funds in connection with the variable contracts for which they serve as the underlying investment option. To compensate the Affiliated Insurance Companies for providing these services, the Advisor, not 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. The Advisor may also pay an administrative fee to insurance companies that are nonaffiliated with the Advisor for performance of these administrative 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.

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 as described in the Prospectus.

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.

The following table shows the advisory fees that each fund incurred and paid for the fiscal years ended December 31, 2019, December 31, 2018, and December 31, 2017.

Fund	Advisory Fee Paid in Fiscal Year Ended		
	2019 (\$)	2018 (\$)	2017 (\$)
500 Index Trust			
Gross Fees	25,898,334	24,230,835	21,726,012
Waivers	(13,997,478)	(13,023,225)	(11,652,310)
Net Fees	11,900,856	11,207,610	10,073,702
Active Bond Trust			
Gross Fees	4,242,901	4,252,689	4,453,449
Waivers	(52,277)	(58,670)	(60,061)
Net Fees	4,190,624	4,194,019	4,393,388
Blue Chip Growth Trust			
Gross Fees	15,707,640	14,406,988	13,121,676
Waivers	(719,359)	(682,102)	(628,685)
Net Fees	14,988,281	13,724,886	12,492,991
Capital Appreciation Trust			
Gross Fees	3,749,160	6,752,792	7,167,665
Waivers	(39,148)	(80,332)	(82,380)
Net Fees	3,710,012	6,672,460	7,085,285
Capital Appreciation Value Trust			
Gross Fees	3,232,081	3,165,586	3,241,370
Waivers	(159,763)	(160,545)	(163,109)
Net Fees	3,072,318	3,005,041	3,078,261
Core Bond Trust			
Gross Fees	6,164,871	6,722,433	7,232,761
Waivers	(80,125)	(96,279)	(100,268)
Net Fees	6,084,746	6,626,154	7,132,493
Disciplined Value International Trust			

Fund	Advisory Fee Paid in Fiscal Year Ended		
	2019 (\$)	2018 (\$)	2017 (\$)
Gross Fees	2,429,517	6,103,344	6,973,867
Waivers	(22,451)	(63,799)	(70,426)
Net Fees	2,407,066	6,039,545	6,903,441
Emerging Markets Value Trust			
Gross Fees	2,100,820	6,577,291	6,342,511
Waivers	(16,195)	(57,785)	(53,897)
Net Fees	2,084,625	6,519,506	6,288,614
Equity Income Trust			
Gross Fees	11,134,834	12,367,570	13,048,224
Waivers	(474,920)	(563,263)	(594,232)
Net Fees	10,659,914	11,804,307	12,453,992
Financial Industries Trust			
Gross Fees	1,265,317	1,704,899	1,700,641
Waivers	(12,136)	(18,554)	(18,032)
Net Fees	1,253,181	1,686,345	1,682,609
Fundamental All Cap Core Trust			
Gross Fees	11,809,492	12,504,766	11,774,107
Waivers	(129,424)	(153,817)	(141,166)
Net Fees	11,680,068	12,350,949	11,632,941
Fundamental Large Cap Value Trust			
Gross Fees	4,490,618	4,897,977	5,324,801
Waivers	(68,131)	(84,564)	(91,251)
Net Fees	4,422,487	4,813,413	5,233,550
Global Trust			
Gross Fees	1,598,919	1,830,012	1,916,526
Waivers	(97,355)	(57,928)	(54,627)
Net Fees	1,501,564	1,772,084	1,861,899
Global Equity Trust			
Gross Fees	1,456,256	1,576,661	1,653,095
Waivers	(11,216)	(13,628)	(13,908)
Net Fees	1,445,040	1,563,033	1,639,187
Health Sciences Trust			
Gross Fees	2,971,093	3,162,425	2,968,264
Waivers	(172,946)	(188,245)	(176,326)
Net Fees	2,798,147	2,974,180	2,791,938
High Yield Trust			
Gross Fees	1,426,507	1,534,628	1,698,886
Waivers	(15,096)	(18,465)	(20,071)
Net Fees	1,411,411	1,516,163	1,678,815
International Equity Index Trust			
Gross Fees	4,002,326	4,132,406	3,705,965
Waivers	(2,073,615)	(2,126,987)	(1,993,011)
Net Fees	1,928,711	2,005,419	1,712,954
International Small Company Trust			
Gross Fees	1,077,008	1,339,599	1,240,652
Waivers	(8,380)	(11,720)	(10,588)
Net Fees	1,068,628	1,327,879	1,230,064
Investment Quality Bond Trust			
Gross Fees	1,535,887	1,572,302	1,655,750
Waivers	(18,921)	(21,692)	(22,414)
Net Fees	1,516,966	1,550,610	1,633,336

Fund	Advisory Fee Paid in Fiscal Year Ended		
	2019 (\$)	2018 (\$)	2017 (\$)
Lifestyle Aggressive Portfolio			
Gross Fees	41,167	35,921	33,645
Waivers	(59,805)	(71,610)	(67,271)
Net Fees	(18,638)	(35,689)	(33,626)
Lifestyle Balanced Portfolio			
Gross Fees	404,953	415,475	425,903
Waivers	(49,057)	(50,499)	(51,769)
Net Fees	355,896	364,976	374,134
Lifestyle Conservative Portfolio			
Gross Fees	75,813	71,847	76,250
Waivers	(51,438)	(57,491)	(56,104)
Net Fees	24,375	14,356	20,146
Lifestyle Growth Portfolio			
Gross Fees	2,534,840	2,724,487	1,607,215
Waivers	(306,932)	(332,295)	(194,908)
Net Fees	2,227,908	2,392,192	1,412,307
Lifestyle Moderate Portfolio			
Gross Fees	125,406	127,976	133,233
Waivers	(39,437)	(41,031)	(41,862)
Net Fees	85,969	86,945	91,371
Managed Volatility Aggressive Portfolio			
Gross Fees	970,861	339,342	232,040
Waivers	(665,101)	(330,863)	(252,500)
Net Fees	305,760	8,479	(20,460)
Managed Volatility Balanced Portfolio			
Gross Fees	11,976,124	5,641,340	4,566,031
Waivers	(8,287,961)	(3,924,084)	(3,285,341)
Net Fees	3,688,163	1,717,256	1,280,690
Managed Volatility Conservative Portfolio			
Gross Fees	1,893,518	846,199	674,196
Waivers	(1,284,324)	(670,538)	(587,417)
Net Fees	609,194	175,661	86,779
Managed Volatility Growth Portfolio			
Gross Fees	16,009,640	7,348,314	5,930,502
Waivers	(11,490,781)	(5,117,645)	(4,186,629)
Net Fees	4,518,859	2,230,669	1,743,873
Managed Volatility Moderate Portfolio			
Gross Fees	3,195,567	1,456,764	1,140,028
Waivers	(2,212,005)	(1,096,866)	(928,306)
Net Fees	983,562	359,898	211,722
Mid Cap Index Trust			
Gross Fees	6,548,517	7,102,709	5,468,362
Waivers	(1,499,660)	(1,642,749)	(1,255,852)
Net Fees	5,048,857	5,459,960	4,212,510
Mid Cap Stock Trust			
Gross Fees	6,378,310	6,484,538	6,056,581
Waivers	(56,674)	(64,619)	(58,838)
Net Fees	6,321,636	6,419,919	5,997,743
Mid Value Trust			
Gross Fees	6,338,213	7,347,925	7,814,477
Waivers	(349,017)	(415,505)	(439,379)

Fund	Advisory Fee Paid in Fiscal Year Ended		
	2019 (\$)	2018 (\$)	2017 (\$)
Net Fees	5,989,196	6,932,420	7,375,098
Money Market Trust			
Gross Fees	7,286,398	7,079,603	7,855,759
Waivers	(2,606,825)	(2,584,034)	(2,783,020)
Net Fees	4,679,573	4,495,569	5,072,739
Opportunistic Fixed Income Trust			
Gross Fees	1,415,608	3,484,180	4,083,569
Waivers	(74,825)	(84,134)	(47,149)
Net Fees	1,340,783	3,400,046	4,036,420
Real Estate Securities Trust			
Gross Fees	2,473,603	2,378,632	2,671,968
Waivers	(26,137)	(28,154)	(30,821)
Net Fees	2,447,466	2,350,478	2,641,147
Science & Technology Trust			
Gross Fees	8,416,689	8,374,726	6,476,833
Waivers	(375,092)	(382,586)	(293,745)
Net Fees	8,041,597	7,992,140	6,183,088
Select Bond Trust			
Gross Fees	46,983,938	49,960,194	52,132,204
Waivers	(2,307,933)	(2,504,891)	(1,682,653)
Net Fees	44,676,005	47,455,303	50,449,551
Short Term Government Income Trust			
Gross Fees	1,021,341	1,529,322	1,743,040
Waivers	(13,288)	(22,874)	(25,195)
Net Fees	1,008,053	1,506,448	1,717,845
Small Cap Index Trust			
Gross Fees	2,797,118	2,981,660	2,721,929
Waivers	(333,408)	(361,984)	(327,941)
Net Fees	2,463,710	2,619,676	2,393,988
Small Cap Opportunities Trust			
Gross Fees	1,369,120	1,551,537	2,159,604
Waivers	(246,987)	(281,688)	(184,428)
Net Fees	1,122,133	1,269,849	1,975,176
Small Cap Stock Trust			
Gross Fees	3,009,325	4,388,929	4,095,195
Waivers	(22,098)	(36,520)	(32,283)
Net Fees	2,987,227	4,352,409	4,062,912
Small Cap Value Trust			
Gross Fees	4,963,912	6,113,072	6,914,528
Waivers	(37,275)	(50,363)	(54,120)
Net Fees	4,926,637	6,062,709	6,860,408
Small Company Value Trust			
Gross Fees	1,528,906	2,700,429	2,919,200
Waivers	(89,261)	(161,387)	(173,474)
Net Fees	1,439,645	2,539,042	2,745,726
Strategic Equity Allocation Trust			
Gross Fees	60,658,162	67,263,729	70,642,466
Waivers	(12,722,182)	(14,020,908)	(14,618,425)
Net Fees	47,935,980	53,242,821	56,024,041
Strategic Income Opportunities Trust			
Gross Fees	3,067,230	3,523,566	3,827,169

Fund	Advisory Fee Paid in Fiscal Year Ended		
	2019 (\$)	2018 (\$)	2017 (\$)
Waivers	(35,833)	(46,824)	(49,503)
Net Fees	3,031,397	3,476,742	3,777,666
Total Bond Market Trust			
Gross Fees	2,893,582	2,653,215	2,704,437
Waivers	(1,682,016)	(1,532,099)	(1,533,189)
Net Fees	1,211,566	1,121,116	1,171,248
Total Stock Market Index Trust			
Gross Fees	3,542,589	3,666,019	3,548,667
Waivers	(575,013)	(602,689)	(337,028)
Net Fees	2,967,576	3,063,330	3,211,639
Ultra Short Term Bond Trust			
Gross Fees	1,376,739	1,214,656	1,412,006
Waivers	(144,743)	(61,992)	(20,737)
Net Fees	1,231,996	1,152,664	1,391,269

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.

The following table shows the fees that each fund incurred and paid to the Advisor for non-advisory services pursuant to the Service Agreement for the fiscal periods ended December 31, 2019, December 31, 2018, and December 31, 2017.

Fund	Service Fee Paid in Fiscal Year Ended December 31,		
	2019 (\$)	2018 (\$)	2017 (\$)
500 Index Trust	1,099,304	786,044	753,448
Active Bond Trust	136,284	106,674	120,007
Blue Chip Growth Trust	407,000	290,063	276,392
Capital Appreciation Trust	112,491	134,207	163,887
Capital Appreciation Value Trust	76,972	58,332	64,265
Core Bond Trust	209,688	173,683	200,472
Disciplined Value International Trust	66,673	106,377	144,043
Emerging Markets Value Trust	47,265	98,562	109,348
Equity Income Trust	313,716	257,003	288,879
Financial Industries Trust	32,181	33,283	35,550
Fundamental All Cap Core Trust	346,725	273,755	280,485
Fundamental Large Cap Value Trust	128,673	110,957	139,922
Global Trust	37,271	32,774	40,418
Global Equity Trust	29,716	24,552	29,941
Health Sciences Trust	54,708	45,449	45,625

Fund	Service Fee Paid in Fiscal Year Ended December 31,		
	2019 (\$)	2018 (\$)	2017 (\$)
High Yield Trust	39,581	33,426	40,037
International Equity Index Trust	150,704	113,725	113,465
International Small Company Trust	22,477	20,557	21,265
Investment Quality Bond Trust	48,979	39,492	44,805
Lifestyle Aggressive Portfolio	6,717	4,827	4,486
Lifestyle Balanced Portfolio	191,087	150,877	166,696
Lifestyle Conservative Portfolio	35,404	27,228	30,054
Lifestyle Growth Portfolio	1,197,971	1,000,705	610,508
Lifestyle Moderate Portfolio	59,225	46,459	52,227
Managed Volatility Aggressive Portfolio	71,460	57,474	60,242
Managed Volatility Balanced Portfolio	1,314,994	1,105,659	1,277,472
Managed Volatility Conservative Portfolio	217,862	183,783	227,468
Managed Volatility Growth Portfolio	1,662,231	1,410,610	1,582,288
Managed Volatility Moderate Portfolio	375,943	319,486	375,732
Mid Cap Index Trust	270,354	226,540	186,814
Mid Cap Stock Trust	150,027	105,926	117,512
Mid Value Trust	130,848	115,357	132,262
Money Market Trust	377,012	283,290	342,595
Opportunistic Fixed Income Trust	40,666	72,511	94,070
Real Estate Securities Trust	68,336	50,928	61,915
Science & Technology Trust	160,325	120,547	102,020
Select Bond Trust	1,606,372	1,327,358	1,489,679
Short Term Government Income Trust	36,972	38,862	50,410
Small Cap Index Trust	114,605	92,608	90,395
Small Cap Opportunities Trust	26,951	23,494	35,407
Small Cap Stock Trust	61,998	61,966	64,331
Small Cap Value Trust	99,751	90,347	107,962
Small Company Value Trust	30,872	36,047	45,005
Strategic Equity Allocation Trust	1,902,636	1,615,035	1,824,222
Strategic Income Opportunities Trust	94,008	84,343	98,584
Total Bond Market Trust	118,585	84,986	92,725
Total Stock Market Index Trust	144,365	114,772	118,260
Ultra Short Term Bond Trust	48,110	33,664	41,539

Subadvisory Agreements

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

Duties of the Subadvisors. Under the terms of each of the current subadvisory agreements, including multiple sub-advisory arrangements (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. Each subadvisor formulates a continuous investment program for each such fund consistent with its investment objectives and policies outlined in the Prospectus. Each 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. Each 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, each subadvisor receives fees from the Advisor computed separately for each fund. In respect of a sub-subadvisory agreement, the fees are paid by the subadvisor to the entity providing the sub-subadvisory services described below.

Sub-Subadvisory Arrangements. Under a sub-subadvisory arrangement, the sub-subadvisor provides certain investment advisory services to the fund's subadvisor for the benefit of the fund. In each case, the subadvisor pays the sub-subadvisor, as full compensation for all services provided under the sub-subadvisory arrangement, a portion of its subadvisory fee. The Trust does not incur any expenses in connection with any sub-subadvisor's services other than the advisory fee.

Advisory arrangements involving Affiliated Subadvisors and investment in affiliated underlying funds present certain conflicts of interest. For each fund of JHVIT 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 of Trustees 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 JHVIT's "Manager of Managers" exemptive order received from the SEC, JHVIT 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.

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

A particular group of funds, the Lifestyle Portfolios, are offered only in connection with specific guaranteed benefits under variable annuity contracts (the "Contracts") issued by John Hancock Life Insurance Company (U.S.A.) and John Hancock Life Insurance Company of New York (collectively, the "John Hancock Issuers"). The Contracts provide that the John Hancock Issuers can automatically transfer contract value between the Lifestyle Portfolios and Select Bond Trust, another JHVIT fund, through a non-discretionary, systematic mathematical process. The purpose of these transfers is to attempt to protect contract value from declines due to market volatility. The timing and amount of any transfer of contract value under the John Hancock Issuers' process will depend on several factors including market movements. In general, the higher the equity component of a Lifestyle Portfolios, the more likely that contract value will be reallocated from the Lifestyle Portfolios to Select Bond Trust when equity markets fall. These asset flows may negatively affect the performance of an underlying fund in which the Lifestyle Portfolios invests by increasing the underlying fund's transaction costs and causing it to purchase or sell securities when it would not normally do so. It could be particularly disadvantageous for the underlying fund if it experiences outflows and needs to sell securities at a time of volatility in the markets, when values could be falling. As a result of these reallocations between the Lifestyle Portfolios and Select Bond Trust, there may be active trading in the Lifestyle Portfolios and Select Bond Trust. However, it is not anticipated that there will be active trading by the Lifestyle Portfolios in other JHVIT funds except in extreme market situations.

Another particular group of funds, the Managed Volatility Portfolios, purchase derivatives, such as stock index futures, that require the Managed Volatility Portfolios to hold initial and variation margin. The amount of margin required will fluctuate daily. Although the Managed Volatility Portfolios will seek to have sufficient liquid assets to cover its margin requirements, in certain market conditions, it may be required to redeem its holdings of underlying fund shares in order to do so. For example, as the value of the index underlying the stock index future increases in value, the amount of

margin required will increase. The amount of margin required could be very large if the value of the index rises significantly during a short period of time. These redemptions from underlying funds could require such funds to sell securities at times when they may not otherwise desire to do so and may increase brokerage and/or other transaction costs of such underlying funds.

Additional Information Applicable to Subadvisory Agreements

Term of each Subadvisory Agreement. Each 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 Agreements.

Any required shareholder approval of any continuance of any of the Subadvisory Agreements 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. A 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 a Subadvisory Agreement:

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

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

Amendments to the Subadvisory Agreements. A 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 a 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 "Investment Management" 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 Agreements, 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. A 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 each subadvisor are 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 subadvises, 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, upon request, by calling (800) 344-1029 (attention: Secretary); and (2) on the SEC's website at sec.gov.

DISTRIBUTION AGREEMENTS

John Hancock Distributors, LLC, an affiliate of the Advisor (the "Distributor"), located at 200 Berkeley Street, Boston, Massachusetts 02116, is the principal underwriter of JHVIT and distributes shares of JHVIT on a continuous basis. Other than the Rule 12b-1 payments and service fees described below, the Distributor does not receive compensation from JHVIT.

The Board has approved Plans (the "Plans") under Rule 12b-1 under the 1940 Act ("Rule 12b-1") for Series I shares, Series II shares and, in the case of certain funds, Series III shares. The purpose of each Plan is to encourage the growth and retention of assets of each fund subject to a Plan.

Series I and Series II shares of each fund and Series III shares of certain funds are subject to Rule 12b-1 fees, as described in the Prospectus.

A portion of the Rule 12b-1 fee may constitute a "service fee" as defined in Rule 2341 of the Conduct Rules of the Financial Industry Regulatory Authority ("FINRA").

Service fees are paid to the Distributor, which then may reallocate all or a portion of the service fee to one or more affiliated or unaffiliated parties that have agreed to provide with respect to the shares of JHVIT the kinds of services encompassed by the term "personal service and/or the maintenance of shareholder accounts" as defined in FINRA Conduct Rule 2341.

Each Rule 12b-1 Plan is a compensation plan and compensates the Distributor regardless of its expenses. Rule 12b-1 fees are paid to the Distributor.

To the extent consistent with applicable laws, regulations and rules, the Distributor may use Rule 12b-1 fees:

- for any expenses relating to the distribution of the shares of the class,
- for any expenses relating to shareholder or administrative services for holders of the shares of the class (or owners of contracts funded in insurance company separate accounts that invest in the shares of the class) and
- for the payment of "service fees" that come within FINRA Conduct Rule 2341.

Without limiting the foregoing, the Distributor may pay all or part of the Rule 12b-1 fees from a fund to one or more affiliated and unaffiliated insurance companies that have issued variable insurance contracts for which the fund serves as an investment vehicle as compensation for providing some or all of the types of services described in the preceding paragraph; this provision, however, does not obligate the Distributor to make any payments of Rule 12b-1 fees and does not limit the use that the Distributor may make of the Rule 12b-1 fees it receives. Currently, all such payments are made

to insurance companies affiliated with the Advisor and Distributor. However, payments may be made to non-affiliated insurance companies in the future.

The Plans authorize any payments in addition to fees described above made by a fund to the Distributor or any of its affiliates, including the payment of any management or advisory fees, which may be deemed to be an indirect financing of distribution costs.

The Plans may not be amended to increase materially the amount to be spent by a fund without such shareholder approval as is required by Rule 12b-1. All material amendments of a Plan must be approved in the manner described in the rule. Each Plan shall continue in effect: (i) with respect to a fund only so long as the Plan is specifically approved for that fund least annually as provided in the Rule 12b-1; and (ii) only while (a) a majority of the Trustees are not interested persons (as defined in the 1940 Act) of JHVIT, (b) incumbent Independent Trustees select and nominate any new Independent Trustees of JHVIT and (c) any person who acts as legal counsel for the Independent Trustees is an independent legal counsel. Each Plan may be terminated with respect to any fund at any time as provided in Rule 12b-1.

During the fiscal period ended December 31, 2019, the following amounts were paid to the Distributor pursuant to each fund's Rule 12b-1 Plans.

Fund	Share Class	Rule 12b-1 Service Fee Payments (\$)	Rule 12b-1 Distribution Fee Payments (\$)
500 Index Trust	Series I	1,766,788	0
	Series II	183,045	0
Active Bond Trust	Series I	18,532	0
	Series II	359,795	0
Blue Chip Growth Trust	Series I	160,151	0
	Series II	331,499	0
Capital Appreciation Trust	Series I	93,213	0
	Series II	156,757	0
Capital Appreciation Value Trust	Series I	3,133	0
	Series II	692,341	0
Core Bond Trust	Series I	46,358	0
	Series II	204,110	0
Disciplined Value International Trust	Series I	41,735	0
	Series II	124,167	0
Emerging Markets Value Trust	Series I	3,043	0
	Series II	86,715	0
Equity Income Trust	Series I	115,400	0
	Series II	302,750	0
Financial Industries Trust	Series I	60,945	0
	Series II	39,418	0
Fundamental All Cap Core Trust	Series I	63,559	0
	Series II	117,837	0
Fundamental Large Cap Value Trust	Series I	201,937	0
	Series II	407,026	0
Global Trust	Series I	58,558	0
	Series II	78,810	0
Global Equity Trust	Series I	75,847	0
	Series II	N/A	N/A
Health Sciences Trust	Series I	48,889	0
	Series II	170,534	0
High Yield Trust	Series I	34,144	0
	Series II	130,604	0
International Equity Index Trust	Series I	179,526	0
	Series II	37,646	0
International Small Company Trust	Series I	13,233	0
	Series II	36,029	0
Investment Quality Bond Trust	Series I	69,279	0

Fund	Share Class	Rule 12b-1 Service Fee Payments (\$)	Rule 12b-1 Distribution Fee Payments (\$)
	Series II	185,706	0
Lifestyle Aggressive Portfolio	Series I	1,793	0
	Series II	43,676	0
Lifestyle Balanced Portfolio	Series I	17,460	0
	Series II	2,109,173	0
Lifestyle Conservative Portfolio	Series I	6,169	0
	Series II	417,644	0
Lifestyle Growth Portfolio	Series I	109,912	0
	Series II	13,849,032	0
Lifestyle Moderate Portfolio	Series I	5,513	0
	Series II	666,685	0
Managed Volatility Aggressive Portfolio	Series I	33,501	0
	Series II	173,885	0
Managed Volatility Balanced Portfolio	Series I	274,112	0
	Series II	12,512,727	0
Managed Volatility Conservative Portfolio	Series I	81,222	0
	Series II	2,279,522	0
Managed Volatility Growth Portfolio	Series I	308,099	0
	Series II	17,804,600	0
Managed Volatility Moderate Portfolio	Series I	116,081	0
	Series II	3,938,526	0
Mid Cap Index Trust	Series I	556,268	0
	Series II	175,229	0
Mid Cap Stock Trust	Series I	83,311	0
	Series II	213,585	0
Mid Value Trust	Series I	122,691	0
	Series II	123,607	0
Money Market Trust	Series I	711,478	0
	Series II	323,123	0
Opportunistic Fixed Income Trust	Series I	15,726	0
	Series II	154,631	0
Real Estate Securities Trust	Series I	35,919	0
	Series II	98,910	0
Science & Technology Trust	Series I	343,999	0
	Series II	139,899	0
Select Bond Trust	Series I	87,579	0
	Series II	1,086,845	0
Short Term Government Income Trust	Series I	17,778	0
	Series II	59,299	0
Small Cap Index Trust	Series I	203,785	0
	Series II	86,123	0
Small Cap Opportunities Trust	Series I	40,326	0
	Series II	77,299	0
Small Cap Stock Trust	Series I	48,755	0
	Series II	83,290	0
Small Cap Value Trust	Series I	108,392	0
	Series II	66,125	0
Small Company Value Trust	Series I	27,191	0
	Series II	110,768	0
Strategic Income Opportunities Trust	Series I	184,258	0
	Series II	91,684	0

Fund	Share Class	Rule 12b-1 Service Fee Payments (\$)	Rule 12b-1 Distribution Fee Payments (\$)
Total Bond Market Trust	Series I	144,632	0
	Series II	143,387	0
Total Stock Market Index Trust	Series I	268,756	0
	Series II	100,961	0
Ultra Short Term Bond Trust	Series I	5,482	0
	Series II	497,414	0

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.

For All Funds Except Money Market Trust

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 the funds' 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.

For Money Market Trust

Money Market Trust operates as a government money market fund, as defined in Rule 2a-7 under the 1940 Act, and, accordingly, uses the amortized cost valuation method, which approximates market value, to value its portfolio securities. The amortized cost method involves valuing a security at its cost on the date of purchase and thereafter assuming a constant amortization to maturity of the difference between the principal amount due at maturity and the cost of the security to the fund.

The Board has established procedures designed to stabilize, to the extent reasonably possible, the fund's price per share as computed for the purpose of sales and redemptions at \$1.00. The procedures direct the Advisor to establish procedures that will allow for the monitoring of the propriety of the continued use of amortized cost valuation to maintain a constant NAV of \$1.00 for the fund. The procedures also direct the Advisor to determine NAV based upon available market quotations ("Shadow Pricing"), pursuant to which daily market values for securities held by the fund will be obtained and compared to such securities' amortized cost values to ensure that the amortized cost values are representative of fair market value pursuant to the funds' procedures. The fund shall value daily: (a) all portfolio instruments for which market quotations are readily available at market; and (b) all portfolio instruments for which market quotations are not readily available or are not obtainable from a pricing service, at their fair value as determined in good faith by the Board (the actual calculations, however, may be made by persons acting pursuant to the direction of the Board.) If the fair value of a security needs to be determined, the subadvisor will provide determinations, in accordance with procedures and methods established by the Board, of the fair value of securities held by the fund.

In determining market quotations that the fund may use for purposes of Shadow Pricing, pricing vendors may use matrix pricing or models that utilize certain inputs and assumptions to derive market quotations, including transaction data, credit quality information, general market conditions, news, and other factors and assumptions. Special Shadow Pricing considerations may apply with respect to the 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 determine market quotations for securities assuming orderly transactions of institutional round lot sizes, but the fund may transact in such securities in smaller, odd lot sizes.

The Pricing Committee engages in oversight activities with respect to the fund's 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.

In the event that the deviation from the amortized cost exceeds 0.50% of \$1, or \$0.005, per share in NAV, the Advisor shall promptly call a special meeting of the Board to determine what, if any, action should be initiated. Where the Trustees believe the extent of any deviation from the fund's amortized cost NAV may result in material dilution or other unfair results to investors or existing shareholders, they shall take the action they deem appropriate to eliminate or reduce to the extent reasonably practical such dilution or unfair results. The actions that may be taken by the Board include, but are not limited to:

- redeeming shares in kind;
- selling portfolio instruments prior to maturity to realize capital gains or losses or to shorten the average portfolio maturity of the fund;
- withholding or reducing dividends;
- utilizing a NAV based on available market quotations; or
- investing all cash in instruments with a maturity on the next business day.

In certain extraordinary circumstances, the fund may, with Board approval, reduce the number of shares outstanding by redeeming proportionately from shareholders, such number of full and fractional shares as is necessary to maintain the NAV at \$1.00 for the fund. Such reduction in the number of outstanding fund shares would not reduce the value of a shareholder's holdings in the fund, and as a result, no monetary compensation would be paid for the redemption.

Since a dividend is declared to shareholders each time net asset value is determined, the NAV per share of each class of the fund will normally remain constant at \$1.00. There is no assurance that the fund can maintain the \$1.00 NAV. Monthly, any increase in the value of a shareholder's investment in either class from dividends is reflected as an increase in the number of shares of such class in the shareholder's account or is distributed as cash if a shareholder has so elected.

It is expected that the fund's net income will be positive each time it is determined. However, if because of a sudden rise in interest rates or for any other reason the net income of the fund determined at any time is a negative amount, the fund will offset the negative amount against income accrued during the month for each shareholder account. If at the time of payment of a distribution such negative amount exceeds a shareholder's portion of accrued income, the fund may reduce the number of its outstanding shares by treating the shareholder as having contributed to the capital of the fund that number of full or fractional shares which represents the amount of excess. By investing in any class of shares of the fund, shareholders are deemed to have agreed to make such a contribution. This procedure permits the fund to maintain its NAV at \$1.00.

If, in the view of the Trustees, it is inadvisable to continue the practice of maintaining the fund's NAV at \$1.00, the Trustees reserve the right to alter the procedures for determining NAV. The fund will notify shareholders of any such alteration.

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.

The Trust posts to its website at https://www.jhannunities.com/media/JHVIT_Holdings.xlsx 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 December 31, 2019, 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
Abel / Noser Corporation	Trade Execution Analysis
Accenture	Operational Functions
Advent Software	Cash & Securities Reconciliation
Barclays	Analytics
Bank of New York Mellon	Back Office Functions, Middle Office Functions
Bloomberg	Analytics, Compliance, Trade Order Management, Pricing, Research Reports, Reporting Agency
BNP Paribas S.A.	Leverage Provider, Pledging
Broadridge Financial Solutions	Proxy Voting, Software Vendor
Brown Brothers Harriman	Back Office Functions, Electronic Messaging Service, Securities Lending
Capital Institutional Services (CAPIS)	Rebalancing Strategy, Transition Services
Citibank	Securities Lending
Citicorp Global Transactions Services	Middle Office Functions
Clearwater	Analysis & Reporting Services
Confluence Technologies	Consulting
Cortland Capital Market Services LLC	Senior Loan Servicing
DGS	Financial Reporting, Type Setting
Donnelley Financial Solutions	Financial Reporting
Eagle Investment Systems	Performance, Portfolio Accounting
EDM Americas	Data Storage
Electra Information Systems	Reconciliation
Ernst & Young	Tax Reporting
FactSet	Data Gathering / Analytics, Performance, Research Reports
Failstation	Matched/Unmatched Trades Reporting
Fidelity Corporate Action	Data Matching Engine Services
Foley Hoag	Foreign Currency Trade Review
GainsKeeper	Wash Sales / REIT Data
Glass Lewis	Proxy Voting
IDS GmbH	Analysis & Reporting Services
Institutional Shareholder Services (ISS)	Class Actions, Proxy Voting
Interactive Data	Pricing
Investment Technology Group, Inc.	Analytics, Trade Execution Analysis
KPMG	Tax Reporting
Law Firm of Davis and Harman	Development of Revenue Ruling
LineData	Service Provider-NAV Oversight
Lipper	Ratings/Surveys

Vendor Name	Disclosure Purpose
Markit	Back Office Functions
Milestone	Service Provider-Valuation Oversight
Moody's	Investment Guideline Monitoring, coding, Analytics
Morningstar	Ratings/Surveys
MSCI Inc.	Liquidity Risk Management, Performance
PricewaterhouseCoopers LLP	Audit Services
Risk Metrics	Liquidity Risk Management
RSM US LLP	Consulting
Russell Implementation Services	Transition Services
Salesforce-Chatter	Research Database
SimCorp Dimension	Portfolio Accounting
SS&C Technologies/Advent/Apx Advent	Accounting/Cash & Securities Reconciliation
Star Compliance	Personal trading and insider trading monitoring
State Street Bank	Service Provider-IBOR/Back Office Functions/Custodian/Collateral Services
State Street Investment Management Solutions	Back Office Functions
SunGard	Securities Lending
Swift	Accounting Messages, Custody Messages, Trade Messaging
TCS of America	Systems Support
Thomson Reuters	Analytics
Wolters Kluwer	Tax Reporting, Audit

As part of investment strategies for the Managed Volatility Portfolios, the Trust has adopted strategies to seek to manage the volatility of returns for the Managed Volatility Portfolios while limiting the magnitude of potential portfolio losses (the "Volatility Management Strategies," investments in furtherance of this strategy are referred to as "Volatility Management Investments"). In connection with the Volatility Management Strategy, the Advisor and the subadvisors to the Managed Volatility Portfolios (the "Lifestyle Subadviser") may at the request of John Hancock Life Insurance Company (U.S.A.) and John Hancock Life Insurance Company of New York (the "Insurance Companies") provide certain analytical nonpublic information regarding each Managed Volatility Portfolio's Volatility Management Investments and other holdings to the Insurance Companies for use in managing their risk under certain guarantees provided under variable contracts that use the Managed Volatility Portfolios as investment options. This information may include information about aggregate long or short exposure and changes in aggregate exposure to types of securities, currencies, or other instruments, which may be broken down by type of security (e.g., equities, debt, mortgage-related securities, etc.), sector, index, country, or other characteristics, and which reflect completed transactions in futures contracts or other derivatives that are part of the Volatility Management Investments. This information may also include analytical information that is based on holdings or trades arising from the management of a Managed Volatility Portfolio or other fund of the Trust. The information may be provided as frequently as reasonably requested by an Insurance Company, including on an intra-day basis, and there need not be any lag between the effective time of the analytical information and the disclosure to an Insurance Company. While information may not be provided about specific trades or pending transactions, the Insurance Companies may be able to deduce information about prior trades from the analytical information that is provided. Under procedures approved by the Board, the analytical information may be provided to the Insurance Companies solely for the limited purpose of helping the Insurers in a hedging program they use for their own accounts to help manage their risks under the guarantees on the variable contracts, and only if the Insurance Companies implement procedures that prohibit their employees, officers, agents and affiliates who receive such information from disclosing it or using it in any unauthorized fashion, including for personal trading or benefit. The procedures allow the analytical information to be provided under circumstances, including testing, that is designed to make sure there is no meaningful harm to the Managed Volatility Portfolios or other Series of JHVIT. Moreover, the Insurance Companies have reported to the Board that they do not expect their hedging program to affect prices of securities on markets, but investors bear the risk that the Insurance Companies hedging program will adversely affect securities prices and the performance of the Managed Volatility Portfolio or other funds.

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.

JHVIT Portfolio Holdings Available on SEC Website. JHVIT's reports on Form N-CSR and Form N-PORT filed with the SEC will contain each fund's entire portfolio holdings as of the applicable calendar quarter end. These reports are available at www.sec.gov.

Money Market Trust Portfolio Holdings Posted on a Website. Portfolio information for Money Market Trust is posted monthly on the website below. Information that is current as of the last business day of a month is posted no later than the fifth business day of the following month and will remain on the website for at least six months. Such information includes complete portfolio holdings by investment category as well as the overall dollar-weighted average maturity and dollar weighted average life of the portfolio. Money Market Trust reports more detailed portfolio holdings information to the SEC monthly on Form N-MFP. This information is made publicly available immediately upon the report's filing with the SEC. In addition, each Business Day, Money Market Trust updates its website listed below to show for the preceding six months: the percentage of the fund's total assets invested in Daily Liquid Assets and Weekly Liquid Assets; net inflows or outflows; and a schedule, chart, graph, or other depiction showing the fund's NAV, calculated based on current market factors before applying the amortized cost, rounded to the fourth decimal place.

Money Market Trust Portfolio Holdings Website:

<https://www.johnhancock.com/life-insurance/money-market-trust-filings.html>

JHVIT Portfolio Holdings Posted on Websites. The portfolio holdings of Money Market Trust are posted on its website, as described above. The holdings of each JHVIT fund other than Money Market Trust will be posted to the website listed below no earlier than 15 days after each calendar month end. These holdings will remain on the website for six months.

https://www.jhannuities.com/media/JHVIT_Holdings.xlsx

With respect to each fund, all of its portfolio holdings are also filed quarterly with the SEC on Form N-PORT as of the end of the first and third quarters of the fund's fiscal year and on Form N-CSR as of the end of the second and fourth quarters of the fund's fiscal year. These reports are available at www.sec.gov.

SHAREHOLDERS OF JHVIT

JHVIT currently serves as the underlying investment option for premiums and purchase payments invested in variable contracts issued by insurance companies both those affiliated with MFC, the ultimate controlling parent of the Advisor, and those that are not affiliated with MFC.

Control Persons. As of March 31, 2020, no one was considered a control person of any share class of any of the funds. A control person is one who has beneficial ownership of more than 25% of the voting securities of any class of shares of a fund or who acknowledges or asserts having or is adjudicated to have control of a class of shares of a fund, and therefore could determine the outcome of a shareholder meeting with respect to a proposal directly affecting that share class. As of March 31, 2020, shares of JHVIT were legally owned by JHLICO U.S.A. and JHLICO New York, (collectively, the “John Hancock Insurance Companies”), by other insurance companies not affiliated with MFC (“Nonaffiliated Insurance Companies”) and the Portfolios. John Hancock Insurance Companies and Nonaffiliated Insurance Companies are collectively referred to as “Insurance Companies.”

The Insurance Companies hold shares principally in their separate accounts. They also may hold shares directly. An Insurance Company may legally own in the aggregate more than 25% of any class of shares of a fund. For purposes of the 1940 Act, any person who owns “beneficially” more than 25% of the outstanding shares of any class of a fund is presumed to “control” that class. Shares are generally deemed to be beneficially owned by a person who has the power to vote or dispose of the shares. An Insurance Company has no power to exercise any discretion in voting or disposing of any of the shares that it legally owns, except that it may have the power to dispose of shares that it holds directly. Consequently, an Insurance Company would be presumed to control a share class of a fund only if it holds directly for its own account, and has the power to dispose of, more than 25% of that share class. The Portfolios, individually or collectively, may hold more than 25% of a class of shares of an Underlying Fund.

Shareholders. As of March 31, 2020, JHVIT Shareholders are as follows:

- the Insurance Companies. (Each Insurance Company that is a shareholder of JHVIT holds of record in its separate accounts JHVIT shares attributable to variable contracts), and
- The Portfolios, each of which invests in and is the beneficial owner of shares of Underlying Funds.

JHVIT may be used for other purposes in the future. JHVIT shares are not offered directly to, and may not be purchased directly by, members of the public. The paragraph below lists the entities that are eligible to be shareholders of JHVIT.

Entities Eligible to Be Shareholders of JHVIT. In order to reflect the conditions of Section 817(h) and other provisions of the Code and regulations thereunder, shares of JHVIT may be purchased only by the following eligible shareholders: – separate accounts of the Insurance Companies and other insurance companies; – the Insurance Companies and certain of their affiliates; and – any trustee of a qualified pension or retirement plan. Voting of Shares by the Insurance Companies and JHVIT. The Insurance Companies have the right to vote upon matters that may be voted upon at any JHVIT Shareholders’ meeting. These companies will vote all shares of the funds issued to them in proportion to the timely voting instructions received from owners of variable contracts participating in the separate accounts of such companies that are registered under the 1940 Act (“Contract Owner Instructions”). The effect of proportional voting is that a small number of contract owners can determine the outcome of the voting. In addition, JHVIT will vote all shares of a fund held by a JHVIT fund of funds in proportion to the votes of the other shareholders of such fund.

Mixed and Shared Funding. Shares of JHVIT may be sold to JHVIT Shareholders described above. JHVIT currently does not foresee any disadvantages to any JHVIT Shareholders arising from the fact that the interests of those investors may differ. Nevertheless, the Board will monitor events in order to identify any material irreconcilable conflicts which may possibly arise due to differences of tax treatment or other considerations and to determine what action, if any, should be taken in response thereto. Such an action could include the withdrawal of a JHVIT Shareholder from investing in JHVIT or a particular fund.

Principal Holders. The following sets forth the principal holders of the shares of each fund. Principal holders are those who own of record or are known by JHVIT to own beneficially 5% or more of a series of a fund’s outstanding shares.

As of March 31, 2020, the John Hancock Insurance Companies owned of record all of the outstanding Series I, II and III shares of the JHVIT funds. As of March 31, 2020, the Insurance Companies and the JHVIT fund of funds owned of record all of the outstanding Series NAV shares of the JHVIT funds.

Trustees and officers of JHVIT, in the aggregate, own or have the right to provide voting instructions for less than 1% of the outstanding shares of each share class of each fund.

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. Each fund has, however, elected to be governed by Rule 18f-1 under the 1940 Act. Under that rule, a fund must redeem its shares for cash except to the extent that the redemption payments to any shareholder during any 90-day period would exceed the lesser of \$250,000 or 1% of the fund's NAV at the beginning of such period.

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.

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 62 series of the Trust. Additional series may be added in the future.

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.

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.

Since the funds' shareholders are principally: (i) life insurance companies whose separate accounts invest in the funds for purposes of funding variable annuity and variable life insurance contracts and (ii) trustees of qualified pension and retirement plans, no discussion is included herein as to the U.S. federal income tax consequences to the holder of a variable annuity or life insurance contract who allocates investments to a fund. For information concerning the U.S. federal income tax consequences to such holders, see the Prospectus for such contracts. Holders of variable annuity or life insurance contracts should consult their tax advisors about the application of the provisions of the tax law described in this SAI in light of their particular tax situations.

The Trust believes that each fund will qualify as a regulated investment company under Subchapter M of the Code. If any fund does not qualify as a regulated investment company, it will be subject to U.S. federal income tax on its net investment income and net capital gains. As a result of qualifying as a regulated investment company, 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 net investment income and 90% of its net tax-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.

To qualify as a regulated investment company for income tax purposes, a fund must derive at least 90% of its annual gross income from dividends, interest, payments with respect to securities loans, gains from the sale or other disposition of stock, securities or 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 stock, securities and currencies, and net income derived from an interest in a qualified publicly traded partnership.

A "qualified publicly traded partnership" is a publicly traded partnership that satisfies certain qualifying income requirements of Code Section 7704. All of the income received by a fund from its investment in a qualified publicly

traded partnership will be income satisfying the 90% qualifying income test. A fund investing in publicly traded partnerships 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 the fund by the publicly traded partnerships until after the end of that year, would nevertheless be subject to the regulated investment company income distribution requirements and would be taken into account for purposes of the 4% excise tax.

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.

To qualify as a regulated investment company, a fund must also satisfy certain requirements with respect to the diversification of its assets. A fund must have, at the close of each quarter of the taxable year, at least 50% of the value of its total assets represented by cash, cash items, U.S. government securities, securities of other regulated investment companies, and other securities that, in respect of any one issuer, do not represent more than 5% of the value of the assets of the fund nor more than 10% of the voting securities of that issuer. In addition, at those times not more than 25% of the value of the fund's assets may be invested in securities (other than United States Government securities or the securities of other regulated investment companies) of any one issuer, or of two or more issuers, which the fund controls and which are engaged in the same or similar trades or businesses or related trades or businesses, or of one or more qualified publicly traded partnerships.

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.

If a fund failed to qualify as a regulated investment company, the fund would incur regular corporate income tax on its taxable income 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 for an individual shareholder who satisfies certain holding period requirements with respect to his or her shares in the fund. Compliance with the regulated investment company 90% qualifying income test and with the asset diversification requirements is carefully monitored by the Advisor and the subadvisors and it is intended that the funds will comply with the requirements for qualification as regulated investment companies.

Because the Trust complies with the ownership restrictions of U.S. Treasury Regulations Section 1.817-5(f), IRS Revenue Ruling ("Rev. Rul.") 81-225, Rev. Rul. 2003-91, and Rev. Rul. 2003-92 (no direct ownership by the public), the Trust expects each insurance company separate account to be treated as owning (as a separate investment) its proportionate share of each asset of any fund in which it invests for purposes of separate account diversification requirements, provided that the fund qualifies as a regulated investment company. Therefore, each fund intends and expects to meet the additional diversification requirements that are applicable to insurance company separate accounts under Subchapter L of the Code. These requirements generally provide that no more than 55% of the value of the assets of a fund may be represented by any one investment; no more than 70% by any two investments; no more than 80% by any three investments; and no more than 90% by any four investments. For these purposes, all securities of the same issuer are treated as a single investment and each United States government agency or instrumentality is treated as a separate issuer.

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% longterm 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.

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 (as additional income) along with a corresponding entitlement to a foreign tax credit or deduction. A fund will deduct the foreign taxes in determining the amount it has available to distribute to shareholders.

Funds may invest in equity securities of master limited partnerships ("MLPs") that are expected to derive income and gains from the exploration, development, mining or production, processing, refining, transportation (including pipeline transporting gas, oil, or products thereof), or the marketing of any mineral or natural resources. The funds expect that these MLPs will be treated as "qualified publicly traded partnerships" (as discussed above). Accordingly, it is expected that the net income derived by a fund from such investments will be qualifying income for purposes of the 90% gross income requirement. As described above, a fund must limit its investments in qualified publicly traded partnerships to no more than 25% of its total assets as of the end of each quarter of its taxable year in order to maintain its status as a RIC.

The MLPs in which a fund may invest are expected to be treated as partnerships for U.S. federal income tax purposes, and therefore, the cash distributions received by a fund from an MLP may not correspond to the amount of income allocated to it by the MLP in any given taxable year. If the amount of income allocated by an MLP to a fund exceeds the amount of cash received by the fund from such MLP, the fund will need to find other sources of funds for making distributions in the amounts necessary to satisfy the requirements for maintaining RIC status and avoiding any income and excise taxes. Accordingly, a fund may need to dispose of securities in order to generate sufficient cash to satisfy the distribution requirements.

A fund may invest in REITs. REIT dividends and capital gain distributions are generally treated as qualifying income for purposes of the 90% gross income requirement. A fund may invest in REITs that (1) hold residual interests in real estate mortgage investment conduits ("REMICs") or (2) engage in mortgage securitization transactions that cause the REITs to be taxable mortgage pools ("TMPs") or have a qualified REIT subsidiary that is a TMP. Such an investment may subject the fund to income tax and special reporting requirements with respect to any "excess inclusion" income received from the REMICs or TMPs.

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.

Below are the capital loss carryforwards available to the funds as of December 31, 2019 to the extent provided by regulations, to offset future net realized capital gains:

Fund	Short-term Losses (\$)	Long-term Losses (\$)	Total (\$)
500 Index Trust	-	-	-
Active Bond Trust	-	2,646,047.00	2,646,047.00
Blue Chip Growth Trust	-	-	-
Capital Appreciation Trust	-	-	-
Capital Appreciation Value Trust	-	-	-
Core Bond Trust	-	4,260,177.00	4,260,177.00
Disciplined Value International Trust	3,154,245.00	2,651,471.00	5,805,716.00
Emerging Markets Value Trust	-	41,334,608.00	41,334,608.00
Equity Income Trust	-	-	-
Financial Industries Trust	-	-	-
Fundamental All Cap Core Trust	-	-	-
Fundamental Large Cap Value Trust	-	-	-
Global Trust	-	-	-
Global Equity Trust	-	-	-
Health Sciences Trust	-	-	-
High Yield Trust	3,294,733.00	57,415,835.00	60,710,568.00
International Equity Index Trust	-	-	-
International Small Company Trust	-	-	-
Investment Quality Bond Trust	-	-	-
Lifestyle Aggressive Portfolio	-	-	-
Lifestyle Balanced Portfolio	-	-	-
Lifestyle Conservative Portfolio	-	-	-
Lifestyle Growth Portfolio	-	-	-
Lifestyle Moderate Portfolio	-	-	-
Managed Volatility Aggressive Portfolio	-	-	-
Managed Volatility Balanced Portfolio	-	-	-
Managed Volatility Conservative Portfolio	-	-	-
Managed Volatility Growth Portfolio	-	-	-
Managed Volatility Moderate Portfolio	-	-	-
Mid Cap Index Trust	-	-	-
Mid Cap Stock Trust	-	-	-
Mid Value Trust	-	-	-
Money Market Trust	-	18,415.00	18,415.00
Opportunistic Fixed Income Trust	2,686,315.00	7,011,222.00	9,697,537.00
Real Estate Securities Trust	-	-	-
Science & Technology Trust	-	-	-
Select Bond Trust	27,305,012.00	178,241,109.00	205,546,121.00
Short Term Government Income Trust	3,570,888.00	21,769,363.00	25,340,251.00
Small Cap Index Trust	-	-	-
Small Cap Opportunities Trust	-	-	-
Small Cap Stock Trust	-	-	-
Small Cap Value Trust	-	-	-
Small Company Value Trust	-	-	-
Strategic Equity Allocation Trust	-	-	-
Strategic Income Opportunities Trust	9,365,053.00	3,737,734.00	13,102,787.00
Total Bond Market Trust	-	2,140,168.00	2,140,168.00
Total Stock Market Index Trust	-	-	-
Ultra Short Term Bond Trust	6,148,567.00	13,966,090.00	20,114,657.00

Additional Tax Considerations. If a fund failed to qualify as a regulated investment company: (i) owners of contracts based on the fund would be treated as owning contracts based solely on shares of the fund (rather than on their proportionate share of the assets of such fund) for purposes of the diversification requirements under Subchapter L of the Code, and as a result might be taxed currently on the investment earnings under their contracts and thereby lose the benefit of tax deferral; and (ii) the fund would incur regular corporate federal income tax on its taxable income for that year and be subject to certain distribution requirements upon requalification. In addition, if a fund failed to comply with the diversification requirements of the regulations under Subchapter L of the Code, owners of contracts based on the fund might be taxed on the investment earnings under their contracts and thereby lose the benefit of tax deferral. Accordingly, compliance with the above rules is carefully monitored by the Advisor and the subadvisors and it is intended that the funds will comply with these rules as they exist or as they may be modified from time to time. Compliance with the tax requirements described above may result in a reduction in the return under a fund, since, to comply with the above rules, the investments utilized (and the time at which such investments are entered into and closed out) may be different from what the subadvisors might otherwise believe to be desirable.

Other Information. For more information regarding the tax implications for the purchaser of a variable annuity or life insurance contract who allocates investments to a fund, please refer to the prospectus for the contract.

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.

Securities of Regular Broker Dealers. The table below presents information regarding the securities of the funds' regular broker dealers (or parents of the regular broker dealers) that were held by the funds as of December 31, 2019. A "Regular Broker Dealer" of a fund is defined by the SEC as one of the 10 brokers or dealers that during the fund's most recent fiscal year: (a) received the greatest dollar amount of brokerage commissions by virtue of direct or indirect participation in the fund's portfolio transactions; (b) engaged as principal in the largest dollar amount of portfolio transactions of the fund; or (c) sold the largest dollar amount of securities of the fund.

Fund	Regular Broker Dealer	Holdings (\$000s)
500 Index Trust	Bank of America Corp.	63,067
	Citigroup, Inc.	38,579

Fund	Regular Broker Dealer	Holdings (\$000s)
	JPMorgan Chase & Co.	96,710
	Morgan Stanley & Company, Inc.	13,909
	State Street Corp.	15,177
	The Bank of New York Mellon Corp.	9,342
	The Goldman Sachs Group, Inc.	16,207
Active Bond Trust	Bank of America Corp.	6,281
	Barclays Bank PLC	1,913
	Citigroup, Inc.	11,775
	Credit Suisse Group AG	2,456
	Deutsche Bank AG	6,290
	Jefferies Group LLC	2,347
	JPMorgan Chase & Co.	11,536
	Morgan Stanley & Company, Inc.	6,923
	State Street Corp.	68,758
	The Goldman Sachs Group, Inc.	5,539
	UBS Group AG	576
Blue Chip Growth Trust	Citigroup, Inc.	681
	JPMorgan Chase & Co.	497
	Morgan Stanley & Company, Inc.	8,354
	State Street Corp.	5,214
	The Goldman Sachs Group, Inc.	1,613
Capital Appreciation Trust	JPMorgan Chase & Co.	5,481
	State Street Corp.	1,394
Capital Appreciation Value Trust	JPMorgan Chase & Co.	683
	State Street Corp.	3,388
	The Bank of New York Mellon Corp.	849
Core Bond Trust	Bank of America Corp.	12,210
	Barclays Bank PLC	1,418
	Citigroup, Inc.	2,847
	Credit Suisse Group AG	1,776
	Deutsche Bank AG	3,865
	JPMorgan Chase & Co.	16,057
	Morgan Stanley & Company, Inc.	4,414
	Royal Bank of Canada	1,598
	State Street Corp.	11,828
	The Goldman Sachs Group, Inc.	3,002
	UBS Group AG	1,009
Disciplined Value International Trust	UBS Group AG	1,531
Emerging Markets Value Trust	N/A	N/A
Equity Income Trust	Bank of America Corp.	1,019
	Citigroup, Inc.	4,385
	JPMorgan Chase & Co.	56,155
	Morgan Stanley & Company, Inc.	32,683
	State Street Corp.	30,427
	The Bank of New York Mellon Corp.	5,028
Financial Industries Trust	Bank of America Corp.	5,253
	Citigroup, Inc.	5,601
	JPMorgan Chase & Co.	5,816
	State Street Corp.	151
Fundamental All Cap Core Trust	Bank of America Corp.	92,294
	Barclays Bank PLC	973
	Citigroup, Inc.	93,060

Fund	Regular Broker Dealer	Holdings (\$000s)
	Morgan Stanley & Company, Inc.	64,095
	The Goldman Sachs Group, Inc.	37,081
	State Street Corp.	385
Fundamental Large Cap Value Trust	Bank of America Corp.	33,911
	Barclays Bank PLC	253
	Citigroup, Inc.	34,608
	JPMorgan Chase & Co.	26,812
	Morgan Stanley & Company, Inc.	20,832
	The Goldman Sachs Group, Inc.	18,181
Global Trust	Barclays Bank PLC	2,337
	Citigroup, Inc.	3,724
	UBS Group AG	976
Global Equity Trust	Citigroup, Inc.	3,400
	JPMorgan Chase & Co.	3,515
Health Sciences Trust	State Street Corp.	500
High Yield Trust	Bank of America Corp.	277
	Barclays Bank PLC	2,384
	Citigroup, Inc.	912
	Credit Suisse Group AG	917
	State Street Corp.	5,299
	The Goldman Sachs Group, Inc.	1,330
	UBS Group AG	601
International Equity Index Trust	Barclays Bank PLC	1,586
	Credit Suisse Group AG	1,339
	Deutsche Bank AG	573
	Royal Bank of Canada	4,217
	UBS Group AG	1,876
International Small Company Trust	N/A	N/A
Investment Quality Bond Trust	Bank of America Corp.	3,983
	Barclays Bank PLC	1,556
	Citigroup, Inc.	2,827
	Credit Suisse Group AG	517
	Deutsche Bank AG	7,921
	JPMorgan Chase & Co.	2,890
	Morgan Stanley & Company, Inc.	3,021
	Royal Bank of Canada	373
	State Street Corp.	266
	The Bank of New York Mellon Corp.	425
	The Goldman Sachs Group, Inc.	3,304
	UBS Group AG	612
Lifestyle Aggressive Portfolio	N/A	N/A
Lifestyle Balanced Portfolio	N/A	N/A
Lifestyle Conservative Portfolio	State Street Corp.	1
Lifestyle Growth Portfolio	N/A	N/A
Lifestyle Moderate Portfolio	State Street Corp.	— ¹
Managed Volatility Aggressive Portfolio	State Street Corp.	774
Managed Volatility Balanced Portfolio	State Street Corp.	952
Managed Volatility Conservative Portfolio	State Street Corp.	153
Managed Volatility Growth Portfolio	State Street Corp.	1,579
Managed Volatility Moderate Portfolio	State Street Corp.	323
Mid Cap Index Trust	Jefferies Group LLC	3,920
Mid Cap Stock Trust	Deutsche Bank AG	25,200

Fund	Regular Broker Dealer	Holdings (\$000s)
Mid Value Trust	State Street Corp.	14,721
Money Market Trust	Barclays Bank PLC	132,600
	State Street Corp.	450,000
Opportunistic Fixed Income Trust	Bank of America Corp.	2,434
	Barclays Bank PLC	3,361
	Citigroup, Inc.	813
	Credit Suisse Group AG	1,765
	Deutsche Bank AG	1,794
	JPMorgan Chase & Co.	4,321
	Morgan Stanley & Company, Inc.	638
	Royal Bank of Canada	2,100
	State Street Corp.	1,598
	The Goldman Sachs Group, Inc.	209
Real Estate Securities Trust	State Street Corp.	1,052
Science & Technology Trust	State Street Corp.	19,325
Select Bond Trust	Bank of America Corp.	67,212
	Barclays Bank PLC	19,615
	Citigroup, Inc.	88,943
	Credit Suisse Group AG	12,172
	Deutsche Bank AG	23,874
	Jefferies Group LLC	30,072
	JPMorgan Chase & Co.	81,635
	Morgan Stanley & Company, Inc.	19,098
	Royal Bank of Canada	14,768
	State Street Corp.	3,757
	The Goldman Sachs Group, Inc.	70,950
Short Term Government Income Trust	Barclays Bank PLC	144
	State Street Corp.	203
Small Cap Index Trust	Cowen, Inc.	131
	State Street Corp.	3,940
Small Cap Opportunities Trust	Cowen, Inc.	80
	Jefferies Group LLC	236
	State Street Corp.	1,332
Small Cap Stock Trust	N/A	N/A
Small Cap Value Trust	Bank of America Corp.	12,900
Small Company Value Trust	State Street Corp.	391
Strategic Equity Allocation Trust	Bank of America Corp.	57,406
	Barclays Bank PLC	8,554
	Citigroup, Inc.	35,116
	Cowen, Inc.	79
	Credit Suisse Group AG	7,186
	Deutsche Bank AG	3,165
	Jefferies Group LLC	2,064
	JPMorgan Chase & Co.	88,029
	Morgan Stanley & Company, Inc.	12,661
	State Street Corp.	32,005
	The Bank of New York Mellon Corp.	8,504
	The Goldman Sachs Group, Inc.	14,753
	UBS Group AG	10,131
Strategic Income Opportunities Trust	Bank of America Corp.	1,992
	Barclays Bank PLC	808
	Citigroup, Inc.	2,089

Fund	Regular Broker Dealer	Holdings (\$000s)
	Credit Suisse Group AG	1,530
	Deutsche Bank AG	860
	JPMorgan Chase & Co.	1,292
	Morgan Stanley & Company, Inc.	336
	State Street Corp.	325
	The Bank of New York Mellon Corp.	1,238
	The Goldman Sachs Group, Inc.	2,346
Total Bond Market Trust	Bank of America Corp.	7,606
	Barclays Bank PLC	539
	Citigroup, Inc.	3,604
	Credit Suisse Group AG	2,501
	Deutsche Bank AG	3,073
	JPMorgan Chase & Co.	5,052
	Morgan Stanley & Company, Inc.	3,592
	State Street Corp.	33,796
	The Bank of New York Mellon Corp.	452
	The Goldman Sachs Group, Inc.	8,717
Total Stock Market Index Trust	Bank of America Corp.	7,067
	Citigroup, Inc.	3,897
	Cowen, Inc.	7
	Jefferies Group LLC	143
	JPMorgan Chase & Co.	9,575
	Morgan Stanley & Company, Inc.	1,827
	State Street Corp.	3,186
	The Bank of New York Mellon Corp.	1,028
	The Goldman Sachs Group, Inc.	1,810
Ultra Short Term Bond Trust	Bank of America Corp.	2,037
	Barclays Bank PLC	841
	Citigroup, Inc.	5,340
	JPMorgan Chase & Co.	1,581
	Morgan Stanley & Company, Inc.	3,023
	State Street Corp.	70
	The Goldman Sachs Group, Inc.	2,146
	UBS Group AG	3,039

1 Less than \$500

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.

Brokerage Commissions Paid. For the last three fiscal periods, the funds paid brokerage commissions in connection with portfolio transactions. Any material differences from year to year reflect an increase or decrease in trading activity by the applicable fund. The total brokerage commissions paid by the funds for the fiscal periods ended December 31, 2019, December 31, 2018, and December 31, 2017 are set forth in the table below:

Fund	Total Commissions Paid in Fiscal Period Ended December 31,		
	2019 (\$)	2018 (\$)	2017 (\$)
500 Index Trust	23,554	16,713	32,565
Active Bond Trust	0	0	0
Blue Chip Growth Trust	215,710	167,233	233,441
Capital Appreciation Trust	152,167	258,438	376,630
Capital Appreciation Value Trust	48,501	63,559	72,457
Core Bond Trust	0	0	0
Disciplined Value International Trust	265,865	666,627	793,534
Emerging Markets Value Trust	58,393	352,266	205,624
Equity Income Trust	185,470	195,756	337,452
Financial Industries Trust	93,173	84,541	142,861
Fundamental All Cap Core Trust	354,326	731,850	1,186,507
Fundamental Large Cap Value Trust	160,165	356,202	434,498
Global Trust	77,641	121,759	136,891
Global Equity Trust	23,585	32,573	22,751
Health Sciences Trust	61,660	85,199	91,742
High Yield Trust	544	69	188
International Equity Index Trust	26,592	22,352	38,420
International Small Company Trust	15,140	20,480	18,218
Investment Quality Bond Trust	0	0	3
Lifestyle Aggressive Portfolio	1,128	1,546	983
Lifestyle Balanced Portfolio	0	0	0
Lifestyle Conservative Portfolio	0	0	0
Lifestyle Growth Portfolio	0	0	0
Lifestyle Moderate Portfolio	0	0	0
Managed Volatility Aggressive Portfolio	4,009	23,019	402
Managed Volatility Balanced Portfolio	31,061	166,410	15,097
Managed Volatility Conservative Portfolio	3,446	12,750	0
Managed Volatility Growth Portfolio	43,833	330,577	14,917
Managed Volatility Moderate Portfolio	5,122	31,405	0
Mid Cap Index Trust	80,161	52,826	36,238
Mid Cap Stock Trust	309,193	429,038	541,776
Mid Value Trust	261,425	246,037	367,456
Money Market Trust	0	0	0

Fund	Total Commissions Paid in Fiscal Period Ended December 31,		
	2019 (\$)	2018 (\$)	2017 (\$)
Opportunistic Fixed Income Trust	3,791	7,416	14,631
Real Estate Securities Trust	443,681	478,986	1,203,799
Science & Technology Trust	638,476	593,091	515,381
Select Bond Trust	0	0	0
Short Term Government Income Trust	0	0	0
Small Cap Index Trust	52,450	50,647	62,227
Small Cap Opportunities Trust	22,911	33,540	77,907
Small Cap Stock Trust	226,871	385,109	563,695
Small Cap Value Trust	149,679	129,354	229,290
Small Company Value Trust	48,219	85,600	77,025
Strategic Equity Allocation Trust	450,768	393,202	558,723
Strategic Income Opportunities Trust	35,365	27,172	5,134
Total Bond Market Trust	0	0	0
Total Stock Market Index Trust	26,178	15,192	35,231
Ultra Short Term Bond Trust	0	0	0

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.

Brokerage Commissions Paid to Affiliated Brokers. For the periods ended December 31, 2019, December 31, 2018, and December 31, 2017 (“Period”), commissions were paid by a fund to brokers affiliated with the fund’s subadvisors as follows.

Commissions Paid to Invesco Capital Markets. For the fiscal years ended December 31, 2019, December 31, 2018, and December 31, 2017, brokerage commissions were paid as set forth in the table below:

	Aggregate \$ Amount of Commissions for the Period	% of Fund’s Brokerage Commissions Represented for the Period	% of Aggregate \$ Amount of Transactions for the Period
Small Cap Opportunities Trust			
Year ended December 31, 2019:	\$0	0%	0%
Year ended December 31, 2018:	\$0	0%	0%
Year ended December 31, 2017:	\$1,160.19	3.04%	14.02%
Small Company Growth Trust			
Year ended December 31, 2019:	\$0	0%	0%
Year ended December 31, 2018:	\$0	0%	0%
Year ended December 31, 2017:	\$3,170.59	9.91%	23.15%
Value Trust			
Year ended December 31, 2019:	\$0	0%	0%

	Aggregate \$ Amount of Commissions for the Period	% of Fund's Brokerage Commissions Represented for the Period	% of Aggregate \$ Amount of Transactions for the Period
Year ended December 31, 2018:	\$0	0%	0%
Year ended December 31, 2017:	\$9,935.57	3.24%	11.12%

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.

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

The financial statements of each fund for the fiscal period ended December 31, 2019, including the related financial highlights that appear in the Prospectus, have been audited by PricewaterhouseCoopers LLP, independent registered public accounting firm, as stated in their report with respect thereto, and are incorporated herein by reference in reliance upon said report given on the authority of said firm as experts in accounting and auditing. PricewaterhouseCoopers LLP has offices at 101 Seaport Boulevard, Suite 500, Boston, Massachusetts 02210.

FINANCIAL STATEMENTS

The financial statements of each fund for the fiscal period ended December 31, 2019, are incorporated herein by reference from each fund's most recent Annual Report filed with the SEC on Form N-CSR pursuant to Rule 30b2-1 under the 1940 Act.

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 each 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.

MANAGEMENT OF OTHER FUNDS BY THE ADVISOR/SUBADVISOR

The funds of JHVIT described this SAI are not retail mutual funds and are only available under variable annuity contracts or variable life policies, through participation in tax qualified retirement plans or to certain permitted entities. Although the Advisor or subadvisors may manage retail mutual funds with similar names and investment objectives, no representation is made, and no assurance is given, that any fund's investment results will be comparable to the investment results of any other fund, including other funds with the same investment adviser or subadvisor. Past performance is no guarantee of future results.

APPENDIX A – DESCRIPTION OF BOND RATINGS

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.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:

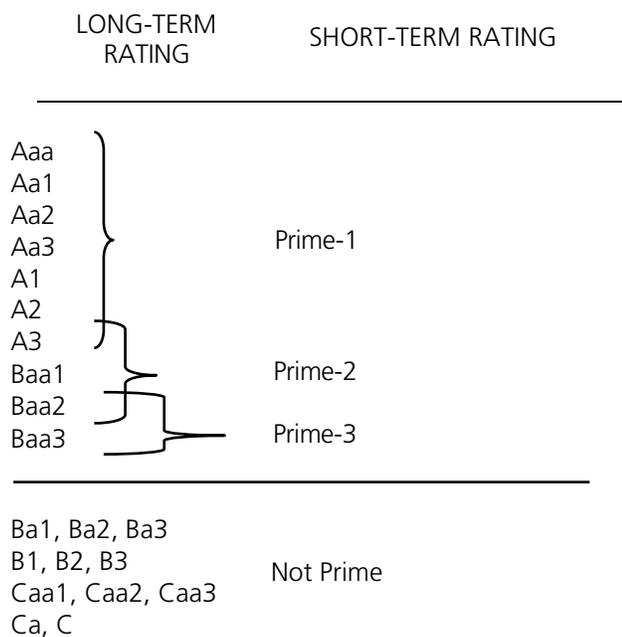
P-1: Issuers (or supporting institutions) rated Prime-1 have a superior ability to repay short-term debt obligations.

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).



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 Aa1 Aa2 Aa3 A1 A2	VMIG 1
MIG 2	A3	VMIG 2
MIG 3	Baa1 Baa2 Baa3	VMIG 3* SG
SG	Ba1, Ba2, Ba3 B1, B2, B3 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

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

ALLIANZ GLOBAL INVESTORS U.S. LLC ("AllianzGI U.S.")

SCIENCE & TECHNOLOGY TRUST

PORTFOLIO MANAGERS AND OTHER ACCOUNTS MANAGED

Huachen Chen, CFA, Walter C. Price, Jr., CFA, and Michael A. Seidenberg are jointly and primarily responsible for the day-to-day management of the portion of the fund's portfolio subadvised by AllianzGI U.S. T. Rowe Price Associates, Inc. also subadvises the fund.

The following table reflects information regarding other accounts for which each portfolio manager listed above 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 fund and similarly managed accounts.

The following table reflects information as of December 31, 2019:

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) (\$)
Huachen Chen	5	3,256	3	2,365	0	0
Walter C. Price, Jr.	5	3,256	3	2,365	0	0
Michael A. Seidenberg	5	3,256	3	2,365	0	0

The following accounts pay fees based upon performance:

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) (\$)
Huachen Chen	0	0	1	775	0	0
Walter C. Price, Jr.	0	0	1	775	0	0
Michael A. Seidenberg	0	0	1	775	0	0

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 December 31, 2019. 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.

Name	Dollar Range of Shares Owned
Huachen Chen	Over \$1,000,000
Walter C. Price, Jr.	Over \$1,000,000
Michael A. Seidenberg	\$100,001 - \$500,000

Ownership of fund shares. As of December 31, 2019, none of the portfolio managers listed above beneficially owned shares of the fund.

POTENTIAL CONFLICTS OF INTEREST

Like other investment professionals with multiple clients, a portfolio manager for a fund may face certain potential conflicts of interest in connection with managing both a fund and other accounts at the same time. The paragraphs below describe some of these potential conflicts, which AllianzGI U.S. believes are faced by investment professionals at most major financial firms. AllianzGI U.S. has adopted compliance policies and procedures that attempt to address certain of these potential conflicts. The management of accounts with different advisory fee rates and/or fee structures,

including accounts that pay advisory fees based on account performance (“performance fee accounts”), may raise potential conflicts of interest by creating an incentive to favor higher-fee accounts.

These potential conflicts may include, among others:

- The most attractive investments could be allocated to higher-fee accounts or performance fee accounts.
- The trading of higher-fee accounts could be favored as to timing and/or execution price. For example, higher fee accounts could be permitted to sell securities earlier than other accounts when a prompt sale is desirable or to buy securities at an earlier and more opportune time.
- The investment management team could focus their time and efforts primarily on higher-fee accounts due to a personal stake in compensation.

AllianzGI US has developed policies and procedures to address the potential for conflicts between fixed fee accounts and performance fee accounts as well as other potential conflicts related to managing discretionary and non-discretionary accounts. AllianzGI US monitors for preferential treatment of accounts whenever accounts subject to side-by-side conflicts are managed under the same or similar investment strategy.

When AllianzGI U.S. considers the purchase or sale of a security to be in the best interests of a fund as well as other accounts, AllianzGI U.S.’s trading desk may, to the extent permitted by applicable laws and regulations, aggregate the securities to be sold or purchased. Aggregation of trades may create the potential for unfairness to a fund or another account if one account is favored over another in allocating the securities purchased or sold—for example, by allocating a disproportionate amount of a security that is likely to increase in value to a favored account. AllianzGI U.S. considers many factors when allocating securities among accounts, including the account’s investment style, applicable investment restrictions, availability of securities, available cash and other current holdings. AllianzGI U.S. attempts to allocate investment opportunities among accounts in a fair and equitable manner. However, accounts are not assured of participating equally or at all in particular investment allocations due to such factors as noted above.

“Cross trades,” in which one AllianzGI U.S. account sells a particular security to another account (potentially saving transaction costs for both accounts), may also pose a potential conflict of interest when cross trades are effected in a manner perceived to favor one client over another. For example, AllianzGI U.S. may cross a trade between performance fee account and a fixed fee account that results in a benefit to the performance fee account and a detriment to the fixed fee account. AllianzGI U.S. has adopted compliance procedures that provide that all cross trades are to be made at an independent current market price, as required by law.

Another potential conflict of interest may arise from the different investment objectives and strategies of a fund and other accounts. For example, another account may have a shorter-term investment horizon or different investment objectives, policies or restrictions than a fund. Depending on another account’s objectives or other factors, a portfolio manager may give advice and make decisions that may differ from advice given, or the timing or nature of decisions made, with respect to a fund. In addition, investment decisions are subject to suitability for the particular account involved. Thus, a particular security may not be bought or sold for certain accounts even though it was bought or sold for other accounts at the same time. More rarely, a particular security may be bought for one or more accounts managed by a portfolio manager when one or more other accounts are selling the security (including short sales). There may be circumstances when purchases or sales of portfolio securities for one or more accounts may have an adverse effect on other accounts. AllianzGI U.S. maintains trading policies designed to provide portfolio managers an opportunity to minimize the effect that short sales in one portfolio may have on holdings in other portfolios.

A portfolio manager who is responsible for managing multiple funds and/or accounts may devote unequal time and attention to the management of those funds and/or accounts. As a result, the portfolio manager may not be able to formulate as complete a strategy or identify equally attractive investment opportunities for each of those accounts as might be the case if he or she were to devote substantially more attention to the management of a single fund. The effects of this potential conflict may be more pronounced where funds and/or accounts overseen by a particular portfolio manager have different investment strategies.

A fund’s portfolio manager(s) may be able to select or influence the selection of the broker/dealers that are used to execute securities transactions for the fund. In addition to executing trades, some brokers and dealers provide AllianzGI U.S. with brokerage and research services (as those terms are defined in Section 28(e) of the Securities Exchange Act of 1934), which may result in the payment of higher brokerage fees than might have otherwise be available. These services may be more beneficial to certain funds or accounts than to others. In order to be assured of continuing to receive services considered of value to its clients, AllianzGI U.S. has adopted a brokerage allocation policy embodying the concepts of Section 28(e) of the Securities Exchange Act of 1934. Although the payment of brokerage commissions is subject to the requirement that the portfolio manager determine in good faith that the commissions are reasonable in relation to the value of the brokerage and research services provided to the fund and the Sub-Adviser’s other clients, a

portfolio manager's decision as to the selection of brokers and dealers could yield disproportionate costs and benefits among the funds and/or accounts that he or she manages.

A fund's portfolio manager(s) may also face other potential conflicts of interest in managing a fund, and the description above is not a complete description of every conflict that could be deemed to exist in managing both the funds and other accounts. In addition, a fund's portfolio manager may also manage other accounts (including their personal assets or the assets of family members) in their personal capacity.

AllianzGI U.S.'s investment personnel, including each fund's portfolio manager, are subject to restrictions on engaging in personal securities transactions pursuant to AllianzGI U.S.'s Codes of Ethics, which contain provisions and requirements designed to identify and address conflicts of interest between personal investment activities and the interests of the funds. The Code of Ethics is designed to ensure that the personal securities transactions, activities and interests of the employees of AllianzGI U.S. will not interfere with (i) making decisions in the best interest of advisory clients (including the funds) or (ii) implementing such decisions while, at the same time, allowing employees to invest for their own accounts.

COMPENSATION

AllianzGI U.S. maintains a compensation system that is designed to reward excellence, retain talent and align the individual interests of our staff with the investment results generated on behalf of our clients. Our compensation system is designed to support our corporate values and culture. While we acknowledge the importance of financial incentives and seek to pay top quartile compensation for top quartile performance, we also believe that compensation is only one of a number of critically important elements that allow the emergence of a strong, winning culture that attracts, retains and motivates talented investors and teams.

The primary components of compensation are the base salary and an annual discretionary variable compensation payment. This variable compensation component typically comprises a cash award that pays out immediately at the end of the performance year as well as a deferred component, for all members of staff whose variable compensation exceeds a certain threshold. The deferred component for most recipients would be a notional award of the Long Term Incentive Program (LTIP); for members of staff whose variable compensation exceeds an additional threshold, the deferred compensation is itself split 50%/50% between the LTIP and a Deferral into Funds program (DIF), which enables employees to invest in Allianz Global Investors' investment strategies. Deferral rates increase in line with the amount of variable compensation and can reach up to 50% for those in the highest variable compensation bracket. Overall awards, splits, components, and deferral percentages are regularly reviewed to ensure they meet industry best practice and, where applicable, at a minimum comply with regulatory standards.

Asset growth affects investment professional compensation indirectly via our LTIP and AllianzGI U.S. overall ability to pay our staff competitively. A few investment teams, such as those running liquid alternative strategies, have their compensation linked to revenue growth in addition to investment performance and the other factors described. In these instances, compensation is subject to the same principles, such as deferral into LTIP and Deferral into Funds, as our discretionary compensation structure.

AllianzGI U.S. regularly reviews the levels and structure of compensation within all major markets in which we operate. Where such information is available, we benchmark our compensation levels with those of our competitors, using applicable benchmarking services. For all but the most senior members of staff with global job profiles, we typically benchmark against local market pay levels. The structure of our pay (base, benefits, variable compensation, deferrals into long term vehicles) reflects the industry's best practice.

Base salary typically reflects scope, responsibilities and experience required in a particular role, be it on the investment side or any other function in our company. Base compensation is regularly reviewed against peers with the help of compensation survey data. Base compensation is typically a greater percentage of total compensation for more junior positions, while for the most senior roles it will be a comparatively small component, often capped and only adjusted every few years.

Discretionary variable compensation is primarily designed to reflect the achievements of an individual against set goals, over a certain time period. For an investment professional these goals will typically be 70% quantitative and 30% qualitative. The former will reflect a weighted average of investment performance over a three-year rolling time period (one-year (25%) and three year (75%) results). For portfolio managers, the performance metric is aligned with the benchmarks of the client portfolios they manage or, if there is no reference benchmark, with the client's stated investment outcome objective. The latter reflects contributions to broader team goals, such as idea sharing, contributions made to client review meetings, product development or product refinement initiatives, and the way behaviors reflect our core values of excellence, passion, integrity and respect. For all investment professionals, a 360 degree feedback evaluation forms part of the qualitative input.

There exist a small number of revenue sharing arrangements that generate variable compensation for specialist investment teams, as well as commission payments for a limited number of members of staff in distribution. These payments are subject to the same deferral rules and deferred instruments as described above for the discretionary compensation scheme.

In addition to competitive compensation, the firm's approach to retention includes providing a challenging career path for each professional, a supportive culture to ensure each employee's progress and a full benefits package.

BOSTON PARTNERS GLOBAL INVESTORS, INC.
(“Boston Partners”)

DISCIPLINED VALUE INTERNATIONAL TRUST

PORTFOLIO MANAGERS AND OTHER ACCOUNTS MANAGED

Joseph F. Feeney, Jr., CFA, Christopher K. Hart, CFA, Joshua M. Jones, CFA, and Joshua White, CFA are primarily responsible for the day-to-day management of the Fund’s portfolio.

The following table reflects information regarding other accounts for which each portfolio manager listed above 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 fund and similarly managed accounts.

The following tables reflect information as of December 31, 2019:

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) (\$)
Joseph F. Feeney, Jr.	3	4,892	2	145	6	49
Christopher K. Hart	4	3,405	9	3,225	36	2,854
Joshua M. Jones	4	3,405	9	3,225	36	2,854
Joshua White	4	3,405	9	3,225	36	2,854

There are no accounts that pay fees based on performance.

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 manager listed above as of December 31, 2019. 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.

Name	Dollar Range of Shares Owned
Joseph F. Feeney, Jr.	None
Christopher K. Hart	\$100,001 - \$500,000
Joshua M. Jones	\$100,001 - \$500,000
Joshua White	\$10,000 - \$50,000

Ownership of fund shares. As of December 31, 2019, none of the portfolio managers listed above beneficially owned shares of the fund.

POTENTIAL CONFLICTS OF INTEREST

Compensation is determined based on several factors including performance, productivity, firm results and teamwork. Portfolio managers benefit from Boston Partners revenues and profitability. But no portfolio managers are compensated based directly on fee revenue earned by Boston Partners on particular accounts in a way that would create a material conflict of interest in favoring particular accounts over other accounts.

Execution and research services provided by brokers may not always be utilized in connection with the fund or other client accounts that may have provided the commission or a portion of the commission paid to the broker providing the services. Boston Partners allocates brokerage commissions for these services in a manner that it believes is fair and equitable and consistent with its fiduciary obligations to each of its clients.

Boston Partners views all assets under management in a particular investment strategy as one portfolio. When the firm decides that a given security warrants a 1% position in client portfolios, it buys 1% in all portfolios unless individual client guidelines prohibit the firm from purchasing the security for such portfolio. Boston Partners generally aggregates the target share amount for each account into one large order and distributes the shares on a prorated basis across the accounts.

If a portfolio manager identifies a limited investment opportunity that may be suitable for more than one fund or other client account, the fund may not be able to take full advantage of that opportunity. To mitigate this conflict of interest, Boston Partners aggregates orders of the funds it advises with orders from each of its other client accounts in order to ensure that all clients are treated fairly and equitably over time and consistent with its fiduciary obligations to each of its clients.

Accounts are generally precluded from simultaneously holding a security long and short. There are certain circumstances that would permit a long/short portfolio to take a short position in a security that is held long in another strategy. This happens very infrequently, and the contra position is generally not related to the fundamental views of the security (i.e. - initiating a long position in a security at year-end to take advantage of tax-loss selling as a short-term investment, or initiating a position based solely on its relative weight in the benchmark). However, in certain situations, the investment constraints of a strategy, including but not limited to country, region, industry, or benchmark, may result in a different investment thesis for the same security. Each situation is fully vetted and approved by the firm's Chief Investment Officer or his designee.

COMPENSATION

All investment professionals receive a variable compensation package comprised of an industry competitive base salary and a discretionary bonus and long-term incentives. Through Boston Partners' bonus program, key investment professionals are rewarded primarily for strong investment performance.

Typically, bonuses are based upon a combination of one or more of the following four criteria:

1. **Individual Contribution:** a subjective evaluation of the professional's individual contribution based on the expectations established at the beginning of each year;
2. **Product Investment Performance:** performance of the investment product(s) with which the individual is involved versus the pre-designed index, based on the excess return;
3. **Investment Team Performance:** the financial results of the investment group with our client's assets; and
4. **Firm-wide Performance:** the overall financial performance of Boston Partners.

The compensation program focuses on long term performance with an emphasis on 3- and 5-year results. The timing of receiving deferred compensation reinforces this emphasis. Roughly 50% of compensation is based on qualitative measures and roughly 50% is based on quantitative measures. These compensation percentages can vary based on an individual's role in the firm.

Total revenues generated by any particular product affect the total available bonus pool for the analysts and portfolio managers associated with that product. The discretionary bonus assessment is conducted annually. Returns are evaluated on a pre-tax basis.

Firm. Boston Partners maintains a long-term incentive program which effectively confers a 20-30% ownership stake in Boston Partners and is funded by the profitability and growth of the business. All investment professionals participate in this plan which serves as a long-term wealth building tool that aligns the interests of our clients with the people responsible for managing their portfolios.

Direct Investments: Boston Partners offers or sub-advises several mutual fund vehicles that allow portfolio managers and other employees to invest directly alongside our clients. In fact, it is common for senior portfolio managers to invest \$1 million or more in the strategy or strategies that they manage. Direct investments are also facilitated through Boston Partner's 401(k) plan as Boston Partners managed mutual funds are widely available, investments are entirely voluntary, and are significantly used within the plan.

Deferred Compensation: An important aspect of Boston Partner's incentive program is deferred compensation. Annual incentive compensation as well as long-term incentive compensation is deferred in part or in total for typically 3 to 5 years. Deferred compensation promotes organizational stability and also facilitates significant re-investment in Boston Partners strategies. Deferred compensation is invested in established Boston Partners strategies. In addition, Boston Partners utilizes deferred compensation to fund seed investments in new investment offerings. This allows for the establishment of a portfolio, the building of a track record and ultimately bring a new investment strategy to the marketplace.

DIMENSIONAL FUND ADVISORS LP
EMERGING MARKETS VALUE TRUST
INTERNATIONAL SMALL COMPANY TRUST
SMALL CAP OPPORTUNITIES TRUST*

* Also subadvised by GW&K Investment Management, LLC

PORTFOLIO MANAGERS AND OTHER ACCOUNTS MANAGED

The following table shows the portfolio managers at Dimensional who are jointly and primarily responsible for the day-to-day management of the stated Funds (or portion thereof).

Fund	Portfolio Managers
Emerging Markets Value Trust	Jed S. Fogdall, Allen Pu, CFA, PhD, Bhanu P. Singh, and Ethan Wren, CFA
International Small Company Trust	Jed S. Fogdall, Arun Keswani, CFA, Mary T. Phillips, CFA and Bhanu P. Singh
Small Cap Opportunities Trust	Jed S. Fogdall, Marc C. Leblond, and Joel P. Schneider

The following table reflects information regarding other accounts for which each portfolio manager listed above 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 Fund or Funds that he or she manages and any similarly managed accounts.

The following table reflects information as of December 31, 2019:

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) (\$)
Jed S. Fogdall	110	428,828.15	25	18,972.99	78	28,685.20
Arun Keswani	14	44,744.47	0	0	10	5,200.27
Marc C. Leblond	0	0	0	0	0	0
Mary T. Phillips	74	215,235.30	2	2,342.44	0	0
Allen Pu	40	110,326.05	13	10,237.21	0	0
Joel P. Schneider	52	219,575.28	7	259.94	0	0
Bhanu Singh	48	197,782.86	1	50.19	1	598.71

Performance-Fee Accounts Managed – Of the accounts listed above, information for those for which advisory fee is based on performance is shown in the following table.

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) (\$)
Jed S. Fogdall	0	0	1	180.13	6	3,951.67
Arun Keswani	0	0	0	0	3	3,263.13
Marc C. Leblond	0	0	0	0	0	0
Mary T. Phillips	0	0	0	0	0	0
Allen Pu	0	0	0	0	0	0
Joel P. Schneider	0	0	0	0	0	0
Bhanu Singh	0	0	0	0	0	0

Ownership of fund shares. As of December 31, 2019, none of the portfolio managers listed above beneficially owned shares of the fund.

POTENTIAL CONFLICTS OF INTEREST

Actual or apparent conflicts of interest may arise when a portfolio manager has the primary day-to-day responsibilities with respect to multiple accounts. In addition to the Portfolios, these accounts may include registered mutual funds, other unregistered pooled investment vehicles, and other accounts managed for organizations and individuals (“Accounts”). An Account may have similar investment objectives to a Portfolio, or may purchase, sell or hold securities that are eligible to be purchased, sold or held by a Portfolio. Actual or apparent conflicts of interest include:

- **Time Management.** The management of the Portfolios and/or Accounts may result in a portfolio manager devoting unequal time and attention to the management of the Portfolios and/or Accounts. Dimensional seeks to manage such competing interests for the time and attention of portfolio managers by having portfolio managers focus on a particular investment discipline. Most Accounts managed by a portfolio manager are managed using the same investment approaches that are used in connection with the management of the Portfolios.
- **Investment Opportunities.** It is possible that at times identical securities will be held by a Portfolio and one or more Accounts. However, positions in the same security may vary and the length of time that a Portfolio or an Account may choose to hold its investment in the same security may likewise vary. If a portfolio manager identifies a limited investment opportunity that may be suitable for a Portfolio and one or more Accounts, the Portfolio may not be able to take full advantage of that opportunity due to an allocation of filled purchase or sale orders across the Portfolio and other eligible Accounts. To deal with these situations, Dimensional has adopted procedures for allocating portfolio transactions across the Portfolios and other Accounts.
- **Broker Selection.** With respect to securities transactions for the Portfolios, Dimensional determines which broker to use to execute each order, consistent with its duty to seek best execution of the transaction. However, with respect to certain Accounts (such as separate accounts), Dimensional may be limited by the client with respect to the selection of brokers or may be instructed to direct trades through a particular broker. In these cases, Dimensional or its affiliates may place separate, non-simultaneous, transactions for a Portfolio and another Account that may temporarily affect the market price of the security or the execution of the transaction, or both, to the detriment of a Portfolio or an Account.
- **Performance-Based Fees.** For some Accounts, Dimensional may be compensated based on the profitability of the Account, such as by a performance-based management fee. These incentive compensation structures may create a conflict of interest for Dimensional with regard to Accounts where Dimensional is paid based on a percentage of assets because the portfolio manager may have an incentive to allocate securities preferentially to the Accounts where Dimensional might share in investment gains.
- **Investment in an Account.** A portfolio manager or his/her relatives may invest in an Account that he or she manages, and a conflict may arise where he or she may therefore have an incentive to treat an Account in which the portfolio manager or his/her relatives invest preferentially as compared to a Portfolio or other Accounts for which he or she have portfolio management responsibilities.

Dimensional has adopted certain compliance procedures that are reasonably designed to address these types of conflicts. However, there is no guarantee that such procedures will detect each and every situation in which a conflict arises.

COMPENSATION

Dimensional’s portfolio managers receive a base salary and a bonus. Compensation of a portfolio manager is determined at the discretion of Dimensional and is based on a portfolio manager’s experience, responsibilities, the perception of the quality of his or her work efforts and other subjective factors. The compensation of portfolio managers is not directly based upon the performance of the Portfolios or other accounts that the portfolio managers manage. Dimensional reviews the compensation of each portfolio manager annually and may make modifications in compensation as its Compensation Committee deems necessary to reflect changes in the market. Each portfolio manager’s compensation consists of the following:

- **Base Salary.** Each portfolio manager is paid a base salary. Dimensional considers the factors described above to determine each portfolio manager’s base salary.
- **Semi-Annual Bonus.** Each portfolio manager may receive a semi-annual bonus. The amount of the bonus paid to each portfolio manager is based upon the factors described above.

Portfolio managers may be awarded the right to purchase restricted shares of the stock of Dimensional, as determined from time to time by the Board of Directors of Dimensional or its delegates. Portfolio managers also participate in benefit and retirement plans and other programs available generally to all Dimensional employees.

In addition, portfolio managers may be given the option of participating in Dimensional's Long Term Incentive Plan. The level of participation for eligible employees may be dependent on overall level of compensation, among other considerations. Participation in this program is not based on or related to the performance of any individual strategies or any particular client accounts.

DWS INVESTMENT MANAGEMENT AMERICAS, INC.

REAL ESTATE SECURITIES TRUST

PORTFOLIO MANAGERS AND OTHER ACCOUNTS MANAGED

John W. Vojticek, David W. Zonavetch, CPA, and Robert Thomas are jointly and primarily responsible for the day-to-day management of the Fund's portfolio.

COMPENSATION OF PORTFOLIO MANAGERS

The subadvisor, and sub-subadvisor and their affiliates are part of DWS. The brand DWS represents DWS Group GmbH & Co. KGaA ("DWS Group") and any of its subsidiaries such as DWS Investment Management Americas, Inc. and RREEF America L.L.C. which offers advisory services. DWS seeks to offer its investment professionals competitive short-term and long-term compensation based on continuous, above average, fund performance relative to the market. This includes measurement of short and long-term performance against industry and portfolio benchmarks. As employees of DWS, portfolio managers are paid on a total compensation basis, which includes Fixed Pay (base salary) and Variable Compensation, as follows:

- Fixed Pay (**FP**) is the key and primary element of compensation for the majority of DWS employees and reflects the value of the individual's role and function within the organization. It rewards factors that an employee brings to the organization such as skills and experience, while reflecting regional and divisional (i.e. DWS) specifics. FP levels play a significant role in ensuring competitiveness of the subadvisor, and sub-subadvisor and their affiliates in the labor market, thus benchmarking provides a valuable input when determining FP levels.
- Variable Compensation (**VC**) is a discretionary compensation element that enables the subadvisor, and sub-subadvisor and their affiliates to provide additional reward to employees for their performance and behaviors, while reflecting DWS affordability and the financial situation of Deutsche Bank AG (the "Bank") and DWS. VC aims to:
 - Recognize that every employee contributes to the DWS Group's success through the DWS Group and/or Bank component of VC (**Group Component**),
 - Reflect individual performance, investment performance, behaviours and culture through discretionary individual VC (**Individual Component**), and
 - Reward outstanding contributions at the junior levels through the discretionary **Recognition Award**.

Employee seniority as well as divisional and regional specifics determine which VC elements are applicable for a given employee and the conditions under which they apply. Both Group and Individual Components may be awarded in shares or other share-based instruments and other deferral arrangements.

- VC can be delivered via cash, restricted equity awards, and/or restricted incentive awards or restricted compensation. Restricted compensation may include:
 - notional fund investments
 - restricted equity, notional equity,
 - restricted cash,
 - or such other form as DWS may decide in its sole discretion
- VC comprises a greater proportion of total compensation as an employee's seniority and total compensation level increase. Proportion of VC delivered via a long-term incentive award, which is subject to performance and forfeiture provisions, will increase significantly as the amount of the VC increases.
- Additional forfeiture and claw back provisions, including complete forfeiture and claw back of VC may apply in certain events if an employee is an InstVV [CRD IV EU Directive4] Material Risk Taker.
- For key investment professionals, in particular, a portion of any long-term incentives will be in the form of notional investments aligned, where possible, to the funds they manage.

In general, each of the subadvisor, and sub-subadvisor and their advisory affiliates seek to offer their investment professionals competitive short-term and long-term compensation based on continuous, above average, fund performance relative to the market. This includes measurement of short and long-term performance against industry and portfolio benchmarks. To evaluate their investment professionals in light of and consistent with the compensation principles set forth above, the subadvisor, and sub-subadvisor and their affiliates review investment performance for all accounts managed in relation to the appropriate Morningstar peer group universe with respect to a fund, iMoneyNet peer group with respect to a money market fund or relevant benchmark index(es) set forth in the governing documents with respect to each other account type. The ultimate goal of this process is to evaluate the degree to which investment professionals deliver investment performance that meets or exceeds their clients' risk and return objectives. When determining total compensation, the subadvisor, and sub-subadvisor and their affiliates consider a number of quantitative, qualitative and other factors:

- Quantitative measures (e.g. one-, three- and five-year pre-tax returns versus the appropriate Morningstar peer group universe for a fund, or versus the appropriate iMoneyNet peer group for a money market fund or relevant benchmark index(es) set forth in the governing documents with respect to each other account type, taking risk targets into account) are utilized to measure performance.

- Qualitative measures (e.g. adherence to, as well as contributions to, the enhancement of the investment process) are included in the performance review.

- Other factors (e.g. non-investment related performance, teamwork, adherence to compliance rules, risk management and “living the values” of the subadvisor, and sub-subadvisor and their affiliates) are included as part of a discretionary component of the review process, giving management the ability to consider additional markers of performance on a subjective basis.

- Furthermore, it is important to note that DWS Group functions within a controlled environment based upon the risk limits established by DWS Group’s Risk division, in conjunction with DWS Group management. Because risk consideration is inherent in all business activities, performance assessment factors in an employee’s ability to assess and manage risk.

Ownership of the Fund 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 below as of the fund’s most recent fiscal year. 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.

Name of Portfolio Manager	Dollar Range of Fund Shares Owned
John W. Vojticek	\$500,001 - \$1,000,000
David W. Zonavetch	\$50,001 - \$100,000
Robert Thomas	\$50,001 - \$100,000

Ownership of fund shares. As of December 31, 2019, none of the portfolio managers listed above beneficially owned shares of the fund.

CONFLICTS OF INTEREST

In addition to managing the assets of the Fund, the Fund’s portfolio managers may have responsibility for managing other client accounts of the subadvisor, and sub-subadvisor or their affiliates. The tables below show, for each portfolio manager, the number and asset size of (1) SEC registered investment companies (or series thereof) other than the Fund, (2) pooled investment vehicles that are not registered investment companies and (3) other accounts (e.g., accounts managed for individuals or organizations) managed by each portfolio manager. Total assets attributed to each portfolio manager in the tables below include total assets of each account managed by them, although the manager may only manage a portion of such account’s assets. The tables also show the number of performance based fee accounts, as well as the total assets of the accounts for which the advisory fee is based on the performance of the account. This information is provided as of the Fund’s most recent fiscal year end.

Name of Portfolio Manager	Number of Registered Investment Companies	Total Assets of Registered Investment Companies (\$)	Number of Investment Company Accounts with Performance Based Fee	Total Assets of Performance- Based Fee Accounts (\$)
Other SEC Registered Investment Companies Managed:				
John W. Vojticek	10	5,069,689,055	0	0
David W. Zonavetch	6	2,738,691,624	0	0
Robert Thomas	6	2,738,691,624	0	0

Name of Portfolio Manager	Number of Pooled Investment Vehicles	Total Assets of Pooled Investment Vehicles (\$)	Number of Pooled Investment Vehicle Accounts with Performance-Based Fee	Total Assets of Performance- Based Fee Accounts (\$)
Other Pooled Investment Vehicles Managed:				
John W. Vojticek	34	7,562,134,050	2	119,303,059
David W. Zonavetch	17	2,618,794,544	2	119,303,059
Robert Thomas	17	2,618,794,544	2	119,303,059

Name of Portfolio Manager	Number of Other Accounts	Total Assets of Other Accounts (\$)	Number of Other Accounts with Performance- Based Fee	Total Assets of Performance- Based Fee Accounts (\$)
Other Accounts Managed:				
John W. Vojticek	42	9,019,690,516	0	0
David W. Zonavetch	10	1,189,870,673	0	0
Robert Thomas	10	1,189,870,673	0	0

In addition to the accounts above, an investment professional may manage accounts in a personal capacity that may include holdings that are similar to, or the same as, those of the Fund. The subadvisor and sub-subadvisor have in place a Code of Ethics that is designed to address conflicts of interest and that, among other things, imposes restrictions on the ability of portfolio managers and other "access persons" to invest in securities that may be recommended or traded in the Fund and other client accounts.

Real, potential or apparent conflicts of interest may arise when a portfolio manager has day-to-day portfolio management responsibilities with respect to more than one fund or account, including the following:

- Certain investments may be appropriate for the Fund and also for other clients advised by the subadvisor and sub-subadvisor and their affiliates, including other client accounts managed by the Fund's portfolio management team. Investment decisions for the Fund and other clients are made with a view to achieving their respective investment objectives and after consideration of such factors as their current holdings, availability of cash for investment and the size of their investments generally. A particular security may be bought or sold for only one client or in different amounts and at different times for more than one but less than all clients. Likewise, because clients of the subadvisor, and sub-subadvisor and their affiliates may have differing investment strategies, a particular security may be bought for one or more clients when one or more other clients are selling the security. The investment results achieved for the Fund may differ from the results achieved for other clients of the subadvisor, and sub-subadvisor and their affiliates. In addition, purchases or sales of the same security may be made for two or more clients on the same day. In such event, such transactions will be allocated among the clients in a manner believed by the subadvisor, and sub-subadvisor and their affiliates to be most equitable to each client, generally utilizing a pro rata allocation methodology. In some cases, the allocation procedure could potentially have an adverse effect or positive effect on the price or amount of the securities purchased or sold by the Fund. Purchase and sale orders for the Fund may be combined with those of other clients of the subadvisor, and sub-subadvisor and their affiliates in the interest of achieving the most favorable net results to the Fund and the other clients.
- To the extent that a portfolio manager has responsibilities for managing multiple client accounts, a portfolio manager will need to divide time and attention among relevant accounts. The subadvisor, and sub-subadvisor and their affiliates attempt to minimize these conflicts by aligning their portfolio management teams by investment strategy and by employing similar investment models across multiple client accounts.
- In some cases, an apparent conflict may arise where the subadvisor and sub-subadvisor have an incentive, such as a performance-based fee, in managing one account and not with respect to other accounts they manage. The subadvisor, and sub-subadvisor and their affiliates will not determine allocations based on whether it receives a performance-based fee from the client. Additionally, the subadvisor and sub-subadvisor have in place supervisory oversight processes to periodically monitor performance deviations for accounts with like strategies.
- The subadvisor and sub-subadvisor and their affiliates and the investment team of the Fund may manage other mutual funds and separate accounts on a long only or a long-short basis. The simultaneous management of long and short portfolios creates potential conflicts of interest including the risk that short sale activity could adversely affect the market value of the long positions (and vice versa), the risk arising from sequential orders in long and short positions, and the risks associated with receiving opposing orders at the same time. The subadvisor and sub-subadvisor have adopted procedures that they believe are reasonably designed to mitigate these and other potential conflicts of interest. Included in these procedures are specific guidelines developed to provide fair and

equitable treatment for all clients whose accounts are managed by each Fund's portfolio management team. The subadvisor and sub-subadvisor and the portfolio management team have established monitoring procedures, a protocol for supervisory reviews, as well as compliance oversight to ensure that potential conflicts of interest relating to this type of activity are properly addressed.

The subadvisor and the sub-subadvisor and their advisory affiliates are owned by the DWS Group, a multinational global financial services firm that is a majority owned subsidiary of Deutsche Bank AG. Therefore, the subadvisor and sub-subadvisor are affiliated with a variety of entities that provide, and/or engage in commercial banking, insurance, brokerage, investment banking, financial advisory, broker-dealer activities (including sales and trading), hedge funds, real estate and private equity investing, in addition to the provision of investment management services to institutional and individual investors. Since Deutsche Bank, its affiliates, directors, officers and employees (the "Firm") are engaged in businesses and have interests in addition to managing asset management accounts, such wide ranging activities involve real, potential or apparent conflicts of interest. These interests and activities include potential advisory, transactional and financial activities and other interests in securities and companies that may be directly or indirectly purchased or sold by the Firm for its clients' advisory accounts. The subadvisor and sub-subadvisor may take investment positions in securities in which other clients or related persons within the Firm have different investment positions. There may be instances in which the subadvisor and sub-subadvisor and their affiliates are purchasing or selling for their client accounts, or pursuing an outcome in the context of a workout or restructuring with respect to, securities in which the Firm is undertaking the same or differing strategy in other business or other client accounts. These are considerations of which advisory clients should be aware and which will cause conflicts that could be to the disadvantage of the subadvisor and sub-subadvisor, and their affiliate's advisory clients, including the Fund. The subadvisor and sub-subadvisor have instituted business and compliance policies, procedures and disclosures that are designed to identify, monitor and mitigate conflicts of interest and, as appropriate, to report them to the Fund's Board.

GW&K INVESTMENT MANAGEMENT, LLC
SMALL CAP OPPORTUNITIES TRUST*

* Also subadvised by Dimensional Fund Advisors LP

PORTFOLIO MANAGERS AND OTHER ACCOUNTS MANAGED

Joseph C. Craigen, CFA, and Daniel L. Miller, CFA, are jointly and primarily responsible for the day-to-day management of the portion of the Fund’s portfolio managed by GW&K.

The following table reflects information regarding other accounts for which each portfolio manager to the portion of the Fund managed by this subadvisor 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 Fund and similarly managed accounts.

The following table reflects information as of December 31, 2019:

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) (\$)
Joseph C. Craigen	1	328	1	69	171	149
Daniel L. Miller	5	1,286	7	1,350	4,939	4,377

Other Accounts Managed — Of the totals listed above, GW&K manages only one portfolio with \$115 million in assets (as of December 31, 2019) which is subject to a performance-based fee. GW&K maintains policies and procedures designed to help ensure the fair and equitable treatment of all client accounts with the goal that all portfolios within a given strategy share performance that is as similar as possible excluding client specific investment guidelines or cash flows.

Ownership of fund shares. None of the funds’ portfolio managers beneficially owned any shares of the funds or beneficially owned shares of similarly managed accounts as of December 31, 2019.

POTENTIAL CONFLICTS OF INTEREST

GW&K’s portfolio managers simultaneously manage multiple types of portfolios, including separate accounts, wrap fee programs and sub advised mutual funds, according to the same or a similar investment strategy as the applicable Fund. However, the portfolios managed by a portfolio manager may not have portfolio compositions identical to those of the Fund managed by the portfolio manager due, for example, to specific investment limitations or guidelines present in some portfolios or funds but not others. The portfolio managers may purchase securities for one portfolio and not another portfolio, and the performance of securities purchased for one portfolio may vary from the performance of securities purchased for other portfolios. A portfolio manager may place transactions on behalf of other accounts that are directly or indirectly contrary to investment decisions made on behalf of a Fund, or make investment decisions that are similar to those made for a Fund, both of which have the potential to adversely impact the Fund depending on market conditions. For example, a portfolio manager may purchase a security in one portfolio while appropriately selling that same security in another portfolio. In addition, some of these portfolios have fee structures that are or have the potential to be higher than the advisory fees paid by a Fund, which can cause potential conflicts in the allocation of investment opportunities between the Funds and the other accounts. However, the compensation structure for portfolio managers (see “Compensation” below) generally does not provide any incentive to favor one account over another because that part of a manager’s bonus based on performance is not based on the performance of one account to the exclusion of others.

While GW&K has policies and procedures to help ensure accounts are treated fairly and equitably over time not all accounts within a strategy will be managed the same at all times. Different client guidelines and/or differences within the investment strategies may lead to the use of different investment practices for accounts within the same or similar investment strategy.

COMPENSATION

Portfolio Manager compensation is a process that balances investment management results over 1, 3 and 5 year periods versus the benchmark and peer universe. Compensation is comprised of a base salary which is determined by the individual's experience and position relative to market data, as well as a bonus that incorporates 3 components:

- Performance Relative to Peers
- Risk-Adjusted Performance Relative to Index
- Discretionary

Key employees are eligible to receive distributions and other benefits represented by membership interests in accordance with the terms of the LLC agreement. Incentive compensation is paid out as cash on an annualized basis and is calculated using a formula that rewards achievement of maximum performance based on security recommendations and consistent annual performance against industry benchmarks. Compensation is comprised of a base salary which is determined by the individual's experience and position relative to market data, as well as a bonus that incorporates 2 components:

- Performance relative to sectors covered over 1, 3, 5 year time periods
- Discretionary

Deferred Compensation: Many of GW&K's senior investment professionals have a personal investment in GW&K investment Strategies. GW&K strongly encourages personal investments in its strategies; however, it is not a requirement.

Other Compensation: GW&K offers a comprehensive benefits program, including a 401(k) plan through our institutional partner, Affiliated Managers Group, Inc. (NYSE: AMG). The plan includes a traditional 401(k) and a Roth 401(k) option.

JENNISON ASSOCIATES LLC

CAPITAL APPRECIATION TRUST

PORTFOLIO MANAGERS AND OTHER ACCOUNTS MANAGED

Blair A. Boyer, Michael A. Del Balso, Rebecca Irwin, Natasha Kuhlkin, CFA, Kathleen A. McCarragher, and Spiros “Sig” Segalas are jointly and primarily responsible for the day-to-day management of the Fund.

The following table reflects information regarding other accounts for which each portfolio manager listed above 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 Fund and similarly managed accounts.

The following tables reflect information as of December 31, 2019:

Portfolio Manager	Other Registered Investment Companies		Other Pooled Investment Vehicles		Other Accounts	
	Number of Accounts	Assets (in thousands) (\$)	Number of Accounts	Assets (in thousands) (\$)	Number of Accounts	Assets (in thousands) ¹ (\$)
Blair A. Boyer	15	57,600,387	6	2,859,200	33	7,978,909
Michael A. Del Balso	6	13,880,598	5	980,432	2	142,232
Rebecca Irwin	15	18,277,632	6	2,887,997	11	1,467,506
Natasha Kuhlkin, CFA	16	49,712,029	10	3,828,839	16	1,500,677
Kathleen A. McCarragher	20	59,025,270	6	2,887,997	7	901,832
Spiros “Sig” Segalas	12	47,919,132	2	161,949	2	658,295

¹Other Accounts excludes the assets and number of accounts in wrap fee programs that are managed using model portfolios.

Other Accounts Managed — Of total listed above, those for which advisory fee is based on performance

Portfolio Manager	Other Registered Investment Companies		Other Pooled Investment Vehicles		Other Accounts	
	Number of Accounts	Assets (in thousands) (\$)	Number of Accounts	Assets (in thousands) (\$)	Number of Accounts	Assets (in thousands) (\$)
Blair A. Boyer	1	7,295,236	0	0	0	0
Michael A. Del Balso	0	0	0	0	0	0
Rebecca Irwin	0	0	0	0	0	0
Natasha Kuhlkin, CFA	0	0	0	0	0	0
Kathleen A. McCarragher	1	7,295,236	0	0	0	0
Spiros “Sig” Segalas	0	0	0	0	0	0

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 December 31, 2019. 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.

Name	Dollar Range of Shares Owned
Blair A. Boyer	Over \$1,000,000
Michael A. Del Balso	Over \$1,000,000
Rebecca Irwin	\$500,001 - \$1,000,000
Natasha Kuhlkin, CFA	\$100,001 - \$500,000
Kathleen A. McCarragher	Over \$1,000,000
Spiros “Sig” Segalas	Over \$1,000,000

Ownership of fund shares. As of December 31, 2019, none of the portfolio managers listed above beneficially owned shares of the fund.

POTENTIAL CONFLICTS OF INTEREST

Jennison manages accounts with asset-based fees alongside accounts with performance-based fees. This side-by-side management can create an incentive for Jennison and its investment professionals to favor one account over another. Specifically, Jennison has the incentive to favor accounts for which it receives performance fees, and possibly take greater investment risks in those accounts, in order to bolster performance and increase its fees.

Other types of side-by-side management of multiple accounts can also create incentives for Jennison to favor one account over another. Examples are detailed below, followed by a discussion of how Jennison addresses these conflicts.

- Long only accounts/long-short accounts: Jennison manages accounts in strategies that only hold long securities positions as well as accounts in strategies that are permitted to sell securities short. Jennison may hold a long position in a security in some client accounts while selling the same security short in other client accounts. For example, Jennison permits quantitatively hedged strategies to short securities that are held long in other strategies. Additionally, Jennison permits securities that are held long in quantitatively derived strategies to be shorted by other strategies. The strategies that sell a security short held long by another strategy could lower the price for the security held long. Similarly, if a strategy is purchasing a security that is held short in other strategies, the strategies purchasing the security could increase the price of the security held short.
- Large accounts: Large accounts typically generate more revenue than do smaller accounts. As a result, a portfolio manager has an incentive when allocating scarce investment opportunities to favor accounts that pay a higher fee or generate more income for Jennison.
- Multiple strategies: Jennison may buy or sell, or may direct or recommend that one client buy or sell, securities of the same kind or class that are purchased or sold for another client, at prices that may be different. Jennison may also, at any time, execute trades of securities of the same kind or class in one direction for an account and in the opposite direction for another account, due to differences in investment strategy or client direction. Different strategies effecting trading in the same securities or types of securities may appear as inconsistencies in Jennison's management of multiple accounts side-by-side.
- Investments at different levels of an issuer's capital structure: To the extent different clients invest across multiple strategies or asset classes, Jennison may invest client assets in the same issuer, but at different levels in the capital structure. Interests in these positions could be inconsistent or in potential or actual conflict with each other.
- Affiliated accounts/unaffiliated accounts and seeded/nonseeded accounts and accounts receiving asset allocation assets from affiliated investment advisers: Jennison manages accounts for its affiliates and accounts in which it has an interest alongside unaffiliated accounts. Jennison could have an incentive to favor its affiliated accounts over unaffiliated accounts. Additionally, Jennison's affiliates may provide initial funding or otherwise invest in vehicles managed by Jennison. When an affiliate provides "seed capital" or other capital for a fund or account, it may do so with the intention of redeeming all or part of its interest at a particular future point in time or when it deems that sufficient additional capital has been invested in that fund or account. Jennison typically requests seed capital to start a track record for a new strategy or product. Managing "seeded" accounts alongside "non-seeded" accounts can create an incentive to favor the "seeded" accounts to establish a track record for a new strategy or product. Additionally, Jennison's affiliated investment advisers could allocate their asset allocation clients' assets to Jennison. Jennison could favor accounts used by its affiliate for their asset allocation clients to receive more assets from the affiliate.
- Non-discretionary accounts or models: Jennison provides non-discretionary model portfolios to some clients and manages other portfolios on a discretionary basis. Recommendations for some non-discretionary models that are derived from discretionary portfolios are communicated after the discretionary portfolio has traded. The non-discretionary clients could be disadvantaged if Jennison delivers the model investment portfolio to them after Jennison initiates trading for the discretionary clients. Discretionary clients could be disadvantaged if the non-discretionary clients receive their model investment portfolio and start trading before Jennison has started trading for the discretionary clients.
- Higher fee paying accounts or products or strategies: Jennison receives more revenues from (1) larger accounts or client relationships than smaller accounts or client relationships and from (2) managing discretionary accounts than advising nondiscretionary models and from (3) non-wrap fee accounts than from wrap fee accounts and from (4) charging higher fees for some strategies than others. The differences in revenue that Jennison receives could create an incentive for Jennison to favor the higher fee paying or higher revenue generating account or product or strategy over another.

- Personal interests: The performance of one or more accounts managed by Jennison’s investment professionals is taken into consideration in determining their compensation. Jennison also manages accounts that are investment options in its employee benefit plans such as its defined contribution plans or deferred compensation arrangements and where its employees may have personally invested alongside other accounts where there is no personal interest. These factors could create an incentive for Jennison to favor the accounts where it has a personal interest over accounts where Jennison does not have a personal interest.

How Jennison Addresses These Conflicts of Interest

The conflicts of interest described above could create incentives for Jennison to favor one or more accounts or types of accounts over others in the allocation of investment opportunities, aggregation and timing of investments. Portfolios in a particular strategy with similar objectives are managed similarly to the extent possible. Accordingly, portfolio holdings and industry and sector exposure tend to be similar across a group of accounts in a strategy that have similar objectives, which tends to minimize the potential for conflicts of interest among accounts within a product strategy. While these accounts have many similarities, the investment performance of each account will be different primarily due to differences in guidelines, individual portfolio manager’s decisions, timing of investments, fees, expenses and cash flows.

Additionally, Jennison has developed policies and procedures that seek to address, mitigate and assess these conflicts of interest. Jennison cannot guarantee, however, that its policies and procedures will detect and prevent, or lead to the disclosure of, each and every situation in which a conflict may arise.

- Jennison has adopted trade aggregation and allocation procedures that seek to treat all clients (including affiliated accounts) fairly. These policies and procedures address the allocation of limited investment opportunities, such as initial public offerings (IPOs) and new issues, the allocation of transactions across multiple accounts, and the timing of transactions between its non-wrap accounts and its wrap fee accounts and between wrap fee program sponsors.
- Jennison has policies that limit the ability to short securities in portfolios that primarily rely on its fundamental research and investment processes (fundamental portfolios) if the security is held long in other fundamental portfolios.
- Jennison has adopted procedures to review allocations or performance dispersion between accounts with performance fees and non-performance fee based accounts and to review overlapping long and short positions among long accounts and long-short accounts.
- Jennison has adopted a code of ethics and policies relating to personal trading.
- Jennison has adopted a conflicts of interest policy and procedures.
- Jennison provides disclosure of these and other potential conflicts in its Form ADV.

COMPENSATION

Jennison seeks to maintain a highly competitive compensation program designed to attract and retain outstanding investment professionals, which include portfolio managers and research analysts, and to align the interests of its investment professionals with those of its clients and overall firm results. Jennison recognizes individuals for their achievements and contributions and continues to promote those who exemplify the same values and level of commitment that are hallmarks of the organization. Investment professionals are compensated with a combination of base salary and discretionary cash bonus. Overall firm profitability determines the size of the investment professional compensation pool. In general, the discretionary cash bonus represents the majority of an investment professional’s compensation.

Jennison sponsors a profit sharing retirement plan for all eligible employees. The contribution to the profit sharing retirement plan for portfolio managers is based on a percentage of the portfolio manager’s total compensation, subject to a maximum determined by applicable law. In addition to eligibility to participate in retirement and welfare plans, senior investment professionals, including portfolio managers and senior research analysts, are eligible to participate in a voluntary deferred compensation program where all or a portion of the discretionary cash bonus can be deferred. Participants in the deferred compensation plan are permitted to allocate the deferred amounts among various options that track the gross-of-fee pre-tax performance of accounts or composites of accounts managed by Jennison.

Investment professionals’ total compensation is determined through a subjective process that evaluates numerous qualitative and quantitative factors. Not all factors are applicable to every investment professional, and there is no particular weighting or formula for considering the factors.

The factors reviewed for the portfolio managers are listed below.

The quantitative factors reviewed for the portfolio managers may include:

- One-, three-, five-year and longer term pre-tax investment performance for groupings of accounts managed in the same strategy (composite) relative to market conditions, pre-determined passive indices and industry peer group

data for the product strategy (e.g., large cap growth, large cap value). Some portfolio managers may manage or contribute ideas to more than one product strategy, and the performance of the other product strategies is also considered in determining the portfolio manager's overall compensation.

- The investment professional's contribution to client portfolio's pre-tax one-, three-, five-year and longer-term performance from the investment professional's recommended stocks relative to market conditions, the strategy's passive benchmarks, and the investment professional's respective coverage universes.

The qualitative factors reviewed for the portfolio managers may include:

- The quality of the portfolio manager's investment ideas and consistency of the portfolio manager's judgment;
- Qualitative factors such as teamwork and responsiveness;
- Individual factors such as years of experience and responsibilities specific to the individual's role such as being a team leader or supervisor are also factored into the determination of an investment professional's total compensation; and
- Historical and long-term business potential of the product strategies.

MANULIFE INVESTMENT MANAGEMENT (NORTH AMERICA) LIMITED (“MANULIFE IM (NA)”)

500 INDEX TRUST

MID CAP INDEX TRUST

SMALL CAP INDEX TRUST

TOTAL STOCK MARKET INDEX TRUST

PORTFOLIO MANAGERS AND OTHER ACCOUNTS MANAGED

Brett Hryb, CFA and Ashikhusein Shahpurwala, CFA are jointly and primarily responsible for the day-to-day management of the fund’s portfolio.

The following table reflects information regarding other accounts for which each portfolio manager listed above 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 fund and similarly managed accounts.

The following table reflects information as of December 31, 2019:

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) (\$)
Brett Hryb, CFA	0	0	0	0	6	2,895
Ashikhusein Shahpurwala, CFA	0	0	0	0	6	2,895

None of these accounts pay a performance-based fee.

Ownership of fund shares. None of the funds’ portfolio managers beneficially owned any shares of the funds or beneficially owned shares of similarly managed accounts as of December 31, 2019.

POTENTIAL CONFLICTS OF INTEREST

While funds managed by each of the portfolio managers may have many similarities, Manulife IM (NA) has adopted compliance procedures to manage potential conflicts of interest such as allocation of investment opportunities and aggregated trading.

The Firm recognizes that a potential conflict exists when a portfolio manager is responsible for more than one account and that such a conflict can be most apparent when one portfolio has a higher fee than another portfolio or where the Firm can be both long and short the same name. We seek to manage these potential conflicts through:

- Policies and procedures
- Investment restrictions on portfolio managers who manage hedge funds as well as other accounts
- Internal review processes
- Oversight to ensure that no one client is intentionally favored at the expense of another

Additionally, portfolio managers are offered incentives that are reasonably designed to ensure that there is proper alignment of both short- and long-term interests. Their potential bonus payouts are based upon investment performance of all accounts over 1-, 3- and 5-year time periods. The performance of each account is measured relative to an appropriate peer group benchmark.

COMPENSATION

Investment professionals are compensated with a combination of base salary, short-term and long-term incentives as detailed below.

Base Salaries

Base salaries are market-based and salary ranges are periodically reviewed. Individual salary adjustments are based on individual performance against mutually-agreed-upon objectives and development of technical skills.

Short-Term Incentives

Short-term incentives take the form of annual cash awards. Target awards are market-based and actual awards are tied

to performance against various objective measures and on overall personal performance ratings. These incentives are tied to performance against various objective and subjective measures, and include:

- *Investment Performance* – performance of portfolios managed by the investment team. This is the most heavily weighted factor and it is measured relative to an appropriate benchmark or universe over established time periods.
- *Financial Performance* – performance of John Hancock Asset Management and its parent corporation.
- *Non-Investment Performance* – derived from the intangible contributions an investment professional brings to John Hancock Asset Management, including: new strategy idea generation, professional growth and development, as well as management, where applicable.

Long-Term Incentives

All investment professionals (including portfolio managers, analysts and traders) are eligible for participation in a deferred incentive plan. One hundred percent of the eligible investments are strategies managed by the team/investment professional as well as other John Hancock Asset Management strategies.

Annual Cash Awards

Manulife Equity Awards

Investment professionals that are considered officers of Manulife Financial receive a portion of their award in Manulife Restricted Share Units (RSUs) or stock options. This plan is based on the value of the underlying common shares of Manulife Financial.

In addition to the above, compensation may also include a revenue component for an investment team, which is considered part of a team's total compensation. The revenue component is derived from a number of factors including, but not limited to, client assets under management, investment performance, and firm metrics.

Other Compensation

In the US, employees are offered a full range of benefits and programs to meet the needs of today's multi-faceted and diverse workforce.

MANULIFE INVESTMENT MANAGEMENT (US) LLC (“MANULIFE IM (US)“)

ACTIVE BOND TRUST
FINANCIAL INDUSTRIES TRUST
FUNDAMENTAL ALL CAP CORE TRUST
FUNDAMENTAL LARGE CAP VALUE TRUST
GLOBAL TRUST
GLOBAL EQUITY TRUST
LIFESTYLE PORTFOLIOS
MANAGED VOLATILITY PORTFOLIOS
SELECT BOND TRUST
SHORT-TERM GOVERNMENT INCOME TRUST
STRATEGIC EQUITY ALLOCATION TRUST
STRATEGIC INCOME OPPORTUNITIES TRUST
TOTAL BOND MARKET TRUST
ULTRA SHORT TERM BOND TRUST

PORTFOLIO MANAGERS AND OTHER ACCOUNTS MANAGED

The following table shows the portfolio managers at Manulife IM (US) who are jointly and primarily responsible for the day-to-day management of the stated Funds' portfolios (or portion thereof).

Fund	Portfolio Managers
Active Bond Trust	Peter M. Farley, CFA, Howard C. Greene, and Jeffrey N. Given, CFA
Financial Industries Trust	Susan A. Curry, Ryan P. Lentell, CFA, and Lisa A. Welch*
Fundamental All Cap Core Trust	Emory (Sandy) Sanders, CFA and Jonathan T. White, CFA
Fundamental Large Cap Value Trust	Emory (Sandy) Sanders, CFA and Nicholas Renart
Global Trust and Global Equity Trust	Paul Boyne and Stephen Hermsdorf
Lifestyle Portfolios	Robert Sykes, CFA and Nathan Thooft, CFA
Managed Volatility Portfolios	Geoffrey Kelley, CFA, Robert Sykes, CFA, Nathan Thooft, CFA, and Jeffrey Wu
Select Bond Trust, Short-Term Government Income Trust, and Ultra Short Term Bond Trust	Howard C. Greene and Jeffrey N. Given, CFA
Strategic Equity Allocation Trust	Matthew Murphy, CFA and Nathan Thooft, CFA
Strategic Income Opportunities Fund	Daniel S. Janis III, Kisoo Park, Thomas C. Goggins, and Christopher M. Chapman, CFA
Total Bond Market Trust	Peter M. Farley, CFA

*Effective June 1, 2020, Lisa A. Welch will no longer serve as a portfolio manager of the fund.

The following table reflects information regarding other accounts for which each portfolio manager listed above 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 Fund or Funds that he or she manages and any similarly managed accounts.

The following table reflects information as of December 31, 2019:

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) (\$)
Paul Boyne	0	0	10	4,995	3	810
Christopher M. Chapman	5	7,381	41	18,118	15	11,168
Susan A. Curry	4	5,547	7	601	1	0.61
Peter M. Farley	1	506	2	566	6	1,119
Jeffrey N. Given	14	28,029	20	3,026	18	10,020
Thomas C. Goggins	5	7,381	40	18,069	15	11,168

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) (\$)
Howard C. Greene	6	20,717	20	2,760	18	10,020
Stephen Hermsdorf	0	0	9	4,726	3	810
Daniel S. Janis, III	5	7,381	43	18,977	15	11,168
Geoffrey Kelley	0	0	1	155	0	0
Ryan P. Lentell	3	3,236	3	30	1	0.61
Matthew Murphy	3	10,818	0	0	0	0
Kisoo Park	5	7,381	42	8,124	15	11,168
Nicholas Renart	0	0	0	0	0	0
Emory W. Sanders, Jr.	4	6,019	39	9,689	14	3,202
Robert Sykes	47	69,683	0	0	0	0
Nathan W. Thooft	50	61,354	20	10,487	2	1,117
Lisa A. Welch*	4	4,946	7	601	1	0.61
Jonathan T. White	4	6,019	34	7,507	14	3,202
Jeffrey Wu	0	0	0	0	0	0

*Effective June 1, 2020, Lisa A. Welch will no longer serve as a portfolio manager of the fund.

Performance-Based Fees for Other Accounts Managed. Of the accounts in the table listed above, those for which the Subadvisor receives a fee based on investment performance are listed in the table below:

Paul Boyne	Other Registered Investment Companies: None Other Pooled Investment Vehicles: None Other Accounts: One account in the amount of approximately \$500 million.
Christopher M. Chapman	Other Registered Investment Companies: None Other Pooled Investment Vehicles: None Other Accounts: One account in the amount of approximately \$7 billion.
Thomas C. Goggins	Other Registered Investment Companies: None Other Pooled Investment Vehicles: None Other Accounts: One account in the amount of approximately \$7 billion.
Stephen Hermsdorf	Other Registered Investment Companies: None Other Pooled Investment Vehicles: None Other Accounts: One account in the amount of approximately \$500 million.
Daniel S. Janis, III	Other Registered Investment Companies: None Other Pooled Investment Vehicles: None Other Accounts: One account in the amount of approximately \$7 billion.
Kisoo Park	Other Registered Investment Companies: None Other Pooled Investment Vehicles: None Other Accounts: One account in the amount of approximately \$7 billion.
Jonathan T. White	Other Registered Investment Companies: None Other Pooled Investment Vehicles: None Other Accounts: Three accounts in the amount of approximately \$600 million.

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 December 31, 2019. 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.

Only those portfolio managers that owned shares of a Fund and/or shares of similarly manager accounts are shown.

Portfolio Manager	Dollar Range of Shares Owned
Paul Boyne	Over \$1,000,000
Christopher M. Chapman	\$10,001 - \$50,000

Portfolio Manager	Dollar Range of Shares Owned
Susan A. Curry	\$100,001 - \$500,000
Peter M. Farley	\$0
Jeffrey N. Given	\$0
Thomas C. Goggins	Over \$1,000,000
Howard C. Greene	\$0
Stephen Hermsdorf	\$100,001 - \$500,000
Daniel S. Janis, III	Over \$1,000,000
Geoffrey Kelley	\$0
Ryan P. Lentell	\$100,001 - \$500,000
Matthew Murphy	\$0
Kisoo Park	Over \$1,000,000
Nicholas Renart	\$0
Emory W. Sanders, Jr.	Over \$1,000,000
Robert Sykes	\$100,001 - \$500,000
Nathan W. Thooft	\$100,001 - \$500,000
Lisa A. Welch*	\$1 - \$10,000
Jonathan T. White	\$100,001 - \$500,000
Jeffrey Wu	\$0

*Effective June 1, 2020, Lisa A. Welch will no longer serve as a portfolio manager of the fund.

Ownership of fund shares. As of December 31, 2019, none of the portfolio managers listed above beneficially owned shares of the funds.

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 funds do not believe that any material conflicts are likely to arise out of a portfolio manager's responsibility for the management of the funds as well as one or more other accounts. The Advisor and Manulife IM (US) (the "Subadvisor") 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 Subadvisor 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. The Subadvisor 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 the Subadvisor 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, the Subadvisor 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 the Subadvisor 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 the Subadvisor 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. The Subadvisor 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, the Subadvisor 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

The Subadvisor has adopted a system of compensation for portfolio managers and others involved in the investment process that is applied systematically among investment professionals. At the Subadvisor, the structure of compensation of investment professionals is currently comprised of the following basic components: base salary and short- and long-term incentives. The following describes each component of the compensation package for the individuals identified as a portfolio manager for the funds.

- **Base salary.** Base compensation is fixed and normally reevaluated on an annual basis. The Subadvisor seeks to set compensation at market rates, taking into account the experience and responsibilities of the investment professional.
- **Incentives.** Only investment professionals are eligible to participate in the short- and long-term incentive plan. Under the plan, investment professionals are eligible for an annual cash award. 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 the Subadvisor 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 identified in the table below (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. This is the most heavily weighted factor.
 - *Financial Performance:* The profitability of the Subadvisor and its parent company are also 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.
 - In addition to the above, compensation may also include a revenue component for an investment team derived from a number of factors including, but not limited to, client assets under management, investment performance, and firm metrics.
- **Manulife equity awards.** 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.

- Deferred Incentives. Investment professionals may receive deferred incentives which are fully invested in strategies managed by the team/individual as well as other Manulife Investment Management strategies.

The Subadvisor 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.

Fund	Peer Group and/or Benchmark Index for Incentive Period
Active Bond Trust	Morningstar US OE Insurance Intermediate Core-Plus Bond
Financial Industries Trust	Morningstar US OE Insurance Financial
Fundamental All Cap Core Trust	Morningstar US OE Insurance Large Growth
Fundamental Large Cap Value Trust	Morningstar US OE Insurance Large Value
Global Trust	Morningstar US OE Insurance World Large Stock
Global Equity Trust	Morningstar US OE Insurance World Large Stock
Lifestyle Portfolios	Morningstar US OE Insurance Allocation
Managed Volatility Portfolios	Morningstar US OE Insurance Allocation
Select Bond Trust	Morningstar US OE Insurance Intermediate Core Bond
Short-Term Government Income Trust	Morningstar US OE Insurance Short Government
Strategic Equity Allocation Trust	Morningstar US OE Insurance Allocation
Strategic Income Opportunities Trust	Morningstar US OE Insurance Multisector Bond
Total Bond Market Trust	Morningstar US OE Insurance Intermediate Core Bond
Ultra Short Term Bond Trust	Morningstar US OE Insurance Ultrashort Bond

SSGA FUNDS MANAGEMENT, INC. (“SSGA”)

INTERNATIONAL EQUITY INDEX TRUST

PORTFOLIO MANAGERS AND OTHER ACCOUNTS MANAGED

Thomas Coleman, CFA and Karl Schneider, CAIA are jointly and primarily responsible for the day to-day management of the Fund’s portfolio.

The following table reflects information regarding other accounts for which each portfolio manager to the fund 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 pay 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 Fund and similarly managed accounts.

The following table reflects information as of December 31, 2019:

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) (\$)
Thomas Coleman	140	637,739	255	361,446	397	306,952
Karl Schneider	140	637,739	255	361,446	397	306,952

* Please note that the assets are managed on a team basis. This table refers to accounts of the Global Equity Beta Solutions Group of State Street Global Advisors (“SSGA”). SSGA FM and other advisory affiliates of State Street Corporation make up SSGA, the investment management arm of State Street Corporation.

There are no accounts that pay fees based on performance.

Ownership of fund shares. None of the Fund’s portfolio managers beneficially owned any shares of the Fund or beneficially owned shares of similarly managed accounts as of December 31, 2019.

POTENTIAL CONFLICTS OF INTEREST

A portfolio manager that has responsibility for managing more than one account may be subject to potential conflicts of interest because he or she is responsible for other accounts in addition to the fund. Those conflicts could include preferential treatment of one account over others in terms of: (a) the portfolio manager’s execution of different investment strategies for various accounts or (b) the allocation of resources or of investment opportunities.

Portfolio managers may manage numerous accounts for multiple clients. These accounts may include registered investment companies, other types of pooled accounts (e.g., collective investment funds), and separate accounts (i.e., accounts managed on behalf of individuals or public or private institutions). Portfolio managers make investment decisions for each account based on the investment objectives and policies and other relevant investment considerations applicable to that portfolio. A potential conflict of interest may arise as a result of the portfolio managers’ responsibility for multiple accounts with similar investment guidelines. Under these circumstances, a potential investment may be suitable for more than one of the portfolio managers’ accounts, but the quantity of the investment available for purchase is less than the aggregate amount the accounts would ideally devote to the opportunity. Similar conflicts may arise when multiple accounts seek to dispose of the same investment. The portfolio managers may also manage accounts whose objectives and policies differ from that of the fund. These differences may be such that under certain circumstances, trading activity appropriate for one account managed by the portfolio manager may have adverse consequences for another account managed by the portfolio manager. For example, an account may sell a significant position in a security, which could cause the market price of that security to decrease, while the fund maintained its position in that security.

A potential conflict may arise when the portfolio managers are responsible for accounts that have different advisory fees – the difference in fees could create an incentive for the portfolio manager to favor one account over another, for example, in terms of access to investment opportunities. Another potential conflict may arise when the portfolio manager has an investment in one or more accounts that participate in transactions with other accounts. His or her investment(s) may create an incentive for the portfolio manager to favor one account over another. SSGA FM has adopted policies and procedures reasonably designed to address these potential material conflicts. For instance, portfolio managers within SSGA FM are normally responsible for all accounts within a certain investment discipline, and do not, absent special circumstances, differentiate among the various accounts when allocating resources.

Additionally, SSGA FM and its advisory affiliates have processes and procedures for allocating investment opportunities among portfolios that are designed to provide a fair and equitable allocation.

COMPENSATION

SSGA's culture is complemented and reinforced by a total rewards strategy that is based on a pay for performance philosophy which seeks to offer a competitive pay mix of base salary, benefits, cash incentives and deferred compensation.

Salary is based on a number of factors, including external benchmarking data and market trends, State Street performance, SSGA performance, and individual overall performance. SSGA's Global Human Resources department regularly participates in compensation surveys in order to provide SSGA with market-based compensation information that helps support individual pay decisions.

Additionally, subject to State Street and SSGA business results, State Street allocates an incentive pool to SSGA to reward its employees. The size of the incentive pool for most business units is based on the firm's overall profitability and other factors, including performance against risk-related goals. For most SSGA investment teams, SSGA recognizes and rewards performance by linking annual incentive decisions for investment teams to the firm's or business unit's profitability and business unit investment performance over a multi-year period.

Incentive pool funding for most active investment teams is driven in part by the post-tax investment performance of fund(s) managed by the team versus the return levels of the benchmark index(es) of the fund(s) on a one-, three- and, in some cases, five-year basis. For most active investment teams, a material portion of incentive compensation for senior staff is deferred over a four-year period into the SSGA Long-Term Incentive ("SSGA LTI") program. For these teams, The SSGA LTI program indexes the performance of these deferred awards against the post-tax investment performance of fund(s) managed by the team. This is intended to align our investment team's compensation with client interests, both through annual incentive compensation awards and through the long-term value of deferred awards in the SSGA LTI program.

For the passive equity investment team, incentive pool funding is driven in part by the post-tax 1 and 3-year tracking error of the funds managed by the team against the benchmark indexes of the funds.

The discretionary allocation of the incentive pool to the business units within SSGA is influenced by market-based compensation data, as well as the overall performance of each business unit. Individual compensation decisions are made by the employee's manager, in conjunction with the senior management of the employee's business unit. These decisions are based on the overall performance of the employee and, as mentioned above, on the performance of the firm and business unit. Depending on the job level, a portion of the annual incentive may be awarded in deferred compensation, which may include cash and/or Deferred Stock Awards (State Street stock), which typically vest over a four-year period. This helps to retain staff and further aligns SSGA employees' interests with SSGA clients' and shareholders' long-term interests.

SSGA recognizes and rewards outstanding performance by:

- Promoting employee ownership to connect employees directly to the company's success.
- Using rewards to reinforce mission, vision, values and business strategy.
- Seeking to recognize and preserve the firm's unique culture and team orientation.
- Providing all employees the opportunity to share in the success of SSGA.

T. ROWE PRICE ASSOCIATES, INC.

BLUE CHIP GROWTH TRUST
CAPITAL APPRECIATION VALUE TRUST
EQUITY INCOME TRUST
HEALTH SCIENCES TRUST
MID VALUE TRUST
SCIENCE & TECHNOLOGY TRUST*
SMALL COMPANY VALUE TRUST

* Also subadvised by Allianz Global Investors U.S. LLC

PORTFOLIO MANAGERS AND OTHER ACCOUNTS MANAGED

The following table shows the portfolio manager at T. Rowe Price who is primarily responsible for the day-to-day management of each stated Fund's portfolio (or portion thereof subadvised by T. Rowe Price).

Fund	Portfolio Managers
Blue Chip Growth Trust	Larry J. Puglia, CFA, CPA
Capital Appreciation Value Trust	David R. Giroux, CFA
Equity Income Trust	John D. Linehan, CFA
Health Sciences Trust	Ziad Bakri, MD, CFA
Mid Value Trust	David J. Wallack
Science & Technology Trust ¹	Ken Allen
Small Company Value Trust	J. David Wagner, CFA

¹ Also subadvised by AllianzGI U.S.

The following table reflects information regarding other accounts for which each portfolio manager to the funds listed above 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 Fund that he manages and similarly managed accounts.

The following table reflects information as of December 31, 2019:

Portfolio Manager	Other Registered Investment Companies		Other Pooled Investment Vehicles		Other Accounts	
	Number of Accounts	Assets (\$)	Number of Accounts	Assets (\$)	Number of Accounts	Assets (\$)
Ken Allen	3	7,468,865,079	1	8,805,840	0	0
Ziad Bakri	6	16,586,724,706	0	0	0	0
David Giroux	6	58,841,845,755	1	497,253,723	0	0
John D. Linehan	16	40,847,341,372	18	15,184,387,319	27	6,397,384,852
Larry J. Puglia*	9	88,732,370,673	23	18,447,753,107	16	6,514,711,080
J. David Wagner	4	11,244,055,214	1	2,712,346,413	2	221,790,598
David Wallack	4	14,526,813,513	1	3,817,073,790	1	20,050,120

*There is one "Other Account" that is subject to performance-based advisory fees. The account's AUM is \$653.5 million. There are no accounts that pay fees based on performance.

Ownership of fund shares. None of the funds' portfolio managers beneficially owned any shares of the funds or beneficially owned shares of similarly managed accounts as of December 31, 2019.

POTENTIAL CONFLICTS OF INTEREST

Portfolio managers at T. Rowe Price and its affiliates may manage multiple accounts. These accounts may include, among others, mutual funds, separate accounts (assets managed on behalf of institutions such as pension funds, colleges and universities, and foundations), offshore funds, and common trust funds. Portfolio managers make investment decisions for each portfolio based on the investment objectives, policies, practices, and other relevant investment considerations that the managers believe are applicable to that portfolio. Consequently, portfolio managers may purchase (or sell) securities for one portfolio and not another portfolio. T. Rowe Price and its affiliates have adopted brokerage and trade allocation policies and procedures that they believe are reasonably designed to address any potential conflicts associated with managing multiple accounts for multiple clients. Also, as disclosed under the "Portfolio Manager Compensation" section, the portfolio managers' compensation is determined in the same manner with respect to all portfolios managed by the portfolio manager.

The T. Rowe Price funds may, from time to time, own shares of Morningstar, Inc. Morningstar is a provider of investment research to individual and institutional investors, and publishes ratings on mutual funds, including the T. Rowe Price funds. T. Rowe Price manages the Morningstar retirement plan and acts as subadvisor to two mutual funds offered by Morningstar. In addition, T. Rowe Price and its affiliates pay Morningstar for a variety of products and services. In addition, Morningstar may provide investment consulting and investment management services to clients of T. Rowe Price or its affiliates.

Since the T. Rowe Price funds and other accounts have different investment objectives or strategies, potential conflicts of interest may arise in executing investment decisions or trades among client accounts. For example, if T. Rowe Price purchases a security for one account and sells the same security short for another account, such a trading pattern could disadvantage either the account that is long or short. It is possible that short sale activity could adversely affect the market value of long positions in one or more T. Rowe Price Funds and other accounts (and vice versa) and create potential trading conflicts, such as when long and short positions are being executed at the same time. To mitigate these potential conflicts of interest, T. Rowe Price has implemented policies and procedures requiring trading and investment decisions to be made in accordance with T. Rowe Price's fiduciary duties to all accounts, including the T. Rowe Price funds. Pursuant to these policies, portfolio managers are generally prohibited from managing multiple strategies where they hold the same security long in one strategy and short in another, except in certain circumstances, including where an investment oversight committee has specifically reviewed and approved the holdings or strategy. Additionally, T. Rowe Price has implemented policies and procedures that it believes are reasonably designed to ensure the fair and equitable allocation of trades, both long and short, to minimize the impact of trading activity across client accounts. T. Rowe Price monitors short sales to determine whether its procedures are working as intended and that such short sale activity is not materially impacting our trade executions and long positions for other clients.

COMPENSATION

Portfolio manager compensation consists primarily of a base salary, a cash bonus, and an equity incentive that usually comes in the form of restricted stock grants. Compensation is variable and is determined based on the following factors.

Investment performance over 1-, 3-, 5-, and 10-year periods is the most important input. The weightings for these time periods are generally balanced and are applied consistently across similar strategies. T. Rowe Price (and T. Rowe Price Hong Kong, T. Rowe Price Singapore, T. Rowe Price Japan, and T. Rowe Price International, as appropriate) evaluates performance in absolute, relative, and risk-adjusted terms. Relative performance and risk-adjusted performance are typically determined with reference to the broad-based index (e.g., S&P 500 Index) and the Lipper average or index (e.g., Large-Cap Growth Index) set forth in the total returns table in the fund's prospectus, although other benchmarks may be used as well. Investment results are also measured against comparably managed funds of competitive investment management firms. The selection of comparable funds is approved by the applicable investment steering committee and is the same as the selection presented to the directors of the T. Rowe Price funds in their regular review of fund performance. Performance is primarily measured on a pretax basis, although tax efficiency is considered.

Compensation is viewed with a long-term time horizon. The more consistent a manager's performance over time, the higher the compensation opportunity. The increase or decrease in a fund's assets due to the purchase or sale of fund shares is not considered a material factor. In reviewing relative performance for fixed income funds, a fund's expense ratio is usually taken into account. Contribution to T. Rowe Price's overall investment process is an important consideration as well. Leveraging ideas and investment insights across the global investment platform; working effectively with and mentoring others; and other contributions to our clients, the firm, or our culture are important components of T. Rowe Price's long-term success and are generally taken into consideration.

All employees of T. Rowe Price, including portfolio managers, participate in a 401(k) plan sponsored by T. Rowe Price Group. In addition, all employees are eligible to purchase T. Rowe Price common stock through an employee stock

purchase plan that features a limited corporate matching contribution. Eligibility for and participation in these plans is on the same basis for all employees. Finally, all vice presidents of T. Rowe Price Group, including all portfolio managers, receive supplemental medical/hospital reimbursement benefits and are eligible to participate in a supplemental savings plan sponsored by T. Rowe Price Group.

This compensation structure is used when evaluating the performance of all portfolios by the portfolio manager.

**WELLINGTON MANAGEMENT COMPANY LLP
("Wellington Management")**

**INVESTMENT QUALITY BOND TRUST
MID CAP STOCK TRUST
OPPORTUNISTIC FIXED INCOME TRUST
SMALL CAP STOCK TRUST
SMALL CAP VALUE TRUST**

PORTFOLIO MANAGERS AND OTHER ACCOUNTS MANAGED

The following table shows the portfolio managers at Wellington Management who are primarily responsible, or jointly and primarily responsible, for the day-to-day management of the stated funds' portfolios.

Fund	Portfolio Managers
Investment Quality Bond Trust	Robert D. Burn, CFA, Campe Goodman, CFA, and Joseph F. Marvan, CFA
Mid Cap Stock Trust	Mario E. Abularach, CFA, and Stephen Mortimer
Opportunistic Fixed Income Trust	Brian M. Garvey and Brij S. Khurana
Small Cap Stock Trust	Mario E. Abularach, CFA, Steven C. Angeli, CFA, Stephen Mortimer, and John V. Schneider, CFA
Small Cap Value Trust	Edmond C. Griffin, CFA, Timothy J. McCormack, CFA, and Shaun F. Pedersen

The following table reflects information regarding other accounts for which each portfolio manager to the funds listed above 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 Fund or Funds that he or she manages and similarly managed accounts.

The following table reflects information as of December 31, 2019:

Portfolio Manager	Other Registered Investment Companies		Other Pooled Investment Vehicles		Other Accounts	
	Number of Accounts	Assets (\$)	Number of Accounts	Assets (\$)	Number of Accounts	Assets (\$)
Mario E. Abularach	6	8,604,194,905	0	0	1	23,218,055
Steven C. Angeli	8	1,890,729,875	23	2,097,458,412	12	1,182,467,734
Robert D. Burn	14	7,472,705,398	17	4,841,991,626	41	14,166,672,704
Brian M. Garvey	3	225,147,15	34	5,478,672,33	4	134,844,79
Campe Goodman	15	7,490,153,374	15	5,080,286,564	41	14,456,078,009
Edmond Griffin	6	1,141,023,256	5	1,009,438,284	31	2,298,309,012
Brij S. Khurana	1	3,313	3	40,793,068	2	192,898,815
Joseph F. Marvan	17	32,652,113,301	24	6,482,864,057	69	34,175,134,150
Timothy J. McCormack	5	1,381,869,255	5	965,216,820	22	1,810,718,384
Stephen Mortimer	13	12,285,125,139	8	329,630,097	3	712,521,736
Shaun F. Pedersen	7	1,632,152,283	6	992,785,246	23	1,883,235,165
John V. Schneider	4	1,546,629,668	1	35,182,258	0	0

Other Accounts Managed — Of total listed above, those for which advisory fee is based on performance

Portfolio Manager	Other Registered Investment Companies		Other Pooled Investment Vehicles		Other Accounts	
	Number of Accounts	Assets (\$)	Number of Accounts	Assets (\$)	Number of Accounts	Assets (\$)
Steven C. Angeli	0	0	7	1,137,413,846	2	437,970,243
Robert D. Burn	0	0	0	0	1	840,010,016
Brian M. Garvey	0	0	5	2,019,283,08	2	90,310,97
Campe Goodman	0	0	0	0	1	840,010,016

Portfolio Manager	Other Registered Investment Companies		Other Pooled Investment Vehicles		Other Accounts	
	Number of Accounts	Assets (\$)	Number of Accounts	Assets (\$)	Number of Accounts	Assets (\$)
Brij S. Khurana	0	0	1	2,647,218	1	83,955,224
Joseph F. Marvan	0	0	0	0	1	840,010,016
Stephen Mortimer	0	0	3	49,786,081	1	105,501,609

Ownership of fund shares. None of the funds' portfolio managers beneficially owned any shares of the funds or beneficially owned shares of similarly managed accounts as of December 31, 2019.

POTENTIAL CONFLICTS OF INTEREST

Individual investment professionals at Wellington Management manage multiple accounts for multiple clients. These accounts may include mutual funds, separate accounts (assets managed on behalf of institutions such as pension funds, insurance companies, foundations, or separately managed account programs sponsored by financial intermediaries), bank common trust accounts, and hedge funds. Each fund's managers listed in the prospectus who are primarily responsible for the day-to-day management of the funds ("Investment Professionals") generally manage accounts in several different investment styles. These accounts may have investment objectives, strategies, time horizons, tax considerations and risk profiles that differ from those of the relevant fund. The Investment Professionals make investment decisions for each account, including the relevant fund, based on the investment objectives, policies, practices, benchmarks, cash flows, tax and other relevant investment considerations applicable to that account. Consequently, the Investment Professionals may purchase or sell securities, including IPOs, for one account and not another account, and the performance of securities purchased for one account may vary from the performance of securities purchased for other accounts. Alternatively, these accounts may be managed in a similar fashion to the relevant fund and thus the accounts may have similar, and in some cases nearly identical, objectives, strategies and/or holdings to that of the relevant fund.

An Investment Professional or other investment professionals at Wellington Management may place transactions on behalf of other accounts that are directly or indirectly contrary to investment decisions made on behalf of the relevant fund, or make investment decisions that are similar to those made for the relevant fund, both of which have the potential to adversely impact the relevant fund depending on market conditions. For example, an investment professional may purchase a security in one account while appropriately selling that same security in another account. Similarly, an Investment Professional may purchase the same security for the relevant fund and one or more other accounts at or about the same time. In those instances the other accounts will have access to their respective holdings prior to the public disclosure of the relevant fund's holdings. In addition, some of these accounts have fee structures, including performance fees, which are or have the potential to be higher, in some cases significantly higher, than the fees Wellington Management receives for managing the relevant fund. Messrs. Angeli, Burn, Garvey, Goodman, Khurana, Marvan, and Mortimer also manage accounts that pay performance allocations to Wellington Management or its affiliates. Because incentive payments paid by Wellington Management to the Investment Professional are tied to revenues earned by Wellington Management and, where noted, to the performance achieved by the manager in each account, the incentives associated with any given account may be significantly higher or lower than those associated with other accounts managed by a given Investment Professional. Therefore, portfolio managers and other investment team members have an incentive to favor accounts that have the potential to provide higher incentive compensation for them as individuals. Wellington Management manages the conflict created by these incentive arrangements through our policies on the allocation of investment opportunities, including the allocation of equity IPOs, as well as after-the-fact monitoring and review of client accounts to assess dispersion among accounts with similar mandates. Finally, the Investment Professionals may hold shares or investments in the other pooled investment vehicles and/or other accounts identified above.

Wellington Management's goal is to meet its fiduciary obligation to treat all clients fairly and provide high quality investment services to all of its clients. Wellington Management has adopted and implemented policies and procedures, including brokerage and trade allocation policies and procedures, which it believes address the conflicts associated with managing multiple accounts for multiple clients. In addition, Wellington Management monitors a variety of areas, including compliance with primary account guidelines, the allocation of IPOs, and compliance with the firm's Code of Ethics, and places additional investment restrictions on investment professionals who manage hedge funds and certain other accounts. Furthermore, senior investment and business personnel at Wellington Management periodically review the performance of Wellington Management's investment professionals. Although Wellington Management does not track the time an investment professional spends on a single account, Wellington Management does periodically assess whether an investment professional has adequate time and resources to effectively manage the investment professional's various client mandates.

COMPENSATION

Wellington Management receives a fee based on the assets under management of the funds as set forth in an Investment Subadvisory Agreement between Wellington Management and the Advisor with respect to each fund. Wellington Management pays its investment professionals out of its total revenues, including the advisory fees earned with respect to each fund. The following information relates to the fiscal year ended December 31, 2019.

Wellington Management's compensation structure is designed to attract and retain high-caliber investment professionals necessary to deliver high quality investment management services to its clients. Wellington Management's compensation of each fund's managers listed in the prospectus who are primarily responsible for the day-to-day management of the funds ("Investment Professionals") includes a base salary and incentive components. The base salary for each Investment Professional who is a partner (a "Partner") of Wellington Management Group LLP, the ultimate holding company of Wellington Management, is generally a fixed amount that is determined by the managing partners of Wellington Management Group LLP. The base salary for the other Investment Professional is determined by the Investment Professional's experience and performance in his role as an Investment Professional. Base salaries for Wellington Management's employees are reviewed annually and may be adjusted based on the recommendation of an Investment Professional's manager, using guidelines established by Wellington Management's Compensation Committee, which has final oversight responsibility for base salaries of employees of the firm. Each Investment Professional is eligible to receive an incentive payment based on the revenues earned by Wellington Management from the fund managed by the Investment Professional and generally each other account managed by such Investment Professional. Each Investment Professional's incentive payment relating to the relevant fund, is linked to the gross pre-tax performance of the portion of the fund managed by the Investment Professional compared to the benchmark index and/or peer group identified below over one, three, and five year periods, with an emphasis on five year results. Wellington Management applies similar incentive compensation structures (although the benchmarks or peer groups, time periods and rates may differ) to other accounts managed by these Investment Professionals, including accounts with performance fees.

Portfolio-based incentives across all accounts managed by an investment professional can, and typically do, represent a significant portion of an investment professional's overall compensation; incentive compensation varies significantly by individual and can vary significantly from year to year. The Investment Professionals may also be eligible for bonus payments based on their overall contribution to Wellington Management's business operations. The revenues derived from clients served by the manager or team is another factor; therefore, client or asset losses may have a negative impact on remuneration. Senior management at Wellington Management may reward individuals as it deems appropriate based on other factors. Each Partner is eligible to participate in a Partner-funded tax qualified retirement plan, the contributions to which are made pursuant to an actuarial formula. Messrs. Abularach, Angeli, Garvey, Goodman, Marvan, McCormack, Mortimer, and Pedersen are Partners.

Fund	Incentive Benchmark(s) / Peer Groups
Investment Quality Bond Trust	Bloomberg Barclays U.S. Aggregate Bond Index
Mid Cap Stock Trust	Russell Midcap Growth Index (50%) and Gross Lipper Mid Cap Growth Average (50%)
Opportunistic Fixed Income Trust	Bloomberg Barclays Global Aggregate Bond Index (USD Hedged)
Small Cap Stock Trust	Russell 2000 Growth Index
Small Cap Value Trust	Russell 2000 Value Index (McCormack) and Russell 2500 Value Index (Pedersen)

WELLS CAPITAL MANAGEMENT, INCORPORATED
(“WellsCap”)

CORE BOND TRUST

PORTFOLIO MANAGERS AND OTHER ACCOUNTS MANAGED

The following table shows the portfolio managers at WellsCap who are jointly and primarily responsible for the day-to-day management of the stated Funds’ portfolios.

Fund	Portfolio Managers
Core Bond Trust	Maulik Bhansali, CFA, Thomas O’Connor*, and Jarad Vasquez

**Effective December 31, 2020, Thomas O’Connor will no longer serve as a portfolio manager of the fund.*

The following table reflects information regarding other accounts for which each portfolio manager listed above 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 Fund or Funds that he or she manages and any similarly managed accounts.

The following table reflects information as of December 31, 2019:

Portfolio Manager	Other Registered Investment Companies		Other Pooled Investment Vehicles		Other Accounts	
	Number of Accounts	Assets (in billions) (\$)	Number of Accounts	Assets (in billions) (\$)	Number of Accounts	Assets (in billions) (\$)
Maulik Bhansali	7	17.32	5	3.12	36	13.51
Thomas O’Connor*	7	17.32	5	3.12	36	13.51
Jarad Vasquez	7	17.32	5	3.12	36	13.51

¹Other Accounts excludes the assets and number of accounts in wrap fee programs that are managed using model portfolios.

**Effective December 31, 2020, Thomas O’Connor will no longer serve as a portfolio manager of the fund.*

Portfolio Manager	Other Registered Investment Companies		Other Pooled Investment Vehicles		Other Accounts	
	Number of Accounts	Assets (in billions) (\$)	Number of Accounts	Assets (in billions) (\$)	Number of Accounts	Assets (in billions) (\$)
Maulik Bhansali	0	0	1 ¹	0.05	2	0.84
Thomas O’Connor*	0	0	1 ¹	0.05	2	0.84
Jarad Vasquez	0	0	1 ¹	0.05	2	0.84

¹One account within a pooled fund is fee performance based.

**Effective December 31, 2020, Thomas O’Connor will no longer serve as a portfolio manager of the fund.*

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 December 31, 2019. 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.

Portfolio Manager	Dollar Range of Shares Owned
Maulik Bhansali	\$10,000 - \$50,000
Jarad Vasquez	\$50,000 - \$100,000

Ownership of fund shares. As of December 31, 2019, none of the portfolio managers listed above beneficially owned shares of the fund.

POTENTIAL CONFLICTS OF INTEREST

WellsCap's Portfolio Managers often provide investment management for separate accounts advised in the same or similar investment style as that provided to mutual funds. While management of multiple accounts could potentially lead to conflicts of interest over various issues such as trade allocation, fee disparities and research acquisition, WellsCap has implemented policies and procedures for the express purpose of ensuring that clients are treated fairly and that potential conflicts of interest are minimized.

The Portfolio Managers face inherent conflicts of interest in their day-to-day management of the Funds and other accounts because the Funds may have different investment objectives, strategies and risk profiles than the other accounts managed by the Portfolio Managers. For instance, to the extent that the Portfolio Managers manage accounts with different investment strategies than the Funds, they may from time to time be inclined to purchase securities, including initial public offerings, for one account but not for a Fund. Additionally, some of the accounts managed by the Portfolio Managers may have different fee structures, including performance fees, which are or have the potential to be higher or lower, in some cases significantly higher or lower, than the fees paid by the Funds. The differences in fee structures may provide an incentive to the Portfolio Managers to allocate more favorable trades to the higher-paying accounts.

To minimize the effects of these inherent conflicts of interest, WellsCap has adopted and implemented policies and procedures, including brokerage and trade allocation policies and procedures, that they believe address the potential conflicts associated with managing portfolios for multiple clients and are designed to ensure that all clients are treated fairly and equitably. Accordingly, security block purchases are allocated to all accounts with similar objectives in a fair and equitable manner. Furthermore, WellsCap has adopted a Code of Ethics under Rule 17j-1 under the 1940 Act and Rule 204A-1 under the Investment Advisers Act of 1940 (the "Advisers Act") to address potential conflicts associated with managing the Funds and any personal accounts the Portfolio Managers may maintain.

COMPENSATION

Wells Capital Management. The compensation structure for Wells Capital Management's Portfolio Managers includes a competitive fixed base salary plus variable incentives, payable annually and over a longer term period. Wells Capital Management participates in third party investment management compensation surveys for market-based compensation information to help support individual pay decisions. In addition to surveys, Wells Capital Management also considers prior professional experience, tenure, seniority and a Portfolio Manager's team size, scope and assets under management when determining his/her fixed base salary. In addition, Portfolio Managers, who meet the eligibility requirements, may participate in Wells Fargo's 401(k) plan that features a limited matching contribution. Eligibility for and participation in this plan is on the same basis for all employees.

Wells Capital Management's investment incentive program plays an important role in aligning the interests of our portfolio managers, investment team members, clients and shareholders. Incentive awards for portfolio managers are determined based on a review of relative investment and business/team performance. Investment performance is generally evaluated for 1, 3, and 5 year performance results, with a predominant weighting on the 3- and 5- year time periods, versus the relevant benchmarks and/or peer groups consistent with the investment style. In the case of each Fund, the benchmark(s) against which the performance of the Fund's portfolio may be compared for these purposes generally are indicated in the "Average Annual Total Returns" table in the Prospectus. Once determined, incentives are awarded to portfolio managers annually, with a portion awarded as annual cash and a portion awarded as long term incentive. The long term portion of incentives generally carry a pro-rated vesting schedule over a three year period. For many of our portfolio managers, Wells Capital Management further requires a portion of their annual long-term award be allocated directly into each strategy they manage through a deferred compensation vehicle. In addition, our investment team members who are eligible for long term awards also have the opportunity to invest up to 100% of their awards into investment strategies they support (through a deferred compensation vehicle).

WESTERN ASSET MANAGEMENT COMPANY

("Western Asset")

WESTERN ASSET MANAGEMENT COMPANY LIMITED IS SUB-SUBADVISOR***HIGH YIELD TRUST****PORTFOLIO MANAGERS AND OTHER ACCOUNTS MANAGED**

The following table shows the portfolio managers at Western Asset who are jointly and primarily responsible for the day-to-day management of the stated Funds' portfolios.

Fund	Portfolio Managers
High Yield Trust	Michael C. Buchanan, Walter E. Kilcullen, and S. Kenneth Leech

The following table reflects information regarding other accounts for which each portfolio manager listed above 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 Fund or Funds that he or she manages and any similarly managed accounts.

The following table reflects information as of December 31, 2019:

Portfolio Manager	Other Registered Investment Companies		Other Pooled Investment Vehicles		Other Accounts	
	Number of Accounts	Assets (\$)	Number of Accounts	Assets (\$)	Number of Accounts	Assets (\$)
Michael C. Buchanan	31	14,667,007,524	65	21,479,099,857	154	71,406,595,473
Walter E. Kilcullen	3	811,060,525	12	4,056,631,617	14	2,641,768,140
S. Kenneth Leech	94	150,075,834,927	227	80,977,539,511	627	228,762,504,132

Other Accounts Managed – Of Total listed above, those for which advisory fee is based on performance

Portfolio Manager	Other Registered Investment Companies		Other Pooled Investment Vehicles		Other Accounts	
	Number of Accounts	Assets (\$)	Number of Accounts	Assets (\$)	Number of Accounts	Assets (\$)
Michael C. Buchanan	0	0	5	821,525,386	7	4,556,359,045
Walter E. Kilcullen	0	0	0	0	0	0
S. Kenneth Leech	0	0	11	2,200,281,287	21	12,078,889,931

Note: The numbers above reflect the overall number of portfolios managed by Western Asset. Mr. Leech is involved in the management of all the firm's portfolios, but is not solely responsible for particular portfolios. Western Asset's investment discipline emphasizes a team approach that combines the efforts of groups of specialists working in different market sectors. The individuals that have been identified are responsible for overseeing implementation of the firm's overall investment ideas and coordinating the work of the various sector teams. This structure ensures that client portfolios benefit from a consensus that draws on the expertise of all team members.

Ownership of fund shares. None of the funds' portfolio managers beneficially owned any shares of the funds or beneficially owned shares of similarly managed accounts as of December 31, 2019.

POTENTIAL CONFLICTS OF INTEREST

Western Asset has identified several potential conflicts of interest that could directly impact client portfolios. For example, potential conflicts of interest may arise in connection with the management of multiple portfolios (including portfolios managed in a personal capacity). These could include potential conflicts of interest related to the knowledge and timing of a portfolio's trades, investment opportunities and broker selection. Portfolio managers are privy to the size, timing, and possible market impact of a portfolio's trades.

It is possible that an investment opportunity may be suitable for both a portfolio and other accounts managed by a portfolio manager, but may not be available in sufficient quantities for both the portfolio and the other accounts to participate fully. Similarly, there may be limited opportunity to sell an investment held by a portfolio and another account. A conflict may arise where the portfolio manager may have an incentive to treat an account preferentially as compared to a portfolio because the account pays a performance-based fee or the portfolio manager, Western Asset or an affiliate has an interest in the account. Western Asset has adopted procedures for allocation of portfolio transactions and investment opportunities across multiple client accounts on a fair and equitable basis over time. All eligible accounts that can participate in a trade share the same price on a pro-rata allocation basis to ensure that no conflict of interest

occurs. Trades are allocated among similarly managed accounts to maintain consistency of portfolio strategy, taking into account cash availability, investment restrictions and guidelines, and portfolio composition versus strategy.

With regard to side-by-side management of funds in which compensation for management of some of the funds may be tied to performance, Western Asset maintains specific trade allocation procedures to avoid any conflict of interest. Western Asset's trade allocation policies do not distinguish between accounts with standard and performance-based fees. The Legal & Compliance Department reviews the activities in accounts with performance fees and the Firm's trade allocations to ensure Western Asset's investment decisions are consistent with its fiduciary duties and conducted in a fair and equitable manner relative to its other accounts with similar investment objectives and mandates.

With respect to securities transactions for mutual funds, Western Asset determines which broker or dealer to use to execute each order, consistent with their duty to seek best execution of the transaction. However, with respect to certain other accounts (such as pooled investment vehicles that are not registered investment companies and other accounts managed for organizations and individuals), Western Asset may be limited by the client with respect to the selection of brokers or dealers or may be instructed to direct trades through a particular broker or dealer. In these cases, trades for a portfolio in a particular security may be placed separately from, rather than aggregated with, such other accounts. Having separate transactions with respect to a security may temporarily affect the market price of the security or the execution of the transaction, or both, to the possible detriment of a portfolio or the other account(s) involved. Additionally, the management of multiple portfolios and/or other accounts may result in a portfolio manager devoting unequal time and attention to the management of each portfolio and/or other account. Western Asset's team approach to portfolio management and block trading works to limit this potential risk.

Western Asset also maintains a gift and entertainment policy to address the potential for a business contact to give gifts or host entertainment events that may influence the business judgment of an employee. Employees are permitted to retain gifts of only a nominal value and are required to make reimbursement for entertainment events above a certain value. All gifts (except those of a de minimis value) and entertainment events that are given or sponsored by a business contact are required to be reported in a gift and entertainment log which is reviewed on a regular basis for possible issues.

Employees of Western Asset have access to transactions and holdings information regarding client accounts and Western Asset's overall trading activities. This information represents a potential conflict of interest because employees may take advantage of this information as they trade in their personal accounts. Accordingly, Western Asset maintains a Code of Ethics that is compliant with Rule 17j-1 and Rule 204A-1 to address personal trading. In addition, the Code of Ethics seeks to establish broader principles of good conduct and fiduciary responsibility in all aspects of Western Asset's business. The Code of Ethics is administered by the Legal and Compliance Department and monitored through Western Asset's compliance monitoring program.

Western Asset may also face other potential conflicts of interest with respect to managing client assets, and the description above is not a complete description of every conflict of interest that could be deemed to exist. Western Asset also maintains a compliance monitoring program and engages independent auditors to conduct a SOC 1 - ISAE 3402 audit on an annual basis. These steps help to ensure that potential conflicts of interest have been addressed.

COMPENSATION

At Western Asset, one compensation methodology covers all products and functional areas, including portfolio managers. Western Asset's philosophy is to reward its employees through Total Compensation. Total Compensation is reflective of the external market value for skills, experience, ability to produce results, and the performance of one's group and Western Asset as a whole. Standard compensation includes competitive base salaries, employee benefits, incentive bonus and a retirement plan which includes an employer match.

Base Salary. A base salary and total compensation range for each position within Western Asset is derived from annual market surveys and other relevant compensation-related data that benchmark each role to their job function and peer universe. Compensation benchmarks for all employees are reviewed on an annual basis. The base salary should reflect the fair market value of the employee's core job responsibilities and is generally without regard to job performance.

Incentive Compensation. Incentive bonuses make up the variable component of Total Compensation and is the primary focus of management decisions when determining Total Compensation, as base salaries are purely targeting to pay a competitive rate for the role. Incentive compensation awards (cash and deferred bonus) are 100% discretionary. These are structured to reward sector specialists for contributions to Western Asset as well as relative performance of their specific portfolios/product and are determined by the professional's job function and performance as measured by a formal review process. The overall success of the Firm will determine the amount of funds available to distribute for all incentive bonuses.

For portfolio managers, the formal review process includes a thorough review of portfolios they were assigned to lead or with which they were otherwise involved, and includes not only investment performance, but maintaining a detailed knowledge of client portfolio objectives and guidelines, monitoring of risks and performance for adherence to these parameters, execution of asset allocation consistent with current Western Asset and portfolio strategy, and communication with clients. In reviewing investment performance, one, three, and five year annualized returns are measured against appropriate market peer groups and to each fund's benchmark index.

Western Asset offers long-term incentives (in the form of deferred cash which can be allocated within a menu of funds) as part of the discretionary bonus for eligible employees.

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 ASSET MANAGEMENT PROXY VOTING POLICIES

Background

Manulife Asset Management (“MAM” or the “Firm”)* represents investment advisors registered in certain countries as appropriate to support the broader Manulife Asset Management discretionary advisory business.

Applicable rules may require an investment advisor to (i) adopt proxy policies reasonably designed to seek to ensure the advisor votes proxies in the best interests of its clients, including addressing material conflicts of interest; (ii) disclose to clients information about its proxy policies; and (iii) maintain certain records relating to proxy voting. These requirements are designed to minimize conflicts of interest and to seek to ensure greater transparency in the voting of proxies.

MAM has adopted a proxy voting policy and procedures to seek to ensure proxies are voted in the best interests of its clients and its proxy voting activities adhere to the requirements of all applicable rules and general fiduciary principles. Where MAM is granted and accepts responsibility for voting proxies for client accounts, it will take reasonable steps to seek to ensure proxies are received and voted in the best interest of the client with a view to enhance the value of the shares of equity securities held in client accounts.

MAM has contracted with Institutional Shareholder Services Inc. (“ISS”) an independent third party service provider, to vote clients’ proxies. The Firm has adopted ISS proxy voting recommendations and established corresponding Firm Proxy Voting guidelines. Proxies will be voted in accordance with the voting recommendations contained in the applicable domestic or global ISS Proxy Voting Manual, as in effect from time to time. Except in instances where a MAM’s client retains voting authority, MAM will instruct custodians of client accounts to forward all proxy statements and materials received in respect of client accounts to ISS.

MAM has engaged ISS as its proxy voting agent to:

1. research and make voting recommendations or, for matters for which Manulife Asset Management has so delegated, to make the voting determinations;
2. ensure proxies are voted and submitted in a timely manner;
3. handle other administrative functions of proxy voting;
4. maintain records of proxy statements received in connection with proxy votes and provide copies of such proxy statements promptly upon request;
5. maintain records of votes cast; and
6. provide recommendations with respect to proxy voting matters in general.

*Refer to Appendix of Affiliated MAM entities that have adopted this policy

Policy Administration, Oversight and Governance

MAM’s Proxy Operations group is responsible for administering and implementing the Proxy Voting Policy, including the proper oversight of ISS and any other service providers hired by the Firm to assist it in the proxy voting process.

Proxy Operations are responsible for administering the proxy voting process, including:

1. Implementing and updating the applicable domestic and global ISS proxy voting guidelines;
2. Coordinating and overseeing the proxy voting process performed by ISS; and
3. Providing periodic reports to the Brokerage Practices Committee (BPC), Operating Committee, the Chief Compliance Officer, Advisory Clients or any other persons/committee as deemed appropriate.

Proper oversight of the vendor will include periodic due diligence of the vendor including its’ industry reputation, risk, compliance and technology infrastructure and the vendor’s ability to meet the Firm’s requirements relative to reporting and other service requirements including; assessing the adequacy and quality of the proxy advisory firm’s staffing and personnel; and assessing whether the proxy advisory firm has robust policies and procedures that enable it to make proxy voting recommendations based on current and accurate information and to identify and address conflicts of interest relating to its voting recommendations.

All proxies received on behalf of Clients are forwarded to ISS. Any MAM employee that receives a client’s proxy statement should therefore notify Proxy Voting Team and arrange for immediate delivery to ISS.

In addition to voting proxies, MAM:

1. describes its proxy voting procedures to its clients in the relevant or required disclosure document;

2. provides clients with a copy of the Proxy Voting Policy, upon request;
3. discloses to its clients how they may obtain information on how MAM voted the client's proxies;
4. generally applies its Proxy Voting Policy consistently;
5. documents the reason(s) for voting for all non-routine items; and
6. keeps records of such proxy voting through ISS available for inspection by the Client or governmental agencies.

Oversight and Governance

Oversight of the proxy voting process is the responsibility of the Firm's Brokerage Practices Committee ("BPC") which reports up to the Firm's Operating Committee). However the Operating Committee is responsible for reviewing and approving amendments to the Proxy Voting Policy. The BPC or its' designee should be provided a periodic evaluation of vendor due diligence and service activity including a summary of vendor proxy voting activity on behalf the Firm's clients. Reporting should include trends relative to non-routine items, conflict of interest situations, voting outside of Proxy guidelines and the rationale and other material matters.

On a quarterly basis, Proxy Operations should provide the BPC with summary of instances where MAM has (i) voted proxies in a manner inconsistent with the recommendation of ISS, and (ii) voted proxies in circumstances in which a material conflict of interest may exist as set forth in the Conflicts section.

Material proxy voting issues identified by the Proxy Operations group are to be escalated to the Firm's Chief Compliance Officer. As appropriate, the BPC (or their designee) will be informed of material matters and related actions taken by the responsible parties.

The Chief Compliance Officer makes an annual risk-based assessment of the Firm's compliance program, which may include proxy voting activities, and may conduct a review of the Procedures to determine such Procedures are reasonably designed to achieve their purpose. The Chief Compliance Officer makes periodic reports to MAM SIPC that includes a summary of issues identified in the review of activities as part of the compliance program.

General Principles

Scope

This Policy permits Clients to:

1. delegate to MAM the responsibility and authority to vote proxies on their behalf according to MAM's Proxy Voting Policy and guidelines; or
2. delegate to MAM the responsibility and authority to vote proxies on their behalf according to the particular Client's own proxy voting policies and guidelines, subject to acceptance by the Firm, as mutually agreed upon between the Firm and the Client.

MAM seeks to vote proxies in the best economic interests of all of its Clients for whom the Firm has proxy voting authority and responsibilities. In the ordinary course, this entails voting proxies in a manner which the Firm believes will maximize the economic value of client security holdings.

The Firm believes its Proxy Voting Policy is reasonably designed to ensure proxy matters are conducted in the best interest of Clients, and in accordance with MAM's fiduciary duties and applicable rules.

General Standards on Voting

The following are examples of general standards the Firm has established relative to its proxy voting obligations:

MAM 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). MAM prohibits investment managers from creating large hedge positions solely to gain the vote while avoiding economic exposure to the market. MAM will not knowingly vote borrowed shares (for example, shares borrowed for short sales and hedging transactions) that the lender of the shares is also voting.

- MAM reviews various criteria to determine whether the costs associated with voting the proxy exceed the expected benefit to Clients and may conduct a cost-benefit analysis in determining whether it is in the best economic interest to vote client proxies. Given the outcome of the cost-benefit analysis, the Firm may refrain from voting a proxy on behalf of the Clients' accounts.
- Except as otherwise required by law, MAM has a general policy of not disclosing to any issuer or third-party how MAM or its voting delegate voted a Client's proxy.
- MAM endeavors to show sensitivity to local market practices when voting proxies of non-domestic issuers.
- MAM votes in all markets where it is feasible to do so.

- MAM may refrain from voting a proxy due to logistical considerations that may have a detrimental effect on the Firm's ability to vote such a proxy. These issues may include, but are not limited to:
 1. proxy statements and ballots being written in a foreign language;
 2. underlying securities have been lent out pursuant to a Client's securities lending program;
 3. untimely notice of a shareholder meeting;
 4. requirements to vote proxies in person;
 5. restrictions on foreigner's ability to exercise votes;
 6. restrictions on the sale of securities for a period of time in proximity to the shareholder meeting ("share blocking and re-registration");
 7. requirements to provide local agents with power of attorney to facilitate the voting instructions (such proxies are voted on a best-efforts basis); or
 8. inability of a Client's custodian to forward and process proxies electronically.
- From time to time, proxy votes will be solicited which involve special circumstances and require additional research and discussion or (ii) are not directly addressed by ISS. These proxies are identified through a number of methods, including, but not limited to, notification from ISS, concerns of clients, concerns raised by the Firm's investment professionals and questions from consultants.
- In such instances of special circumstances or issues not directly addressed by ISS, a sub-committee of the BPC ("Proxy Committee") will be consulted for a determination of the proxy vote. The Proxy Committee comprises of no fewer than three members of the BPC. Although the Firm anticipates such instances will be rare, The Proxy Committee's first determination is whether there is a material conflict of interest between the interests of a Client and those of MAM. If the Proxy Committee determines there is a material conflict, the process detailed under "Conflicts of Interest" below is followed. If there is no material conflict, the Proxy Committee examines each of the issuer's proposals in detail in seeking to determine what vote would be in the best interests of Clients. At this point, the Proxy Committee will make a voting decision based on maximizing the economic value of all portfolios' holdings for the issuer in question.
- There may be circumstances under which a portfolio manager or other MAM investment professional ("Manulife Asset Management Investment Professional") believes it is in the best interest of a Client or Clients to vote proxies in a manner inconsistent with the recommendation of ISS. In such an event, as feasible, the Manulife Asset Management Investment Professional shall inform the Proxy Operations group of his or her decision to vote such proxy in a manner inconsistent with the recommendation of ISS and the rationale for such decision. Proxy Operations will report to the BPC no less than quarterly any instance where a Manulife Asset Management Investment Professional has decided to vote a proxy on behalf of a Client in such a manner.

Conflicts of Interest

From time to time, proxy voting proposals may raise conflicts between the interests of the Firm's clients and the interests of the Firm and its affiliates or employees. For example, MAM or its affiliates may provide services to a company whose management is soliciting proxies, or to another entity which is a proponent of a particular proxy proposal. Another example could arise when MAM or its affiliates has business or other relationships with participants involved in proxy contests, such as a candidate for a corporate directorship. More specifically, if MAM is aware that one of the following conditions exists with respect to a proxy, MAM shall consider such event a potential material conflict of interest:

- MAM has a business relationship or potential relationship with the issuer;
- MAM has a business relationship with the proponent of the proxy proposal; or
- MAM members, employees or consultants have a personal or other business relationship with the participants in the proxy contest, such as corporate directors or director candidates.

MAM's goal in addressing any such potential conflict is to ensure proxy votes are cast in the advisory clients' best interests and are not affected by MAM's potential conflict. In those instances, there are a number of courses MAM may take. The final decision as to which course to follow shall be made by the BPC or its designee.

In the event of a potential material conflict of interest, the BPC or its designee will either (i) vote such proxy according to the specific recommendation of ISS; (ii) abstain; or (iii) request the Client vote such proxy. All such instances shall be reported to the BPC and the Chief Compliance Officer at least quarterly.

In other cases, where the matter presents a potential material conflict and is not clearly within one of the ISS' enumerated recommendations, or is of such a nature the BPC believes more active involvement is necessary, the BPC shall make a decision as to the voting of the proxy. The basis for the voting decision, including the basis for the

determination the decision is in the best interests of the Client, shall be formalized in writing as a part of the minutes of the BPC.

Recordkeeping

In accordance with applicable law, MAM shall retain the following documents for not less than five years from the end of the year in which the proxies were voted, the first two years in MAM's office:

- the MAM Proxy Voting Policy and any additional procedures created pursuant to that policy;
- a copy of each proxy statement MAM receives regarding securities held by Clients (this requirement will be satisfied by ISS who has agreed in writing to do so or by obtaining a copy of the proxy statement from the EDGAR database);
- a record of each vote cast by MAM (this requirement will be satisfied by RiskMetrics who has agreed in writing to do so) on behalf of Clients;
- a copy of any document created by MAM that was material in making its voting decision or that memorializes the basis for such decision; and
- a copy of each written request from a client, and response to the client, for information on how MAM clients' proxies were voted.

Appendix of Affiliated MAM Entities

Manulife Asset Management (US) LLC

Manulife Asset Management (North America) Limited

Manulife Asset Management Limited+

Manulife Asset Management (Europe) Limited

Manulife Asset Management Trust Company LLC

+Investment management business only.

Policy Edition: December 2017; prior versions September 2015, January 2015 and August 2014

**ALLIANZ GLOBAL INVESTORS U.S. LLC
PROXY VOTING GUIDELINES AND PROCEDURES
JANUARY 2018**

Policy Statement

Allianz Global Investors (“AllianzGI”) typically votes proxies on behalf of client accounts pursuant to its discretionary investment management authority, unless a client has not granted voting authority to AllianzGI. AllianzGI seeks to exercise its proxy voting responsibilities in accordance with its fiduciary duties, and has designed these policies and procedures to meet applicable fiduciary standards. Thus, AllianzGI seeks to vote client account proxies in a manner consistent with the best interests of its clients. These policies and procedures do not apply to any client account proxies for which such client has either (a) explicitly retained authority and discretion to vote its own proxies or (b) delegated such authority and discretion to a third party. AllianzGI assumes no responsibility for the voting of any proxies on behalf of such clients.

AllianzGI has adopted the Allianz Global Investors Global Corporate Governance Guidelines and Proxy Voting Policy (the “Proxy Guidelines”), attached hereto as Schedule A, which are reasonably designed to ensure that proxy voting is conducted in the best interest of our clients. The Proxy Guidelines provide a general framework for our proxy voting analysis and are intended to address the most significant and frequent voting issues that arise at our investee companies’ shareholder meetings. However, the Proxy Guidelines are not intended to be rigid rules, and AllianzGI’s consideration of the merits of a particular proposal may cause AllianzGI to vote in a manner that deviates from the approach set forth in the Proxy Guidelines.

Proxy Voting Procedures

AllianzGI has retained one or more unaffiliated third party proxy research and voting service providers (“Proxy Voting Service”), to assist it in researching and voting proxies. With respect to each proxy received, the Proxy Voting Service researches the ballot proposals and provides a recommendation to AllianzGI as to how to vote on each proposal based on the Proxy Voting Service’s research of the individual facts and circumstances and the Proxy Voting Service’s application of its research findings to the Proxy Guidelines.

In some cases a portfolio manager, research analyst or proxy analyst from the Global ESG team may propose to override a policy recommendation made by the Proxy Voting Service. In such cases, AllianzGI will review the proxy to determine whether there is a material conflict between the interests of AllianzGI (including the employee proposing the vote) and the interests of AllianzGI’s clients. If a material conflict does exist, AllianzGI will seek to address the conflict in good faith and in the best interests of the applicable client accounts, as described more fully below. In the absence of a material conflict, the proxy will be reviewed by a proxy analyst and the relevant portfolio managers and/or research analysts and, from time to time as may be necessary, the Head of ESG Research (or equivalent), to determine how the proxy will be voted.

Mitigating Conflicts of Interest

AllianzGI has adopted and implemented policies and procedures, including the procedures described in this document, which are reasonably designed to ensure that client account proxies are voted in the best interest of clients. Such policies and procedures are in part designed to identify and address material conflicts of interest that may arise between the interests of AllianzGI and its clients, as well as identify material conflicts of interest that portfolio managers, proxy analysts and research analysts may have, to ensure any such conflicted individuals refrain from participating in the proxy voting process or that the conflicts are otherwise mitigated. With respect to personal conflicts of interest, AllianzGI’s Code of Ethics requires all employees to conduct themselves with integrity and distinction, to put first the interests of the firm’s clients, and to take care to avoid even the appearance of impropriety. Portfolio managers, research analysts, proxy analysts, or Proxy Committee members with a personal conflict of interest regarding a particular proxy vote must recuse themselves and not participate in the voting decisions with respect to that proxy.

With respect to the voting process, as described above, most votes are based on the independent recommendation of the unaffiliated, third party Proxy Voting Service, which recommendations are in turn based on the Proxy Voting Service’s independent review and research of each proxy and its independent application of the Proxy Guidelines.

In those cases in which a proxy analyst, portfolio manager or research analyst proposes to override a policy recommendation made by the Proxy Voting Service or the Proxy Voting Service has not provided a recommendation, the proxy analyst and relevant portfolio managers and/or research analysts will review the proxy to ensure any recommendation appears based on a sound investment rationale and assess whether any business or other relationship, or any other potential conflict of interest, may be influencing the proposed vote on that company’s proxy. In the event a

material conflict is identified, AllianzGI will convene the Proxy Committee to review the proxy and make a decision how to vote. Proposed votes that raise potential material conflicts of interest are promptly resolved by the Proxy Committee prior to the time AllianzGI casts its vote.

As a further safeguard, while AllianzGI includes members from different parts of the organization on the Proxy Committee, AllianzGI does not include individuals whose primary duties relate to client relationship management, marketing, or sales. Finally, any voting decision by the Proxy Committee must include a vote from a member of at least one of the Risk, Legal, or Compliance functions.

AllianzGI may vote proxies in accordance with other relevant procedures that have been approved and implemented to address specific types of conflicts. For example, when a material conflict between the interests of AllianzGI and its clients has been identified, AllianzGI may abstain from voting.

Cost-Benefit Analysis Involving Voting Proxies

AllianzGI may abstain from voting client proxies if, based on its evaluation of relevant criteria, it determines that the costs associated with voting a proxy exceed the expected benefits to affected clients. The primary aim of this cost-benefit analysis is to determine whether it is in a client's best economic interest to vote its proxies. If the costs associated with voting a proxy outweigh the expected benefit to the client, AllianzGI may refrain from voting that proxy.

The circumstances under which AllianzGI may refrain from voting may include, but are not limited to, the following: (1) proxy statements and ballots being written in a foreign language, (2) untimely notice of a shareholder meeting, (3) requirements to vote proxies in person, (4) restrictions on a foreigner's ability to exercise votes, and (5) requirements to provide local agents with power of attorney to execute the voting instructions. Such proxies are voted on a best-efforts basis.

Proxy voting in certain countries requires "share blocking." To vote proxies in such countries, shareholders must deposit their shares shortly before the date of the meeting with a designated depository and the shares are then restricted from being sold until the meeting has taken place and the shares are returned to the shareholders' custodian banks. Absent compelling reasons, AllianzGI believes the benefit to its clients of exercising voting rights does not outweigh the effects of not being able to sell the shares. Therefore, if share blocking is required AllianzGI generally abstains from voting.

AllianzGI will be unable to vote securities on loan under securities lending arrangements into which AllianzGI's clients have entered. However, under rare circumstances such as voting issues that may have a significant impact on the investment, if the client holds a sufficient number of shares to have a material impact on the vote, AllianzGI may request that the client recall securities that are on loan if it determines that the benefit of voting outweighs the costs and potential lost revenue to the client and the administrative burden of retrieving the securities.

**BOSTON PARTERS
WPG PARTNERS
PROXY VOTING POLICY
APRIL 2019**

PROXY VOTING POLICY AND PROCEDURES SUMMARY

The Boston Partners Governance Committee (the "Committee") is responsible for administering and overseeing Boston Partners' proxy voting process. The Committee makes decisions on proxy policy, establishes formal Proxy Voting Policies (the "Policies") and updates the Policies as necessary, but no less frequently than annually. In addition, the Committee, in its sole discretion, may delegate certain functions to internal departments and/or engage third-party vendors to assist in the proxy voting process. Finally, selected members of the Committee will be responsible for evaluating and resolving conflicts of interest relating to Boston Partners' proxy voting process.

To assist Boston Partners in carrying out our responsibilities with respect to proxy activities, the firm has engaged Institutional Shareholder Services Inc. ("ISS"), a third-party corporate governance research service, which is registered as an investment adviser. ISS receives all proxy-related materials for securities held in client accounts and votes the proposals in accordance with Boston Partners' Policies. While Boston Partners may consider ISS's recommendations on proxy issues, Boston Partners bears ultimate responsibility for proxy voting decisions. ISS also provides recordkeeping and vote-reporting services.

How Boston Partners Votes

Boston Partners' Policies were developed in conjunction with ISS and predominantly follow a combination of their standard and PVS (Taft-Hartley) guidelines. In determining how proxies should be voted, BP primarily focuses on maximizing the economic value of its clients' investments. In the case of social and political responsibility issues that, in its view, do not primarily involve financial considerations, it is Boston Partners' objective to support shareholder proposals that it believes promote good corporate citizenship.

Boston Partners has identified for ISS certain routine issues that enable them to vote in a consistent manner with regard to those proposals. In addition, Boston Partners has outlined certain procedures for addressing non-routine issues. ISS performs in-depth research and analysis and, where required by the Policies, performs a case-by-case evaluation prior to casting a ballot on Boston Partners' behalf. Although BP has instructed ISS to vote in accordance with the Policies, Boston Partners retains the right to deviate from those Policies if, in its estimation, doing so would be in the best interest of clients. BP may refrain from voting proxies where it is unable or unwilling to do so because of legal or operational difficulties or because it believes the administrative burden and/or associated cost exceeds the expected benefit to a client.

Conflicts

ISS is a third-party service provider engaged to make recommendations and to vote proxies in accordance with Boston Partners predetermined Policies. Because Boston Partners votes proxies based on predetermined Policies, Boston Partners believes clients are sufficiently insulated from any actual or perceived conflicts Boston Partners may encounter between its interests and those of its clients. However, Boston Partners may deviate from the Policies in certain circumstances or its Policies may not address certain proxy voting proposals. If a member of Boston Partners' research or portfolio management team recommends that it vote a particular proxy proposal in a manner inconsistent with the Policies or if its Policies do not address a particular proposal, BP will adhere to certain procedures designed to ensure that the decision to vote the particular proxy proposal is based on the best interest of Boston Partners' clients. In summary, these procedures require the individual requesting a deviation from the Policies to complete a Conflicts Questionnaire (the "Questionnaire") along with written document of the economic rationale supporting the request. The Questionnaire seeks to identify possible relationships with the parties involved in the proxy that may not be readily apparent. Based on the responses to the Questionnaire, the Committee (or a subset of the Committee) will determine whether it believes a material conflict of interest is present. If a material conflict of interest is found to exist, Boston Partners will vote in accordance with the instructions of the client, seek the recommendation of an independent third party or resolve the conflict in such other manner as Boston Partners believes is appropriate, including by making its own determination that a particular vote is, notwithstanding the conflict, in the best interest of clients.

Disclosures

A copy of Boston Partners' Proxy Voting Procedures, as updated from time to time, as well as information regarding the voting of securities for a client account is available upon request from your Boston Partners relationship manager. For general inquires, contact (617) 832-8153.

Effective Date: February 1, 2019
PROPRIETARY
PROXY VOTING POLICIES AND PROCEDURES
DIMENSIONAL FUND ADVISORS LP
DIMENSIONAL FUND ADVISORS LTD.
DFA AUSTRALIA LIMITED
DIMENSIONAL FUND ADVISORS PTE. LTD.
DIMENSIONAL JAPAN LTD.

Introduction

Dimensional Fund Advisors LP (“Dimensional”) is an investment adviser registered with the U.S. Securities and Exchange Commission (“SEC”) pursuant to the Investment Advisers Act of 1940 (the “Advisers Act”). Dimensional is the parent or indirect parent company of Dimensional Fund Advisors Ltd. (“DFAL”), DFA Australia Limited (“DFAA”), Dimensional Fund Advisors Pte. Ltd. (“DFAP”), Dimensional Japan Ltd. (“DFAJ”) and Dimensional Ireland Limited (“DIL”) (Dimensional, DFAL, DFAA, DFAP, DFAJ and DIL are collectively referred to as the “Advisors”). DFAL and DFAA are also registered as investment advisers under the Advisers Act.

The Advisors provide investment advisory or subadvisory services to various types of clients, including registered funds, unregistered commingled funds, defined benefit plans, defined contribution plans, private and public pension funds, foundations, endowment funds and other types of investors. These clients frequently give the Advisors the authority and discretion to vote proxies relating to the underlying securities beneficially held by such clients. Also, a client may, at times, ask an Advisor to share its proxy voting policies, procedures, and guidelines without the client delegating full voting discretion to the Advisor. Depending on the client, an Advisor’s duties may include making decisions regarding whether and how to vote proxies as part of an investment manager’s fiduciary duty under the Employee Retirement Income Security Act of 1974, as amended (“ERISA”).

The following Proxy Voting Policies and Procedures (the “Policy”) address the Advisors’ objectives for voting proxies received by the Advisors on behalf of client accounts or funds to the extent that relationships with such clients are subject to the Advisers Act or ERISA or the clients are registered investment companies under the Investment Company Act of 1940 (the “40 Act”), including The DFA Investment Trust Company, DFA Investment Dimensions Group Inc., Dimensional Investment Group Inc. and Dimensional Emerging Markets Value Fund (together, the “Dimensional Investment Companies”). The Advisors believe that this Policy is reasonably designed to meet their goal of seeking to vote (or refrain from voting) proxies in a manner consistent with applicable legal standards and in the best interests of clients, as understood by the Advisors at the time of the vote.

Exhibit A to this Policy includes a summary of the Advisors’ current Proxy Voting Guidelines and will change from time to time (the “Guidelines”). The Investment Committee of Dimensional has determined that, in general, voting proxies pursuant to the Guidelines should be in the best interests of clients. Therefore, an Advisor will usually instruct voting of proxies in accordance with the Guidelines. The Guidelines provide a framework for analysis and decision making, but do not address all potential issues. In order to be able to address all the relevant facts and circumstances related to a proxy vote, the Advisors reserve the right to instruct votes counter to the Guidelines if, after a review of the matter, an Advisor believes that a client’s best interests would be served by such a vote. In such circumstance, the analysis will be documented in writing and periodically presented to the Committee (as hereinafter defined). To the extent that the Guidelines do not cover potential voting issues, an Advisor may consider the spirit of the Guidelines and instruct the vote on such issues in a manner that the Advisor believes would be in the best interests of the client.

The Advisors may take social concerns into account when voting proxies for socially screened portfolios and accounts and may take environmental concerns into account when voting proxies for sustainability screened portfolios and accounts, as further described in the Guidelines. The Advisors may also take social or environmental concerns into account when voting proxies for other portfolios and accounts that do not have social or sustainability screens if the Advisors believe that a social or environmental issue may have material economic ramifications for shareholders, also as further described in the Guidelines.

The Advisors have retained certain third party proxy service providers (“Proxy Advisory Firms”) to provide information on shareholder meeting dates and proxy materials, translate proxy materials printed in a foreign language, provide research on proxy proposals, operationally process votes in accordance with the Guidelines on behalf of the clients for whom the Advisors have proxy voting responsibility, and provide reports concerning the proxies voted (“Proxy Voting Services”). Although the Advisors retain third-party service providers for proxy issues, the Advisors remain responsible for proxy voting decisions. The Advisors use commercially reasonable efforts to oversee any directed delegation to Proxy Advisory Firms, upon which the Advisors rely to carry out the Proxy Voting Services. In the event that the Guidelines are not implemented precisely as the Advisors intend because of the actions or omissions of any Proxy Advisory Firms, custodians

or sub-custodians or other agents, or any such persons experience any irregularities (e.g., misvotes or missed votes), then such instances will not necessarily be deemed by the Advisors as a breach of this Policy.

Prior to the selection of any new Proxy Advisory Firms and annually thereafter or more frequently if deemed necessary by Dimensional, the Corporate Governance Committee (as defined below) will consider whether the Proxy Advisory Firm: (i) has the capacity and competency to adequately analyze proxy issues and (ii) can make its recommendations in an impartial manner and in consideration of the best interests of the Advisors' clients. Such considerations may include some or all of the following: (i) periodic sampling of votes cast by the Proxy Advisory Firm to review that the Guidelines adopted by the Advisors are being followed, (ii) onsite visits to the Proxy Advisory Firm office and/or discussions with the Proxy Advisory Firm to determine whether the Proxy Advisory Firm continues to have the capacity and competency to carry out its proxy obligations to the Advisors, (iii) a review of the Proxy Advisory Firm's policies and procedures, with a particular focus on those relating to identifying and addressing conflicts of interest and monitoring that current and accurate information is used in creating recommendations, (iv) requesting the Proxy Advisory Firm to notify the Advisors if there is a change in the Proxy Advisory Firm's material policies and procedures, particularly with respect to conflicts, or material business practices (e.g., entering or exiting new lines of business), and reviewing any such change, and (v) in case of an error made by the Proxy Advisory Firm, discussing the error with the Proxy Advisory Firm and determining whether appropriate corrective and preventive action is being taken.

Procedures for Voting Proxies

The Investment Committee at Dimensional is generally responsible for overseeing each Advisor's proxy voting process. The Investment Committee has formed a Corporate Governance Committee (the "Corporate Governance Committee" or the "Committee") composed of certain officers, directors and other personnel of the Advisors and has delegated to its members authority to (i) oversee the voting of proxies and the Proxy Advisory Firms, (ii) make determinations as to how to instruct the vote on certain specific proxies, (iii) verify ongoing compliance with this Policy and (iv) review this Policy from time to time and recommend changes to the Investment Committee. The Committee may designate one or more of its members to oversee specific, ongoing compliance with respect to this Policy and may designate personnel of each Advisor to instruct the vote on proxies on behalf of an Advisor's clients, such as authorized traders of the Advisors (collectively, "Authorized Persons"). The Committee may recommend changes to this Policy to seek to act in a manner consistent with the best interests of the clients.

Generally, the Advisors analyze relevant proxy materials on behalf of their clients and seek to instruct the vote (or refrain from voting) proxies in accordance with this Policy and the Guidelines. Therefore, an Advisor typically will not instruct votes differently for different clients unless a client has expressly directed the Advisor to vote differently for such client's account. In the case of separate accounts, where an Advisor has contractually agreed to follow a client's individualized proxy voting guidelines, the Advisor will seek to instruct such vote on the client's proxies pursuant to the client's guidelines.

Each Advisor seeks to vote (or refrain from voting) proxies for its clients in a manner that the Advisor determines is in the best interests of its clients and which seeks to maximize the value of the client's investments. When voting (or electing to refrain from voting) proxies for clients subject to ERISA, each Advisor shall seek to consider those factors that may affect the value of the ERISA client's investment and not subordinate the interests of the client's participants and beneficiaries on their retirement income to unrelated objectives. In some cases, the Advisor may determine that it is in the best interests of clients to refrain from exercising the clients' proxy voting rights. The Advisor may determine that voting is not in the best interests of a client and refrain from voting if the costs, including the opportunity costs, of voting would, in the view of the Advisor, exceed the expected benefits of voting to the client. For securities on loan, the Advisor will balance the revenue-producing value of loans against the difficult-to-assess value of casting votes. It is the Advisors' belief that the expected value of casting a vote generally will be less than the securities lending income, either because the votes will not have significant economic consequences or because the outcome of the vote would not be affected by an Advisor recalling loaned securities for voting. Each Advisor does intend to recall securities on loan if, based upon information in the Advisor's possession, it determines that voting the securities is likely to materially affect the value of a client's investment and that it is in the client's best interests to do so.

In cases where an Advisor does not receive a solicitation or enough information within a sufficient time (as reasonably determined by the Advisor) prior to the proxy-voting deadline, the Advisor or its service provider may be unable to vote.

Generally, the Advisors do not intend to invest to seek to change or influence control of a company and do not intend to engage in shareholder activism with respect to a pending vote. If an issuer's management, shareholders or proxy solicitors contact an Advisor with respect to a pending vote, a member of the Committee (or its delegate) may listen to such party and discuss this Policy with such party.

International Proxy Voting

While the Advisors utilize the Policy and Guidelines for both their international and domestic portfolios and clients, there are some significant differences between voting U.S. company proxies and voting non-U.S. company proxies. For U.S. companies, it is usually relatively easy to vote proxies, as the proxies are typically received automatically and may be voted by mail or electronically. In most cases, the officers of a U.S. company soliciting a proxy act as proxies for the company's shareholders.

With respect to non-U.S. companies, however, it is typically both difficult and costly to vote proxies due to local regulations, customs or other requirements or restrictions, and such circumstances and expected costs may outweigh any anticipated economic benefit of voting. The major difficulties and costs may include: (i) appointing a proxy; (ii) obtaining reliable information about the time and location of a meeting; (iii) obtaining relevant information about voting procedures for foreign shareholders; (iv) restrictions on trading securities that are subject to proxy votes (share-blocking periods); (v) arranging for a proxy to vote locally in person; (vi) fees charged by custody banks for providing certain services with regard to voting proxies; and (vii) foregone income from securities lending programs. The Advisors do not intend to vote proxies of non-U.S. companies if they determine that the expected costs of voting outweigh any anticipated economic benefit to the client of voting¹. The Advisors intend to make their determination on whether to vote proxies of non-U.S. companies on a client by client basis, and generally seek to implement uniform voting procedures for all proxies of companies in each country. The Advisors periodically review voting logistics, including costs and other voting difficulties, on a client by client and country by country basis, in order to determine if there have been any material changes that would affect the Advisors' determinations and procedures². In the event an Advisor is made aware of and believes that an issue to be voted is likely to materially affect the economic value of a portfolio, that its client's vote is reasonably likely to influence the ultimate outcome of the contest, and that the expected benefits to the client of voting the proxies exceed the expected costs, the Advisor will seek to make reasonable efforts to vote such proxies.

Conflicts of Interest

Occasions may arise where an Authorized Person, the Committee, an Advisor, or an affiliated person of an Advisor may have a conflict of interest in connection with the proxy voting process. A conflict of interest may exist, for example, if an Advisor is actively soliciting investment advisory business from the company soliciting the proxy. However, proxies that the Advisors receive on behalf of their clients generally will be voted in accordance with the predetermined Guidelines. Therefore, proxies voted typically should not be affected by any conflicts of interest.

In the limited instances where (i) an Authorized Person is considering voting a proxy contrary to the Guidelines (or in cases for which the Guidelines do not prescribe a particular vote and the proposed vote is contrary to the recommendation of Institutional Shareholder Services, Inc., a Proxy Advisory Firm ("ISS")), and (ii) the Authorized Person believes a potential conflict of interest exists, the Authorized Person will disclose the potential conflict to a member of the Committee. Such disclosure will describe the proposal to be voted upon and disclose any potential conflict of interest including but not limited to any potential personal conflict of interest (e.g., familial relationship with company management) the Authorized Person may have relating to the proxy vote, in which case the Authorized Person will remove himself or herself from the proxy voting process.

If the Committee member has actual knowledge of a conflict of interest and recommends a vote contrary to the Guidelines (or in the case where the Guidelines do not prescribe a particular vote and the proposed vote is contrary to the recommendation of ISS), the Committee member will bring the vote to the Committee, which will (a) determine how the vote should be cast, keeping in mind the principle of preserving shareholder value or (b) determine to abstain from voting, unless abstaining would be materially adverse to the Client's interest. To the extent the Committee makes a determination regarding how to vote or to abstain for a proxy on behalf of a Dimensional Investment Company in the circumstances described in this paragraph, the Advisor will report annually on such determinations to the respective Board of Directors/Trustees of the Dimensional Investment Company.

Availability of Proxy Voting Information and Recordkeeping

Each Advisor will inform those clients for which it has voting authority how to obtain information from the Advisor about how it voted with respect to client securities. The Advisor will provide those clients with a summary of its proxy voting guidelines, process and policies and will inform the clients how they can obtain a copy of the complete Policy upon request. If an Advisor is registered under the Advisers Act, the Advisor will also include such information described in the preceding two sentences in Part 2A of its Form ADV.

Recordkeeping

The Advisors will also keep records of the following items: (i) their proxy voting guidelines, policies and procedures; (ii) proxy statements received regarding client securities (unless such statements are available on the SEC's Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system); (iii) records of votes they cast on behalf of clients, which may be maintained by a Proxy Advisory Firm if it undertakes to provide copies of those records promptly upon request; (iv) records of written client requests for proxy voting information and an Advisor's responses (whether a client's request was oral or in writing); (v) any documents prepared by an Advisor that were material to making a decision how to vote, or that memorialized the basis for the decision; (vi) a record of any testing conducted on any Proxy Advisory Firm's votes; and (vii) a copy of each version of the Proxy Advisory Firm's policies and procedures provided to the Advisors. The Advisors will maintain these records in an easily accessible place for at least six years from the end of the fiscal year during which the last entry was made on such records. For the first two years, each Advisor will store such records at one of its principal offices.

Disclosure

Dimensional shall disclose in the statements of additional information of the Dimensional Investment Companies a summary of procedures which Dimensional uses to determine how to vote proxies relating to portfolio securities of the Dimensional Investment Companies. The disclosure will include a description of the procedures used when a vote presents a conflict of interest between shareholders and Dimensional, DFA Securities LLC ("DFAS") or an affiliate of Dimensional or DFAS.

The semi-annual reports of the Dimensional Investment Companies shall indicate that the procedures are available: (i) by calling Dimensional collect; or (ii) on the SEC's website. If a request for the procedures is received, the requested description must be sent within three business days by a prompt method of delivery.

Dimensional, on behalf of each Dimensional Investment Company it advises, shall file its proxy voting record with the SEC on Form N-PX no later than August 31 of each year, for the twelve-month period ending June 30 of the current year. Such filings shall contain all information required to be disclosed on Form N-PX.

EXHIBIT A

PROXY VOTING GUIDELINES

General Approach to Corporate Governance and Proxy Voting

When voting proxies, Dimensional seeks to act in the interests of the funds and accounts we manage. We seek to maximize shareholder value subject to the standards of the relevant legal and regulatory regimes, listing requirements, regional stewardship codes, and any social and sustainability guidelines of specific funds or accounts. Dimensional will evaluate management and shareholder proposals on a case-by-case basis.

We expect the members of a portfolio company's board to act in the interests of their shareholders. Each portfolio company's board should implement policies and adopt practices that align the interests of the board and management with those of its shareholders. Since a board's main responsibility is to oversee management and to manage and mitigate risk, it is important that board members have the experience and skills to carry out that responsibility.

This document outlines Dimensional's global approach to key proxy voting issues and highlights particular considerations in specific markets.

Global Evaluation Framework

Uncontested Director Elections

Dimensional may vote against individual directors, committee members, or the full board of a portfolio company in the following situations:

1. There are problematic audit-related practices;
2. There are problematic compensation practices or persistent pay for performance misalignment;
3. There are problematic anti-takeover provisions;
4. There have been material failures of governance, risk oversight, or fiduciary responsibilities;
5. The board has failed to adequately respond to shareholder concerns;
6. The board has demonstrated a lack of accountability to shareholders.

Dimensional also considers the following when voting on directors:

1. Board independence
2. Director attendance
3. Director capacity to serve
4. Board composition

Contested Director Elections

In the case of contested board elections at portfolio companies, Dimensional takes a case-by-case approach. With the goal of maximizing shareholder value, we consider the qualifications of the nominees, the likelihood that each side can accomplish their stated plans, the company's corporate governance practices, and the incumbent board's history of responsiveness to shareholders.

Auditors

Dimensional will typically support the ratification of auditors unless there are concerns with the auditor's independence, the accuracy of the auditor's report, the level of non-audit fees, or if lack of disclosure makes it difficult for us to assess these factors.

Anti-Takeover Provisions

We believe that the market for corporate control, which often results in acquisitions which generally increase shareholder value, should be able to function without undue restrictions. Takeover defenses such as poison pills can lead to entrenchment of management and reduced accountability at the board level.

Related-Party Transactions

Related-party transactions have played a significant role in several high-profile corporate scandals and failures. We believe related party transactions should be minimized. When such transactions are determined to be fair to the company and its shareholders in accordance with the portfolio company's policies and governing law, should be thoroughly disclosed in public filings.

Equity Compensation

Dimensional supports the adoption of equity plans that align the interests of the portfolio company board, management, and company employees with those of shareholders.

Dimensional will evaluate equity compensation plans on a case-by-case basis, taking into account the potential dilution to shareholders, the portfolio company's historical use of equity, and the particular plan features.

Executive Compensation

Dimensional supports compensation for executives that is clearly linked to the portfolio company's performance. Compensation should be designed to attract, retain and appropriately motivate and serve as a means to align the interests of executives with those of shareholders. To the extent that compensation is clearly excessive and not aligned with the portfolio company's performance or other factors, Dimensional would not support such compensation.

Therefore, Dimensional reviews proposals seeking approval of a portfolio company's executive compensation plan closely, taking into account the quantum of pay, company performance, and the structure of the plan.

Director Compensation

Dimensional will support director compensation that is reasonable in both size and composition relative to industry and market norms.

Mergers & Acquisitions (M&A)

Dimensional's primary consideration in evaluating mergers and acquisitions is maximizing shareholder value. Given that we believe market prices reflect future expected cash flows, an important consideration is the price reaction to the announcement, and the extent to which the deal represents a premium to the pre-announcement price. Dimensional will also consider the strategic rationale, potential conflicts of interest, and the possibility of competing offers.

Dimensional may vote against deals where there are concerns with the acquisition process or where there appear to be significant conflicts of interest.

Capitalization

Dimensional will vote case-by-case on proposals related to share issuances, taking into account the purpose for which the shares will be used, the risk to shareholders of not approving the request, and the dilution to existing shareholders.

Dimensional opposes the creation of dual-class share structures with unequal voting rights and will vote against proposals to create or continue dual-class capital structures.

Shareholder Proposals

When evaluating shareholder proposals, Dimensional considers the most important factor to be whether adoption of the proposal is likely to enhance or protect shareholder value.

Dimensional will also consider the potential cost to the portfolio company, the portfolio company's current handling of the issue (both on an absolute basis and relative to peers), and whether the issue would be better addressed through legislation or government regulation.

Dimensional's Approach to Environmental and Social Issues

Dimensional believes that portfolio company boards are best positioned to address environmental & social (E&S) issues within their duties. We may communicate with portfolio companies to better understand the alignment of the interests of boards and management with those of shareholders on these topics. If a portfolio company is unresponsive to material E&S risks which may have economic ramifications for shareholders, Dimensional may support shareholder proposals and may also vote against or withhold voting from directors individually, committee members, or the entire board.

For sustainability-focused funds, Dimensional may support shareholder proposals aimed at enhancing the disclosure around certain environmental issues. In limited circumstances, Dimensional may support proposals requesting companies take specific steps to address material risks from environmental issues. For socially-focused funds, Dimensional may support shareholder proposals aimed at enhancing the disclosure around certain social issues. In limited circumstances, Dimensional may support proposals requesting companies take specific steps to address material risks from social issues.

Proxy Voting Principles for the United States

Uncontested Director Elections

Shareholders elect the board of a portfolio company to represent their interests and oversee management and expect portfolio company boards to adopt policies and practices that align the interests of the board and management with those of shareholders and limit the potential for conflicts of interest

One of the most important measures aimed at ensuring that portfolio company shareholders' interests are represented is an independent board of directors, made up of individuals with the diversity of backgrounds, experiences, and skill-sets

needed to effectively oversee management and manage risk. We expect portfolio company boards to be majority independent and key committees to be fully independent.

Dimensional may vote against individual directors, committee members, or the full board of a portfolio company in the following situations:

1. Problematic audit-related practices;
2. Problematic compensation practices or persistent pay for performance misalignment;
3. Problematic anti-takeover provisions;
4. Material failures of governance, risk oversight, or fiduciary responsibilities;
5. Failure to adequately respond to shareholder concerns;
6. Lack of accountability to shareholders.

Dimensional also considers the following when voting on directors at portfolio companies:

1. Director attendance - Board members should attend at least 75% of meetings.
2. Director commitments - Board members should ensure that they have the capacity to fulfill the requirements of each board membership.

Contested Director Elections

In the case of contested board elections at portfolio companies, Dimensional takes a case-by-case approach. With the goal of maximizing shareholder value, we consider the qualifications of the nominees, the likelihood that each side can accomplish their stated plans, the portfolio company's corporate governance practices, and the incumbent board's history of responsiveness to shareholders.

Classified Boards

We believe that shareholders should be given the right to vote on the entire slate of directors on an annual basis. Therefore, we encourage portfolio company boards to conduct annual elections for all sitting directors.

Dimensional will generally support proposals to declassify existing boards at portfolio companies, and will oppose efforts by portfolio companies to adopt classified board structures, in which only part of the board is elected each year.

CEO/Chair

Dimensional believes that the portfolio company boards are best placed to determine whether the separation of roles is appropriate and will generally vote with management on shareholder proposals requiring that the chairman's position be filled by an independent director.

However, at portfolio companies with a combined CEO/Chair, Dimensional expects the board to appoint a lead independent director with specific responsibilities, including the setting of meeting agendas, to seek to ensure the board is able to act independently.

Board Size

Dimensional generally believes that portfolio company boards are best positioned to determine an appropriate size, and therefore will generally defer to the board in setting its size. However, Dimensional will oppose proposals to alter board structure or size in the context of a fight for control of the company or the board.

Age/Term Limits

Dimensional believes it is the responsibility of a portfolio company's Nominating Committee to ensure that the company's board of directors is composed of individuals with the skills needed to effectively oversee management and will generally oppose proposals seeking to impose age or term limits for directors.

That said, portfolio companies should clearly disclose their director evaluation and board refreshment policies in their proxy.

Poison Pills

Dimensional generally opposes poison pills. As a result, we may vote against the adoption of a pill and all directors that put a pill in place without first obtaining shareholder approval. Votes against directors may extend beyond the company that adopted the pill, to all boards the directors serve on. In considering a poison pill for approval, we may take into account the existence of 'qualified offer' and other shareholder-friendly provisions.

For pills designed to protect net operating losses, we may take into consideration a variety of factors, including but not limited to the size of the available operating losses and the likelihood that they will be utilized to offset gains.

Cumulative Voting

Under cumulative voting, each shareholder is entitled to the number of his or her shares multiplied by the number of

directors to be elected. Shareholders have the flexibility to allocate their votes among directors in the proportion they see fit, including casting all their votes for one director. This is particularly impactful in the election of dissident candidates to the board in the event of a proxy contest.

Dimensional will typically support proposals that provide for cumulative voting and against proposals to eliminate cumulative voting unless the portfolio company has demonstrated that there are adequate safeguards in place, such as proxy access and majority voting.

Majority Voting

For the election of directors, companies may adopt either a majority or plurality vote standard. In a plurality vote standard, the directors with the most votes are elected. If the number of directors up for election is equal to the number of board seats, each director only needs to receive one vote in order to be elected. In a majority vote standard, in order to be elected, a director must receive the support of a majority of shares voted or present at the meeting.

Dimensional supports a majority (rather than plurality) voting standard for uncontested director elections. The majority vote standard should be accompanied by a director resignation policy to address failed elections.

To account for contested director elections, portfolio companies with a majority vote standard should include a carve-out for plurality voting in situations where there are more nominees than seats.

Supermajority Vote Requirements

Dimensional believes that the affirmative vote of a majority of shareholders should be sufficient to approve items such as bylaw amendments and mergers. Dimensional will vote against proposals seeking to implement a supermajority vote requirement and for proposals seeking the adoption of a majority vote standard.

Dimensional will vote against incumbent directors at portfolio companies that place substantial restrictions on shareholders' ability to amend bylaws.

Right to Call Meetings and Act by Written Consent

Dimensional will generally support the right of shareholders to call special meetings of a portfolio company board (if they own 25% of shares outstanding) and take action by written consent.

Proxy Access

Dimensional will typically support management and shareholder proposals for proxy access that allow a shareholder (or group of shareholders) holding three percent of voting power for three years to nominate up to 25 percent of a portfolio company board. Dimensional will typically vote against proposals that are more restrictive than these guidelines.

Amend Bylaws/Charters

Dimensional believes that shareholders should have the right to amend a company's bylaws. Dimensional will vote against incumbent directors at portfolio companies that place substantial restrictions on shareholders' ability to amend bylaws.

Exclusive Forum

Dimensional is generally supportive of management proposals to adopt an exclusive forum for shareholder litigation.

Auditors

Dimensional will typically support the ratification of auditors unless there are concerns with the auditor's independence, the accuracy of the auditor's report, the level of non-audit fees, or if lack of disclosure makes it difficult to assess these factors.

In addition to voting against the ratification of the auditors, Dimensional may also vote against Audit Committee members in instances of fraud, material weakness, or significant financial restatements.

Stock-Based Compensation Plans

Dimensional supports the adoption of equity plans that align the interests of portfolio company board, management, and company employees with those of shareholders.

Dimensional will evaluate equity compensation plans on a case-by-case basis, taking into account the potential dilution to shareholders, the company's historical use of equity, and the particular plan features.

Dimensional will typically vote against plans that have features that have a negative impact on shareholders. Such features include single-trigger or discretionary vesting, an overly broad definition of change in control, a lack of minimum vesting periods for grants, and the ability to reprice shares without shareholder approval.

Dimensional may also vote against equity plans if problematic equity grant practices have contributed to a pay for performance misalignment.

Employee Stock Purchase Plans

Dimensional will generally support qualified employee stock purchase plans (as defined by Section 423 of the Internal Revenue Code), provided that the purchase price is no less than 85 percent of market value, the number of shares reserved for the plan is no more than ten percent of outstanding shares, and the offering period is no more than 27 months.

Supplemental Executive Retirement Plans

Dimensional will generally support shareholder proposals that ask the company to put to shareholder vote extraordinary benefits such as credit for years of service not actually worked, preferential benefit formulas, or accelerated vesting of pension benefits contained in supplemental executive retirement plan (SERP).

Advisory Votes on Executive Compensation (Say on Pay)

Dimensional supports reasonable compensation for executives that is clearly linked to the company's performance. Compensation should serve as a means to align the interests of executives with those of shareholders. To the extent that compensation is excessive, it represents a transfer to management of shareholder wealth. Therefore, Dimensional reviews proposals seeking approval of a company's executive compensation plan closely, taking into account the quantum of pay, company performance, and the structure of the plan.

Certain practices, such as:

- multi-year guaranteed bonuses
- excessive severance agreements (particularly those that vest without involuntary job loss or diminution of duties or those with excise-tax gross-ups)
- single, or the same, metrics used for both short-term and long-term executive compensation plans

may encourage excessive risk-taking by executives and are generally opposed by Dimensional.

At portfolio companies that have a history of problematic pay practices or excessive compensation, Dimensional will consider the company's responsiveness to shareholders' concerns and may vote against members of the compensation committee if these concerns have not been addressed.

Frequency of Say on Pay

Executive compensation in the United States is typically composed of three parts: 1) base salary; 2) cash bonuses based on annual performance (short-term incentive awards); 3) and equity awards based on performance over a multi-year period (long-term incentive awards).

Dimensional supports triennial say on pay because it allows for a longer-term assessment of whether compensation was adequately linked to company performance. This is particularly important in situations where a company makes significant changes to their long-term incentive awards, as the effectiveness of such changes in aligning pay and performance cannot be determined in a single year.

If there are serious concerns about a company's compensation plan in a year where the plan is not on the ballot, Dimensional may vote against members of the Compensation Committee.

Clawback Provisions

Dimensional typically supports clawback provisions in executive compensation plans as a way to mitigate risk of excessive risk taking by executives.

Executive Severance Agreements (Golden Parachutes)

Dimensional analyzes golden parachute proposals on a case-by-case basis.

Dimensional expects payments to be reasonable on both an absolute basis and relative to the value of the transaction. Dimensional will typically vote against agreements with cash severance of more than 3x salary and bonus.

Dimensional expects vesting of equity to be contingent on both a change in control and a subsequent involuntary termination of the employee ("double-trigger change in control").

Remuneration of Directors

Dimensional will support director compensation that is reasonable in both size and composition relative to industry and market norms.

Mergers and Acquisitions (M&A)

Dimensional's primary consideration in evaluating mergers and acquisitions is maximizing shareholder value. Given that we believe market prices reflect future expected cash flows, an important consideration is the price reaction to the announcement, and the extent to which the deal represents a premium to the pre-announcement price. Dimensional will also consider the strategic rationale, potential conflicts of interest, and the possibility of competing offers.

Dimensional may vote against deals where there are concerns with the acquisition process or where there appear to be significant conflicts of interest.

Reincorporation

Dimensional will evaluate reincorporation proposals on a case-by-case basis.

Dimensional may vote against reincorporations if the move would result in a substantial diminution of shareholder rights.

Increase Authorized Shares

Dimensional will vote case-by-case on proposals seeking to increase common or preferred stock, taking into account the purpose for which the shares will be used and the risk to shareholders of not approving the request.

Dimensional will typically vote against requests for common or preferred stock issuances that are excessively dilutive relative to common market practice.

Dimensional will typically vote against proposals at portfolio companies with multiple share classes to increase the number of shares of the class with superior voting rights.

Blank Check Preferred Stock

Blank check preferred stock is stock that can be issued at the discretion of the board, with the voting, conversion, distribution, and other rights determined by the board at the time of issue. Therefore, blank check preferred stock can potentially serve as means to entrench management and prevent takeovers.

To mitigate concerns regarding what we believe is the inappropriate use of blank check preferred stock, Dimensional expects portfolio companies seeking approval for blank preferred stock to clearly state that the shares will not be used for anti-takeover purposes.

Dual Classes of Stock

Dual class share structures are generally seen as detrimental to shareholder rights, as they are accompanied by unequal voting rights. Dimensional believes in the principle of one share, one vote.

Dimensional opposes the creation of dual-class share structures with unequal voting rights and will vote against proposals to create or continue dual-class capital structures.

Dimensional will vote against directors at portfolio companies that adopt a dual-class structure without shareholder approval after the company's IPO. Implementation of a dual-class structure prior to or in connection with an IPO may not per se warrant a vote against directors but will be considered on a case-by-case basis.

Shareholder Proposals

When evaluating shareholder proposals, including proposals on environmental and social issues, Dimensional considers the most important factor to be whether adoption of the proposal is likely to enhance or protect shareholder value.

Dimensional will also consider the potential cost to the portfolio company, the portfolio company's current handling of the issue (both on an absolute basis and relative to peers), and whether the issue would be better addressed through legislation or government regulation.

Director Election Guidelines for Europe, the Middle East, and Africa (EMEA)

Dimensional will leverage its global framework when evaluating EMEA portfolio companies, but will apply the following market-specific considerations when voting on directors.

United Kingdom

Dimensional expects portfolio companies to follow the requirements of the UK Corporate Governance Code with regards to board and committee composition.

France

All portfolio company boards should be at least one-third independent; for non-controlled companies, at least half of board members (excluding those appointed pursuant to French law) should be independent.

Executives should not serve on audit and remuneration committees. Dimensional will vote against executives who serve on these committees.

Dimensional prefers the role of chairman and CEO to be separated; however, Dimensional may support a combined role if the board has a lead independent director with specific responsibilities, including the setting of meeting agendas.

Dimensional will typically vote against the election of censors, but may consider providing support if the censor is to serve on an interim basis.

Germany

All portfolio company boards should be at least one-third independent; for non-controlled companies, at least half of board members (excluding employee-elected representatives) should be independent.

Absent exceptional circumstances, Dimensional expects the role of chairman and CEO to be separated and will vote against the election of a director to serve in a combined role. Dimensional will generally also vote against the appointment of a former CEO as Chairman.

Switzerland

For all companies, boards should be at least one-third independent; for non-controlled companies, at least half of board members should be independent.

Executives should not serve on audit and remuneration committees. Dimensional will vote against executives who serve on these committees. Additionally, Dimensional expects these committees to be majority independent and will vote against non-independent nominees if their election would result in the committee being less than majority independent.

Dimensional expects the role of chairman and CEO to be separated and will generally vote against the election of a director to serve in a combined role.

South Africa

Dimensional expects portfolio companies to follow the recommendations of the King Report On Corporate Governance (King Code IV) with regards to board and committee composition.

Proxy Voting Principles for Australia

Uncontested Director Elections

Shareholders elect the board of a portfolio company to represent their interests and oversee management and expect portfolio company boards to adopt policies and practices that align the interests of the board and management with those of shareholders and limit the potential for conflicts of interest.

One of the most important measures aimed at ensuring that portfolio company shareholders' interests are represented is an independent board of directors, made up of individuals with the diversity of backgrounds, experiences, and skill-sets needed to effectively oversee management and manage risk. We expect portfolio company boards to be majority independent.

Dimensional believes that key audit and remuneration committees should be composed of independent directors. Dimensional will vote against executive directors, other than the CEO, who serve on the audit committee or who serve on the remuneration committee if the remuneration committee is not majority independent.

CEO/Chair

If a portfolio company's board chair is not independent, the board should have a lead independent director with specific responsibilities, including the setting of meeting agendas. Dimensional may vote against executive board chairs if such measures are absent.

Auditors

Australian law does not require the annual ratification of auditors; therefore, concerns with a portfolio company's audit practices will be reflected in votes against members of the audit committee.

Dimensional may vote against audit committee members if there are concerns with the auditor's independence, the accuracy of the auditor's report, the level of non-audit fees, or if lack of disclosure makes it difficult to assess these factors.

Dimensional may also vote against audit committee members in instances of fraud or material failures in oversight of audit functions.

Share Issuances

Dimensional will evaluate requests for share issuances on a case-by-case basis, taking into account factors such as the impact on current shareholders and the rationale for the request.

When voting on approval of prior share distributions, Dimensional will generally support prior issuances that conform to the dilution guidelines set out in ASX Listing Rule 7.1.

Share Repurchase

Dimensional will evaluate requests for share repurchases on a case-by-case basis, taking into account factors such as the impact on current shareholders, the rationale for the request, and the company's history of repurchases. Dimensional expects repurchases to be made in arms-length transactions using independent third-parties.

Dimensional may vote against plans that do not include limitations on the company's ability to use the plan to repurchase shares from third parties at a premium and limitations on the use of share purchases as an anti-takeover device.

Constitution Amendments

Dimensional will evaluate requests for amendments to a portfolio company's constitution on a case-by-case basis. The primary consideration will be the impact on the rights of shareholders.

Non-Executive Director Compensation

Dimensional will support non-executive director remuneration that is reasonable in both size and composition relative to industry and market norms.

Dimensional will vote against components of non-executive director remuneration that are likely to impair a director's independence, such as options or performance-based remuneration.

Equity Plans

Dimensional supports the adoption of equity plans that align the interests of the portfolio company board, management, and company employees with those of shareholders.

Companies should clearly disclose components of the plan, including vesting periods and performance hurdles.

Dimensional may vote against plans that are exceedingly dilutive to existing shareholders. Plans that permit retesting or repricing will generally be viewed unfavorably.

Proxy Voting Principles for Japan

Uncontested Director Elections

Shareholders elect the board of a portfolio company to represent their interests and oversee management and expect portfolio company boards to adopt policies and practices that align the interests of the board and management with those of shareholders and limit the potential for conflicts of interest.

One of the most important measures aimed at ensuring that portfolio company shareholders' interests are represented is an independent board of directors, made up of individuals with the diversity of backgrounds, experiences, and skill-sets needed to effectively oversee management and manage risk.

At portfolio companies with a three-committee structure, Dimensional expects at least one-third of the board to be outsiders. Ideally, the board should be majority independent.

At portfolio companies with an audit committee structure, Dimensional expects at least one third of the board to be outsiders. Ideally, the audit committee should be entirely independent; at minimum, any outside directors who serve on the committee should be independent.

At portfolio companies with a statutory auditor structure, Dimensional expects the board to include at least two outside directors. At portfolio companies with a statutory auditor structure that have a controlling shareholder, at least two directors should be independent outsiders.

Statutory Auditors

Statutory auditors are responsible for effectively overseeing management and ensuring that decisions made are in the best interest of shareholders. Dimensional may vote against statutory auditors who are remiss in their responsibilities.

When voting on outside statutory auditors, Dimensional expects nominees to be independent and to have the capacity to fulfill the requirements of their role as evidenced by attendance at meetings of the board of directors or board of statutory auditors.

Director and Statutory Auditor Compensation

Dimensional will support compensation for portfolio company directors and statutory auditors that is reasonable in both size and composition relative to industry and market norms.

When requesting an increase to the level of director fees, Dimensional expects portfolio companies to provide a specific reason for the increase. Dimensional will support an increase of director fees if it is in conjunction with the introduction of performance-based compensation, or where the ceiling for performance-based compensation is being increased. Dimensional will not support an increase in director fees if there is evidence that the directors have been remiss in effectively overseeing management or ensuring that decisions made are in the best interest of shareholders.

Dimensional will typically support an increase to the statutory auditor compensation ceiling unless there is evidence that the statutory auditors have been remiss in effectively overseeing management or ensuring that decisions made are in the best interest of shareholders.

Dimensional will support the granting of annual bonuses to portfolio company directors and statutory auditors unless there is evidence the board or the statutory auditors have been remiss in effectively overseeing management or ensuring that decisions made are in the best interest of shareholders.

Dimensional generally supports the granting of retirement benefits to portfolio company insiders, so long as the individual payments, and aggregate amount of such payments, is disclosed.

Dimensional will vote against the granting of retirement bonuses if there is evidence the portfolio company board or statutory auditors have been remiss in effectively overseeing management or ensuring that decisions made are in the best interest of shareholders.

Equity Based Compensation

Dimensional supports the adoption of equity plans that align the interests of the portfolio company board, management, and company employees with those of shareholders.

Dimensional will typically support stock option plans to portfolio company executives and employees if total dilution from the proposed plans and previous plans exceeds 5 percent for mature companies or 10 percent for growth companies.

Dimensional will vote against stock plans if upper limit of options that can be issued per year is not disclosed.

For deep-discounted stock option plans, Dimensional typically expects portfolio companies to disclose specific performance hurdles.

Capital Allocation

Dimensional will typically support well-justified dividend payouts that do not negatively impact the company's overall financial health.

Share Repurchase

Dimensional is typically supportive of portfolio company boards having discretion over share repurchases absent concerns with the company's balance sheet management, capital efficiency, buyback and dividend payout history, board composition, or shareholding structure.

Dimensional will typically support proposed repurchases that do not have a negative impact on shareholder value.

For repurchases of more than 10 percent of issue share capital, Dimensional expects the company to provide a robust explanation for the request.

Shareholder Rights Plans

We believe the market for corporate control, which can result in acquisitions that are accretive to shareholders, should be able to function without undue restrictions. Takeover defenses such as poison pills can lead to entrenchment and reduced accountability at the board level.

Indemnification and Limitations on Liability

Dimensional generally supports limitations on liability for directors and statutory auditors in ordinary circumstances.

Limit Legal Liability of External Auditors

Dimensional generally opposes limitations on the liability of external auditors.

Increase in Authorized Capital

Dimensional will typically support requests for increases of less than 100 percent of currently authorized capital, so long as the increase does not leave the company with less than 30 percent of the proposed authorized capital outstanding.

For increases that exceed these guidelines, Dimensional expects portfolio companies to provide a robust explanation for the increase.

Dimensional will not support requests for increases that will be used as an anti-takeover device.

Expansion of Business Activities

For well performing portfolio companies seeking to expand their business into enterprises related to their core business, Dimensional will typically support management requests to amend the company's articles to expand the company's business activities.

PROXY VOTING POLICY AND GUIDELINES - DWS

1. Scope

DWS has adopted and implemented the following Policies and Guidelines, which it believes are reasonably designed to ensure that proxies are voted in the best economic interest of clients and in accordance with its fiduciary duties and local regulation. This Proxy Voting Policy and Guidelines – DWS (“Policy and Guidelines”) shall apply to all accounts managed by US domiciled advisers and to all US client accounts managed by non-US regional offices. Non-US regional offices are required to maintain procedures and to vote proxies as may be required by law on behalf of their non-US clients. In addition, DWS’s proxy policies reflect the fiduciary standards and responsibilities for ERISA accounts.

The attached guidelines represent a set of global recommendations that were determined by the Global Proxy Voting Sub-Committee (“the GPVSC”). These guidelines were developed to provide DWS with a comprehensive list of recommendations that represent how DWS will generally vote proxies for its clients. The recommendations derived from the application of these guidelines are not intended to influence the various DWS legal entities either directly or indirectly by parent or affiliated companies. In addition, the organizational structures and documents of the various DWS legal entities allows, where necessary or appropriate, the execution by individual AM subsidiaries of the proxy voting rights independently of any DB parent or affiliated company. This applies in particular to non US fund management companies. The individuals that make proxy voting decisions are also free to act independently, subject to the normal and customary supervision by the Management/Boards of these DWS legal entities.

2. DWS’s Proxy Voting Responsibilities

Proxy votes are the property of DWS’s advisory clients.¹ As such, DWS’s authority and responsibility to vote such proxies depend upon its contractual relationships with its clients or other delegated authority. DWS has delegated responsibility for effecting its advisory clients’ proxy votes to Institutional Shareholder Services (“ISS”), an independent third-party proxy voting specialist. ISS votes DWS’s advisory clients’ proxies in accordance with DWS’s proxy guidelines or DWS’s specific instructions. Where a client has given specific instructions as to how a proxy should be voted, DWS will notify ISS to carry out those instructions. Where no specific instruction exists, DWS will follow the procedures in voting the proxies set forth in this document. Certain Taft-Hartley clients may direct DWS to have ISS vote their proxies in accordance with Taft-Hartley Voting Guidelines.

Clients may in certain instances contract with their custodial agent and notify DWS that they wish to engage in securities lending transactions. In such cases, it is the responsibility of the custodian to deduct the number of shares that are on loan so that they do not get voted twice. To the extent a security is out on loan and DWS determines that a proxy vote (or other shareholder action) is materially important to the client’s account, DWS may request, on a best efforts basis, that the agent recall the security prior to the record date to allow DWS to vote the securities.

3. Policies

3.1 Proxy Voting Activities are Conducted in the Best Economic Interest of Clients

DWS has adopted the following Policies and Guidelines to ensure that proxies are voted in accordance with the best economic interest of its clients, as determined by DWS in good faith after appropriate review.

3.2 The Global Proxy Voting Sub-Committee

The Global Proxy Voting Sub-Committee is an internal working group established by the applicable DWS’s Investment Risk Oversight Committee pursuant to a written charter. The GPVSC is responsible for overseeing DWS’s proxy voting activities, including:

- Adopting, monitoring and updating guidelines, attached as Attachment A (the “Guidelines”), that provide how DWS will generally vote proxies pertaining to a comprehensive list of common proxy voting matters;
- Voting proxies where: (i) the issues are not covered by specific client instruction or the Guidelines; (ii) the Guidelines specify that the issues are to be determined on a case-by-case basis; or (iii) where an exception to the Guidelines may be in the best economic interest of DWS’s clients; and
- Monitoring Proxy Vendor Oversight’s proxy voting activities (see below).

DWS’s Proxy Vendor Oversight, a function of DWS’s Operations Group, is responsible for coordinating with ISS to administer DWS’s proxy voting process and for voting proxies in accordance with any specific client instructions or, if there are none, the Guidelines, and overseeing ISS’ proxy responsibilities in this regard

3.3. Availability of Proxy Voting Policies and Proxy Voting Record

Copies of this Policy, as it may be updated from time to time, is made available to clients as required by law and otherwise at DWS’s discretion. Clients may also obtain information on how their proxies were voted by DWS as required

by law and otherwise at DWS's discretion. Note, however, that DWS must not selectively disclose its investment company clients' proxy voting records. Proxy Vendor Oversight will make proxy voting reports available to advisory clients upon request. The investment companies' proxy voting records will be disclosed to shareholders by means of publicly-available annual filings of each company's proxy voting record for the 12-month periods ending June 30 (see Section 6 below), if so required by relevant law.

4. Procedures

The key aspects of DWS's proxy voting process are delineated below.

4.1 The GPVSC's Proxy Voting Guidelines

The Guidelines set forth the GPVSC's standard voting positions on a comprehensive list of common proxy voting matters. The GPVSC has developed and continues to update the Guidelines based on consideration of current corporate governance principles, industry standards, client feedback, and the impact of the matter on issuers and the value of the investments.

The GPVSC will review the Guidelines as necessary to support the best economic interests of DWS's clients and, in any event, at least annually. The GPVSC will make changes to the Guidelines, whether as a result of the annual review or otherwise, taking solely into account the best economic interests of clients. Before changing the Guidelines, the GPVSC will thoroughly review and evaluate the proposed change and the reasons therefore, and the GPVSC Chair will ask GPVSC members whether anyone outside of the DWS organization (but within Deutsche Bank and its affiliates) or any entity that identifies itself as an DWS advisory client has requested or attempted to influence the proposed change and whether any member has a conflict of interest with respect to the proposed change. If any such matter is reported to the GPVSC Chair, the Chair will promptly notify the Conflicts of Interest Management Sub-Committee (see Section 5.4) and will defer the approval, if possible. Lastly, the GPVSC will fully document its rationale for approving any change to the Guidelines.

The Guidelines may reflect a voting position that differs from the actual practices of the public company(ies) within the Deutsche Bank organization or of the investment companies for which DWS or an affiliate serves as investment adviser or sponsor. Investment companies, particularly closed-end investment companies, are different from traditional operating companies. These differences may call for differences in voting positions on the same matter. Further, the manner in which DWS votes investment company proxies may differ from proposals for which a DWS-advised or sponsored investment company solicits proxies from its shareholders. As reflected in the Guidelines, proxies solicited by closed-end (and open-end) investment companies are generally voted in accordance with the pre-determined guidelines of ISS.

Funds ("Underlying Funds") in which Topiary Fund Management Fund of Funds (each, a "Fund") invest may from time to time seek to revise their investment terms (i.e. liquidity, fees, etc.) or investment structure. In such event, the Underlying Funds may require approval/consent from its investors to effect the relevant changes. Topiary Fund Management has adopted Proxy Voting Procedures which outline the process for these approvals.

4.2 Specific Proxy Voting Decisions Made by the GPVSC

Proxy Vendor Oversight will refer to the GPVSC all proxy proposals: (i) that are not covered by specific client instructions or the Guidelines; or (ii) that, according to the Guidelines, should be evaluated and voted on a case-by-case basis.

Additionally, if Proxy Vendor Oversight, the GPVSC Chair or any member of the GPVSC, a Portfolio Manager, a Research Analyst or a sub-adviser believes that voting a particular proxy in accordance with the Guidelines may not be in the best economic interests of clients, that individual may bring the matter to the attention of the GPVSC Chair and/or Proxy Vendor Oversight.²

If Proxy Vendor Oversight refers a proxy proposal to the GPVSC or the GPVSC determines that voting a particular proxy in accordance with the Guidelines is not in the best economic interests of clients, the GPVSC will evaluate and vote the proxy, subject to the procedures below regarding conflicts.

The GPVSC endeavours to hold meetings to decide how to vote particular proxies sufficiently before the voting deadline so that the procedures below regarding conflicts can be completed before the GPVSC's voting determination.

4.3 The GPVSC's Proxy Voting Guidelines

In some cases, the GPVSC may determine that it is in the best economic interests of its clients not to vote certain proxies, or that it may not be feasible to vote certain proxies. If the conditions below are met with regard to a proxy proposal, DWS will abstain from voting:

- Neither the Guidelines nor specific client instructions cover an issue;

- ISS does not make a recommendation on the issue; and
- The GPVSC cannot convene on the proxy proposal at issue to make a determination as to what would be in the client's best interest. (This could happen, for example, if the Conflicts of Interest Management Sub-Committee found that there was a material conflict or if despite all best efforts being made, the GPVSC quorum requirement could not be met).

In addition, it is DWS's policy not to vote proxies of issuers subject to laws of those jurisdictions that impose restrictions upon selling shares after proxies are voted, in order to preserve liquidity. In other cases, it may not be possible to vote certain proxies, despite good faith efforts to do so. For example, some jurisdictions do not provide adequate notice to shareholders so that proxies may be voted on a timely basis. Voting rights on securities that have been loaned to third-parties transfer to those third-parties, with loan termination often being the only way to attempt to vote proxies on the loaned securities. Lastly, the GPVSC may determine that the costs to the client(s) associated with voting a particular proxy or group of proxies outweighs the economic benefits expected from voting the proxy or group of proxies.

Proxy Vendor Oversight will coordinate with the GPVSC Chair regarding any specific proxies and any categories of proxies that will not or cannot be voted. The reasons for not voting any proxy shall be documented.

4.4 Conflict of Interest Procedures

4.4.1 Procedures to Address Conflicts of Interest and Improper Influence

Overriding Principle. In the limited circumstances where the GPVSC votes proxies,³ the GPVSC will vote those proxies in accordance with what it, in good faith, determines to be the best economic interests of DWS's clients.⁴

Independence of the GPVSC. As a matter of Compliance policy, the GPVSC and Proxy Vendor Oversight are structured to be independent from other parts of Deutsche Bank. Members of the GPVSC and the employee responsible for Proxy Vendor Oversight are employees of DWS. As such, they may not be subject to the supervision or control of any employees of Deutsche Bank Corporate and Investment Banking division ("CIB"). Their compensation cannot be based upon their contribution to any business activity outside of DWS without prior approval of Legal and Compliance. They can have no contact with employees of Deutsche Bank outside of the Private Client and Asset Management division ("PCAM") regarding specific clients, business matters, or initiatives without the prior approval of Legal and Compliance. They furthermore may not discuss proxy votes with any person outside of DWS (and within DWS only on a need to know basis).

Conflict Review Procedures. The "Conflicts of Interest Management Sub-Committee within DWS monitors for potential material conflicts of interest in connection with proxy proposals that are to be evaluated by the GPVSC. Promptly upon a determination that a proxy vote shall be presented to the GPVSC, the GPVSC Chair shall notify the Conflicts of Interest Management Sub-Committee. The Conflicts of Interest Management Sub-Committee shall promptly collect and review any information deemed reasonably appropriate to evaluate, in its reasonable judgment, if DWS or any person participating in the proxy voting process has, or has the appearance of, a material conflict of interest. For the purposes of this policy, a conflict of interest shall be considered "material" to the extent that a reasonable person could expect the conflict to influence, or appear to influence, the GPVSC's decision on the particular vote at issue. GPVSC should provide the Conflicts of Interest Management Sub-Committee a reasonable amount of time (no less than 24 hours) to perform all necessary and appropriate reviews. To the extent that a conflicts review cannot be sufficiently completed by the Conflicts of Interest Management Sub-Committee the proxies will be voted in accordance with the standard Guidelines.

The information considered by the Conflicts of Interest Management Sub-Committee may include without limitation information regarding: (i) DWS client relationships; (ii) any relevant personal conflict known by the Conflicts of Interest Management Sub-Committee or brought to the attention of that sub-committee; and (iii) any communications with members of the GPVSC (or anyone participating or providing information to the GPVSC) and any person outside of the DWS organization (but within Deutsche Bank and its affiliates) or any entity that identifies itself as an DWS advisory client regarding the vote at issue. In the context of any determination, the Conflicts of Interest Management Sub-Committee may consult with and shall be entitled to rely upon all applicable outside experts, including legal counsel.

Upon completion of the investigation, the Conflicts of Interest Management Sub-Committee will document its findings and conclusions. If the Conflicts of Interest Management Sub-Committee determines that: (i) DWS has a material conflict of interest that would prevent it from deciding how to vote the proxies concerned without further client consent; or (ii) certain individuals should be recused from participating in the proxy vote at issue, the Conflicts of Interest Management Sub-Committee will so inform the GPVSC Chair.

If notified that DWS has a material conflict of interest as described above, the GPVSC chair will obtain instructions as to how the proxies should be voted either from: (i) if time permits, the affected clients; or (ii) in accordance with the

standard Guidelines. If notified that certain individuals should be recused from the proxy vote at issue, the GPVSC Chair shall do so in accordance with the procedures set forth below.

Note: Any DWS employee who becomes aware of a potential, material conflict of interest in respect of any proxy vote to be made on behalf of clients shall notify Compliance. Compliance shall call a meeting of the Conflict Review Committee to evaluate such conflict and determine a recommended course of action.

Procedures to be followed by the GPVSC. At the beginning of any discussion regarding how to vote any proxy, the GPVSC Chair (or his or her delegate) will inquire as to whether any GPVSC member (whether voting or ex officio) or any person participating in the proxy voting process has a personal conflict of interest or has actual knowledge of an actual or apparent conflict that has not been reported to the Conflicts of Interest Management Sub-Committee.

The GPVSC Chair also will inquire of these same parties whether they have actual knowledge regarding whether any Director, officer, or employee outside of the DWS organization (but within Deutsche Bank and its affiliates) or any entity that identifies itself as an DWS advisory client, has: (i) requested that DWS, Proxy Vendor Oversight (or any member thereof), or a GPVSC member vote a particular proxy in a certain manner; (ii) attempted to influence DWS, Proxy Vendor Oversight (or any member thereof), a GPVSC member or any other person in connection with proxy voting activities; or (iii) otherwise communicated with a GPVSC member, or any other person participating or providing information to the GPVSC regarding the particular proxy vote at issue and which incident has not yet been reported to the Conflicts of Interest Management Sub-Committee.

If any such incidents are reported to the GPVSC Chair, the Chair will promptly notify the Conflicts of Interest Management Sub-Committee and, if possible, will delay the vote until the Conflicts of Interest Management Sub-Committee can complete the conflicts report. If a delay is not possible, the Conflicts of Interest Management Sub-Committee will instruct the GPVSC " (i) whether anyone should be recused from the proxy voting process or (ii) whether DWS should vote the proxy in accordance with the standard guidelines, seek instructions as to how to vote the proxy at issue from ISS or, if time permits, the affected clients. These inquiries and discussions will be properly reflected in the GPVSC's minutes.

Duty to Report. Any DWS employee, including any GPVSC member (whether voting or ex officio), that is aware of any actual or apparent conflict of interest relevant to, or any attempt by any person outside of the DWS organization (but within Deutsche Bank and its affiliates) or any entity that identifies itself as an DWS advisory client to influence how DWS votes its proxies has a duty to disclose the existence of the situation to the GPVSC Chair (or his or her designee) and the details of the matter to the Conflicts of Interest Management Sub-Committee. In the case of any person participating in the deliberations on a specific vote, such disclosure should be made before engaging in any activities or participating in any discussion pertaining to that vote.

Recusal of Members. The GPVSC will recuse from participating in a specific proxy vote any GPVSC members (whether voting or ex officio) and/or any other person who: (i) are personally involved in a material conflict of interest; or (ii) who, as determined by the Conflicts of Interest Management Sub-Committee, have actual knowledge of a circumstance or fact that could affect their independent judgment, in respect of such vote. The GPVSC will also exclude from consideration the views of any person (whether requested or volunteered) if the GPVSC or any member thereof knows, or if the Conflicts of Interest Management Sub-Committee has determined, that such other person has a material conflict of interest with respect to the particular proxy or has attempted to influence the vote in any manner prohibited by these policies.

If, after excluding all relevant GPVSC voting members pursuant to the paragraph above, there are three or more GPVSC voting members remaining, those remaining GPVSC members will determine how to vote the proxy in accordance with these Policies and Guidelines. If there are fewer than three GPVSC voting members remaining, the GPVSC Chair will vote the proxy in accordance with the standard Guidelines or will obtain instructions as to how to have the proxy voted from, if time permits, the affected clients and otherwise from ISS.

4.4.2 Investment Companies and Affiliated Public Companies

Investment Companies. As reflected in the Guidelines, all proxies solicited by open-end and closed-end investment companies are voted in accordance with the pre-determined guidelines of ISS, unless the investment company client directs DWS to vote differently on a specific proxy or specific categories of proxies. However, regarding investment companies for which DWS or an affiliate serves as investment adviser or principal underwriter, such proxies are voted in the same proportion as the vote of all other shareholders (i.e., "mirror" or "echo" voting). Master Fund proxies solicited from feeder Funds are voted in accordance with applicable provisions of Section 12 of the Investment Company Act of 1940 ("Investment Company Act").

Subject to participation agreements with certain Exchange Traded Funds (“ETF”) issuers that have received exemptive orders from the US Securities and Exchange Commission (“SEC”) allowing investing DWS Funds to exceed the limits set forth in Section 12(d)(1)(A) and (B) of the Investment Company Act, DWS will echo vote proxies for ETFs in which Deutsche Bank holds more than 25% of outstanding voting shares globally when required to do so by participation agreements and SEC orders.

Affiliated Public Companies. For proxies solicited by non-investment company issuers of or within the Deutsche Bank organization (e.g., Deutsche Bank itself), these proxies will be voted in the same proportion as the vote of other shareholders (i.e., “mirror” or “echo” voting).

Note: With respect to the DWS Central Cash Management Government Fund (registered under the Investment Company Act), the Fund is not required to engage in echo voting and the investment adviser will use these Guidelines and may determine, with respect to the DWS Central Cash Management Government Fund, to vote contrary to the positions in the Guidelines, consistent with the Fund’s best interest.

4.4.3 Other Procedures that Limit Conflicts of Interest

DWS and other entities in the Deutsche Bank organization have adopted a number of policies, procedures, and internal controls that are designed to avoid various conflicts of interest, including those that may arise in connection with proxy voting, including but not limited to:

- Code of Business Conduct and Ethics – DB Group;
- Conflicts of Interest Policy – DB Group;
- Information Sharing Procedures –AM, GTB & CB&S;
- Code of Ethics – AM US;
- Code of Ethics – DWS ex US
- Code of Professional Conduct – US.

The GPVSC expects that these policies, procedures, and internal controls will greatly reduce the chance that the GPVSC (or its members) would be involved in, aware of, or influenced by an actual or apparent conflict of interest.

All impacted business units are required to adopt, implement, and maintain procedures to ensure compliance with this Section. At a minimum, such procedures must: (i) assign roles and responsibilities for carrying out the procedures, including responsibility for periodically updating the procedures; (ii) identify clear escalation paths for identified breaches of the procedures; and (iii) contain a legend or table mapping the procedures to this Section (e.g., cross-referencing Section or page numbers).

5. Recordkeeping

At a minimum, the following records must be properly maintained and readily accessible in order to evidence compliance with this Policy.

- DWS will maintain a record of each proxy vote cast by DWS that includes among other things, company name, meeting date, proposals presented, vote cast, and shares voted.
- Proxy Vendor Oversight maintains records for each of the proxy ballots it votes. Specifically, the records include, but are not limited to:
 - The proxy statement (and any additional solicitation materials) and relevant portions of annual statements;
 - Any additional information considered in the voting process that may be obtained from an issuing company, its agents, or proxy research firms;
 - Analyst worksheets created for stock option plan and share increase analyses; and
 - Proxy Edge print-screen of actual vote election.
- DWS will: (i) retain this Policy and the Guidelines; (ii) will maintain records of client requests for proxy voting information; and (iii) will retain any documents Proxy Vendor Oversight or the GPVSC prepared that were material to making a voting decision or that memorialized the basis for a proxy voting decision.
- The GPVSC also will create and maintain appropriate records documenting its compliance with this Policy, including records of its deliberations and decisions regarding conflicts of interest and their resolution.
- With respect to DWS’s investment company clients, ISS will create and maintain records of each company’s proxy voting record for the 12-month periods ending June 30. DWS will compile the following information for each matter relating to a portfolio security considered at any shareholder meeting held during the period covered by the report (and with respect to which the company was entitled to vote):
 - The name of the issuer of the portfolio security;

- The exchange ticker symbol of the portfolio security (if symbol is available through reasonably practicable means);
- The Council on Uniform Securities Identification Procedures (“CUSIP”) number for the portfolio security (if the number is available through reasonably practicable means);
- The shareholder meeting date;
- A brief identification of the matter voted on;
- Whether the matter was proposed by the issuer or by a security holder;
- Whether the company cast its vote on the matter;
- How the company cast its vote (e.g., for or against proposal, or abstain; for or withhold regarding election of Directors); and
- Whether the company cast its vote for or against Management.

Note: This list is intended to provide guidance only in terms of the records that must be maintained in accordance with this policy. In addition, please note that records must be maintained in accordance with the [Enterprise Archive Policy - Deutsche Bank Group, Records Management Policy - Deutsche Bank Group, Records Management Principles – DB Group](#), and applicable policies and procedures thereunder.

With respect to electronically stored records, “properly maintained” is defined as complete, authentic (unalterable), usable and backed-up. At a minimum, records should be retained for a period of not less than six years (or longer, if necessary to comply with applicable regulatory requirements), the first three years in an appropriate DWS office.

6. The GPVSC’s Oversight Role

In addition to adopting the Guidelines and making proxy voting decisions on matters referred to it as set forth above, the GPVSC monitors the proxy voting process by reviewing summary proxy information presented by ISS. The GPVSC uses this review process to determine, among other things, whether any changes should be made to the Guidelines. This review will take place at least quarterly and is documented in the GPVSC’s minutes.

ATTACHMENT A – GLOBAL PROXY VOTING GUIDELINES
DWS
GLOBAL PROXY VOTING GUIDELINES
As Amended January, 2019

I. Board of Directors and Executives.....	15
.....	
A. Election of Directors	15
.....	
B. Classified Boards of Directors	17
.....	
C. Board and Committee Independence.....	17
.....	
D. Liability and Indemnification of Directors	17
.....	
E. Qualification of Directors	18
.....	
F. Removal of Directors and Filling of Vacancies	18
.....	
G. Proposals to Fix the Size of the Board	18
.....	
H. Proposals to Restrict Chief Executive Officer's Service on Multiple Boards	18
.....	
I. Proposals to Establish Audit Committees	18
.....	
II. Capital Structure	19
.....	
A. Authorization of Additional Shares	19
.....	
B. Authorization of "Blank Check" Preferred Stock	19
.....	
C. Stock Splits / Reverse Stock Splits	19
.....	
D. Dual Class / Supervoting Stock	19
.....	
E. Large Block Issuance	19
.....	
F. Recapitalization into a Single Class of Stock	20
.....	
G. Share Repurchases.....	20
.....	
H. Reductions in Par Value	21
.....	
III. Corporate Governance Issues	21
.....	
A. Confidential Voting	21
.....	
.....	

B. Cumulative Voting	21
.....	
C. Supermajority Voting Requirements	21
D. Shareholder Right to Vote	22
.....	
E. Amendments of the Articles	22
.....	
F. Related Party Transactions	22
.....	
IV. Compensation	22
.....	
A. Executive Director Stock Option Plans	22
B. Employee Stock Option / Purchase Plans	23
C. Golden Parachutes	23
.....	
D. Proposals to Limit Benefits or Executive Compensation	23
.....	
E. Shareholder Proposals Concerning "Pay for Superior Performance"	23
.....	
F. Executive Compensation Advisory	24
.....	
G. Advisory Votes on Executive Compensation	24
.....	
H. Frequency of Advisory Vote on Executive Compensation	26
.....	
V. Anti-Takeover Related Issues	26
.....	
A. Shareholder Rights Plans ("Poison Pills")	26
.....	
B. Reincorporation	26
.....	
C. Fair-Price Proposals	27
.....	
D. Exemption from State Takeover Laws	27
.....	
E. Non-Financial Effects of Takeover Bids	27
.....	
VI. Mergers & Acquisitions	27
.....	
VII. Environmental, Social, and Governance Issues	28
.....	
A. Principles for Responsible Investment	28
.....	

B. ESG Issues	28
.....	
.....	
VIII. Miscellaneous	29
Items	
.....	
A. Ratification of Auditors	29
.....	
.....	
B. Limitation of Non-Audit Services Provided by Independent Auditor	29
.....	
C. Audit Firm Rotation.....	30
.....	
D. Transaction of Other Business	30
.....	
.	
E. Motions to Adjourn the Meeting.....	30
.....	
F. Bundled Proposals	30
.....	
.....	
G. Change of Company Name	30
.....	
.....	
H. Proposals Related to the Annual Meeting	31
.....	
I. Reimbursement of Expenses Incurred from Candidate Nomination	31
.....	
J. Investment Company Proxies	31
.....	
..	
IX. International Proxy Voting Guidelines With Application For Holdings Incorporated Outside the United States and Canada	31
.....	
A. Election of Directors	31
.....	
....	
B. Remuneration (Variable Pay)	32
.....	
C. Long-Term Incentive Plans	33
.....	
D. Proposals to Restrict Supervisory Board Members Service on Multiple Boards	33
.....	
E. Establishment of a Remuneration Committee	34
.....	
F. Management Board Election and Motion.....	34
.....	
G. Large Block Issuance	34
.....	
H. Share Repurchases	35
.....	
I. Use of Net Profits	35
.....	
J. Amendments of the Articles	35
.....	

K. Related Party Transactions	35
.....	
L. Auditor	35
.....	
.....	
X. Proxy Voting Guidelines With Application For Holdings Incorporated In Japan.....	36

These Guidelines may reflect a voting position that differs from the actual practices of the public company(ies) within the Deutsche Bank organization or of the investment companies for which DWS or an affiliate serves as investment adviser or sponsor.

NOTE: Because of the unique structure and regulatory scheme applicable to closed-end and open-end investment companies (except Real Estate Investment Trusts), the voting guidelines (particularly those related to governance issues) generally will be inapplicable to holdings of closed-end and open-end investment companies, especially for directors of fund-complexes

1. Board of Directors and Executives

A. Election of Directors

Routine: DWS's Policy is to vote "For" the uncontested election of Directors. Votes for a Director in an uncontested election will be withheld in cases where a Director has shown an inability to perform his/her duties in the best interests of the shareholders, taking into account the following additional factors:

- Accountability to shareholders and transparency of governance practices
- Responsiveness to investor input and shareholder vote
- Composition of the board with Directors adding value through skills, expertise and time commitment
- Independence from management

Where it deems necessary, DWS will also take into account the following additional factors:

- A combined CEO/Chairman role without a lead Independent Director in place would trigger a vote "Against" the CEO/Chairman.

It is essential that the board have a lead independent director, who should have approval over information flow to the board, meeting agendas and meeting schedules to ensure a structure that provides an appropriate balance between the powers of the CEO and those of the independent directors.

- Attendance at Board meetings not disclosed on an individual basis in the annual report or on the company's website and neither is the reported overall attendance above 90 %. An individual candidate has attended fewer than 75 % of the board and audit / risk committee meetings in a given year without a satisfactory explanation for his / her absence disclosed in a clear and comprehensible form in the relevant proxy filings. Satisfactory explanation will be understood as any health issues or family incidents. These would trigger a vote "Against" the election of the corresponding directors
- A former executive director who is nominated for a membership on the non-executive board when two or more former executive directors already serve on the same board would result in a vote "Against" the former executive, as the board cannot be regarded as independent anymore.
- Relevant committees in place and their majority independent. If the main committees are not majority independent, this could trigger a vote "Abstain" on the Chairman of the board and if the Chairman is not up for election, "Abstain" on the non-independent committee members.
- The management of Environmental Social and Governance (ESG) controversies around company will be analysed on a case-by-case basis based on relevant internationally recognized E, S or G principles (e.g. the UN Global Compact Principles and OECD Guidelines for Multinationals). Under extraordinary circumstances, DWS will vote against the election of directors or the entire board if there were material failures of governance, stewardship, risk oversight, or fiduciary responsibilities identified as a result of the controversies around the company.
- When the director election lengthens the term of office, DWS will consider voting "Against" this election.*

In the absence of an annual election, we are generally supportive of staggered boards as the perpetual renewal of an appropriate proportion of the board members secures an active succession planning. In cases where the annual (re-)election is established, DWS would oppose proposals that would lengthen the term of office (i.e. from annual election to terms of two/three years or more).

***Note – This guideline does not pertain to closed-end or open-end funds.**

Regarding independence: Vote against or withhold from non-independent Directors when:

- The board consists of 50% or less independent Directors;
- The non-independent Director is part of the audit, compensation or nominating committee;
- The company has not appointed an audit, compensation or nominating committee.

DWS will classify Directors as non-independent when:

1. For executive Directors:
 - Current employee of the company or one of its affiliates.
2. For non-executive Directors:
 - Significant ownership (beneficial owner of more than 50% of the company's voting power)
 - Former CEO of the company or of an acquired company within the past five years.
 - Former officer of the company, an affiliate or an acquired firm within the past five years.
 - Immediate family member of a current or former officer of the company or its affiliates within the last five years
 - Currently provides (or an immediate family member provides) professional services to the company, to an affiliate of the company or an individual officer of the company or one of its affiliates in excess of \$10,000 per year.

Proxy contest: In a proxy contest involving election of Directors, a case-by-case voting decision will be made based upon analysis of the issues involved and the merits of the incumbent and dissident slates of Directors. Where applicable, DWS will consider the recommendations of ISS along with various factors, including the following:

- Long-term financial performance of the company relative to its industry;
- Management's track record;
- Background to the contested election;
- Nominee qualifications and any compensatory arrangements;
- Strategic plan of dissident slate and quality of the critique against management;
- Likelihood that the proposed goals and objectives can be achieved (both slates); and
- Stock ownership positions.

In the case of candidates nominated pursuant to proxy access, DWS's policy is to vote case-by-case considering any applicable factors listed above, including additional factors and any recommendations of a third party proxy research vendor, currently ISS, which may be relevant, including those that are specific to the company, to the nominee(s) and/or to the nature of the election (such as whether or not there are more candidates than board seats).

Rationale: The large majority of corporate Directors fulfill their fiduciary obligation and in most cases support for Management's nominees is warranted. As the issues relevant to a contested election differ in each instance, those cases must be addressed as they arise.

B. Classified Boards of Directors

DWS's policy is to vote against proposals to classify the Board and for proposals to repeal classified Boards and elect Directors annually.

Rationale: Directors should be held accountable on an annual basis. By entrenching the incumbent Board, a classified Board may be used as an anti-takeover device to the detriment of the shareholders in a hostile take-over situation.

C. Board and Committee Independence

DWS's policy is to vote:

1. "For" proposals that require that a certain percentage (majority up to 66 2/3%) of members of a Board of Directors be comprised of independent or unaffiliated Directors.
2. "For" proposals that require all members of a company's compensation, audit, nominating, or other similar committees be comprised of independent or unaffiliated Directors.
3. "Against" shareholder proposals to require the addition of special interest, or constituency, representatives to Boards of Directors.
4. "For" separation of the Chairman and CEO positions.
5. Generally "For" proposals that require a company to appoint a Chairman who is an independent Director, taking into account the following factors:
 - Whether the proposal is binding and whether it requires an immediate change.
 - Whether the current board has an existing executive or non-independent chair or there was a recent combination of the CEO and chair roles.
 - Whether the governance structure ensures a sufficient board and committee independence, a balance of board and CEO tenure.

- Whether the company has poor governance practices (such as compensation, poor risk oversight, or any actions which harmed or have the potential to harm the interests of the shareholders).
- Whether the company is demonstrating poor performance (as per the assessment and recommendation of ISS).

Rationale: Board independence is a cornerstone of effective governance and accountability. A Board that is sufficiently independent from Management assures that shareholders' interests are adequately represented.

No Director qualifies as "independent" unless the Board of Directors affirmatively determines that the Director has no material relationship with the listed company (either directly or as a partner, shareholder, or officer of an organization that has a relationship with the company).

Whether a Director is in fact not "independent" will depend on the laws and regulations of the primary market for the security and the exchanges, if any, on which the security trades.

D. Liability and Indemnification of Directors

DWS's policy is to vote on a case-by-case basis on Management proposals to limit Directors' liability and to broaden the indemnification of Directors, unless broader indemnification or limitations on Directors' liability would affect shareholders' interests in pending litigation, in which case, DWS would vote "Against".

Rationale: While shareholders want Directors and officers to be responsible for their actions, it may not be in the best interests of the shareholders for them to be to risk averse. If the risk of personal liability is too great, companies may not be able to find capable Directors willing to serve. We support expanding coverage only for actions taken in good faith and not for serious violations of fiduciary obligation or negligence.

E. Qualification of Directors

DWS's policy is to follow Management's recommended vote on either Management or shareholder proposals that set retirement ages for Directors or require specific levels of stock ownership by Directors.

Rationale: As a general rule, the Board of Directors, and not the shareholders, is most qualified to establish qualification policies.

F. Removal of Directors and Filling of Vacancies

DWS's policy is to vote "Against" proposals that include provisions that Directors may be removed only for cause or proposals that include provisions that only continuing Directors may fill Board vacancies.

Rationale: Differing state statutes permit removal of Directors with or without cause. Removal of Directors for cause usually requires proof of self-dealing, fraud, or misappropriation of corporate assets, limiting shareholders' ability to remove Directors except under extreme circumstances. Removal without cause requires no such showing.

Allowing only incumbent Directors to fill vacancies can serve as an anti-takeover device, precluding shareholders from filling the Board until the next regular election.

G. Proposals to Fix the Size of the Board AM policy is to vote:

DWS's policy is to vote:

1. "For" proposals to fix the size of the Board unless: (a) no specific reason for the proposed change is given; or (b) the proposal is part of a package of takeover defences.
2. "Against" proposals allowing Management to fix the size of the Board without shareholder approval.

Rationale: Absent danger of anti-takeover use, companies should be granted a reasonable amount of flexibility in fixing the size of its Board.

H. Proposals to Restrict Chief Executive Officer's Service on Multiple Boards

DWS's policy is to vote "For" proposals to restrict a Chief Executive Officer from serving on more than two outside Boards of Directors.

Rationale: Chief Executive Officer must have sufficient time to ensure that shareholders' interests are represented adequately.

Note: A Director's service on multiple closed-end fund Boards within a fund complex are treated as service on a single Board for the purpose of the proxy voting guidelines.

I. Proposals to Establish Audit Committees

DWS's policy is to vote "For" proposals that require the establishment of Audit Committees.

Rationale: The Audit Committee should deal with accounting and risk management related questions, verifies the independence of the auditor with due regard to possible conflicts of interest. It also should determine the procedure of the audit process.

II. Capital Structure

A. Authorization of Additional Shares

DWS's policy is to vote "For" proposals to increase the authorization of existing classes of stock that do not exceed a 3:1 ratio of shares authorized to shares outstanding for a large cap company and do not exceed a 4:1 ratio of shares authorized to shares outstanding for a small-midcap company (companies having a market capitalization under one billion US dollars).

Rationale: While companies need an adequate number of shares in order to carry on business, increases requested for general financial flexibility must be limited to protect shareholders from their potential use as an anti-takeover device. Requested increases for specifically designated, reasonable business purposes (stock split, merger, etc.) will be considered in light of those purposes and the number of shares required.

B. Authorization of "Blank Check" Preferred Stock

DWS's policy is to vote:

1. "Against" proposals to create blank check preferred stock or to increase the number of authorized shares of blank check preferred stock unless the company expressly states that the stock will not be used for anti-takeover purposes and will not be issued without shareholder approval.
2. "For" proposals mandating shareholder approval of blank check stock placement.

Rationale: Shareholders should be permitted to monitor the issuance of classes of preferred stock in which the Board of Directors is given unfettered discretion to set voting, dividend, conversion, and other rights for the shares issued.

C. Stock Splits/Reverse Stock Splits

DWS's policy is to vote "For" stock splits if a legitimate business purpose is set forth and the split is in the shareholders' best interests. A vote is cast "For" a reverse stock split only if the number of shares authorized is reduced in the same proportion as the reverse split or if the effective increase in authorized shares (relative to outstanding shares) complies with the proxy guidelines for common stock increases.

Rationale: Generally, stock splits do not detrimentally affect shareholders. Reverse stock splits, however, may have the same result as an increase in authorized shares and should be analyzed accordingly.

D. Dual Class/Supervoting Stock

DWS's policy is to vote "Against" proposals to create or authorize additional shares of super-voting stock or stock with unequal voting rights.

Rationale: The "one share, one vote" principal ensures that no shareholder maintains a voting interest exceeding their equity interest in the company.

E. Large Block Issuance

DWS's policy is to address large block issuances of stock on a case-by-case basis based on the nature of the issuance, considering various factors including recommendation of ISS subject to review by the GPVSC as set forth in the guidelines.

For general Issuances, in general DWS's policy is to:

- i. vote for issuance authorities with pre-emptive rights to a maximum of 100 percent over currently issued capital and as long as the share issuance authorities' periods are clearly disclosed (or implied by the application of a legal maximum duration) and in line with market-specific practices and/or recommended guidelines (e.g. issuance periods limited to 18 months for the Netherlands); and
- ii. vote for issuance authorities without pre-emptive rights to a maximum of 20 percent (or a lower limit if local market best practice recommendations provide) of currently issued capital as long as the share issuance authorities' periods are clearly disclosed (or implied by the application of a legal maximum duration) and in line with market-specific practices and/or recommended guidelines (e.g. issuance periods limited to 18 months for the Netherlands).

For French companies, DWS's policy is to:

- Vote for general issuance requests with pre-emptive rights, or without pre-emptive rights but with a binding “priority right,” for a maximum of 50 percent over currently issued capital.
- Generally vote for general authorities to issue shares without pre-emptive rights up to a maximum of 10 percent of share capital. When companies are listed on a regulated market, the maximum discount on share issuance price proposed in the resolution must, in addition, comply with the legal discount (i.e., a maximum of 5 percent discount to the share listing price) for a vote for to be warranted.

Where it deems necessary, DWS will also consider voting “Against”, taking into account the following additional factors:

- The combined equity issuance of all equity instruments with pre-emptive rights exceeds 50 percent of the outstanding share capital or the prevailing maximum threshold as stipulated by best practice rules for corporate governance in the respective country. Exceeding either of the two thresholds will be judged on a CASE-BY- CASE basis, provided that the subscription rights are actively tradable in the market.
- The cumulative equity issuances without subscription rights (historical and across instruments) exceed the maximum level specified in a respective country’s best practices for corporate governance or 30 percent of the company’s nominal capital.

For specific issuances, in general DWS’s policy is to:

Vote on a case-by-case basis on all requests, with or without pre-emptive rights, incorporating where applicable the recommendation of ISS.

Additionally, DWS supports proposals requiring shareholder approval of large block issuances.

Rationale: Stock issuances must be reviewed in light of the business circumstances leading to the request and the potential impact on shareholder value.

F. Recapitalization into a Single Class of Stock

DWS’s policy is to vote “For” recapitalization plans to provide for a single class of common stock, provided the terms are fair, with no class of stock being unduly disadvantaged.

Rationale: Consolidation of multiple classes of stock is a business decision that may be left to the Board and/or Management if there is no adverse effect on shareholders.

G. Share Repurchases

DWS’s policy is to vote “For” share repurchase plans provided all shareholders are able to participate on equal terms. Where it deems necessary, DWS will also analyse on a CASE-BY-CASE basis, if the maximum offer/price premium exceeds 10 percent and if the share repurchase program exceeds a maximum of 10 percent of issued share capital.

Rationale: Buybacks are generally considered beneficial to shareholders because they tend to increase returns to the remaining shareholders. However, if the maximum offer premium exceeds 10 percent and the program itself exceeds 10 percent of issued capital, this could indicate potential risks for the shareholders in the longer term.

H. Reductions in Par Value

DWS’s policy is to vote “For” proposals to reduce par value, provided a legitimate business purpose is stated (e.g., the reduction of corporate tax responsibility.)

Rationale: Usually, adjustments to par value are a routine financial decision with no substantial impact on shareholders.

III. Corporate Governance Issues

A. Confidential Voting

DWS’s policy is to vote “For” proposals to provide for confidential voting and independent tabulation of voting results and to vote “Against” proposals to repeal such provisions.

Rationale: Confidential voting protects the privacy rights of all shareholders. This is particularly important for employee-shareholders or shareholders with business or other affiliations with the company, who may be vulnerable to coercion or retaliation when opposing Management. Confidential voting does not interfere with the ability of corporations to communicate with all shareholders, nor does it prohibit shareholders from making their views known directly to Management.

B. Cumulative Voting

DWS’s policy is to vote “Against” shareholder proposals requesting cumulative voting and “For” Management proposals to eliminate it. The protections afforded shareholders by cumulative voting are not necessary when a company has a

history of good performance and does not have a concentrated ownership interest. Accordingly, a vote is cast "Against" cumulative voting and "For" proposals to eliminate it if:

- a) The company has a five year return on investment greater than the relevant industry index;
- b) All Directors and executive officers as a group beneficially own less than 10% of the outstanding stock; and
- c) No shareholder (or voting block) beneficially owns 15% or more of the company.

Thus, failure of any one of the three criteria results in a vote for cumulative voting in accordance with the general policy.

Rationale: Cumulative voting is a tool that should be used to ensure that holders of a significant number of shares may have Board representation; however, the presence of other safeguards may make their use unnecessary.

C. Supermajority Voting Requirements

DWS's policy is to vote "Against" Management proposals to require a supermajority vote to amend the charter or bylaws and to vote "For" shareholder proposals to modify or rescind existing supermajority requirements.

*Exception made when company holds a controlling position and seeks to lower threshold to maintain control and/or make changes to corporate by-laws.

Rationale: Supermajority voting provisions violate the democratic principle that a simple majority should carry the vote. Setting supermajority requirements may make it difficult or impossible for shareholders to remove egregious by-law or charter provisions. Occasionally, a company with a significant insider held position might attempt to lower a supermajority threshold to make it easier for Management to approve provisions that may be detrimental to shareholders. In that case, it may not be in the shareholders' interests to lower the supermajority provision.

D. Shareholder Right to Vote

DWS's policy is to vote "Against" proposals that restrict the right of shareholders to call special meetings, amend the bylaws, or act by written consent. DWS's policy is to vote "For" proposals that remove such restrictions.

Rationale: Any reasonable means whereby shareholders can make their views known to Management or affect the governance process should be supported.

E. Amendments of the Articles

Where it deems necessary, DWS will consider to generally vote "Against" if the vote is an article amendment that would lengthen the term of office for directors over 3 years.

F. Related Party Transactions

DWS will analyse related party transactions on a CASE-BY-CASE basis and will additionally consider ISS recommendations.

IV. Compensation

Annual Incentive Plans or Bonus Plans are often submitted to shareholders for approval. These plans typically award cash to executives based on company performance. Deutsche Bank believes that the responsibility for executive compensation decisions rest with the Board of Directors and/or the compensation committee, and its policy is not to second-guess the Board's award of cash compensation amounts to executives unless a particular award or series of awards is deemed excessive. If stock options are awarded as part of these bonus or incentive plans, the provisions must meet Deutsche Bank's criteria regarding stock option plans or similar stock-based incentive compensation schemes, as set forth below.

A. Executive and Director Stock Option Plans

DWS's policy is to vote "For" stock option plans that meet the following criteria:

1. The resulting dilution of existing shares is less than: (a) 15% of outstanding shares for large capital corporations; or (b) 20% of outstanding shares for small-mid capital companies (companies having a market capitalization under one billion US dollars).
2. The transfer of equity resulting from granting options at less than fair market value ("FMV") is no greater than 3% of the over-all market capitalization of large capital corporations or 5% of market cap for small-mid capital companies.
3. The plan does not contain express repricing provisions and, in the absence of an express statement that options will not be repriced, the company does not have a history of repricing options.
4. The plan does not grant options on super-voting stock.

DWS will support performance-based option proposals as long as: (a) they do not mandate that all options granted by the company must be performance based; and (b) only certain high-level executives are subject to receive the performance based options.

DWS will support proposals to eliminate the payment of outside Director Pensions.

Rationale: Determining the cost to the company and to shareholders of stock-based incentive plans raises significant issues not encountered with cash-based compensation plans. These include the potential dilution of existing shareholders' voting power, the transfer of equity out of the company resulting from the grant and execution of options at less than FMV and the authority to reprice or replace underwater options. Our stock option plan analysis model seeks to allow reasonable levels of flexibility for a company yet still protect shareholders from the negative impact of excessive stock compensation. Acknowledging that small mid-capital corporations often rely more heavily on stock option plans as their main source of executive compensation and may not be able to compete with their large capital competitors with cash compensation, we provide slightly more flexibility for those companies.

B. Employee Stock Option / Purchase Plans

DWS's policy is to vote "For" employee stock purchase plans ("ESPPs") when the plan complies with Internal Revenue Code Section 423, allowing non-Management employees to purchase stock at 85% of FMV.

DWS's policy is to vote "For" employee stock option plans ("ESOPs") provided they meet the standards for stock option plans in general. However, when computing dilution and transfer of equity, ESOPs are considered independently from executive and Director Option plans.

Rationale: ESOPs and ESPPs encourage rank-and-file employees to acquire an ownership stake in the companies they work for and have been shown to promote employee loyalty and improve productivity.

C. Golden Parachutes

DWS's policy is to vote "For" proposals to require shareholder approval of golden parachutes and for proposals that would limit golden parachutes to no more than three times base compensation. DWS's policy is to vote on a case-by-case basis regarding more restrictive shareholder proposals to limit golden parachutes.

Rationale: In setting a reasonable limitation, DWS considers that an effective parachute should be less attractive than continued employment and that the IRS has opined that amounts greater than three times annual salary, are excessive.

D. Proposals to Limit Benefits or Executive Compensation

DWS's policy is to vote "Against":

1. Proposals to limit benefits, pensions or compensation; and
2. Proposals that request or require disclosure of executive compensation greater than the disclosure required by Securities and Exchange Commission ("SEC") regulations.

Rationale: Levels of compensation and benefits are generally considered to be day-to-day operations of the company, and are best left unrestricted by arbitrary limitations proposed by shareholders.

E. Shareholder Proposals Concerning "Pay for Superior Performance"

DWS's policy is to address pay for superior performance proposals on a case-by-case basis, subject to review by the GPVSC as set forth in DWS's Proxy Voting Policy and Guidelines, based on recommendation by ISS and in consideration of the following factors:

- What aspects of the company's annual and long-term equity incentive programs are performance driven?
- If the annual and long-term equity incentive programs are performance driven, are the performance criteria and hurdle rates disclosed to shareholders or are they benchmarked against a disclosed peer group?
- Can shareholders assess the correlation between pay and performance based on the current disclosure?
- What type of industry and stage of business cycle does the company belong to?

These proposals generally include the following principles:

- Set compensation targets for the plan's annual and long-term incentive pay components at or below the peer group median;
- Deliver a majority of the plan's target long-term compensation through performance-vested, not simply time-vested, equity awards;

- Provide the strategic rationale and relative weightings of the financial and non-financial performance metrics or criteria used in the annual and performance-vested long-term incentive components of the plan;
- Establish performance targets for each plan financial metric relative to the performance of the company's peer companies;
- Limit payment under the annual and performance-vested long-term incentive components of the plan to when the company's performance on its selected financial performance metrics exceeds peer group median performance.

Rationale: While DWS agrees that compensation issues are better left to the discretion of Management, there remains the need to monitor for excessive and problematic compensation practices on a case-by-case basis. If, after a review of the ISS metrics, DWS is comfortable with ISS's applying this calculation DWS will vote according to ISS recommendation.

F. Executive Compensation Advisory

DWS's policy is to support management or shareholder proposals to propose an advisory resolution seeking to ratify the compensation of the company's named executive officers ("NEOs") on an annual basis "say on pay").

Rationale: DWS believes that controls exist within senior Management and corporate compensation committees, ensuring fair compensation to executives. However, an annual advisory vote represents a good opportunity for shareholders to have a transparent and clear exchange of views with the company of the executive compensation structures.

G. Advisory Votes on Executive Compensation

DWS's policy is to vote on a case-by-case basis on ballot items related to executive pay and practices, as well as certain aspects of outside director compensation, including recommendations by ISS where applicable, subject to review by the GPVSC as set forth in DWS's Proxy Voting Policy and Guidelines.

DWS's policy is to vote against Advisory Votes on Executive Compensation (Management Say-on-Pay—MSOP) if:

- There is a significant misalignment between CEO pay and company performance (pay for performance);
- The company maintains significant problematic pay practices;
- The board exhibits a significant level of poor communication and responsiveness to shareholders.

Primary Evaluation Factors for Executive Pay

Pay-for-Performance Evaluation

DWS will consider the pay-for-performance analysis conducted annually by an independent third party, currently ISS, to identify strong or satisfactory alignment between pay and performance over a sustained period. With respect to companies in the Russell 3000 or Russell 3000E Indices, DWS considers the following based on ISS' analysis:

1. Peer Group Alignment:

- The degree of alignment between the company's annualized TSR rank and the CEO's annualized total pay rank within a peer group, each measured over a three-year period.
- The multiple of the CEO's total pay relative to the peer group median.

2. Absolute Alignment – the absolute alignment between the trend in CEO pay and company TSR over the prior five fiscal years – i.e., the difference between the trend in annual pay changes and the trend in annualized TSR during the period.

If the above analysis demonstrates significant unsatisfactory long-term pay-for-performance alignment or, in the case of companies outside the Russell indices, misaligned pay and performance are otherwise suggested, DWS may consider any of the following qualitative factors as relevant to evaluating how various pay elements may work to encourage or to undermine long-term value creation and alignment with shareholder interests:

- The ratio of performance- to time-based equity awards;
- The overall ratio of performance-based compensation;
- The completeness of disclosure and rigor of performance goals;
- The company's peer group benchmarking practices;
- Actual results of financial/operational metrics, such as growth in revenue, profit, cash flow, etc., both absolute and relative to peers;
- Special circumstances related to, for example, a new CEO in the prior FY or anomalous equity grant practices (e.g., bi-annual awards);
- Realizable pay compared to grant pay; and

- Any other factors deemed relevant.

Where it deems necessary, DWS will also take into account the following additional factors:

- Systems that entitle the company to recover any sums already paid where necessary (e.g. claw-back system). Deviations are possible wherever the company provides a reasonable explanation why a claw-back was not implemented.

Problematic Pay Practices

DWS's policy is to defer to ISS' recommendation regarding executive compensation practices that contravene the global pay principles considered by ISS in evaluating executive pay and practices, including:

- Problematic practices related to non-performance-based compensation elements;
- Incentives that may motivate excessive risk-taking; and
- Options Backdating.

Problematic Pay Practices related to Non-Performance-Based Compensation Elements

DWS's policy is, in general, to evaluate pay elements that are not directly based on performance on a case-by-case considering the context of a company's overall pay program and demonstrated pay-for-performance philosophy. DWS will defer to ISS' analysis of specific pay practices that have been identified as potentially problematic and may lead to negative recommendations if they are deemed to be inappropriate or unjustified relative to executive pay best practices. The list below highlights the problematic practices that carry significant weight in DWS's overall consideration and may result in adverse vote recommendations:

- Repricing or replacing of underwater stock options/SARS without prior shareholder approval (including cash buyouts and voluntary surrender of underwater options);
- Excessive perquisites or tax gross-ups, including any gross-up related to a secular trust or restricted stock vesting;
- New or extended agreements that provide for:
 - CIC payments exceeding 3 times base salary and average/target/most recent bonus;
 - CIC severance payments without involuntary job loss or substantial diminution of duties ("single" or "modified single" triggers);
 - CIC payments with excise tax gross-ups (including "modified" gross-ups);
- Insufficient executive compensation disclosure by externally- managed issuers (EMIs) such that a reasonable assessment of pay programs and practices applicable to the EMI's executives is not possible.

Incentives that may Motivate Excessive Risk-Taking

- Multi-year guaranteed bonuses;
- A single or common performance metric used for short- and long-term plans;
- Lucrative severance packages;
- High pay opportunities relative to industry peers;
- Disproportionate supplemental pensions; or
- Mega annual equity grants that provide unlimited upside with no downside risk.

Factors that potentially mitigate the impact of risky incentives include rigorous claw-back provisions and robust stock ownership/holding guidelines.

Options Backdating

DWS's policy is to examine the following factors case-by-case to allow for distinctions to be made between "sloppy" plan administration versus deliberate action or fraud:

- Reason and motive for the options backdating issue, such as inadvertent vs. deliberate grant date changes;
- Duration of options backdating;
- Size of restatement due to options backdating;
- Corrective actions taken by the board or compensation committee, such as cancelling or re-pricing backdated options, the recouping of option gains on backdated grants; and
- Adoption of a grant policy that prohibits backdating, and creates a fixed grant schedule or window period for equity grants in the future.

DWS may rely on ISS's analysis of the foregoing and may defer to ISS's recommendation subject to review by the GPVSC.

Rationale: While DWS agrees that compensation issues are better left to the discretion of Management, there remains a need to take action on this nonbinding proposal if excessive or problematic compensation practices exist.

H. Frequency of Advisory Vote on Executive Compensation

DWS's policy is to vote "For" annual advisory votes on compensation, which provide the most consistent and clear communication channel for shareholder concerns about companies' executive pay programs.

Rationale: DWS believes that annual advisory vote gives shareholders the opportunity to express any compensation concerns to the Executive Compensation proposal which is an advisory voting.

V. Anti-Takeover Related Issues

A. Shareholder Rights Plans ("Poison Pills")

DWS's policy is to vote "For" proposals to require shareholder ratification of poison pills or that request Boards to redeem poison pills, and to vote "Against" the adoption of poison pills if they are submitted for shareholder ratification.

Rationale: Poison pills are the most prevalent form of corporate takeover defenses and can be (and usually are) adopted without shareholder review or consent. The potential cost of poison pills to shareholders during an attempted takeover outweighs the benefits.

B. Reincorporation

DWS's policy is to examine reincorporation proposals on a case-by-case basis. The voting decision is based on:

1. Differences in state law between the existing state of incorporation and the proposed state of incorporation; and
2. Differences between the existing and the proposed charter / bylaws / articles of incorporation and their effect on shareholder rights.

If changes resulting from the proposed reincorporation violate the corporate governance principles set forth in these guidelines, the reincorporation will be deemed contrary to shareholder's interests and a vote cast "against."

Rationale: Reincorporations can be properly analyzed only by looking at the advantages and disadvantages to their shareholders. Care must be taken that anti-takeover protection is not the sole or primary result of a proposed change.

C. Fair-Price Proposals

DWS's policy is to vote "For" Management fair-price proposals, provided that:

1. The proposal applies only to two-tier offers;
2. The proposal sets an objective fair-price test based on the highest price that the acquirer has paid for a company's shares;
3. The supermajority requirement for bids that fail the fair-price test is no higher than two-thirds of the outstanding shares; and
4. The proposal contains no other anti-takeover provisions or provisions that restrict shareholders rights.

A vote is cast "For" shareholder proposals that would modify or repeal existing fair-price requirements that do not meet these standards.

Rationale: While fair price provisions may be used as anti-takeover devices, if adequate provisions are included, they provide some protection to shareholders who have some say in their application and the ability to reject those protections if desired.

D. Exemption from State Takeover Laws

DWS's policy is to vote "For" shareholder proposals to opt out of state takeover laws and to vote "Against" Management proposals requesting to opt out of state takeover laws.

Rationale: Control share statutes, enacted at the state level, may harm long-term share value by entrenching Management. They also unfairly deny certain shares their inherent voting rights.

E. Non-Financial Effects of Takeover Bids

Policy is to vote “Against” shareholder proposals to require consideration of non-financial effects of merger or acquisition proposals.

Rationale: Non-financial effects may often be subjective and are secondary to DWS’s stated purpose of acting in its client’s best economic interest.

VI. Mergers & Acquisitions

Evaluation of mergers, acquisitions and other special corporate transactions (i.e., takeovers, spin-offs, sales of assets, reorganizations, restructurings, and recapitalizations) are performed on a case-by-case basis, including consideration of ISS’s analysis and recommendations where applicable, subject to review by the GPVSC. AM’s policy is to review and evaluate the merits and drawbacks of the proposed transaction, balancing various and sometimes countervailing factors including:

- Valuation - Is the value to be received by the target shareholders (or paid by the acquirer) reasonable? While the fairness opinion may provide an initial starting point for assessing valuation reasonableness, emphasis is placed on the offer premium, market reaction and strategic rationale.
- Market reaction - How has the market responded to the proposed deal? A negative market reaction should cause closer scrutiny of a deal.
- Strategic rationale - Does the deal make sense strategically? From where is the value derived? Cost and revenue synergies should not be overly aggressive or optimistic, but reasonably achievable. Management should also have a favorable track record of successful integration of historical acquisitions.
- Negotiations and process - Were the terms of the transaction negotiated at arm’s-length? Was the process fair and equitable? A fair process helps to ensure the best price for shareholders. Significant negotiation “wins” can also signify the deal makers’ competency. The comprehensiveness of the sales process (e.g., full auction, partial auction, no auction) can also affect shareholder value.
- Conflicts of interest - Are insiders benefiting from the transaction disproportionately and inappropriately as compared to non-insider shareholders? As the result of potential conflicts, the directors and officers of the company may be more likely to vote to approve a merger than if they did not hold these interests. Consider whether these interests may have influenced these directors and officers to support or recommend the merger. The CIC figure presented in the “ISS Transaction Summary” section of this report is an aggregate figure that can in certain cases be a misleading indicator of the true value transfer from shareholders to insiders. Where such figure appears to be excessive, analyze the underlying assumptions to determine whether a potential conflict exists.
- Governance - Will the combined company have a better or worse governance profile than the current governance profiles of the respective parties to the transaction? If the governance profile is to change for the worse, the burden is on the company to prove that other issues (such as valuation) outweigh any deterioration in governance.

Additional resources including portfolio management and research analysts may be considered as set forth in DWS’s policies and procedures.

VII. Environmental, Social, and Governance Issues

Environmental, social, and governance issues (“ESG”) are becoming increasingly important to corporate success. We incorporate ESG considerations into both our investment decisions and our proxy voting decisions – particularly if the financial performance of the company could be impacted. Companies or states that seriously contravene internationally accepted ethical principles will be subject to heightened scrutiny.

A. Principles for Responsible Investment

DWS policy is to actively engage with companies on ESG issues and participate in ESG initiatives. In this context, DWS: (a) votes “For” increased disclosure on ESG issues; (b) is willing to participate in the development of policy, regulation, and standard setting (such as promoting and protecting shareholder rights); (c) could support shareholder initiatives and also file shareholder resolutions with long term ESG considerations and improved ESG disclosure, when applicable; (d) could support standardized ESG reporting and issues to be integrated within annual financial reports; and (e) on a case-by-case basis, on other votes related to ESG issues.

Rationale: ESG issues can affect the performance of investment portfolios (to varying degrees across companies, sectors, regions, asset classes, and through time).

B. ESG Issues

DWS's policy will also consider the Coalition for Environmentally Responsible Economies ("CERES") recommendation on Environmental matters contained in the CERES Principles and the recommendations on social and sustainability issues not specifically addressed elsewhere in these Guidelines. DWS may consider ISS to identify shareholder proposals addressing CERES Principles and may have proxies voted in accordance with ISS' predetermined voting guidelines on CERES Principles. DWS's policy is to generally vote for social and environmental shareholder proposals that

promote good corporate citizens while enhancing long-term shareholder and stakeholder value. DWS's policy is to vote for disclosure reports that seek additional information particularly when it appears companies have not adequately addressed shareholders' social, workforce, and environmental concerns. In determining vote recommendations on shareholder social, workforce, and environmental proposals, DWS will consider the recommendation of ISS along with various other factors including:

- Whether the proposal itself is well framed and reasonable;
- Whether adoption of the proposal would have either a positive or negative impact on the company's short-term or long-term share value;
- Whether the company's analysis and voting recommendation to shareholders is persuasive;
- The degree to which the company's stated position on the issues could affect its reputation or sales, or leave it vulnerable to boycott or selective purchasing;
- Whether the subject of the proposal is best left to the discretion of the board;
- Whether the issues presented in the proposal are best dealt with through legislation, government regulation, or company-specific action;
- The company's approach compared with its peers or any industry standard practices for addressing the issue(s) raised by the proposal;
- Whether the company has already responded in an appropriate or sufficient manner to the issue(s) raised in the proposal;
- If the proposal requests increased disclosure or greater transparency, whether or not sufficient information is publically available to shareholders and whether it would be unduly burdensome for the company to compile and avail the requested information to shareholders in a more comprehensive or amalgamated fashion;
- Whether implementation of the proposal would achieve the objectives sought in the proposal.

In general, DWS's policy supports proposals that request the company to furnish information helpful to shareholders in evaluating the company's operations, based on ISS' analysis and recommendation. In order to be able to intelligently monitor their investments shareholders often need information best provided by the company in which they have invested. Requests to report such information will merit support. Requests to establish special committees of the board to address broad corporate policy and provide forums for ongoing dialogue on issues including, but not limited to shareholder relations, the environment, human rights, occupational health and safety, and executive compensation, will generally be supported, particularly when they appear to offer a potentially effective method for enhancing shareholder value. DWS's policy is to closely evaluate proposals that ask the company to cease certain actions that the proponent believes are harmful to society or some segment of society with special attention to the company's legal and ethical obligations, its ability to remain profitable, and potential negative publicity if the company fails to honor the request. DWS's policy supports shareholder proposals that improve the company's public image, and reduce exposure to liabilities.

Rationale: DWS supports CERES and as such generally considers the CERES recommendation, but will vote on a case-by-case basis.

VIII. Miscellaneous Items

A. Ratification of Auditors

DWS's policy is to vote "For": (a) the Management recommended selection of auditors; and (b) proposals to require shareholder approval of auditors.

Rationale: Absent evidence that auditors have not performed their duties adequately, support for Management's nomination is warranted.

B. Limitation of Non-Audit Services Provided by Independent Auditor

DWS's policy is to support proposals limiting non-audit fees to 50% of the aggregate annual fees earned by the firm retained as a company's independent auditor.

Rationale: In the wake of financial reporting problems and alleged audit failures at a number of companies, DWS supports the general principle that companies should retain separate firms for audit and consulting services to avoid potential conflicts of interest. However, given the protections afforded

by the Sarbanes-Oxley Act of 2002 (which requires Audit Committee pre-approval for non-audit services and prohibits auditors from providing specific types of services), and the fact that some non-audit services are legitimate audit-related services, complete separation of audit and consulting fees may not be warranted. A reasonable limitation is appropriate to help ensure auditor independence and it is reasonable to expect that audit fees exceed non-audit fees

C. Audit Firm Rotation

DWS's policy is to vote against proposals seeking audit firm rotation, unless there are relevant audit-related issues.

Rationale: Because the Sarbanes-Oxley Act mandates that the lead audit partner be switched every five years, DWS believes that rotation of the actual audit firm would be costly and disruptive, unless DWS believes there are significant audit-related issues.

Where it deems necessary, on audit-related agenda items, DWS will also consider voting "Against", taking into account the following additional factors:

1. The name of the audit firm is not disclosed.
2. No breakdown of audit/non-audit fees is provided.
3. Non-audit fees exceed standard audit and audit-related fees, unless ISS highlights a special justification such as IPOs, M&A or restructuring (this guideline applies only to companies on the country's main index).
4. Auditors are changed without explanation.

D. Transaction of Other Business

DWS's policy is to vote "Against" transaction of other business proposals.

Rationale: This is a routine item to allow shareholders to raise other issues and discuss them at the meeting. As the nature of these issues may not be disclosed prior to the meeting, we recommend a vote against these proposals. This protects shareholders voting by proxy (and not physically present at a meeting) from having action taken at the meeting that they did not receive proper notification of or sufficient opportunity to consider.

E. Motions to Adjourn the Meeting

DWS's Policy is to vote "Against" proposals to adjourn the meeting.

Rationale: Management may seek authority to adjourn the meeting if a favorable outcome is not secured. Shareholders should already have had enough information to make a decision. Once votes have been cast, there is no justification for Management to continue spending time and money to press shareholders for support.

F. Bundled Proposals

DWS's policy is to vote against bundled proposals if any bundled issue would require a vote against it if proposed individually.

Rationale: Shareholders should not be forced to "take the good with the bad" in cases where the proposals could reasonably have been submitted separately.

G. Change of Company Name

DWS's policy is to support Management on proposals to change the company name.

Rationale: This is generally considered a business decision for a company.

H. Proposals Related to the Annual Meeting

DWS's Policy is to vote "For" Management for proposals related to the conduct of the annual meeting (meeting time, place, etc.)

Rationale: These are considered routine administrative proposals.

I. Reimbursement of Expenses Incurred from Candidate Nomination

DWS's policy is to follow Management's recommended vote on shareholder proposals related to the amending of company bylaws to provide for the reimbursement of reasonable expenses incurred in connection with nominating one or more candidates in a contested election of Directors to the corporation's Board of Directors.

Rationale: Corporations should not be liable for costs associated with shareholder proposals for Directors.

J. Investment Company Proxies

Proxies solicited by investment companies are voted in accordance with the recommendations of an independent third party, currently ISS. However, regarding investment companies for which DWS or an affiliate serves as investment adviser or principal underwriter, such proxies are voted in the same proportion as the vote of all other shareholders. Proxies solicited by master funds from feeder funds will be voted in accordance with applicable provisions of Section 12 of the Investment Company Act of 1940 ("Investment Company Act").

Investment companies, particularly closed-end investment companies, are different from traditional operating companies. These differences may call for differences in voting positions on the same matter. For example, DWS could vote "For" staggered Boards of closed-end investment companies, although DWS generally votes "Against" staggered Boards for operating companies. Further, the manner in which DWS votes investment company proxies may differ from proposals for which a DWS-advised investment company solicits proxies from its shareholders. As reflected in the Guidelines, proxies solicited by closed-end (and open-end) investment companies are voted in accordance with the pre-determined guidelines of an independent third-party.

Subject to participation agreements with certain Exchange Traded Funds ("ETF") issuers that have received exemptive orders from the US Securities and Exchange Commission allowing investing DWS Funds to exceed the limits set forth in Section 12(d)(1)(A) and (B) of the Investment Company Act, DWS will echo vote proxies for ETFs in which Deutsche Bank holds more than 25% of outstanding voting shares globally when required to do so by participation agreements and SEC orders.

Note: With respect to the DWS Central Cash Management Government Fund (registered under the Investment Company Act), the Fund is not required to engage in echo voting and the investment adviser will use these Guidelines, and may determine, with respect to the DWS Central Cash Management Government Fund, to vote contrary to the positions in the Guidelines, consistent with the Fund's best interest.

The above guidelines pertain to issuers organized in the United States and Canada. Proxies solicited by other issuers are voted in accordance with international guidelines or the recommendation of ISS and in accordance with applicable law and regulation.

IX. International Proxy Voting Guidelines With Application For Holdings Incorporated Outside the United States and Canada

A. Election of Directors

Where it deems necessary, DWS will also take into account the following additional factors:

- A combined CEO/Chairman role without a lead Independent Director in place would trigger a vote "Against" the CEO/Chairman.
It is essential that the board have a lead independent director, who should have approval over information flow to the board, meeting agendas and meeting schedules to ensure a structure that provides an appropriate balance between the powers of the CEO and those of the independent directors.
- Attendance at Board meetings not disclosed on an individual basis in the annual report or on the company's website and neither is the reported overall attendance above 90 %. An individual candidate has attended fewer than 75 % of the board and audit / risk committee meetings in a given year without a satisfactory explanation for his / her absence disclosed in a clear and comprehensible form in the relevant proxy filings. Satisfactory explanation will be understood as any health issues or family incidents. These would trigger a vote "Against" the election of the corresponding directors.
- DWS will vote with an "Against" if the election of a candidate results in a direct transition from executive (incl. the CEO) to non-executive directorship (i.e. without a cooling off of minimum two years). In especially warranted cases, executive directors with a long and proven track record can become non-executive directors if this change is in line with the national best practice for corporate governance.
- A former executive director who is nominated for a membership on the non-executive board when two or more former executive directors already serve on the same board would result in a vote "Against" the former executive, as the board cannot be regarded as independent anymore.
- Relevant committees in place and their majority independent. If the main committees are not majority independent, this could trigger a vote "Abstain" on the Chairman of the board and if the Chairman is not up for election, "Abstain" on the non-independent committee members.
- The management of Environmental Social and Governance (ESG) controversies around company will be analysed on a case-by-case basis based on relevant internationally recognized E, S or G principles (e.g. the UN Global Compact

Principles and OECD Guidelines for Multinationals). Under extraordinary circumstances, DWS will vote against the election of directors or the entire board if there were material failures of governance, stewardship, risk oversight, or fiduciary responsibilities identified as a result of the controversies around the company.

- When the director election lengthens the term of office, DWS will consider voting “Against” this election.*
In the absence of an annual election, we are generally supportive of staggered boards as the perpetual renewal of an appropriate proportion of the board members secures an active succession planning. In cases where the annual (re-)election is established, DWS would oppose proposals that would lengthen the term of office (i.e. from annual election to terms of two/three years or more).

***Note – This guideline would not pertain to closed-end or open-end funds.**

B. Remuneration (Variable Pay)

Executive remuneration for Management Board

Where it deems necessary, DWS will also take into account the following additional factors:

- Systems that entitle the company to recover any sums already paid (e.g. claw-back-system). Deviations are possible wherever the company provides a reasonable explanation why a claw-back was not implemented.

DWS’s policy is to vote “For” Management Board remuneration that is transparent and linked to results.

Rationale: Executive compensation should motivate Management and align the interests of Management with the shareholders. The focus should be on criteria that prevent excessive remuneration; but enable the company to hire and retain first-class professionals.

Shareholder interests are normally best served when Management is remunerated to optimise long-term returns. Criteria should include suitable measurements like return on capital employed or economic value added.

Interests should generally also be correctly aligned when Management own shares in the company – even more so if these shares represent a substantial portion of their own wealth.

Its disclosure shall differentiate between fixed pay, variable (performance related) pay, and long-term incentives, including stock option plans with valuation ranges as well as pension and any other significant arrangements.

Executive remuneration for Supervisory Board

DWS’s policy is to vote “For” remuneration for Supervisory Board that is at least 50% in fixed form.

Rationale: It would normally be preferable if performance linked compensation were not based on dividend payments, but linked to suitable result based parameters. Consulting and procurement services should also be published in the company report.

C. Long-Term Incentive Plans

DWS’s policy is to vote “For” long-term incentive plans for members of a Management Board that reward for above average company performance.

Rationale: Incentive plans will normally be supported if they:

1. Directly align the interests of members of Management Boards with those of shareholders;
2. Establish challenging performance criteria to reward only above average performance;
3. Measure performance by total shareholder return in relation to the market or a range of comparable companies;
4. Are long-term in nature and encourage long-term ownership of the shares once exercised through minimum holding periods; and
5. Do not allow a repricing of the exercise price in stock option plans.

D. Proposals to Restrict Supervisory Board Members Service on Multiple Boards

DWS’s policy is to vote “For” proposals to restrict a Supervisory Board Member from serving on more than five Supervisory Boards.

Rationale: We consider a strong, independent, and knowledgeable Supervisory Board as important counter-balance to executive Management to ensure that the interests of shareholders are fully reflected by the company.

Full information should be disclosed in the annual reports and accounts to allow all shareholders to judge the success of the Supervisory Board controlling their company.

Supervisory Board Members must have sufficient time to ensure that shareholders' interests are represented adequately.

Note: A Director's service on multiple closed-end fund Boards within a fund complex are treated as service on a single Board for the purpose of the proxy voting guidelines.

E. Establishment of a Remuneration Committee

DWS's policy is to vote "For" proposals that require the establishment of a Remuneration Committee.

Rationale: Corporations should disclose in each annual report or proxy statement their policies on remuneration. Essential details regarding executive remuneration including share options, long-term incentive plans and bonuses, should be disclosed in the annual report, so that investors can judge whether corporate pay policies and practices meet the standard.

The Remuneration Committee shall not comprise any Board members and should be sensitive to the wider scene on executive pay. It should ensure that performance-based elements of executive pay are designed to align the interests of shareholders.

F. Management Board Election and Motion

DWS's policy is to vote "Against":

1. The election of Board members with positions on either Remuneration or Audit Committees;
2. The election of Supervisory Board members with too many Supervisory Board mandates; and
3. "Automatic" election of former Board members into the Supervisory Board.

Rationale: Management as an entity, and each of its members, are responsible for all actions of the company, and are – subject to applicable laws and regulations – accountable to the shareholders as a whole for their actions.

Sufficient information should be disclosed in the annual company report and account to allow shareholders to judge the success of the company.

G. Large Block Issuance

For the UK market the following applies:

Generally vote for a resolution to authorise the issuance of equity, unless:

- The issuance authority exceeds 33 percent of the issued share capital. Assuming it is no more than 33 percent, a further 33 percent of the issued share capital may also be applied to a fully pre-emptive rights issue taking the acceptable aggregate authority to 66 percent

Where it deems necessary, DWS will also consider voting "Against", taking into account the following additional factors:

- The combined equity issuance of all equity instruments with pre-emptive rights exceeds 50 percent of the outstanding share capital or the prevailing maximum threshold as stipulated by best practice rules for corporate governance in the respective country. Exceeding either of the two thresholds will be judged on a CASE-BY- CASE basis, provided that the subscription rights are actively tradable in the market.
- The cumulative equity issuances without subscription rights (historical and across instruments) exceed the maximum level specified in a respective country's best practices for corporate governance or 30 percent% of the company's nominal capital.

H. Share Repurchases

Where it deems necessary, DWS will also analyse on a CASE-BY-CASE basis, if the maximum offer/price premium exceeds 10 percent and if the share repurchase program exceeds a maximum of 10 percent of issued share capital.

Rationale: Buybacks are generally considered beneficial to shareholders because they tend to increase returns to the remaining shareholders. However, if the maximum offer premium exceeds 10 percent and the program itself exceeds 10 percent of issued capital, this could indicate potential risks for the shareholders in the longer term.

I. Use of Net Profits

Where it deems necessary, DWS will also consider voting "Against", taking into account the following factors:

1. The dividend payout ratio has been below 20% for two consecutive years despite a limited availability of profitable growth opportunities, and management has not given/provided adequate reasons for this decision.
2. The payout ratio exceeds 100 % of the distributable profits without appropriate reason (the company pays a dividend which affects its book value).

J. Amendments of the Articles

Where it deems necessary, DWS will consider to generally to vote “Against” if the vote is an article amendment that would lengthen the term of office for directors over 3 years.

K. Related Party Transactions

DWS will analyse related party transactions on a CASE-BY-CASE basis and will additionally consider ISS recommendations.

L. Auditor

Where it deems necessary, on audit-related agenda items, DWS will also consider voting “Against”, taking into account the following additional factors:

1. The name of the audit firm is not disclosed.
2. No breakdown of audit/non-audit fees is provided.
3. Non-audit fees exceed standard audit and audit-related- fees, unless ISS highlights a special justification such as IPOs, M&A or restructuring (this guideline applies only to companies on the country’s main index).
4. Auditors are changed without explanation.
5. The same lead audit partner has been appointed for more than five years.
6. Consequently, when the company does not publish the name of its lead auditor and the duration for which she / he has been previously appointed. (Markets in which the regulatory requirement for lead partner rotation is maximum five years are exempt from this guideline).

X. Proxy Voting Guidelines With Application For Holdings Incorporated In Japan

With reference to our policy on board composition in Japan, we expect companies, which define the role of the board to have a supervisory function instead of an executive function, to have at least two

outside directors and strongly encourage them to ensure that at least 1/3 of the members in their boards are considered independent.

With reference to our policy of defining independence, outlined earlier in this document, in Japan as significant shareholders we will consider those who are in the top ten shareholders, even if their holding represents a share of less than 10%, mainly due to the market practice in Japan for business partners to own a certain percentage of each other’s shares as cross shareholders. With reference to our policy on the separation of the CEO and chairman roles and responsibilities, we strongly encourage our Japanese investees to disclose the member, who chairs the board as well as the member, who is considered to chair the company, the so called “Kaicho”, if these roles are separated. We also expect and foster our investees in Japan to establish the relevant formal committees- nomination, remuneration and audit.

Rationale: We acknowledge what has been achieved in the last couple of years in the corporate governance developments in Japan and support the progress, which has been made in that regard, in particular with the introduction of the Corporate Governance and Stewardship codes. We aspire to be in a constructive dialogue with our investees and to act as their steering partner to drive further developments in the corporate governance area. However, we foster our investees in Japan to strive to have more independent boards generally, as we believe board independence is crucial for the further development of corporate governance in Japan.

GW&K INVESTMENT MANAGEMENT, LLC
PROXY VOTING
December 2018
INTRODUCTION

As a SEC-registered investment adviser and fiduciary to its clients, GW&K has implemented its Proxy Voting Policy to establish internal controls and procedures governing the firm's review and voting of proxies on behalf of client accounts. To assist in the process, GW&K leverages recognized third party service providers to facilitate the firm's proxy voting process.

I. Proxy Guidelines and Proxy Voting Agent

GW&K has adopted proxy voting guidelines developed by Glass Lewis & Co., an independent third-party service provider, which provides recommendations on ballot items for securities held in client accounts. Proxies are voted on behalf of GW&K's clients (who have delegated proxy voting authority) in accordance with those guidelines. GW&K reserves the right to cast votes contrary to Glass Lewis guidelines if it deems it necessary and in the best interest of its clients.

GW&K has contracted with Broadridge Financial Solutions ("Broadridge"), an independent third party service provider, to act as proxy voting agent and to provide proxy voting services, including:

- 1) Conduct in-depth proxy research;
- 2) Process and vote proxies in connection with securities held by GW&K's clients;
- 3) Maintain appropriate records of proxy statements, research, and recommendations;
- 4) Maintain appropriate records of proxy votes cast on behalf of GW&K's clients;
- 5) Complete other proxy related administrative functions.

II. Responsibility and Oversight

GW&K is responsible for maintaining and administering these policies and procedures. GW&K will:

- 1) Annually review the adequacy of these policies and procedures as well as the effectiveness of its proxy voting agent;
- 2) Annually review Glass Lewis & Co's proxy voting guidelines to ensure they are appropriately designed to meet the best interests of GW&K clients;
- 3) Provide clients, upon written request, these proxy voting policy and procedures, and information about how proxies were voted on their behalf;
- 4) Conduct regular reconciliations with client's custodian banks to confirm the appropriate number of votes cast on behalf of clients when GW&K has been delegated proxy voting authority;
- 5) Conduct a periodic review, no less often than annually, of proxy voting records to ensure that proxies are voted in accordance with adopted guidelines; and
- 6) Annually review proxy voting records to ensure that records of proxy statements, research, recommendations, and proxy votes are properly maintained by its proxy voting agent.

III. Conflicts of Interest

In adopting Glass Lewis & Co's proxy voting guidelines, GW&K seeks to remove potential conflicts of interest that could otherwise potentially influence the proxy voting process. In situations where Broadridge and/or Glass Lewis has a potential conflict of interest with respect to a proxy it is overseeing on behalf of GW&K's clients, Broadridge and/or Glass Lewis is obligated to fully or partially abstain from voting the ballot as applicable and notify GW&K. GW&K's Proxy Committee will provide the voting recommendation after discussion with applicable GW&K Portfolio Managers and a review of the measures involved. Similarly, in instances where GW&K becomes aware of a potential conflict of interest pertaining to a proxy vote for a security held in the client's account, or where a client otherwise makes a request pertaining a specific proxy vote, GW&K's Portfolio Management will provide the voting recommendation after reviewing relevant facts and circumstances.

Voting of Measures Outside of or Contrary to Glass Lewis & Co. Recommendations

In instances when a proxy ballot item does not fall within the Glass Lewis guidelines or where GW&K determines that voting in accordance with the Glass Lewis recommendation is not advisable or consistent with GW&K's fiduciary duty,

GW&K's portfolio managers, with the support of GW&K's Legal & Compliance team and other personnel, will review the relevant facts and circumstances and determine how to vote the particular proxy ballot item.

IV. Disclosure

Clients may obtain Glass Lewis & Co's proxy voting guidelines or information about how GW&K voted proxies for securities held in their account by submitting a written request to:

Proxy Policy Administrator
GW&K Investment Management
222 Berkeley Street, 15th Floor
Boston, Massachusetts 02116

V. Recordkeeping

GW&K will maintain the following records in accordance with regulatory requirements:

- 1) These policies and procedures (including any applicable amendments) which shall be made available to clients upon request;
- 2) Proxy statements, research, recommendations, and records of each vote;
- 3) Client written requests for proxy voting information and applicable responses by GW&K.

VI. Oversight and Documentation

Proxy Committee

GW&K has established a Proxy Voting Committee to oversee the firm's proxy voting process, including the firm's Proxy Voting Policy, the firm's service providers and the proxy voting guidelines. In addition, the Committee would address any potential conflicts of interest that are identified by GW&K with respect to voting any specific proxy ballot item. The Committee is comprised of GW&K's Chief Compliance Officer, General Counsel, managers of GW&K's Investment Operations and Client Services Departments, members of the Legal & Compliance Team, as well as certain GW&K Portfolio Managers. The Committee meets annually, and more frequently as needed.

GW&K's Legal & Compliance Department is responsible for periodically assessing firm compliance with this policy and the effectiveness of its implementation.

**JENNISON ASSOCIATES
PROXY VOTING
POLICY AND PROCEDURES
APRIL 30, 2018**

I. Policy

Jennison (or the “Company”) has adopted the following policy and related procedures to guide the voting of proxies in a manner that is consistent with Jennison’s fiduciary duties and the requirements of Rule 206(4)-6 under the Advisers Act.

In the absence of any written delegation or when proxy voting authority has been delegated in writing to Jennison by clients, Jennison will exercise this voting authority in each client’s best interests. The Company will not consider its own interests, or those of any affiliates, when voting proxies.

Unless otherwise specified by a client, “best interest” means the client’s best economic interest over the long term, as determined by Jennison’s portfolio managers and analysts (“Investment Professionals”) covering the issuer. Secondary consideration may be given to the public and social value of each issue, but absent specific client instructions, long term economic interests will be the primary basis for voting.

Jennison will disclose information about its proxy voting policies and procedures to clients, and will provide a copy of these Proxy Voting Policies and Procedures upon request. The Company will also inform clients how they may obtain information about the votes cast on their behalf.

II. Procedures

Proxy Voting Guidelines

Jennison has adopted proxy voting guidelines (“Guidelines”) with respect to certain recurring issues. When Jennison is responsible for voting proxies, Jennison considers these guidelines except when Jennison accepts custom guidelines.

The Guidelines are reviewed as necessary by the Company’s Proxy Voting Committee and Investment Professionals, and are revised when a change is appropriate. The Proxy Team maintains the Guidelines and distributes copies to the Investment Professionals following any change. The Guidelines are meant to convey Jennison’s general approach to voting decisions on certain issues. Nevertheless, Investment Professionals are responsible for reviewing all proposals related to fundamental strategies individually and making final decisions based on the merits of each voting opportunity.

If an Investment Professional believes that Jennison should vote in a way that is different from the Guidelines, the Proxy Team is notified. In certain circumstances, an Investment Professional may conclude that different clients should vote in different ways, or that it is in the best interests of some or all clients to abstain from voting.

The Proxy Team is responsible for maintaining Investment Professionals’ reasons for deviating from the Guidelines.

Client-Specific Voting Mandates

Any client’s specific voting instructions must be communicated or confirmed by the client in writing, either through a provision in the investment advisory contract or through other written correspondence. Such instructions may call for Jennison to vote the client’s securities according to the client’s own voting guidelines, or may indicate that the Company is not responsible for voting the client’s proxies.

The Proxy Team reviews client specific voting instructions and approves operational implementation, and certain instructions may only be implemented on a best efforts basis. The Proxy Team is responsible for communicating such instructions to the third party vendor.

Use of a Third Party Voting Service

Jennison has engaged an independent third party proxy voting vendor that provides research and analytical services, operational implementation and recordkeeping and reporting services. The proxy voting vendor will cast votes in accordance with the Company’s Guidelines, unless instructed otherwise by the Investment Professionals.

Identifying and Addressing Potential Material Conflicts of Interest

There may be instances where Jennison’s interests conflict materially, or appear to conflict materially, with the interests of clients in connection with a proxy vote (a “Material Conflict”). Examples of potential Material Conflicts include, but are not limited to:

- Jennison managing the pension plan of the issuer.
- Jennison or its affiliates have a material business relationship with the issuer.
- Jennison investment professionals who are related to a person who is senior management or a director at a public

company.

- Jennison has a material investment in a security that the investment professional who is responsible for voting that security's proxy also holds the same security personally.

If an Investment Professional or any other employee perceives a Material Conflict, he or she must promptly report the matter to the Chief Compliance Officer.

When a potential conflict has been identified, the Proxy Team will work with the Investment Professional covering the issuer to complete a *Proxy Voting for Conflicts Documentation Form*.

The Proxy Team is responsible for retaining completed *Proxy Voting for Conflicts Documentation Forms*.

If the Proxy Voting Committee determines that a Material Conflict is present and if the Investment Professional is recommending a vote that deviates from the Guidelines or there is no specific recommended Guideline vote and decisions are made on a case-by-case basis, then the voting decision must be reviewed and approved by the Investment Professional's supervisor and the Proxy Committee prior to casting the vote.

Jennison will not abstain from voting a proxy for the purpose of avoiding a Material Conflict.

Quantitatively Derived Holdings and the Jennison Managed Accounts

In voting proxies for non-fundamental strategies such as quantitatively derived holdings and Jennison Managed Accounts (i.e. "wrap") where the securities are not held elsewhere in the firm, proxies will be voted utilizing the Guidelines. Additionally, in those circumstances where no specific Guidelines exist, the Company will consider the recommendations of the proxy voting vendor.

International Holdings

Jennison will exercise opportunities to vote on international holdings on a best efforts basis. Such votes will be cast based on the same principles that govern domestic holdings.

In some countries casting a proxy vote can adversely affect a client, such as countries that restrict stock sales around the time of the proxy vote by requiring "share blocking" as part of the voting process. The Investment Professional covering the issuer will weigh the expected benefits of voting proxies on international holdings against any anticipated costs or limitations, such as those associated with share blocking. Jennison may abstain from voting if it anticipates that the costs or limitations associated with voting outweigh the benefits.

Securities Lending

Jennison may be unable to vote proxies when the underlying securities have been lent out pursuant to a client's securities lending program. The Company does not know when securities are on loan and are therefore not available to be voted. In rare circumstances, Investment Professionals may ask the Proxy Team to work with the client's custodian to recall the shares so that Jennison can vote. Efforts to recall loaned securities are not always effective since such requests must be submitted prior to the record date for the upcoming proxy vote; therefore voting shares on loan is on a best efforts basis. In determining whether to call back securities that are out on loan, the Investment Professional will consider whether the benefit to the client in voting the matter outweighs the benefit to the client in keeping the security out on loan.

Disclosure to Advisory Clients

Jennison will provide a copy of these Policies and Procedures and the Guidelines to any client upon request. The Company will also provide any client with information about how Jennison has voted that client's proxies upon request. Any such requests should be forwarded to the Proxy Team, which is responsible for responding, and for documenting the correspondence.

Compliance Reporting for Investment Companies

Upon request, the Proxy Team will provide to each investment company board of directors or trustees for which Jennison acts as sub-adviser reporting needed to satisfy their regulatory and board requirements, including, but not limited to, information required for Form NP-X.

III. Internal Controls

Supervisory Review

The Proxy Team periodically notifies each Investment Professional's supervisor of any Guideline overrides authorized by that Investment Professional. The supervisor reviews the overrides to confirm that they appear to have been made based on clients' best interests, and that they were not influenced by any Material Conflict or other considerations.

The Proxy Voting Committee

The Proxy Voting Committee consists of representatives from Operations, Operational Risk, Legal, and Compliance. It meets at least quarterly, and has the following responsibilities:

- Review potential Material Conflicts and decide whether a material conflict is present, and needs to be addressed according to these policies and procedures.
- Review the Guidelines in consultation with the Investment Professionals and make revisions as appropriate.
- Review these Policies and Procedures annually for accuracy and effectiveness, and recommend and adopt any necessary changes.
- Review all Guideline overrides.
- Review quarterly voting metrics and analysis published by the Proxy Team.
- Review the performance of the proxy voting vendor and determine whether Jennison should continue to retain their services.

Equity Trade Management Oversight Council (“ETMOC”)

The ETMOC reviews all Guideline overrides on a quarterly basis to ensure proper override procedures were followed. The ETMOC also reviews any changes to the Guidelines. The ETMOC is comprised of the Chief Executive Officer, Chief Investment Officer, Chief Operating Officer, Chief Compliance Officer, Head of Equity Trading and the Head of Growth Equity, Head of Investment Services and the Head of Alternative Investment Services.

IV. Escalating Concerns

Any concerns about aspects of the policy that lack specific escalation guidance may be reported to the reporting employee’s supervisor, the Chief Compliance Officer, Chief Legal Officer, Chief Risk Officer, Chief Ethics Officer, Chief Operating Officer or Chief Executive Officer. Alternatively Jennison has an Ethics Reporting Hotline phone number and email address that enable employees to raise concerns anonymously. Information about the Ethics Reporting Hotline phone number and email address can be found on the Jennison intranet’s “Ethics” web page.

V. Discipline and Sanctions

All Jennison employees are responsible for understanding and complying with the policies and procedures outlined in this policy. The procedures described in this policy are intended to ensure that Jennison and its employees act in full compliance with the law. Violations of this policy and related procedures will be communicated to your supervisor and to senior management through Jennison’s Compliance Council, and may lead to disciplinary action.

**SSGA FUNDS MANAGEMENT, INC. (“SSGA”)
Proxy Voting and Engagement Guidelines North America
(United States & Canada)
MARCH 2019**

State Street Global Advisors’ North America Proxy Voting and Engagement Guidelines¹ outline our expectations of companies listed on stock exchanges in the US and Canada. These guidelines complement and should be read in conjunction with State Street Global Advisors’ Global Proxy Voting and Engagement Principles, which provide a detailed explanation of our approach to voting and engaging with companies, and State Street Global Advisors’ Conflict Mitigation Guidance.

State Street Global Advisors’ North America Proxy Voting and Engagement Guidelines address areas, including board structure, director tenure, audit related issues, capital structure, executive compensation, as well as environmental, social, and other governance-related issues of companies listed on stock exchanges in the US and Canada (“North America”). Principally, we believe the primary responsibility of the board of directors is to preserve and enhance shareholder value and protect shareholder interests. In order to carry out their primary responsibilities, directors have to undertake activities that range from setting strategy and overseeing executive management to monitoring the risks that arise from a company’s business, including risks related to sustainability issues. Further, good corporate governance necessitates the existence of effective internal controls and risk management systems, which should be governed by the board.

When voting and engaging with companies in global markets, we consider market specific nuances in the manner that we believe will most likely protect and promote the long-term economic value of client investments. We expect companies to observe the relevant laws and regulations of their respective markets, as well as country specific best practice guidelines and corporate governance codes. When we feel that a country’s regulatory requirements do not address some of the key philosophical principles that we believe are fundamental to its global voting guidelines, we may hold companies in such markets to our global standards.

In its analysis and research about corporate governance issues in North America, we expect all companies to act in a transparent manner and to provide detailed disclosure on board profiles, related-party transactions, executive compensation, and other governance issues that impact shareholders’ long-term interests. Further, as a founding member of the Investor Stewardship Group (“ISG”), we proactively monitor companies’ adherence to the Corporate Governance Principles for US listed companies. Consistent with the “comply-or-explain” expectations established by the principles, we encourage companies to proactively disclose their level of compliance with the principles. In instances of non-compliance when companies cannot explain the nuances of their governance structure effectively, either publicly or through engagement, we may vote against the independent board leader.

State Street Global Advisors’ Proxy Voting and Engagement Philosophy

Corporate governance and sustainability issues are an integral part of the investment process. The Asset Stewardship Team consists of investment professionals with expertise in corporate governance and company law, remuneration, accounting, and environmental and social issues. We have established robust corporate governance principles and practices that are backed with extensive analytical expertise to understand the complexities of the corporate governance landscape. We engage with companies to provide insight on the principles and practices that drive our voting decisions. We also conduct proactive engagements to address significant shareholder concerns and environmental, social, and governance (“ESG”) issues in a manner consistent with maximizing shareholder value.

The team works alongside members of State Street Global Advisors’ Active Fundamental and various other investment teams, collaborating on issuer engagements and providing input on company specific fundamentals. We are also a member of various investor associations that seek to address broader corporate governance related policy issues in North America.

State Street Global Advisors is a signatory to the United Nations Principles of Responsible Investment (“UNPRI”) and is compliant with the US Investor Stewardship Group Principles. We are committed to sustainable investing and are working to further integrate ESG principles into investment and corporate governance practices, where applicable and consistent with our fiduciary duty.

Directors and Boards

State Street Global Advisors believes that a well constituted board of directors, with a balance of skills, expertise, and independence, provides the foundations for a well governed company. We view board quality as a measure of director independence, director succession planning, board diversity, evaluations and refreshment, and company governance practices. We vote for the election/re-election of directors on a case-by-case basis after considering various factors, including board quality, general market practice, and availability of information on director skills and expertise. In principle, we believe independent directors are crucial to robust corporate governance and help management establish sound corporate governance policies and practices. A sufficiently independent board will most effectively monitor management and perform oversight functions necessary to protect shareholder interests. Further, we expect boards of Russell 3000 and TSX listed companies to have at least one female board member.

Director related proposals include issues submitted to shareholders that deal with the composition of the board or with members of a corporation's board of directors. In deciding the director nominee to support, we consider numerous factors.

Director Elections

Our director election guideline focuses on companies' governance profile to identify if a company demonstrates appropriate governance practices or if it exhibits negative governance practices. Factors we consider when evaluating governance practices include, but are not limited to the following:

- Shareholder rights
- Board independence
- Board structure

If a company demonstrates appropriate governance practices, we believe a director should be classified as independent based upon the relevant listing standards or local market practice standards. In such cases, the composition of the key oversight committees of a board should meet the minimum standards of independence. Accordingly, we will vote against a nominee at a company with appropriate governance practices if the director is classified as non-independent under relevant listing standards or local market practice and serves on a key committee of the board (compensation, audit, nominating, or committees required to be fully independent by local market standards).

Conversely, if a company demonstrates negative governance practices, State Street Global Advisors believes the classification standards for director independence should be elevated. In such circumstances, we will evaluate all director nominees based upon the following classification standards:

- Is the nominee an employee of or related to an employee of the issuer or its auditor?
- Does the nominee provide professional services to the issuer?
- Has the nominee attended an appropriate number of board meetings?
- Has the nominee received non-board related compensation from the issuer?

In the US market where companies demonstrate negative governance practices, these stricter standards will apply not only to directors who are a member of a key committee but to all directors on the board as market practice permits. Accordingly, we will vote against a nominee (with the exception of the CEO) where the board has inappropriate governance practices and is considered not independent based on the above independence criteria.

Additionally, we may withhold votes from directors based on the following:

- Overall average board tenure is excessive. In assessing excessive tenure, we give consideration to factors such as the preponderance of long tenured directors, board refreshment practices, and classified board structures
- Directors attend less than 75% of board meetings without appropriate explanation or providing reason for their failure to meet the attendance threshold
- CEOs of a public company who sit on more than three public company boards
- Director nominees who sit on more than six public company boards
- Directors of companies that have not been responsive to a shareholder proposal that received a majority shareholder support at the last annual or special meeting
- Consideration can be warranted if management submits the proposal(s) on the ballot as a binding management proposal, recommending shareholders vote for the particular proposal(s)
- Directors of companies have unilaterally adopted/ amended company bylaws that negatively impact our shareholder rights (such as fee-shifting, forum selection, and exclusion service bylaws) without putting such amendments to a

shareholder vote

- Compensation committee members where there is a weak relationship between executive pay and performance over a five-year period
- Audit committee members if non-audit fees exceed 50% of total fees paid to the auditors
- Directors who appear to have been remiss in their duties

Director Related Proposals

We generally vote for the following director related proposals:

- Discharge of board members' duties, in the absence of pending litigation, regulatory investigation, charges of fraud, or other indications of significant concern
- Proposals to restore shareholders' ability in order to remove directors with or without cause
- Proposals that permit shareholders to elect directors to fill board vacancies
- Shareholder proposals seeking disclosure regarding the company, board, or compensation committee's use of compensation consultants, such as company name, business relationship(s), and fees paid

We generally vote against the following director related proposals:

- Requirements that candidates for directorships own large amounts of stock before being eligible to be elected
- Proposals that relate to the "transaction of other business as properly comes before the meeting," which extend "blank check" powers to those acting as proxy
- Proposals requiring two candidates per board seat

Majority Voting

We will generally support a majority vote standard based on votes cast for the election of directors.

We will generally vote to support amendments to bylaws that would require simple majority of voting shares (i.e. shares cast) to pass or to repeal certain provisions.

Annual Elections

We generally support the establishment of annual elections of the board of directors. Consideration is given to the overall level of board independence and the independence of the key committees, as well as the existence of a shareholder rights plan.

Cumulative Voting

We do not support cumulative voting structures for the election of directors.

Separation Chair/CEO

We analyze proposals for the separation of Chair/CEO on a case-by-case basis taking into consideration numerous factors, including the appointment of and role played by a lead director, a company's performance, and the overall governance structure of the company.

Proxy Access

In general, we believe that proxy access is a fundamental right and an accountability mechanism for all long-term shareholders. We will consider proposals relating to proxy access on a case-by-case basis. We will support shareholder proposals that set parameters to empower long-term shareholders while providing management the flexibility to design a process that is appropriate for the company's circumstances.

We will review the terms of all other proposals and will support those proposals that have been introduced in the spirit of enhancing shareholder rights.

Considerations include the following:

- The ownership thresholds and holding duration proposed in the resolution
- The binding nature of the proposal
- The number of directors that shareholders may be able to nominate each year
- Company governance structure
- Shareholder rights
- Board performance

Age/Term Limits

Generally, we will vote against age and term limits unless the company is found to have poor board refreshment and director succession practices. We will also vote against if the company has a preponderance of non-executive directors with excessively long tenures serving on the board.

Approve Remuneration of Directors

Generally, we will support directors' compensation, provided the amounts are not excessive relative to other issuers in the market or industry. In making our determination, we review whether the compensation is overly dilutive to existing shareholders.

Indemnification

Generally, we support proposals to limit directors' liability and/or expand indemnification and liability protection if he or she has not acted in bad faith, gross negligence, or reckless disregard of the duties involved in the conduct of his or her office.

Classified Boards

We generally support annual elections for the board of directors.

Confidential Voting

We will support confidential voting.

Board Size

We will support proposals seeking to fix the board size or designate a range for the board size and will vote against proposals that give management the ability to alter the size of the board outside of a specified range without shareholder approval.

Audit-Related Issues

Ratifying Auditors and Approving Auditor Compensation

We support the approval of auditors and auditor compensation provided that the issuer has properly disclosed audit and non-audit fees relative to market practice and the audit fees are not deemed excessive. We deem audit fees to be excessive if the non-audit fees for the prior year constituted 50% or more of the total fees paid to the auditor. We will also support the disclosure of auditor and consulting relationships when the same or related entities are conducting both activities and will support the establishment of a selection committee responsible for the final approval of significant management consultant contract awards where existing firms are already acting in an auditing function.

In circumstances where "other" fees include fees related to initial public offerings, bankruptcy emergence, and spin-offs, and the company makes public disclosure of the amount and nature of those fees which are determined to be an exception to the standard "non-audit fee" category, then such fees may be excluded from the non-audit fees considered in determining the ratio of non-audit to audit/audit-related fees/tax compliance and preparation for purposes of determining whether non-audit fees are excessive.

We will support the discharge of auditors and requirements that auditors attend the annual meeting of shareholders.

Capital-Related Issues

Capital structure proposals include requests by management for approval of amendments to the certificate of incorporation that will alter the capital structure of the company.

The most common request is for an increase in the number of authorized shares of common stock, usually in conjunction with a stock split or dividend. Typically, we support requests that are not unreasonably dilutive or enhance the rights of common shareholders. In considering authorized share proposals, the typical threshold for approval is 100% over current authorized shares. However, the threshold may be increased if the company offers a specific need or purpose (merger, stock splits, growth purposes, etc.). All proposals are evaluated on a case-by-case basis taking into account the company's specific financial situation.

Increase in Authorized Common Shares

In general, we support share increases for general corporate purposes up to 100% of current authorized stock.

We support increases for specific corporate purposes up to 100% of the specific need plus 50% of current authorized common stock for US and Canadian firms.

When applying the thresholds, we will also consider the nature of the specific need, such as mergers and acquisitions and stock splits.

Increase in Authorized Preferred Shares

We vote on a case-by-case basis on proposals to increase the number of preferred shares.

Generally, we will vote for the authorization of preferred stock in cases where the company specifies the voting, dividend, conversion, and other rights of such stock and the terms of the preferred stock appear reasonable.

We will support proposals to create “declawed” blank check preferred stock (stock that cannot be used as a takeover defense). However, we will vote against proposals to increase the number of blank check preferred stock authorized for issuance when no shares have been issued or reserved for a specific purpose.

Unequal Voting Rights

We will not support proposals authorizing the creation of new classes of common stock with superior voting rights and will vote against new classes of preferred stock with unspecified voting, conversion, dividend distribution, and other rights. In addition, we will not support capitalization changes that add “blank check” classes of stock (i.e. classes of stock with undefined voting rights) or classes that dilute the voting interests of existing shareholders.

However, we will support capitalization changes that eliminate other classes of stock and/or unequal voting rights.

Mergers and Acquisitions

Mergers or the reorganization of the structure of a company often involve proposals relating to reincorporation, restructurings, liquidations, and other major changes to the corporation.

Proposals that are in the best interests of the shareholders, demonstrated by enhancing share value or improving the effectiveness of the company’s operations, will be supported.

In general, provisions that are not viewed as economically sound or are thought to be destructive to shareholders’ rights are not supported.

We will generally support transactions that maximize shareholder value. Some of the considerations include the following:

- Offer premium
- Strategic rationale
- Board oversight of the process for the recommended transaction, including, director and/or management conflicts of interest
- Offers made at a premium and where there are no other higher bidders
- Offers in which the secondary market price is substantially lower than the net asset value

We may vote against a transaction considering the following:

- Offers with potentially damaging consequences for minority shareholders because of illiquid stock, especially in some non-US markets
- Offers where we believe there is a reasonable prospect for an enhanced bid or other bidders

The current market price of the security exceeds the bid price at the time of voting

Anti-Takeover Issues

Typically, these are proposals relating to requests by management to amend the certificate of incorporation or bylaws to add or to delete a provision that is deemed to have an anti-takeover effect. The majority of these proposals deal with management’s attempt to add some provision that makes a hostile takeover more difficult or will protect incumbent management in the event of a change in control of the company.

Proposals that reduce shareholders’ rights or have the effect of entrenching incumbent management will not be supported.

Proposals that enhance the right of shareholders to make their own choices as to the desirability of a merger or other proposal are supported.

Shareholder Rights Plans

US We will support mandates requiring shareholder approval of a shareholder rights plans (“poison pill”) and repeals of various anti-takeover related provisions.

In general, we will vote against the adoption or renewal of a US issuer’s shareholder rights plan (“poison pill”).

We will vote for an amendment to a shareholder rights plan (“poison pill”) where the terms of the new plans are more favorable to shareholders’ ability to accept unsolicited offers (i.e. if one of the following conditions are met: (i) minimum trigger, flip-in or flip-over of 20%, (ii) maximum term of three years, (iii) no “dead hand,” “slow hand,” “no hand” nor similar feature that limits the ability of a future board to redeem the pill, and (iv) inclusion of a shareholder redemption feature (qualifying offer clause), permitting ten percent of the shares to call a special meeting or seek a

written consent to vote on rescinding the pill if the board refuses to redeem the pill 90 days after a qualifying offer is announced).

Canada We analyze proposals for shareholder approval of a shareholder rights plan (“poison pill”) on a case-by-case basis taking into consideration numerous factors, including but not limited to, whether it conforms to ‘new generation’ rights plans and the scope of the plan.

Special Meetings

We will vote for shareholder proposals related to special meetings at companies that do not provide shareholders the right to call for a special meeting in their bylaws if:

- The company also does not allow shareholders to act by written consent
- The company allows shareholders to act by written consent but the ownership threshold for acting by written consent is set above 25% of outstanding shares

We will vote for shareholder proposals related to special meetings at companies that give shareholders (with a minimum 10% ownership threshold) the right to call for a special meeting in their bylaws if:

- The current ownership threshold to call for a special meeting is above 25% of outstanding shares

We will vote for management proposals related to special meetings.

Written Consent

We will vote for shareholder proposals on written consent at companies if:

- The company does not have provisions in their bylaws giving shareholders the right to call for a special meeting
- The company allows shareholders the right to call for a special meeting, but the current ownership threshold to call for a special meeting is above 25% of outstanding shares
- The company has a poor governance profile

We will vote management proposals on written consent on a case-by-case basis.

Super-Majority

We will generally vote against amendments to bylaws requiring super-majority shareholder votes to pass or repeal certain provisions. We will vote for the reduction or elimination of super-majority vote requirements, unless management of the issuer was concurrently seeking to or had previously made such a reduction or elimination.

Remuneration Issues

Despite the differences among the types of plans and the awards possible there is a simple underlying philosophy that guides the analysis of all compensation plans; namely, the terms of the plan should be designed to provide an incentive for executives and/or employees to align their interests with those of the shareholders and thus work toward enhancing shareholder value. Plans that benefit participants only when the shareholders also benefit are those most likely to be supported.

Advisory Vote on Executive Compensation and Frequency

State Street Global Advisors believes executive compensation plays a critical role in aligning executives interest with shareholder’s, attracting, retaining and incentivizing key talent, and ensuring positive correlation between the performance achieved by management and the benefits derived by shareholders. We support management proposals on executive compensation where there is a strong relationship between executive pay and performance over a five-year period. We seek adequate disclosure of various compensation elements, absolute and relative pay levels, peer selection and benchmarking, the mix of long-term and short-term incentives, alignment of pay structures with shareholder interests as well as with corporate strategy, and performance. Further shareholders should have the opportunity to assess whether pay structures and levels are aligned with business performance on an annual basis.

In Canada, where advisory votes on executive compensation are not commonplace, we will rely primarily upon engagement to evaluate compensation plans.

Employee Equity Award Plans

We consider numerous criteria when examining equity award proposals. Generally we do not vote against plans for lack of performance or vesting criteria. Rather the main criteria that will result in a vote against an equity award plan are:

Excessive voting power dilution To assess the dilutive effect, we divide the number of shares required to fully fund the proposed plan, the number of authorized but unissued shares and the issued but unexercised shares by the fully diluted share count. We review that number in light of certain factors, such as the industry of the issuer.

Historical option grants Excessive historical option grants over the past three years. Plans that provide for historical grant patterns of greater than five to eight percent are generally not supported.

Repricing We will vote against any plan where repricing is expressly permitted. If a company has a history of repricing underwater options, the plan will not be supported.

Other criteria include the following:

- Number of participants or eligible employees
- The variety of awards possible
- The period of time covered by the plan

There are numerous factors that we view as negative.

If combined they may result in a vote against a proposal. Factors include:

- Grants to individuals or very small groups of participants
- “Gun-jumping” grants which anticipate shareholder approval of a plan or amendment
- The power of the board to exchange “underwater” options without shareholder approval. This pertains to the ability of a company to reprice options, not the actual act of repricing described above
- Below market rate loans to officers to exercise their options
- The ability to grant options at less than fair market value;
- Acceleration of vesting automatically upon a change in control
- Excessive compensation (i.e. compensation plans which we deem to be overly dilutive)

Share Repurchases If a company makes a clear connection between a share repurchase program and its intent to offset dilution created from option plans and the company fully discloses the amount of shares being repurchased, the voting dilution calculation may be adjusted to account for the impact of the buy back.

Companies will not have any such repurchase plan factored into the dilution calculation if they do not (i) clearly state the intentions of any proposed share buy-back plan, (ii) disclose a definitive number of the shares to be bought back, (iii) specify the range of premium/discount to market price at which a company can repurchase shares, and (iv) disclose the time frame during which the shares will be bought back..

162(m) Plan Amendments If a plan would not normally meet our criteria described above, but was primarily amended to add specific performance criteria to be used with awards that were designed to qualify for performance- based exception from the tax deductibility limitations of Section 162(m) of the Internal Revenue Code, then we will support the proposal to amend the plan.

Employee Stock Option Plans

We generally vote for stock purchase plans with an exercise price of not less than 85% of fair market value. However, we take market practice into consideration.

Compensation Related Items

We generally support the following proposals:

- Expansions to reporting of financial or compensation- related information within reason
- Proposals requiring the disclosure of executive retirement benefits if the issuer does not have an independent compensation committee

We generally vote against the following proposal:

- Retirement bonuses for non-executive directors and auditors

Miscellaneous/Routine Items

We generally support the following miscellaneous/routine governance items:

- Reimbursement of all appropriate proxy solicitation expenses associated with the election when voting in conjunction with support of a dissident slate
- Opting-out of business combination provision
- Proposals that remove restrictions on the right of shareholders to act independently of management
- Liquidation of the company if the company will file for bankruptcy if the proposal is not approved
- Shareholder proposals to put option repricings to a shareholder vote
- General updating of, or corrective amendments to, charter and bylaws not otherwise specifically addressed herein,

unless such amendments would reasonably be expected to diminish shareholder rights (e.g. extension of directors' term limits, amending shareholder vote requirement to amend the charter documents, insufficient information provided as to the reason behind the amendment)

- Change in corporation name
- Mandates that amendments to bylaws or charters have shareholder approval
- Management proposals to change the date, time, and/or location of the annual meeting unless the proposed change is unreasonable
- Repeals, prohibitions or adoption of anti-greenmail provisions
- Management proposals to implement a reverse stock split when the number of authorized shares will be proportionately reduced and proposals to implement a reverse stock split to avoid delisting
- Exclusive forum provisions

State Street Global Advisors generally does not support the following miscellaneous/routine governance items:

- Proposals requesting companies to adopt full tenure holding periods for their executives
- Reincorporation to a location that we believe has more negative attributes than its current location of incorporation
- Shareholder proposals to change the date, time, and/or location of the annual meeting unless the current scheduling or location is unreasonable
- Proposals to approve other business when it appears as a voting item
- Proposals giving the board exclusive authority to amend the bylaws
- Proposals to reduce quorum requirements for shareholder meetings below a majority of the shares outstanding unless there are compelling reasons to support the proposal

Environmental and Social Issues

As a fiduciary, State Street Global Advisors takes a comprehensive approach to engaging with our portfolio companies about material environmental and social (sustainability) issues. We use our voice and our vote through engagement, proxy voting, and thought leadership in order to communicate with issuers and educate market participants about our perspective on important sustainability topics. Our Asset Stewardship program prioritization process allows us to proactively identify companies for engagement and voting in order to mitigate sustainability risks in our portfolio. Through engagement, we address a broad range of topics that align with our thematic priorities and build long-term relationships with issuers. When voting, we fundamentally consider whether the adoption of a shareholder proposal addressing a material sustainability issue would promote long-term shareholder value in the context of the company's existing practices and disclosures as well as existing market practice.

For more information on our approach to environmental and social issues, please see our Global Proxy Voting and Engagement Guidelines for Environmental and Social Issues available at ssga.com/about-us/asset-stewardship.html.

More Information

Any client who wishes to receive information on how its proxies were voted should contact its State Street Global Advisors relationship manager.

¹ These Proxy Voting and Engagement Guidelines are also applicable to SSGA Funds Management, Inc." SSGA Funds Management, Inc. is an SEC-registered investment adviser. SSGA Funds Management, Inc., State Street Global Advisors Trust Company, and other advisory affiliates of State Street make up State Street Global Advisors, the investment management arm of State Street Corporation.

² Common for non-US issuers; request from the issuer to discharge from liability the directors or auditors with respect to actions taken by them during the previous year.

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State Street Global Advisors Worldwide Entities

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Montreal, Quebec, H3A 1G1, T: +514 282 2400 and 30 Adelaide Street East Suite 500, Toronto, Ontario M5C 3G6. T: +647 775 5900. **Dubai:** State Street Global Advisors Limited, DIFC Branch, Central Park Towers, Suite 15-38 (15th floor), P.O Box 26838, Dubai International Financial Centre (DIFC), Dubai, United Arab Emirates. Regulated by the Dubai Financial Services Authority (DFSA). T: +971 (0)4 4372800, F: +971 (0)4 4372818. **France:** State Street Global Advisors Ireland Limited, Paris branch is a branch of State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorized and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. State Street Global Advisors Ireland Limited, Paris Branch, is registered in France with company number RCS Nanterre 832 734 602 and whose office is at Immeuble Défense Plaza, 23-25 rue Delarivière-Lefoullon, 92064 Paris La Défense Cedex, France. T: (+33) 1 44 45 40 00. F: (+33) 1 44 45 41 92. **Germany:** State Street Global Advisors GmbH, Brienner Strasse 59, D-80333 Munich. Authorized and regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht ("BaFin"). Registered with the Register of Commerce Munich HRB 121381. T: +49 (0)89 55878 400. F: +49 (0)89 55878 440. **Hong Kong:** State Street Global Advisors Asia Limited, 68/F, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. T: +852 2103-0288. F: +852 2103 0200. **Ireland:** State Street Global Advisors Ireland Limited is regulated by the Central Bank of Ireland. Registered office address 78 Sir John Rogerson's Quay, Dublin 2. Registered number 145221. T: +353 (0)1 776 3000. F: +353 (0)1 776 3300. **Italy:** State Street Global Advisors Ireland Limited, Milan Branch (Sede Secondaria di Milano) is a branch of State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorized and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. State Street Global Advisors Ireland Limited, Milan Branch (Sede Secondaria di Milano), is registered in Italy with company number 10495250960 - R.E.A. 2535585 and VAT number 10495250960 and whose office is at Via dei Bossi, 4 - 20121 Milano, Italy. T: +39 02 32066 100. F: +39 02 32066 155. **Japan:** State Street Global Advisors (Japan) Co., Ltd., Toranomon Hills Mori Tower 25F 1-23-1 Toranomon, Minato-ku, Tokyo 105-6325 Japan, T: +81-3-4530-7380 Financial Instruments Business Operator, Kanto Local Financial Bureau (Kinsho #345) , Membership: Japan Investment Advisers Association, The Investment Trust Association, Japan, Japan Securities Dealers' Association. **Netherlands:** State Street Global Advisors Netherlands, Apollo Building, 7th floor Herikerbergweg 29 1101 CN Amsterdam, Netherlands. Telephone: 31 20 7181701. SSGA Netherlands is a branch office of State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorized and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **Singapore:** State Street Global Advisors Singapore Limited, 168, Robinson Road, #33-01 Capital Tower, Singapore 068912 (Company Reg. No: 200002719D, regulated by the Monetary Authority of Singapore). Telephone: +65 6826 7555. F: +65 6826 7501. **Switzerland:** State Street Global Advisors AG, Beethovenstr. 19, CH-8027 Zurich. Authorized and regulated by the Eidgenössische Finanzmarktaufsicht ("FINMA"). Registered with the Register of Commerce Zurich CHE-105.078.458. T: +41 (0)44 245 70 00. Facsimile F: +41 (0)44 245 70 16. **United Kingdom:** State Street Global Advisors Limited. Authorized and regulated by the Financial Conduct Authority. Registered in England. Registered No. 2509928. VAT No. 5776591 81. Registered office: 20 Churchill Place, Canary Wharf, London, E14 5HJ. T: 020 3395 6000. F: 020 3395 6350. **United States:** State Street Global Advisors, One Iron Street, Boston MA 02210. T: +1 617 786 3000.

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State Street Global Advisors

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STATE STREET GLOBAL ADVISORS CONFLICT MITIGATION GUIDELINES MARCH 2019

State Street Corporation has a comprehensive standalone Conflicts of Interest Policy and other policies that address a range of conflicts of interests identified. In addition, State Street Global Advisors, the asset management business of State Street Corporation, maintains a conflicts register that identifies key conflicts and describes systems in place to mitigate the conflicts. This guidance¹ is designed to act in conjunction with related policies and practices employed by other groups within the organization. Further, they complement those policies and practices by providing specific guidance on managing the conflicts of interests that may arise through State Street Global Advisors' proxy voting and engagement activities.

Managing Conflicts of Interest Related to Proxy Voting

State Street Global Advisors has policies and procedures designed to prevent undue influence on State Street Global Advisors' voting activities that may arise from relationships between proxy issuers or companies and State Street Corporation, State Street Global Advisors, State Street Global Advisors affiliates, State Street Global Advisors Funds or State Street Global Advisors Fund affiliates.

Protocols designed to help mitigate potential conflicts of interest include:

- Providing sole voting discretion to members of State Street Global Advisors' Asset Stewardship team. Members of the Asset Stewardship team may from time to time discuss views on proxy voting matters, company performance, strategy etc. with other State Street Corporation or State Street Global Advisors employees including portfolio managers, senior executives and relationship managers. However, final voting decisions are made solely by the Asset Stewardship team, in a manner that is consistent with the best interests of all clients, taking into account various perspectives on risks and opportunities with a view of maximizing the value of client assets;
 - Exercising a singular vote decision for each ballot item regardless of our investment strategy;
 - Prohibiting members of State Street Global Advisors' Asset Stewardship team from disclosing State Street Global Advisors' voting decision to any individual not affiliated with the proxy voting process prior to the meeting or date of written consent, as the case may be;
 - Mandatory disclosure by members of the State Street Global Advisors' Asset Stewardship team, Global Proxy Review Committee ("PRC") and Investment Committee ("IC") of any personal conflict of interest (e.g., familial relationship with company management, serves as a director on the board of a listed company) to the Head of the Asset Stewardship team. Members are required to recuse themselves from any engagement or proxy voting activities related to the conflict;
 - In certain instances, client accounts and/or State Street Global Advisors pooled funds, where State Street Global Advisors acts as trustee, may hold shares in State Street Corporation or other State Street Global Advisors affiliated entities, such as mutual funds affiliated with State Street Global Advisors Funds Management, Inc.
- In general, State Street Global Advisors will outsource any voting decision relating to a shareholder meeting of State Street Corporation or other State Street Global Advisors affiliated entities to independent outside third parties. Delegated third parties exercise vote decisions based upon State Street Global Advisors' Proxy Voting and Engagement Guidelines ("Guidelines"); and
- Reporting of voting guideline overrides, if any, to the PRC on a quarterly basis.

¹ These Managing Conflicts of Interest arising from State Street Global Advisors' Proxy Voting and Engagement Activity Guidelines are also applicable to State Street Global Advisors Funds Management, Inc. State Street Global Advisors Funds Management, Inc. is an SEC-registered investment adviser. State Street Global Advisors Funds Management, Inc., State Street Global Advisors Trust Company, and other advisory affiliates of State Street make up State Street Global Advisors, the investment management arm of State Street Corporation.

In general, we do not believe matters that fall within the Guidelines and are voted consistently with the Guidelines present any potential conflicts, since the vote on the matter has effectively been determined without reference to the soliciting entity. However, where matters do not fall within the Guidelines or where we believe that voting in accordance with the Guidelines is unwarranted, we conduct an additional review to determine whether there is a conflict of interest. In circumstances where a conflict has been identified and either: (i) the matter does not fall clearly within the Guidelines; or (ii) State Street Global Advisors determines that voting in accordance with such guidance is not in the best interests of its clients, the Head of the Asset Stewardship team will determine whether a material relationship exists. If so, the matter is referred to the PRC.

The PRC then reviews the matter and determines whether a conflict of interest exists, and if so, how to best resolve such conflict. For example, the PRC may (i) determine that the proxy vote does not give rise to a conflict due to the issues presented, (ii) refer the matter to the IC for further evaluation or (iii) retain an independent fiduciary to determine the appropriate vote.

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State Street Global Advisors Worldwide Entities

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State Street Global Advisors

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T. ROWE PRICE ASSOCIATES, INC. AND ITS INVESTMENT ADVISER AFFILIATES
PROXY VOTING POLICIES AND PROCEDURES
February 2020

RESPONSIBILITY TO VOTE PROXIES

T. Rowe Price Associates, Inc., and its affiliated investment advisers (collectively, **“T. Rowe Price”**) recognize and adhere to the principle that one of the privileges of owning stock in a company is the right to vote in the election of the company’s directors and on matters affecting certain important aspects of the company’s structure and operations that are submitted to shareholder vote. The U.S.-registered investment companies which T. Rowe Price sponsors and serves as investment adviser (the **“Price Funds”**) as well as other investment advisory clients have delegated to T. Rowe Price certain proxy voting powers. As an investment adviser, T. Rowe Price has a fiduciary responsibility to such clients when exercising its voting authority with respect to securities held in their portfolios. T. Rowe Price reserves the right to decline to vote proxies in accordance with client-specific voting guidelines.

T. Rowe Price has adopted these Proxy Voting Policies and Procedures (**“Policies and Procedures”**) for the purpose of establishing formal policies and procedures for performing and documenting its fiduciary duty with regard to the voting of client proxies. This document is reviewed at least annually and updated as necessary.

Fiduciary Considerations. It is the policy of T. Rowe Price that decisions with respect to proxy issues will be made in light of the anticipated impact of the issue on the desirability of investing in the portfolio company from the viewpoint of the particular advisory client or Price Fund. Proxies are voted solely in the interests of the client, Price Fund shareholders or, where employee benefit plan assets are involved, in the interests of plan participants and beneficiaries. Our intent has always been to vote proxies, where possible to do so, in a manner consistent with our fiduciary obligations and responsibilities.

One of the primary factors T. Rowe Price considers when determining the desirability of investing in a particular company is the quality and depth of its management. We recognize that a company’s management is entrusted with the day-to-day operations of the company, as well as its long-term direction and strategic planning, subject to the oversight of the company’s board of directors. Accordingly, our proxy voting guidelines are not intended to substitute our judgment for management’s with respect to the company’s day-to-day operations. Rather, our proxy voting guidelines are designed to promote accountability of a company’s management and board of directors to its shareholders; to align the interests of management with those of shareholders; and to encourage companies to adopt best practices in terms of their corporate governance and disclosure. In addition to our proxy voting guidelines, we rely on a company’s public filings, its board recommendations, its track record, country-specific best practices codes, our research providers and – most importantly – our investment professionals’ views in making voting decisions.

T. Rowe Price seeks to vote all of its clients’ proxies. In certain circumstances, T. Rowe Price may determine that refraining from voting a proxy is in a client’s best interest, such as when the cost to the client of voting outweigh the expected benefit to the client. For example, the practicalities and costs involved with international investing may make it impossible at times, and at other times disadvantageous, to vote proxies in every instance.

ADMINISTRATION OF POLICIES AND PROCEDURES

Environmental, Social and Governance Committee. T. Rowe Price’s Environmental, Social and Governance Committee (**“ESG Committee”**) is responsible for establishing positions with respect to corporate governance and other proxy issues. Certain delegated members of the ESG Committee also review questions and respond to inquiries from clients and mutual fund shareholders pertaining to proxy issues. While the ESG Committee sets voting guidelines and serves as a resource for T. Rowe Price portfolio management, it does not have proxy voting authority for any Price Fund or advisory client. Rather, voting authority and responsibility is held by the Chairperson of the Price Fund’s Investment Advisory Committee or the advisory client’s portfolio manager. The ESG Committee is also responsible for the oversight of third-party proxy services firms that T. Rowe Price engages to facilitate the proxy voting process.

Proxy Voting Team. The Proxy Voting team is responsible for administering the proxy voting process as set forth in the Policies and Procedures.

Corporate Governance Team. Our Corporate Governance team is responsible for reviewing the proxy agendas for all upcoming meetings and making company-specific recommendations to our global industry analysts and portfolio managers with regard to the voting decisions in their portfolios.

HOW PROXIES ARE REVIEWED, PROCESSED AND VOTED

In order to facilitate the proxy voting process, T. Rowe Price has retained Institutional Shareholder Services (**“ISS”**) as an expert in the proxy voting and corporate governance area. ISS specializes in providing a variety of fiduciary-level proxy advisory and voting services. These services include custom vote recommendations, research, vote execution, and

reporting. In order to reflect T. Rowe Price's issue-by-issue voting guidelines as approved each year by the ESG Committee, ISS maintains and implements a custom voting policy for the Price Funds and other advisory client accounts.

Meeting Notification

T. Rowe Price utilizes ISS' voting agent services to notify us of upcoming shareholder meetings for portfolio companies held in client accounts and to transmit votes to the various custodian banks of our clients. ISS tracks and reconciles T. Rowe Price holdings against incoming proxy ballots. If ballots do not arrive on time, ISS procures them from the appropriate custodian or proxy distribution agent. Meeting and record date information is updated daily and transmitted to T. Rowe Price through ProxyExchange, an ISS application.

Vote Determination

Each day, ISS delivers into T. Rowe Price's customized ProxyExchange environment a comprehensive summary of upcoming meetings, proxy proposals, publications discussing key proxy voting issues, and custom vote recommendations to assist us with proxy research and processing. The final authority and responsibility for proxy voting decisions remains with T. Rowe Price. Decisions with respect to proxy matters are made primarily in light of the anticipated impact of the issue on the desirability of investing in the company from the perspective of our clients.

Portfolio managers execute their responsibility to vote proxies in different ways. Some have decided to vote their proxies generally in line with the guidelines as set by the ESG Committee. Others review the customized vote recommendations and approve them before the votes are cast. In all cases, portfolio managers receive current reports summarizing all proxy votes in their client accounts. Portfolio managers who vote their proxies inconsistent with T. Rowe Price guidelines are required to document the rationale for their votes. The Proxy Voting team is responsible for maintaining this documentation and assuring that it adequately reflects the basis for any vote which is contrary to our proxy voting guidelines.

T. Rowe Price Voting Policies

Specific proxy voting guidelines have been adopted by the ESG Committee for all regularly occurring categories of management and shareholder proposals. A detailed set of proxy voting guidelines is available on the T. Rowe Price website, www.troweprice.com. The following is a summary of our guidelines on the most significant proxy voting topics:

Election of Directors – For most companies, T. Rowe Price generally expects boards to maintain a majority of independent directors. T. Rowe Price may vote against outside directors who do not meet our criteria relating to their independence, particularly when they serve on key board committees, such as compensation and nominating committees, for which we believe that all directors should be independent. In certain markets where majority-independent boards are uncommon, we expect companies to adhere to the minimum independence standard established by regional corporate governance codes. At a minimum, however, we believe boards in all regions should include a blend of executive and non-executive members, and we are likely to vote against senior executives at companies with insufficient representation by independent directors. We also vote against directors who are unable to dedicate sufficient time to their board duties due to their commitments to other boards. We may vote against certain directors who have served on company boards where we believe there has been a gross failure in governance or oversight. In certain markets, a lack of diversity on the board may cause us to oppose the members of the board's Nominating Committee. Additionally, we may vote against compensation committee members who approve excessive executive compensation or severance arrangements. We support efforts to elect all board members annually because boards with staggered terms lessen directors' accountability to shareholders and act as deterrents to takeover proposals. To strengthen boards' accountability, T. Rowe Price supports proposals calling for a majority vote threshold for the election of directors and we may withhold votes from an entire board if they fail to implement shareholder proposals that receive majority support.

Anti-Takeover, Capital Structure and Corporate Governance Issues – T. Rowe Price generally opposes anti-takeover measures since they adversely impact shareholder rights and limit the ability of shareholders to act on potential value-enhancing transactions. Such anti-takeover mechanisms include classified boards, supermajority voting requirements, dual share classes, and poison pills. When voting on capital structure proposals, T. Rowe Price will consider the dilutive impact to shareholders and the effect on shareholder rights.

Executive Compensation Issues – T. Rowe Price's goal is to assure that a company's equity-based compensation plan is aligned with shareholders' long-term interests. We evaluate plans on a case-by-case basis, using a number of factors, including dilution to shareholders, problematic plan features, burn rate, and the equity compensation mix. Plans that are constructed to effectively and fairly align executives' and shareholders' incentives generally earn our approval. Conversely, we oppose compensation packages that provide what we view as excessive awards to few senior executives or contain the potential for excessive dilution relative to the company's peers. We also may oppose equity plans at any

company where we deem the overall compensation practices to be problematic. We generally oppose efforts to reprice options in the event of a decline in value of the underlying stock unless such plans appropriately balance shareholder and employee interests. For companies with particularly egregious pay practices such as excessive severance packages, executives with outsized pledged/hedged stock positions, executive perks, and bonuses that are not adequately linked to performance, we may vote against members of the board's Compensation Committee. We analyze management proposals requesting ratification of a company's executive compensation practices ("**Say-on-Pay**" proposals) on a case-by-case basis, using a screen that assesses the long-term linkage between executive compensation and company performance as well as the presence of objectionable structural features in compensation plans. Finally, we may oppose Compensation Committee members or even the entire board if we have cast votes against a company's "Say-on-Pay" vote in consecutive years.

Mergers and Acquisitions – T. Rowe Price considers takeover offers, mergers, and other extraordinary corporate transactions on a case-by-case basis to determine if they are beneficial to shareholders' current and future earnings stream and to ensure that our Price Funds and advisory clients are receiving fair consideration for their securities. We oppose a high proportion of proposals for the ratification of executive severance packages ("**Say on Golden Parachute**" proposals) in conjunction with merger transactions if we conclude these arrangements reduce the alignment of executives' incentives with shareholders' interests.

Corporate Social Responsibility Issues – Vote recommendations for corporate responsibility issues are generated by the Corporate Governance team in consultation with our Responsible Investment team. T. Rowe Price takes into consideration a company's existing level of disclosure on matters of a social, environmental, or corporate responsibility nature. If the proposal addresses an issue with substantial investment implications for the company's business or operations, and those issues have not been adequately addressed by management, T. Rowe Price generally supports calls for additional disclosure.

Global Portfolio Companies – The ESG Committee has developed custom international proxy voting guidelines based on ISS' general global policies, regional codes of corporate governance, and our own views as investors in these markets. ISS applies a two-tier approach to determining and applying global proxy voting policies. The first tier establishes baseline policy guidelines for the most fundamental issues, which span the corporate governance spectrum without regard to a company's domicile. The second tier takes into account various idiosyncrasies of different countries, making allowances for standard market practices, as long as they do not violate the fundamental goals of good corporate governance. The goal is to enhance shareholder value through effective use of the shareholder franchise, recognizing that application of policies developed for U.S. corporate governance issues are not appropriate for all markets.

Fixed Income and Passively Managed Strategies – Proxy voting for our fixed income and indexed portfolios is administered by the Proxy Voting team using T. Rowe Price's guidelines as set by the ESG Committee. Indexed strategies generally vote in line with the T. Rowe Price guidelines. Fixed income strategies generally follow the proxy vote determinations on security holdings held by our equity accounts unless the matter is specific to a particular fixed income security such as consents, restructurings, or reorganization proposals.

Shareblocking – Shareblocking is the practice in certain foreign countries of "freezing" shares for trading purposes in order to vote proxies relating to those shares. In markets where shareblocking applies, the custodian or sub-custodian automatically freezes shares prior to a shareholder meeting once a proxy has been voted. T. Rowe Price's policy is generally to refrain from voting shares in shareblocking countries unless the matter has compelling economic consequences that outweigh the loss of liquidity in the blocked shares.

Securities on Loan – The Price Funds and our institutional clients may participate in securities lending programs to generate income for their portfolios. Generally, the voting rights pass with the securities on loan; however, lending agreements give the lender the right to terminate the loan and pull back the loaned shares provided sufficient notice is given to the custodian bank in advance of the applicable deadline. T. Rowe Price's policy is generally not to vote securities on loan unless we determine there is a material voting event that could affect the value of the loaned securities. In this event, we have the discretion to pull back the loaned securities in order to cast a vote at an upcoming shareholder meeting. A monthly monitoring process is in place to review securities on loan and how they may affect proxy voting.

Monitoring and Resolving Conflicts of Interest

The ESG Committee is also responsible for monitoring and resolving potential material conflicts between the interests of T. Rowe Price and those of its clients with respect to proxy voting. We have adopted safeguards to ensure that our proxy voting is not influenced by interests other than those of our fund shareholders and other investment advisory clients. While membership on the ESG Committee is diverse, it does not include individuals whose primary duties relate to client relationship management, marketing, or sales. Since T. Rowe Price's voting guidelines are predetermined by the ESG

Committee, application of the guidelines by portfolio managers to vote client proxies should in most instances adequately address any potential conflicts of interest. However, consistent with the terms of the Policies and Procedures, which allow portfolio managers to vote proxies opposite our general voting guidelines, the ESG Committee regularly reviews all such proxy votes that are inconsistent with the proxy voting guidelines to determine whether the portfolio manager's voting rationale appears reasonable. The ESG Committee also assesses whether any business or other material relationships between T. Rowe Price and a portfolio company (unrelated to the ownership of the portfolio company's securities) could have influenced an inconsistent vote on that company's proxy. Issues raising potential conflicts of interest are referred to designated members of the ESG Committee for immediate resolution prior to the time T. Rowe Price casts its vote.

With respect to personal conflicts of interest, T. Rowe Price's Code of Ethics and Conduct requires all employees to avoid placing themselves in a "compromising position" in which their interests may conflict with those of our clients and restrict their ability to engage in certain outside business activities. Portfolio managers or ESG Committee members with a personal conflict of interest regarding a particular proxy vote must recuse themselves and not participate in the voting decisions with respect to that proxy.

Specific Conflict of Interest Situations - Voting of T. Rowe Price Group, Inc. common stock (sym: TROW) by certain T. Rowe Price Index Funds will be done in all instances in accordance with T. Rowe Price voting guidelines and votes inconsistent with the guidelines will not be permitted. In the event that there is no previously established guideline for a specific voting issue appearing on the T. Rowe Price Group proxy, the Price Funds will abstain on that voting item. In addition, T. Rowe Price has voting authority for proxies of the holdings of certain Price Funds that invest in other Price Funds. In cases where the underlying fund of an investing Price Fund, including a fund-of-funds, holds a proxy vote, T. Rowe Price will mirror vote the fund shares held by the upper-tier fund in the same proportion as the votes cast by the shareholders of the underlying funds (other than the T. Rowe Price Reserve Investment Fund).

Limitations on Voting Proxies of Banks

T. Rowe Price has obtained relief from the U.S. Federal Reserve Board (the "**FRB Relief**") which permits, subject to a number of conditions, T. Rowe Price to acquire in the aggregate on behalf of its clients, 10% or more of the total voting stock of a bank, bank holding company, savings and loan holding company or savings association (each a "**Bank**"), not to exceed a 15% aggregate beneficial ownership maximum in such Bank. One such condition affects the manner in which T. Rowe Price will vote its clients' shares of a Bank in excess of 10% of the Bank's total voting stock ("**Excess Shares**"). The FRB Relief requires that T. Rowe Price use its best efforts to vote the Excess Shares in the same proportion as all other shares voted, a practice generally referred to as "mirror voting," or in the event that such efforts to mirror vote are unsuccessful, Excess Shares will not be voted. With respect to a shareholder vote for a Bank of which T. Rowe Price has aggregate beneficial ownership of greater than 10% on behalf of its clients, T. Rowe Price will determine which of its clients' shares are Excess Shares on a pro rata basis across all of its clients' portfolios for which T. Rowe Price has the power to vote proxies.

REPORTING, RECORD RETENTION AND OVERSIGHT

The ESG Committee, and certain personnel under the direction of the ESG Committee, perform the following oversight and assurance functions, among others, over T. Rowe Price's proxy voting: (1) periodically samples proxy votes to ensure that they were cast in compliance with T. Rowe Price's proxy voting guidelines; (2) reviews, no less frequently than annually, the adequacy of the Policies and Procedures to make sure that they have been implemented effectively, including whether they continue to be reasonably designed to ensure that proxies are voted in the best interests of our clients; (3) performs due diligence on whether a retained proxy advisory firm has the capacity and competency to adequately analyze proxy issues, including the adequacy and quality of the proxy advisory firm's staffing and personnel and its policies; and (4) oversees any retained proxy advisory firms and their procedures regarding their capabilities to (i) produce proxy research that is based on current and accurate information and (ii) identify and address any conflicts of interest and any other considerations that we believe would be appropriate in considering the nature and quality of the services provided by the proxy advisory firm.

T. Rowe Price will furnish Vote Summary Reports, upon request, to its institutional clients that have delegated proxy voting authority. The report specifies the portfolio companies, meeting dates, proxy proposals, and votes which have been cast for the client during the period and the position taken with respect to each issue. Reports normally cover quarterly or annual periods and are provided to such clients upon request.

T. Rowe Price retains proxy solicitation materials, memoranda regarding votes cast in opposition to the position of a company's management, and documentation on shares voted differently. In addition, any document which is material to a proxy voting decision such as the T. Rowe Price proxy voting guidelines, ESG Committee meeting materials, and other internal research relating to voting decisions are maintained in accordance with applicable requirements.

**WELLINGTON MANAGEMENT
GLOBAL PROXY POLICY AND PROCEDURES
JANUARY 1, 2018**

Introduction

Wellington Management has adopted and implemented policies and procedures that it believes are reasonably designed to ensure that proxies are voted in the best economic interests of clients for whom it exercises proxy-voting discretion.

Wellington Management's Proxy Voting Guidelines (the "Guidelines") set forth broad guidelines and positions on common proxy issues that Wellington Management uses in voting on proxies. In addition, Wellington Management also considers each proposal in the context of the issuer, industry and country or countries in which the issuer's business is conducted. The Guidelines are not rigid rules and the merits of a particular proposal may cause Wellington Management to enter a vote that differs from the Guidelines.

Statement of Policy

Wellington Management:

- 1) Votes client proxies for which clients have affirmatively delegated proxy-voting authority, in writing, unless it determines that it is in the best interest of one or more clients to refrain from voting a given proxy.
- 2) Votes all proxies in the best interests of the client for whom it is voting, i.e., to maximize economic value.
- 3) Identifies and resolves all material proxy-related conflicts of interest between the firm and its clients in the best interests of the client.

Responsibility and Oversight

The Investment Research Group ("Investment Research") monitors regulatory requirements with respect to proxy voting and works with the firm's Legal and Compliance Group and the Investment Stewardship Committee to develop practices that implement those requirements. Investment Research also acts as a resource for portfolio managers and research analysts on proxy matters as needed. Day-to-day administration of the proxy voting process is the responsibility of Investment Research. The Investment Stewardship Committee is responsible for oversight of the implementation of the Global Proxy Policy and Procedures, review and approval of the Guidelines and for providing advice and guidance on specific proxy votes for individual issuers.

Procedures

Use of Third-Party Voting Agent

Wellington Management uses the services of a third-party voting agent to manage the administrative aspects of proxy voting. The voting agent processes proxies for client accounts, casts votes based on the Guidelines and maintains records of proxies voted.

Receipt of Proxy

If a client requests that Wellington Management votes proxies on its behalf, the client must instruct its custodian bank to deliver all relevant voting material to Wellington Management or its voting agent.

Reconciliation

Each public security proxy received by electronic means is matched to the securities eligible to be voted and a reminder is sent to any custodian or trustee that has not forwarded the proxies as due. Although proxies received for private securities, as well as those received in non-electronic format, are voted as received, Wellington Management is not able to reconcile these proxies to holdings, nor does it notify custodians of non-receipt.

Research

In addition to proprietary investment research undertaken by Wellington Management investment professionals, Investment Research conducts proxy research internally, and uses the resources of a number of external sources to keep abreast of developments in corporate governance and of current practices of specific companies.

Proxy Voting

Following the reconciliation process, each proxy is compared against the Guidelines, and handled as follows:

- Generally, issues for which explicit proxy voting guidance is provided in the Guidelines (i.e., "For", "Against", "Abstain") are reviewed by Investment Research and voted in accordance with the Guidelines.

- Issues identified as “case-by-case” in the Guidelines are further reviewed by Investment Research. In certain circumstances, further input is needed, so the issues are forwarded to the relevant research analyst and/or portfolio manager(s) for their input.
- Absent a material conflict of interest, the portfolio manager has the authority to decide the final vote. Different portfolio managers holding the same securities may arrive at different voting conclusions for their clients’ proxies.

Wellington Management reviews regularly the voting record to ensure that proxies are voted in accordance with these *Global Proxy Policy and Procedures* and the Guidelines; and ensures that documentation and reports, for clients and for internal purposes, relating to the voting of proxies are promptly and properly prepared and disseminated.

Material Conflict of Interest Identification and Resolution Processes

Wellington Management’s broadly diversified client base and functional lines of responsibility serve to minimize the number of, but not prevent, material conflicts of interest it faces in voting proxies. Annually, the Investment Stewardship Committee sets standards for identifying material conflicts based on client, vendor, and lender relationships, and publishes those standards to individuals involved in the proxy voting process. In addition, the Investment Stewardship Committee encourages all personnel to contact Investment Research about apparent conflicts of interest, even if the apparent conflict does not meet the published materiality criteria. Apparent conflicts are reviewed by designated members of the Investment Stewardship Committee to determine if there is a conflict and if so whether the conflict is material.

If a proxy is identified as presenting a material conflict of interest, the matter must be reviewed by designated members of the Investment Stewardship Committee, who will resolve the conflict and direct the vote. In certain circumstances, the designated members may determine that the full Investment Stewardship Committee should convene.

Other Considerations

In certain instances, Wellington Management may be unable to vote or may determine not to vote a proxy on behalf of one or more clients. While not exhaustive, the following are potential instances in which a proxy vote might not be entered.

Securities Lending

In general, Wellington Management does not know when securities have been lent out pursuant to a client’s securities lending program and are therefore unavailable to be voted. Efforts to recall loaned securities are not always effective, but, in rare circumstances, Wellington Management may recommend that a client attempt to have its custodian recall the security to permit voting of related proxies.

Share Blocking and Re-registration

Certain countries impose trading restrictions or requirements regarding re-registration of securities held in omnibus accounts in order for shareholders to vote a proxy. The potential impact of such requirements is evaluated when determining whether to vote such proxies.

Lack of Adequate Information, Untimely Receipt of Proxy Materials, or Excessive Costs

Wellington Management may abstain from voting a proxy when the proxy statement or other available information is inadequate to allow for an informed vote, when the proxy materials are not delivered in a timely fashion or when, in Wellington Management’s judgment, the costs exceed the expected benefits to clients (such as when powers of attorney or consularization are required).

Additional Information

Wellington Management maintains records related to proxies pursuant to Rule 204-2 of the Investment Advisers Act of 1940 (the “Advisers Act”), the Employee Retirement Income Security Act of 1974, as amended (“ERISA”), and other applicable laws.

Wellington Management provides clients with a copy of its *Global Proxy Policy and Procedures*, including the Guidelines, upon written request. In addition, Wellington Management will make specific client information relating to proxy voting available to a client upon reasonable written request.

Dated: 1 January 2018

WELLS FARGO ASSET MANAGEMENT¹

PROXY VOTING POLICIES AND PROCEDURES

EFFECTIVE AS OF JANUARY 1, 2019

Wells Fargo Asset Management (“WFAM”) Stewardship

As fiduciaries, we are committed to effective stewardship of the assets we manage on behalf of our clients. To us, good stewardship reflects responsible, active ownership and includes both engaging with investee companies and voting proxies in a manner that we believe will maximize the long-term value of our investments.

Scope of Policies and Procedures. These Proxy Voting Policies and Procedures (“Policies and Procedures”) are used to determine how to vote proxies relating to portfolio securities held in client accounts managed by WFAM. With respect to client accounts of Funds Management, this includes, among others, Wells Fargo Funds Trust, Wells Fargo Master Trust, Wells Fargo Variable Trust, Wells Fargo Global Dividend Opportunity Fund, Wells Fargo Income Opportunities Fund, Wells Fargo Multi-Sector Income Fund, Wells Fargo Utilities and High Income Fund (the “Trusts”). It also includes Wells Fargo (Lux) Worldwide Fund and Worldwide Alternative Fund SICAV-SIF, both domiciled in Luxembourg (the “Luxembourg Funds”). Aside from the investment funds managed by Funds Management, WFAM also offers medium term note programs, managed for issuers of such notes domiciled in Luxembourg. Hereafter, all series of the Trusts, and all such Trusts not having separate series, and all sub-funds of the Luxembourg Fund, as well as the MTN issuers, are referred to as the “Investment Products”). In addition, these Policies and Procedures are used to determine how to vote proxies for the assets managed on behalf of WFAM’s other clients. Not all clients delegate proxy-voting authority to WFAM, however, and WFAM will not vote proxies, or provide advice to clients on how to vote proxies in the absence of specific delegation of authority, a pre-existing contractual agreement, or an obligation under the applicable law (e.g., securities that are held in an investment advisory account for which WFAM exercises no investment discretion are not voted by WFAM).

Luxembourg Products. These Policies and Procedures have been established, implemented and maintained, as they apply to WFAML, in accordance with Article 23 of CSSF Regulation No. 10-4 and the CSSF Circular 18/698. WFAML has delegated the portfolio management of the Luxembourg Fund it manages to WFAM and delegated the responsibility for exercising voting rights in conjunction with such delegation; as such, these Policies and Procedures shall apply to the portfolio management of the Fund. The respective portfolio management may also delegate the responsibility for exercising voting rights to another company with the prior consent of WFAML. Responsibility for exercising voting rights has also been delegated to WFAM with respect to the Worldwide Alternative Fund SICAV-SIF and to ECM with respect to the MTN issuers.

Voting Philosophy. WFAM, comprised of investment advisers registered with the Securities and Exchange Commission and WFAML, has adopted these Policies and Procedures to ensure that proxies are voted in the best interests of clients and Investment Product investors, without regard to any relationship that any affiliated person of WFAM or the Investment Product (or an affiliated person of such affiliated person) may have with the issuer. WFAM exercises its voting responsibility as a fiduciary with the goal of maximizing value to clients consistent with governing laws and the investment policies of each client. While securities are not purchased to exercise control or to seek to effect corporate change through share ownership activism, WFAM supports sound corporate governance practices at companies in which client assets are invested. WFAM has established an appropriate strategy determining when and how the voting rights related to the instruments held in portfolios managed are exercised, so that these rights are exclusively reserved to the relevant Investment Product and its investors.

Proxy Administrator

The proxy voting process is administered by WellsCap’s Operations Department (“Proxy Administrator”), who reports to WFAM’s Chief Operations Officer. The Proxy Administrator is responsible for administering and overseeing the proxy voting process to ensure the implementation of the Policies and Procedures, including regular operational reviews, typically conducted on a weekly basis. The Proxy Administrator monitors third party voting of proxies to ensure it is being done in a timely and responsible manner, including review of scheduled vendor reports. The Proxy Administrator in conjunction with the Proxy Committee reviews the continuing appropriateness of the Policies and Procedures set forth herein, and recommends revisions as necessary.

Third Party Proxy Voting Vendor. WFAM has retained a third-party proxy voting service, Institutional Shareholder Services Inc. (“ISS”), to assist in the implementation of certain proxy voting-related functions including: 1.) Providing research on proxy matters 2.) Providing technology to facilitate the sharing of research and discussions related to proxy votes 3.) Vote proxies in accordance with WFAM’s guidelines 4.) Handle administrative and reporting items 5.) Maintain records of proxy statements received in connection with proxy votes and provide copies/analyses upon request. Except in instances where clients have retained voting authority, WFAM retains the responsibility for proxy voting decisions.

Proxy Committee and Sub-Committees. The WFAM Proxy Committee shall be responsible for overseeing the proxy voting process to ensure its implementation in conformance with these Policies and Procedures. The WFAM Proxy Committee shall coordinate with Wells Fargo Asset Management Risk and Compliance to monitor ISS, the proxy voting agent currently retained by WFAM, to determine that ISS is accurately applying the Policies and Procedures as set forth herein and operates as an independent proxy voting agent. WFAM's ISS Vendor Oversight process includes an assessment of ISS' Policy and Procedures ("P&P"), including conflict controls and monitoring, receipt and review of routine performance-related reporting by ISS to WFAM and periodic onsite due diligence meetings. Due diligence meetings typically include: meetings with key staff, P&P related presentations and discussions, technology-related demonstrations and assessments, and some sample testing, if appropriate. The WFAM Proxy Committee shall review the continuing appropriateness of the Policies and Procedures set forth herein. The WFAM Proxy Committee may delegate certain powers and responsibilities to sub-committees consisting of a "Proxy Voting Sub-Committee" and a "Proxy Governance Sub-Committee."

Proxy Voting Sub-Committee. Among other delegated matters, the Proxy Voting Sub-Committee, in accordance with these Policies and Procedures, reviews and votes on routine proxy proposals that it considers under these Policies and Procedures in a timely manner. If necessary, the Proxy Voting Sub-Committee escalates issues to the Proxy Governance Sub-Committee that are determined to be material by the Proxy Voting Sub-Committee or otherwise in accordance with these Policies and Procedures. The Proxy Voting Sub-Committee coordinates with Wells Fargo Asset Management Risk and Compliance to review the performance and independence of ISS in exercising its proxy voting responsibilities.

Proxy Governance Sub-Committee. The Proxy Governance Sub-Committee reviews and, in accordance with these Policies and Procedures, votes on issues that have been escalated from the Proxy Voting Sub-Committee. Members of the Proxy Governance Sub-Committee also oversee the implementation of WFAM Proxy Committee recommendations for the respective functional areas in WFAM that they represent.

Meetings; Committee Actions. The WFAM Proxy Committee shall convene or act through written consent, including through the use of electronic systems of record, of a majority of WFAM Proxy Committee members as needed and when discretionary voting determinations need to be considered. Any sub-committee of the WFAM Proxy Committee shall have the authority on matters delegated to it to act by vote or written consent, including through the use of electronic systems of record, of a majority of the sub-committee members available at that time. The WFAM Proxy Committee shall also meet at least annually (each calendar year and within 15 months of the last meeting) to review the Policies and Procedures.

Membership. Members are selected based on subject matter expertise for the specific deliverables the committee is required to complete. The voting members of the Proxy Committee are identified in the WFAM Proxy Charter. Changes to the membership of the Proxy Committee will be made only with approval of the WFAM Proxy Committee. Upon departure from Wells Fargo Asset Management, a member's position on the WFAM Proxy Committee will automatically terminate.

Voting Procedures. Unless otherwise required by applicable law², proxies will be voted in accordance with the following steps and in the following order of consideration:

1. First, any voting items related to WFAM "Top-of-House" voting principles (as described below under the heading "WFAM Proxy Voting Principles/Guidelines") will generally be voted in accordance with a custom voting policy with ISS ("Custom Policy") designed to implement the WFAM's Top-of-House voting principles.³
2. Second, any voting items for meetings deemed of "high importance"⁴ (e.g., proxy contests, mergers and acquisitions, capitalization proposals and anti-takeover proposals) where ISS opposes management recommendations will be referred to the Portfolio Management teams for recommendation or the Proxy Voting Sub-Committee (or escalated to the Proxy Governance Sub-Committee) for case-by-case review and vote determination.
3. Third, with respect to any voting items where ISS Sustainability Voting Guidelines⁵ provide a different recommendation than ISS Standard Voting Guidelines, the following steps are taken:
 - a. The WFAM Portfolio Risk Management and Analytics team (the "PRMA team") evaluates the matter for materiality and any other relevant considerations.
 - b. If the PRMA team recommends further review, the voting item is then referred to the Portfolio Management teams for recommendation or the Proxy Voting Sub-Committee (or escalated to the Proxy Governance Sub-Committee) for case-by-case review and vote determination.
 - c. If the PRMA team does not recommend further review, the matter is voted in accordance with ISS Standard Voting Guidelines.

4. Fourth, any remaining proposals are voted in accordance with ISS Standard Voting Guidelines.⁶

Commitment to the Principles of Responsible Investment. As a signatory to the Principles for Responsible Investment, WFAM has integrated certain environmental, social, and governance factors into its investment processes, which includes the proxy process. As described under Voting Procedures above, WFAM considers ISS's Sustainability Voting Guidelines as a point of reference in certain cases deemed to be material to a company's long-term shareholder value.

Voting Discretion. In all cases, the Proxy Committee (and any sub-committee thereof) will exercise its voting discretion in accordance with the voting philosophy of these Policies and Procedures. In cases where a proxy item is forwarded by ISS to the Proxy Committee or a sub-committee thereof, the Proxy Committee or its sub-committee may be assisted in its voting decision through receipt of: (i) independent research and voting recommendations provided by ISS or other independent sources; (ii) input from the investment sub-adviser responsible for purchasing the security; and (iii) information provided by company management and shareholder groups.

Portfolio Manager and Sub-Adviser Input. The WFAM Proxy Committee may consult with portfolio management teams and Fund sub-advisers on specific proxy voting issues as it deems appropriate. In addition, portfolio management teams or Fund sub-advisers may proactively make recommendations to the Proxy Committee regarding any proxy voting issue. In this regard, the process takes into consideration expressed views of portfolio management teams and Fund sub-advisers given their deep knowledge of investee companies. For any proxy vote, portfolio management teams and Investment Product advisers and sub-advisers may make a case to vote against the ISS or Proxy Committee's recommendation (which is described under Voting Procedures above). Any portfolio management team's or Investment Product adviser's or sub-adviser's opinion should be documented in a brief write-up for consideration by the Proxy Voting Committee who will determine, or escalate to the Proxy Governance Committee, the final voting decision.

Consistent Voting. Proxies will be voted consistently on the same matter when securities of an issuer are held by WFAM multiple client accounts unless there are special circumstances such as, for example, proposals concerning corporate actions such as mergers, tender offers, and acquisitions or as reasonably necessary to implement specified proxy voting guidelines as established by a client (e.g. Taft Hartley ISS Guidelines or custom proxy guidelines).

WFAM Top-of-House Proxy Voting Principles/Guidelines. The following reflects WFAM's Top-of-House Voting Principles in effect as of the date of these Policies and Procedures. WFAM has put in place a custom voting policy with ISS to implement these voting principles.

Boards of Directors. We believe that Boards of Directors should have strong, independent leadership and should adopt structures and practices that enhance their effectiveness. We believe it is the responsibility of the Board of Directors to create, enhance, and protect shareholder value. We recognize that the optimal board size and governance structure can vary by company size, industry, region of operations, and circumstances specific to the company.

- We generally vote for the election of Directors in uncontested elections. We reserve the right to vote on a case-by-case basis when directors fail to meet their duties as a board member, such as failing to act in the best economic interest of shareholders; failing to maintain independent audit, compensation, nominating committees; and failing to attend at least 75% of meetings, etc.
- We generally vote for an independent board that has a majority of outside directors who are not affiliated with the top executives and have minimal or no business dealings with the company to avoid potential conflicts of interests.
- Generally speaking, we believe Directors should sit on no more than 4 public boards at any given time. Directors serving on an excessive number of boards could result in time constraints and an inability to fulfill their duties.
- We generally support adopting a declassified board structure for public operating and holding companies. We reserve the right to vote on a case-by-case basis when companies have certain long-term business commitments.
- We generally support annual election of directors of public operating and holding companies. We reserve the right to vote on a case-by-case basis when companies have certain long-term business commitments.

Fund Voting Reporting Coordination. Voting decisions made by the WFAM Proxy Committee on behalf of the Trusts and their series will be reported to ISS to ensure that votes are registered in a timely manner and included in Form N-PX reporting.

Practical Limitations to Proxy Voting. While WFAM uses its reasonable best efforts to vote proxies, in certain circumstances, it may be impractical or impossible for WFAM to vote proxies (e.g., limited value or unjustifiable costs).

Securities on Loan. As a general matter, securities on loan will not be recalled to facilitate proxy voting (in which case the borrower of the security shall be entitled to vote the proxy). However, as it relates to portfolio holdings of the Investment Products, if the WFAM Proxy Committee is aware of an item in time to recall the security and has determined in good faith that the importance of the matter to be voted upon outweighs the loss in lending revenue that would result from

recalling the security (e.g., if there is a controversial upcoming merger or acquisition, or some other significant matter), the security will be recalled for voting.

Share Blocking. Proxy voting in certain countries requires 'share blocking'. Shareholders wishing to vote their proxies must deposit their shares with a designated depository before the date of the meeting. Consequently, the shares may not be sold in the period preceding the proxy vote. Absent compelling reasons, WFAM believes that the benefit derived from voting these shares is outweighed by the burden of limited trading. Therefore, if share blocking is required in certain markets, WFAM will not participate and refrain from voting proxies for those clients impacted by share blocking.

Conflicts of Interest. WFAM may have a conflict of interest regarding a proxy to be voted upon if, for example, WFAM or its affiliates have other relationships with the issuer of the proxy. In most instances, conflicts of interest are avoided through a strict and objective application of the voting guidelines. However, when the Proxy Administrator is aware of a material conflict of interest regarding a matter that would otherwise require a vote by the Proxy Committee or that, in the determination of the Proxy Committee, otherwise warrants the taking of additional steps to mitigate the conflict, the Proxy Committee or the Proxy Administrator shall address the material conflict by using any of the following methods:

1. Instructing ISS to vote in accordance with the recommendation ISS makes to its clients;
2. With respect to any matters involving a portfolio holding of any Investment Product(s), disclosing the conflict to the Board of the relevant Investment Product(s) and obtaining its consent before voting with respect to shares held by the Investment Product(s);
3. With respect to any matters involving a portfolio holding of any Investment Product(s), submitting the matter to the Board of the relevant Investment Product(s) to exercise its authority to vote on such matter with respect to shares held by the relevant Investment Product(s);
4. Engaging an independent fiduciary who will direct the Proxy Committee how to vote on such matter following consultation with the Board of the relevant Investment Product(s) if the conflict pertains to a matter involving a portfolio holding of any Investment Product(s);
5. Consulting with outside legal counsel for guidance on resolution of the conflict of interest;
6. Erecting information barriers around the person or persons making voting decisions following consultation with the Board of any Investment Product(s) if the conflict pertains to a matter involving a portfolio holding of the relevant Investment Product(s);
7. Voting in proportion to other shareholders ("mirror voting") following consultation with the Board of any Investment Product(s) if the conflict pertains to a matter involving a portfolio holding of the relevant Investment Product(s); or
8. Voting in other ways that are consistent with WFAM's obligation to vote in the best interests of its clients and the investors in the Investment Products.

The Proxy Committee will not permit its votes to be influenced by any conflict of interest that exists for any other affiliated person of WFAM (such as a sub-adviser or principal underwriter) or any affiliated persons of such affiliated persons and the Proxy Committee will vote all such matters without regard to the conflict.

Vendor Oversight: The WFAM Proxy Administrator monitors the ISS proxy process against specific criteria in order to identify potential issues relating to account reconciliation, unknown and rejected ballot reviews, upcoming proxy reviews, share reconciliation oversight, etc.

III. Other Provisions

Policy Review and Ad Hoc Meetings

The Proxy Governance Committee meets at least annually to review this Policy and consider any appropriate changes. Meetings may be convened more frequently (for example, to discuss a specific proxy agenda or proposal) as requested by the Manager of Proxy Administration, any member of the Proxy Committee, or WFAM's Chief Compliance Officer. The Proxy Committee includes representation from Portfolio Management, Operations, Portfolio Risk Management and Analytics and, in a non-voting consultative capacity, Compliance.

Records Retention

The WFAM Proxy Administrator will maintain the following records relating to the implementation of the Policies and Procedures:

- A copy of these proxy voting policies and procedures;
- Proxy statements received for client securities (which will be satisfied by relying on ISS);

- Records of votes cast on behalf of Investment Products and separate account clients (which ISS maintains on behalf of WFAM);
- Records of each written client request for proxy voting records and WFAM's written response to any client request (written or oral) for such records; and
- Any documents prepared by WFAM or ISS that were material to making a proxy voting decision.

Such proxy voting books and records shall be maintained at an office of WFAM in an easily accessible place for a period of six years.

Disclosure of Policies and Procedures

WFAM will disclose to its separate clients a summary description of its proxy voting policy and procedures via mail. A summary of the proxy voting policy and procedures will be disclosed in the registration statements for the open-end Trusts, and on the Wells Fargo (Lux) Worldwide Fund and Wells Fargo Funds websites.

WFAM will also provide to clients proxy statements and any records as to how WFAM voted proxies on behalf its client upon request. Clients may contact their relationship manager for assistance, or call WFAM at 1-800-259-3305 or by e-mail at wellsclientadmin@wellsfargo.com to request a record of proxies voted on their behalf.

WFAM will publish high-level proxy voting statistics in periodic reports. However, except as otherwise required by law, WFAM has a general policy of not disclosing to any issuer specific or third party how its separate account client proxies are voted.

Approved by the Proxy Committee: December, 2018

**WESTERN ASSET
PROXY VOTING
APRIL 1, 2016**

BACKGROUND

An investment adviser is required to adopt and implement policies and procedures that we believe are reasonably designed to ensure that proxies are voted in the best interest of clients, in accordance with fiduciary duties and SEC Rule 206(4)-6 under the Investment Advisers Act of 1940 (“Advisers Act”). The authority to vote the proxies of our clients is established through investment management agreements or comparable documents. In addition to SEC requirements governing advisers, long-standing fiduciary standards and responsibilities have been established for ERISA accounts. Unless a manager of ERISA assets has been expressly precluded from voting proxies, the Department of Labor has determined that the responsibility for these votes lies with the investment manager.

POLICY

As a fixed income only manager, the occasion to vote proxies is very rare. However, the Firm has adopted and implemented policies and procedures that we believe are reasonably designed to ensure that proxies are voted in the best interest of clients, in accordance with our fiduciary duties and SEC Rule 206(4)-6 under the Investment Advisers Act of 1940 (“Advisers Act”). In addition to SEC requirements governing advisers, our proxy voting policies reflect the long-standing fiduciary standards and responsibilities for ERISA accounts. Unless a manager of ERISA assets has been expressly precluded from voting proxies, the Department of Labor has determined that the responsibility for these votes lies with the Investment Manager.

While the guidelines included in the procedures are intended to provide a benchmark for voting standards, each vote is ultimately cast on a case-by-case basis, taking into consideration the Firm’s contractual obligations to our clients and all other relevant facts and circumstances at the time of the vote (such that these guidelines may be overridden to the extent the Firm deems appropriate).

In exercising its voting authority, Western Asset will not consult or enter into agreements with officers, directors or employees of Legg Mason Inc. or any of its affiliates (other than Western Asset affiliated companies) regarding the voting of any securities owned by its clients.

PROCEDURE

Responsibility and Oversight

The Western Asset Legal and Compliance Department (“Compliance Department”) is responsible for administering and overseeing the proxy voting process. The gathering of proxies is coordinated through the Corporate Actions area of Investment Support (“Corporate Actions”). Research analysts and portfolio managers are responsible for determining appropriate voting positions on each proxy utilizing any applicable guidelines contained in these procedures.

Client Authority

The Investment Management Agreement for each client is reviewed at account start-up for proxy voting instructions. If an agreement is silent on proxy voting, but contains an overall delegation of discretionary authority or if the account represents assets of an ERISA plan, Western Asset will assume responsibility for proxy voting. The Legal and Compliance Department maintains a matrix of proxy voting authority.

Proxy Gathering

Registered owners of record, client custodians, client banks and trustees (“Proxy Recipients”) that receive proxy materials on behalf of clients should forward them to Corporate Actions. Proxy Recipients for new clients (or, if Western Asset becomes aware that the applicable Proxy Recipient for an existing client has changed, the Proxy Recipient for the existing client) are notified at start-up of appropriate routing to Corporate Actions of proxy materials received and reminded of their responsibility to forward all proxy materials on a timely basis. If Western Asset personnel other than Corporate Actions receive proxy materials, they should promptly forward the materials to Corporate Actions.

Proxy Voting

Once proxy materials are received by Corporate Actions, they are forwarded to the Legal and Compliance Department for coordination and the following actions:

- a. Proxies are reviewed to determine accounts impacted.
- b. Impacted accounts are checked to confirm Western Asset voting authority.
- c. Legal and Compliance Department staff reviews proxy issues to determine any material conflicts of interest. (See conflicts of interest section of these procedures for further information on determining material conflicts of interest.)
- d. If a material conflict of interest exists, (i) to the extent reasonably practicable and permitted by applicable law, the

client is promptly notified, the conflict is disclosed and Western Asset obtains the client's proxy voting instructions, and (ii) to the extent that it is not reasonably practicable or permitted by applicable law to notify the client and obtain such instructions (e.g., the client is a mutual fund or other commingled vehicle or is an ERISA plan client), Western Asset seeks voting instructions from an independent third party.

e. Legal and Compliance Department staff provides proxy material to the appropriate research analyst or portfolio manager to obtain their recommended vote. Research analysts and portfolio managers determine votes on a case-by-case basis taking into account the voting guidelines contained in these procedures. For avoidance of doubt, depending on the best interest of each individual client, Western Asset may vote the same proxy differently for different clients. The analyst's or portfolio manager's basis for their decision is documented and maintained by the Legal and Compliance Department.

f. Legal and Compliance Department staff votes the proxy pursuant to the instructions received in (d) or (e) and returns the voted proxy as indicated in the proxy materials.

Timing

Western Asset personnel act in such a manner to ensure that, absent special circumstances, the proxy gathering and proxy voting steps noted above can be completed before the applicable deadline for returning proxy votes.

Recordkeeping

Western Asset maintains records of proxies voted pursuant to Section 204-2 of the Advisers Act and ERISA DOL Bulletin 94-2. These records include:

- a. A copy of Western Asset's policies and procedures.
- b. Copies of proxy statements received regarding client securities.
- c. A copy of any document created by Western Asset that was material to making a decision how to vote proxies.
- d. Each written client request for proxy voting records and Western Asset's written response to both verbal and written client requests.
- e. A proxy log including:
 1. Issuer name;
 2. Exchange ticker symbol of the issuer's shares to be voted;
 3. Committee on Uniform Securities Identification Procedures ("CUSIP") number for the shares to be voted;
 4. A brief identification of the matter voted on;
 5. Whether the matter was proposed by the issuer or by a shareholder of the issuer;
 6. Whether a vote was cast on the matter;
 7. A record of how the vote was cast; and
 8. Whether the vote was cast for or against the recommendation of the issuer's management team.

Records are maintained in an easily accessible place for five years, the first two in Western Asset's offices.

Disclosure

Western Asset's proxy policies are described in the firm's Part 2A of Form ADV. Clients will be provided a copy of these policies and procedures upon request. In addition, upon request, clients may receive reports on how their proxies have been voted.

Conflicts of Interest

All proxies are reviewed by the Legal and Compliance Department for material conflicts of interest. Issues to be reviewed include, but are not limited to:

1. Whether Western (or, to the extent required to be considered by applicable law, its affiliates) manages assets for the company or an employee group of the company or otherwise has an interest in the company;
2. Whether Western or an officer or director of Western or the applicable portfolio manager or analyst responsible for recommending the proxy vote (together, "Voting Persons") is a close relative of or has a personal or business relationship with an executive, director or person who is a candidate for director of the company or is a participant in a proxy contest; and
3. Whether there is any other business or personal relationship where a Voting Person has a personal interest in the outcome of the matter before shareholders.

Voting Guidelines

Western Asset's substantive voting decisions turn on the particular facts and circumstances of each proxy vote and are evaluated by the designated research analyst or portfolio manager. The examples outlined below are meant as guidelines to aid in the decision making process.

Guidelines are grouped according to the types of proposals generally presented to shareholders. Part I deals with proposals which have been approved and are recommended by a company's board of directors; Part II deals with proposals submitted by shareholders for inclusion in proxy statements; Part III addresses issues relating to voting shares of investment companies; and Part IV addresses unique considerations pertaining to foreign issuers.

I. Board Approved Proposals

The vast majority of matters presented to shareholders for a vote involve proposals made by a company itself that have been approved and recommended by its board of directors. In view of the enhanced corporate governance practices currently being implemented in public companies, Western Asset generally votes in support of decisions reached by independent boards of directors. More specific guidelines related to certain board-approved proposals are as follows:

1. Matters relating to the Board of Directors

Western Asset votes proxies for the election of the company's nominees for directors and for board-approved proposals on other matters relating to the board of directors with the following exceptions:

- a. Votes are withheld for the entire board of directors if the board does not have a majority of independent directors or the board does not have nominating, audit and compensation committees composed solely of independent directors.
- b. Votes are withheld for any nominee for director who is considered an independent director by the company and who has received compensation from the company other than for service as a director.
- c. Votes are withheld for any nominee for director who attends less than 75% of board and committee meetings without valid reasons for absences.
- d. Votes are cast on a case-by-case basis in contested elections of directors.

2. Matters relating to Executive Compensation

Western Asset generally favors compensation programs that relate executive compensation to a company's long-term performance. Votes are cast on a case-by-case basis on board-approved proposals relating to executive compensation, except as follows:

- a. Except where the firm is otherwise withholding votes for the entire board of directors, Western Asset votes for stock option plans that will result in a minimal annual dilution.
- b. Western Asset votes against stock option plans or proposals that permit replacing or repricing of underwater options.
- c. Western Asset votes against stock option plans that permit issuance of options with an exercise price below the stock's current market price.
- d. Except where the firm is otherwise withholding votes for the entire board of directors, Western Asset votes for employee stock purchase plans that limit the discount for shares purchased under the plan to no more than 15% of their market value, have an offering period of 27 months or less and result in dilution of 10% or less.

3. Matters relating to Capitalization

The management of a company's capital structure involves a number of important issues, including cash flows, financing needs and market conditions that are unique to the circumstances of each company. As a result, Western Asset votes on a case-by-case basis on board-approved proposals involving changes to a company's capitalization except where Western Asset is otherwise withholding votes for the entire board of directors.

- a. Western Asset votes for proposals relating to the authorization of additional common stock.
- b. Western Asset votes for proposals to effect stock splits (excluding reverse stock splits).
- c. Western Asset votes for proposals authorizing share repurchase programs.

4. Matters relating to Acquisitions, Mergers, Reorganizations and Other Transactions

Western Asset votes these issues on a case-by-case basis on board-approved transactions.

5. Matters relating to Anti-Takeover Measures

Western Asset votes against board-approved proposals to adopt anti-takeover measures except as follows:

- a. Western Asset votes on a case-by-case basis on proposals to ratify or approve shareholder rights plans.
- b. Western Asset votes on a case-by-case basis on proposals to adopt fair price provisions.

6. Other Business Matters

Western Asset votes for board-approved proposals approving such routine business matters such as changing the company's name, ratifying the appointment of auditors and procedural matters relating to the shareholder meeting.

- a. Western Asset votes on a case-by-case basis on proposals to amend a company's charter or bylaws.
- b. Western Asset votes against authorization to transact other unidentified, substantive business at the meeting.

II. Shareholder Proposals

SEC regulations permit shareholders to submit proposals for inclusion in a company's proxy statement. These proposals generally seek to change some aspect of a company's corporate governance structure or to change some aspect of its business operations. Western Asset votes in accordance with the recommendation of the company's board of directors on all shareholder proposals, except as follows:

1. Western Asset votes for shareholder proposals to require shareholder approval of shareholder rights plans.
2. Western Asset votes for shareholder proposals that are consistent with Western Asset's proxy voting guidelines for board-approved proposals.

Western Asset votes on a case-by-case basis on other shareholder proposals where the firm is otherwise withholding votes for the entire board of directors.

III. Voting Shares of Investment Companies

Western Asset may utilize shares of open or closed-end investment companies to implement its investment strategies. Shareholder votes for investment companies that fall within the categories listed in Parts I and II above are voted in accordance with those guidelines.

1. Western Asset votes on a case-by-case basis on proposals relating to changes in the investment objectives of an investment company taking into account the original intent of the fund and the role the fund plays in the clients' portfolios.
2. Western Asset votes on a case-by-case basis all proposals that would result in increases in expenses (e.g., proposals to adopt 12b-1 plans, alter investment advisory arrangements or approve fund mergers) taking into account comparable expenses for similar funds and the services to be provided.

IV. Voting Shares of Foreign Issuers

In the event Western Asset is required to vote on securities held in non-U.S. issuers – i.e. issuers that are incorporated under the laws of a foreign jurisdiction and that are not listed on a U.S. securities exchange or the NASDAQ stock market, the following guidelines are used, which are premised on the existence of a sound corporate governance and disclosure framework. These guidelines, however, may not be appropriate under some circumstances for foreign issuers and therefore apply only where applicable.

1. Western Asset votes for shareholder proposals calling for a majority of the directors to be independent of management.
2. Western Asset votes for shareholder proposals seeking to increase the independence of board nominating, audit and compensation committees.
3. Western Asset votes for shareholder proposals that implement corporate governance standards similar to those established under U.S. federal law and the listing requirements of U.S. stock exchanges, and that do not otherwise violate the laws of the jurisdiction under which the company is incorporated.
4. Western Asset votes on a case-by-case basis on proposals relating to (1) the issuance of common stock in excess of 20% of a company's outstanding common stock where shareholders do not have preemptive rights, or (2) the issuance of common stock in excess of 100% of a company's outstanding common stock where shareholders have preemptive rights.

RETIREMENT ACCOUNTS

For accounts subject to ERISA, as well as other Retirement Accounts, Western Asset is presumed to have the responsibility to vote proxies for the client. The Department of Labor ("DOL") has issued a bulletin that states that investment managers have the responsibility to vote proxies on behalf of Retirement Accounts unless the authority to vote proxies has been specifically reserved to another named fiduciary. Furthermore, unless Western Asset is expressly precluded from voting the proxies, the DOL has determined that the responsibility remains with the investment manager.

In order to comply with the DOL's position, Western Asset will be presumed to have the obligation to vote proxies for its Retirement Accounts unless Western Asset has obtained a specific written instruction indicating that: (a) the right to vote

proxies has been reserved to a named fiduciary of the client, and (b) Western Asset is precluded from voting proxies on behalf of the client. If Western Asset does not receive such an instruction, Western Asset will be responsible for voting proxies in the best interests of the Retirement Account client and in accordance with any proxy voting guidelines provided by the client.

Updated: April 1, 2016