Click Here to Start

Contract Investment Administration Instructions

Use this form to select additional investment options for your group annuity contract (“Contract”) and/or to replace existing investment options available under your Contract. Also use this form to change the Default Investment Option (“DIO”) for your Contract.

A list of investment options available is attached to this form, see **Investment Listing**. Please note that John Hancock Life Insurance Company (U.S.A.) (“John Hancock USA”) making available any investment option is not based on review of the Plan’s or any of its participants’ or beneficiaries’ particular needs or individual circumstances, and does not constitute a recommendation or suggestion that any particular investment option is a suitable investment for the Plan.

The availability of the investment options listed may have changed since the production date of this form. Please visit the Plan Sponsor website, **www.jhpensions.com/er**, or contact your Client Account Representative for a current listing or to determine whether all the investment options listed are available to your Contract. Fund availability is subject to regulatory approval and may vary from state to state.

If you are removing a **Guaranteed Interest Account**, see **Appendix A** “Investment Options” for more information.

If the John Hancock Lifetime Blend Target Date Trust Portfolio is currently available under the Contract, or is being added or removed, it is important that you also read the instructions in **Appendix B**, "Supplemental Information Regarding John Hancock Lifetime Blend Target Date Trust" attached to this form.

If a Stable Value Fund is currently available under the Contract, or is being added or removed, it is important that you also read the instructions in **Appendix C**, "Supplemental Information Regarding Stable Value Funds" attached to this form.

Completed documents must be submitted on the website using the Submit a Document tool. If you have any questions and for more information, please call your John Hancock USA client account representative.

Important Information before You Begin

Changes to the Contract, including investment options, charges, fees and methods of payment, may impact the Estimated Cost of Recordkeeping for this Contract, Indirect Compensation and/or Investment Information provided under ERISA s.408(b)(2). Updates to ERISA s.408(b)(2) Disclosure Information are available on the Regulatory Disclosures page on our Plan Sponsor Website. It is your responsibility to access this website periodically and view this information at least monthly.

You should be aware that if you choose to remove the John Hancock Target Date Funds and/or John Hancock Stable Value Guaranteed Income Fund, the associated credits under the John Hancock Investment Selection Credits Program and John Hancock Stable Value Guaranteed Income Fund Credit Program will be automatically removed upon the removal of these investment options, if your plan is participating in these programs. You will, accordingly, receive a contract amendment reflecting this change.

The change(s) requested in this form may impact information previously disclosed to your eligible employees. Any changes to such previously disclosed plan related information will require advance notification to your eligible employees, participants and beneficiaries under ERISA Reg. Section 2550.404a-5 at least 30, but not more than 90, days in advance of the effective date of the change.

- It is your responsibility to provide such disclosures.
- The signed form should only be submitted to John Hancock USA for processing after the required notification in compliance with the required timelines has been provided.

Reset Form

Contract Investment Administration
(Fund Listing in Risk Order)

Important Information about this Form

- Please read the instruction pages and the appendices prior to completing this form.
- Any changes must be initialed in pen (including items crossed out or changed using correction fluid).

Completed documents (including any signed attachments) must be submitted on the website using the Submit a Document tool. For further assistance, contact your Client Account Representative.

1. General Information

The Trustee of ______________________ **Plan ("the Plan")** ______________

Contractholder Name | Contract Number

The changes requested on this form shall be effective as of the later of (i) the effective date noted below or (ii) the day that this form, duly completed and in good order, is received by John Hancock USA (the "Effective Date"). The requested change(s) will occur only on a "market day", i.e., a day on which the New York Stock Exchange is open for business. If the Effective Date is not a market day, then it will be deemed to refer to the market day immediately following that day. A form is considered received by John Hancock USA if it is received before the close of the trading on a market day. If received after that time, the form will be considered to have been received on the next market day.

Please refer to Section 6 for additional effective date information for Stable Value Funds.

Effective Date: ____ Month ____ Day ________ Year

2. What would you like to do?

- **Add** a Fund to your Contract. Complete Section 3.
- **Remove** a Fund from your Contract and **replace** with another Fund. Complete Section 4.
- **Remove** the Fund that is the **Default Investment Option(s) ("DIO")** from your Contract and **replace** the DIO with another Fund. The replacement Fund will become the new DIO for the Contract. Complete Section 4.
- **Change the DIO** for your Contract. The Fund(s) that is currently the DIO for your Contract will continue to be offered, but it will no longer be the DIO. Complete Section 5.
- For any other changes involving the DIO for your Contract that are not listed here, please contact your Client Account Representative.
- If you elect to remove a **Stable Value Fund** by completing Section 4, OR if the current DIO for your Contract is a Stable Value Fund and you complete Section 5, then you **must** also complete Section 6.

3. Add Investment Options

Complete this section to add investment options to the Contract.

- To add an investment option to your Contract, enter the Name of the Selected Fund and Fund Code shown in the Investment Listing attached to this form.
- If there are any inconsistencies between the Fund Code and Name of Selected Fund entered, the Fund Code will be used to determine the Fund that will be added to the Contract.
- If you are adding **Target Date Portfolios** to your Contract, the entire suite of portfolios must be added to the Contract. Enter the name of the Target Date suite and its Fund Code below.
- Each Target Date or Target Risk Fund is considered a distinct investment option.
- Investment options selected will be in addition to those already available under your Contract.
- Maximum of 275 distinct investment options can be selected per Contract.

Fund Code	Name of Selected Fund

☐ **See attached - If you require additional space, attach a separate sheet listing the additional investment options to be added to the Contract using the same format as above. Each additional separate sheet must have a printed name and be signed by a Trustee, Authorized Named Fiduciary, or 3(38) Investment Manager.**

4. Replace Investment Options Currently Offered

Complete this section to replace investment options currently offered under your Contract.

If you replace the Fund that is the Default Investment Option(s) ("DIO") with another Fund, the replacement Fund will become the new DIO for the Contract.

- To remove a Fund(s) from your Contract and transfer the assets from that Fund to the corresponding replacement Fund, enter the Name of the Fund Being Removed, the Name of the Replacement Fund, and the respective Fund Codes, shown in the Investment Listing attached to this form. Only one replacement Fund may be selected for each removed Fund. A replacement Fund **must** be selected for each removed fund, even if no assets are currently invested in the removed Fund.
- If there are any inconsistencies between the Fund Code and Name of Fund Being Removed entered, the Fund Code will be used to determine the Fund that will be removed from the Contract.
- If **trustee-directed assets** are currently invested in any of the removed Fund(s), you must also complete the *Investment Instructions for Trustee-Directed Assets* Form to update your investment instructions for those assets.
- To change investment options under the **Guaranteed Income for Life** feature, you must complete the applicable *Guaranteed Income for Life Investment* form.
- If you are removing a suite of **Target Date Portfolios**, see Appendix A for more information.
- If you are removing a **Stable Value Fund**, you **must** also complete Section 6 of this form.
- A redemption fee may apply to a redemption from one or more of the removed Funds.
- Any replacement Fund(s) that are not already available under your Contract will be added as new investment options (even if Section 3 is not completed).
- Maximum of 275 distinct investment options can be selected per Contract.
- Each Target Date or Target Risk Fund is considered a distinct investment option.
- Participant accounts will be updated to reflect the changes below. Future contributions designated for a removed Fund will instead be invested in the respective replacement Fund.

Information for Designated Investment Options ("DIO")

- If the removed Fund(s) is currently a **DIO**, then the corresponding replacement Fund will become the new DIO for your Contract.
- Both the assets of participants who were default invested in the DIO, and the assets of participants who affirmatively elected to invest in the DIO, will be transferred to the replacement Fund.
- To change the DIO for your Contract but continue to make the Fund currently designated as the DIO available for investment under the Contract, complete Section 5 instead of Section 4. By completing this Section 4, the Fund that is currently the DIO for your Contract will be removed and replaced with the corresponding replacement Fund. The replacement Fund will become the new DIO for the Contract.

Fund Code	Name of Fund Being Removed	Fund Code	Name of Replacement Fund

☐ **See attached - If you require additional space, attach a separate sheet listing the removed Funds with the corresponding replacement Funds using the same format as above. Each additional sheet must have a printed name and be signed by a Trustee, Authorized Named Fiduciary, or 3(38) Investment Manager.**

5. Change the Default Investment Option for the Contract

Complete this section to change the Default Investment Option ("DIO") for the Contract. Participants that are default enrolled will have all their assets automatically transferred into the new DIO designated below, unless you otherwise elect by checking the box below.

The Fund that is currently the DIO for the Contract will NOT be removed and will continue to be available as an investment option under the Contract.

- To change the DIO for your Contract, enter the Name of the Selected Fund and Fund Code shown in the Investment Listing attached to this form. If there are any inconsistencies between the Fund Code and Name of Selected Fund entered, the Fund Code will be used to determine the Fund that will be the DIO.
- If the current DIO for your Contract is a **Stable Value Fund**, you **must** complete Section 6 of this form because a Put or a Market Value Adjustment may apply to the transfer of the assets out of the current Stable Value Fund DIO.
- If you are designating a suite of Target Date Portfolios as the DIO for your Contract, see Appendix A for more information. The transfer of assets will be processed in accordance with Option 1. All Target Date Portfolios in the suite will be used as the DIO. Enter the name of the Target Date suite and its Fund Code below. A redemption fee may apply to the transfer of participants' investments from the current DIO.
- If the DIO designated below is not already available under your Contract, it will be added as a new investment option (even if Section 3 is not completed).
- Refer to John Hancock USA's current administrative guidelines for information regarding the circumstances in which participants will be default invested in the DIO. Participant accounts will be updated to reflect the changes below.
- If the Contract uses the dynamic retirement strategy feature, complete the table below if you would like to change the Target Date suite selected for the Contract. A Target Date suite **must** be selected for the Contract in order to use the dynamic retirement strategy feature.

☐ Check here to remove the dynamic retirement strategy feature and to change the Contract's DIO to the Funds selected below. If no Fund(s) are selected, the dynamic retirement strategy feature will be removed and the Contract's current Target Date suite will be the Contract's DIO. Participants that are default enrolled will have all their default-invested assets automatically transferred into such DIO, unless you otherwise elect by checking the box below.

If the dynamic retirement strategy feature is removed from the Contract's DIO, any discounts or credits with respect to the dynamic retirement strategy feature provided to the Contract will no longer apply, and the Contract will be charged the John Hancock USA Required Revenue without such discount or credit.

Fund Code	Name of Selected Fund	Percentage
		%
		%
		%
	Total	**%**

Election not to transfer any participant assets to the new DIO selected above.

☐ Check here to elect that default enrolled participant assets **NOT** be transferred to the new DIO selected above. Accordingly, only contributions received by John Hancock USA on or after the Effective Date will be invested in the new DIO.

If both the current and the new DIOs are qualified default investment alternatives (QDIAs), then you must provide applicable participants with QDIA disclosures for all of the DIO(s) in which they are invested.

If you also checked the box above to remove the dynamic retirement strategy feature, any participants previously defaulted into dynamic retirement strategy will remain enrolled in John Hancock USA Personalized Retirement Advice ("Retirement Advice"). All terms and conditions for Retirement Advice, including Retirement Advice fees, will remain in effect. If you would like to remove Retirement Advice from the Contract, complete the *Contract Service Features Request* form.

If your Contract has SEND Service, note that notices generated by SEND Service can only show one DIO (this includes a suite of target date portfolios). As of the Effective Date, this will be the new DIO selected above. If participants are default invested in more than one DIO, you must make any applicable disclosures to participants who are invested in any DIO not stated above, as that other DIO will not be included in the notices generated by the SEND Service.

If you have made this election not to transfer any participant assets to the new DIO selected above, it is not necessary to complete Section 6 of this form.

6. Directions for Stable Value Fund Transfer

Complete this section if you elected to remove a Stable Value Fund in Section 4 above, OR if the current DIO for your Contract is a Stable Value Fund and you have completed Section 5. Refer to the Fund's Declaration of Trust and offering documents for details regarding transferring out of the Stable Value Fund. Complete only the section relevant to your Stable Value Fund.

Federated Hermes Capital Preservation Fund

☐ I understand that the transfer from the Federated Hermes Capital Preservation Fund will not occur on the Effective Date but will be subject to a hold for up to 12 months following the effective date or such earlier date as Federated Hermes determines. Until the assets in the Fund are transferred to a replacement investment option, participants may continue to make contributions to, and withdrawals and transfers from, the Fund, and the Plan must not offer any investment option that is a competing fund.

I also understand that I must complete either the Federated Hermes Capital Preservation Fund 12-Month Liquidation Notice form or the Federated Hermes Capital Preservation Fund Waiver of the 12-Month Notice Request form and return it to John Hancock along with this form.

Please see the links to the two forms below or contact your client account representative for a copy of the forms.

Federated Liquidation form

Federated Hermes PUT waiver form

Reliance MetLife Stable Value Fund

☐ I understand that the transfer from the Reliance MetLife Stable Value Fund is a Participating Plan-Directed Withdrawal and will be paid out as a market value adjusted payment, equal to either (i) if the contract value is less than or equal to the market value, the Plan's proportionate share of contract value, or (2) if market value is less than contract value, the Plan's contract value multiplied by the ratio that the market value bears to contract value. Payment of the amount being withdrawn may take up to 60 business days after the date that the above form is submitted, in good order, to Reliance MetLife.

I also understand that I must complete the 30 Day Pre-Notification Packet, and return it to John Hancock along with this form.

Please see the link to the 30 Day Pre-notification packet below or contact your client account representative for a copy of the form.

30 Day Pre-Notification Packet

John Hancock Stable Value Fund (select one option only)

For any assets invested in the John Hancock Stable Value Fund (the "Stable Value Fund"), you must select one of the following two options applicable to plan-initiated withdrawals from the Stable Value Fund:

☐ **A put** - If you elect the put option, the assets invested in the Stable Value Fund may not be transferred on the Effective Date, but may be subject to a hold for 12 months from the Effective Date. Until the Stable Value Fund assets are transferred to a replacement investment option, participants may continue to make contributions to, and withdrawals and transfers from, the Fund, and the Plan must not offer any investment option that is a Competing Fund.

☐ **A Market Value Adjustment Payment –** If you select this option, the amount of Contract assets invested in the Stable Value Fund will be redeemed at the lesser of book value or market value a market value adjustment may apply and the transfer may be delayed until one business day after the Effective Date. The market value is determined by reducing the book value by a market value adjustment factor. To obtain the estimated market value adjustment amount, please contact your Client Account Representative. This amount will change daily; your applicable market value adjustment payment amount will be calculated on the effective date of the transfer. The actual dollar amount of the MVA can be provided to you at that time upon request.

John Hancock Stable Value Guaranteed Income Fund (select one option only)

☐ **A put** - If you elect the put option, the assets invested in the John Hancock Stable Value Guaranteed Income Fund may not be transferred on the Effective Date but will be subject to a hold for 5 years from the Effective Date. Until the John Hancock Stable Value Guaranteed Income Fund assets are transferred to a replacement investment option, withdrawals and transfers from the Fund are subject to a 20% annual maximum (based on the account balance on the Effective Date) and the Plan must not offer any investment option that is a Competing Fund. Participants can continue to make contributions.

☐ **A Market Value Adjustment Payment** - If you select this option, a market value adjustment may apply, and the transfer may be delayed until one business day after the Effective Date. To obtain the estimated market value adjustment amount, please contact your Client Account Representative. This amount will change daily; your applicable market value adjustment payment amount will be calculated on the effective date of the transfer

Reliance Trust New York Life Anchor Account (select one option only)

For any assets invested in the Reliance Trust New York Life Anchor Account (the "Stable Value Trust"), you must select one of the following two options applicable to Plan-Initiated Withdrawals from the Stable Value Trust.

However, please note that we will inform Reliance Trust Company of your request for a Plan-Initiated Withdrawal and Reliance Trust Company will then determine whether your withdrawal from the Stable Value Trust is subject to the Stable Value Trust's withdrawal rules. If Reliance Trust Company determines that your withdrawal is not subject to the withdrawal rules, the withdrawal amount will be equal to book value and your election as to a Put or MVA will not be given effect. If Reliance Trust Company determines that your withdrawal is subject to the withdrawal rules, then your election as to a Put or MVA will be effective.

☐ **A put** - If your withdrawal is subject to withdrawal rules and you elect the put option, the assets invested in the Stable Value Trust will not be withdrawn on the Effective Date, but will be subject to a hold for 12-months. Until such assets are transferred to a replacement investment option, participants may continue to make contributions to, and withdrawals and transfers from, the Fund and the Plan must not offer any investment option that is a Competing Fund.

☐ **A Market Value Adjustment Payment** – If your withdrawal is subject to withdrawal rules and you select this option, a market value adjustment may apply and your withdrawal from the Stable Value Trust will be as soon as administratively feasible following the withdrawal. To obtain the estimated market value adjustment amount, please contact your Client Account Representative. This amount will change daily; your applicable market value adjustment payment amount will be calculated on the effective date of the transfer. The actual dollar amount of the MVA payment can be provided to you by your Client Account Representative upon request following the withdrawal.

7. Authorization and Certifications

I, the undersigned, hereby direct and authorize John Hancock USA to implement the instructions specified in this form and agree that John Hancock USA is entitled to rely on the certifications, directions, acknowledgements, authorizations and agreements contained in this form. I have reviewed, understand and agree with the information, terms and conditions provided on this form, including the Instruction page, Appendix A, Appendix B, Appendix C, and the Investment Listing.

If the above request involves the addition of any investment options, I acknowledge that I have received a description of the investment objectives and policies and other investment-related information for each such investment option, and that I can access the John Hancock USA plan sponsor website to review, download, and save (or print) the related fund sheet of each such investment option. I further understand that I have the right to obtain paper copies of such fund sheet(s) for free by calling my Client Account Representative.

If the above request involves adding or replacing a Stable Value Fund, I hereby agree that (i) I have received and reviewed a copy of the Declaration of Trust (the "Declaration of Trust") and offering documents of the new Stable Value Fund; (ii) I understand these documents, agree to be bound by their terms, and agree that they govern the Plan's investment in the Stable Value Fund; (iii) the Plan satisfies the eligibility criteria set forth in the offering documents; (iv) the Plan will not make available to its participants any "Competing Funds" as defined in the offering documents, and (v) a Stable Value Fund may not be available in all jurisdictions. In addition, I hereby authorize John Hancock USA to enter into a Participation Agreement on my behalf and invest in the underlying collective investment trust all contributions allocated by the Plan to the Stable Value Fund.

If the above request involves adding or replacing a John Hancock Lifetime Blend Target Date Trust (a "Target Date Trust"), I hereby agree that (i) I have received and reviewed a copy of the Declaration of Trust, Participation Agreement and associated offering documents of the new Target Date Trust; (ii) I understand these documents, agree to be bound by their terms, and agree that they govern the Plan's investment in the Target Date Trust; (iii) the Plan satisfies the eligibility criteria set forth in the offering documents; (iv) the Target Date Trust may invest and rebalance plan assets in underlying collective investment trusts maintained by John Hancock Trust Company and the John Hancock Stable Value Guaranteed Income Fund, as described in the applicable Target Date Trust Fund Declaration; and (v) John Hancock Life Insurance Company USA (JHUSA) may retain any spread revenue resulting from the Target Date Trust's investment in the John Hancock Stable Value Guaranteed Income Fund. In addition, I hereby authorize John Hancock USA to enter into a Participation Agreement on my behalf and invest in the underlying collective investment trust all contributions allocated by the Plan to the Target Date Trust.

If the above request involves replacing the John Hancock Target Date Funds and John Hancock Stable Value Guaranteed Income Fund under the John Hancock Investment Selection Credit Program and John Hancock Stable Value Guaranteed Income Fund Credit

Program, I hereby agree that the credits granted under these programs will be automatically removed from the contract without further authorization from the plan.

I further acknowledge that it is my responsibility, and not John Hancock USA's, to ensure that all disclosures that may be required (including, but not limited to, disclosures required under Department of Labor Regulation Section 2550.404a-5) in connection with this request, are provided to my eligible employees, participants and beneficiaries within the required timelines.

I, the undersigned, on behalf of the Plan sponsor, the Plan and its related trust, agree to hold harmless and indemnify John Hancock USA, its employees, agents, or affiliates for any losses resulting from John Hancock USA acting on the instructions provided on this Form. I further acknowledge and agree that any participant queries received by John Hancock USA pertaining to these changes should be directed to the undersigned.

Signature of Trustee/Authorized Named Fiduciary/ 3(38) Investment Manager	Name - please print	Date

Appendix A – Investment Options

Prior to making any selections on this form, it's important to carefully review the information regarding the investment options available on the plan sponsor website which provides detailed information on the investment objectives, policies, fees, expense ratios, redemption fees, and investment returns for all of the investment options.

There can be no assurance that either an investment option or the underlying fund will achieve their investment objectives. A Fund is subject to the same risks as the underlying fund in which it invests, including investment risks and possible loss of the principal amount invested. Investment options are not insured by the FDIC, the Federal Reserve Board or any agency. For a more complete description of these risks, please review the underlying fund's prospectus, which is available upon request.

The Funds offered on the JH Signature platform are classified into five risk categories. The risk category in which a Fund is placed is determined based on where the 10 year Standard Deviation (defined below) of the underlying fund's Morningstar Category falls on the following scale: if the 10 year Standard Deviation of the underlying fund's Morningstar Category is 15.00 or higher, the Fund is classified as "Aggressive;" between 12.50 and 15.00 as "Growth;" between 6.25 and 12.49 as "Growth & Income;" between 1.50 and 6.24 as "Income;" and 1.49 and below as "Conservative." If a 10 year Standard Deviation is not available for a Morningstar Category, then the 5 year Standard Deviation of the underlying fund's Morningstar Category is used to determine the Fund's risk category. If a 5 year Standard Deviation is not available for a Morningstar Category, then the 5 year Standard Deviation of the underlying fund's Morningstar Category Index is used to determine the Fund's risk category. Standard Deviation is defined by Morningstar as a statistical measurement of dispersion about an average, which, for an underlying fund, depicts how widely the returns varied over a certain period of time.

Guaranteed Interest Accounts

- Guaranteed Interest Accounts guarantee the return of principal plus compound interest earned over a defined term – 3 years, 5 years, or 10 years – provided all contributions remain in the account until the end of the guarantee period.
- Investment transfers out of a Guaranteed Interest Account prior to the end of the applicable guarantee period will be at the lesser of book or market value. This includes, for example, the investment transfer of a participant who is default invested in a Guaranteed Interest Account and who later wishes to transfer out of the Guaranteed Interest Account will be at the lesser of book or market value. Similarly, if a Guaranteed Interest Account is removed as an investment option, the transfers out of the Guaranteed Interest Account will be at the lesser of book or market value.
- An investment in a Guaranteed Interest Account is not insured or guaranteed by The Federal Deposit Insurance Corporation or any other government agency. Although the underlying portfolio seeks to preserve the value of an investment, it is possible to lose money by investing in a Guaranteed Interest Account.
- Please refer to our Administration Guide, available at **www.jhpensions.com/er**, for information on determination of interest rates, the reinvestment of Guaranteed Interest Accounts, and restrictions on transfers and withdrawals, or contact your John Hancock USA representative.

Target Date Portfolios as the DIO or as a Replacement Fund

If a suite of Target Date Portfolios is selected as the default investment option, defaulted participant balances will be invested in the Target Date Portfolio that corresponds to, or is closest to, the year in which the participant attains 67. Similarly, if a suite of Target Date Portfolios is selected as the replacement Fund for a removed Fund(s), then each participant's investment in the removed Funds, and future contributions, will be invested in the newly added Target Date portfolio that corresponds to, or is closest to, the year in which the participant attains age 67.

In either case, if date of birth information is not provided for a participant, the participant's balance and future contributions will be invested in the most conservative Portfolio in the suite. If a date of birth is later provided for such participant, then all contributions previously invested in the most conservative Portfolio in the suite, as well as all future contributions, will be invested in the Portfolio determined as described above.

If you are replacing one suite of Target Date Portfolios with another suite of Target Date Portfolios, there are two transfer options available to you:

Option 1 - To move assets in one Target Date suite to a new Target Date suite using a participant's date of birth (regardless of the portfolio in which the participant is currently invested), enter the name of the Target Date suites in Section 4 and the Fund Code for the Target Date suite. Each affected participant's investment in the removed suite and future contributions thereto will be transferred into the Target Date Portfolio of the replacement suite that corresponds to, or is closest to, the year in which the affected individual participant attains age 67, as described above.

Example: Suite to suite change based on date of birth.

Fund Code	Name of Fund Being Removed	Fund Code	Name of Replacement Fund
RL	John Hancock Multimanager Lifetime Portfolios	RC	John Hancock Multi-Index Preservation Portfolios

Option 2 - To move assets in one Target Date suite to a new Target Date suite based on your specific direction, enter each particular Fund Being Removed and its Fund Code along with the corresponding Name of the Replacement Fund and its Fund Code in Section 4.

Example: Suite to suite change based on your specific direction for each individual portfolio in the suite.

Fund Code	Name of Fund Being Removed	Fund Code	Name of Replacement Fund
LXB	John Hancock Multimanager 2010 Lifetime Portfolio	J4L	John Hancock Lifetime Blend 2010 CIT R2
LXC	John Hancock Multimanager 2015 Lifetime Portfolio	J4K	John Hancock Lifetime Blend 2015 CIT R2
LXD	John Hancock Multimanager 2020 Lifetime Portfolio	J4J	John Hancock Lifetime Blend 2020 CIT R2
LXE	John Hancock Multimanager 2025 Lifetime Portfolio	J4I	John Hancock Lifetime Blend 2025 CIT R2
LXF	John Hancock Multimanager 2030 Lifetime Portfolio	J4H	John Hancock Lifetime Blend 2030 CIT R2
LXG	John Hancock Multimanager 2035 Lifetime Portfolio	J4G	John Hancock Lifetime Blend 2035 CIT R2
LXH	John Hancock Multimanager 2040 Lifetime Portfolio	J4F	John Hancock Lifetime Blend 2040 CIT R2
LXI	John Hancock Multimanager 2045 Lifetime Portfolio	J4E	John Hancock Lifetime Blend 2045 CIT R2
LXJ	John Hancock Multimanager 2050 Lifetime Portfolio	J4D	John Hancock Lifetime Blend 2050 CIT R2
LXK	John Hancock Multimanager 2055 Lifetime Portfolio	J4C	John Hancock Lifetime Blend 2055 CIT R2
LXL	John Hancock Multimanager 2060 Lifetime Portfolio	J4B	John Hancock Lifetime Blend 2060 CIT R2
L6A	John Hancock Multimanager 2065 Lifetime Portfolio	J4A	John Hancock Lifetime Blend 2065 CIT R2

Exchange Traded Funds (ETFs)

John Hancock USA offers ETFs that are made available through a partnership with Mid Atlantic Trust Company (MATC), an unaffiliated third-party custodian that facilitates ETF transaction processing on behalf of John Hancock USA. MATC's brokerage and settlement of ETFs are handled through an arrangement with Mid Atlantic Capital Corporation ("MACC"), a registered broker-dealer and affiliate of MATC under the control of the same parent company.

Due to restrictions imposed by the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), if the plan sponsor or any other plan fiduciary is an affiliate of MATC or MACC, the plan will not be permitted to invest in John Hancock USA ETF sub-accounts.

Owning exchange-traded funds (ETFs) generally reflects the risks of owning the underlying securities they are designed to track, which may cause lack of liquidity, more volatility and increased management fees. An investment in an ETF involves risks, including potential loss of principal. Investment return, price, yield and net asset value (NAV) will fluctuate with changes in market conditions and brokerage expenses and ETF expenses will reduce returns. ETFs traded in the secondary market may trade at prices above or below their NAV. ETF shares are generally not redeemable from the fund individually, but through units of shares that may be redeemed in aggregate. Investment policies, management fees and other information can be found in the individual ETF's prospectus. Certain non-index ETFs are non-diversified and may experience more volatility than index ETFs or mutual funds typically would. Certain single-stock or commodity-based ETFs may also pose increased risks or be more speculative in nature.

An ETF Transaction Fee will apply when buying or selling ETFs. Refer to the Fund's fact sheet for details.

Appendix B – Supplemental Information Regarding the John Hancock Lifetime Blend Target Date Trusts

Collective Investment Trust Authorizing Documents

Participation in a collective investment trust, such as a John Hancock Lifetime Blend Target Date Trust, is governed by the terms of the Declaration of Trust, Participation Agreement and associated offering documents. By completing the Authorization and Certifications section of the attached form, you agree that you have received, reviewed, understand, and agree to the terms of the Declaration of Trust, Participation Agreement and the associated offering documents.

Important instructions for adding a collective investment trust

Only certain qualified plans may invest in a collective investment trust. It is important to review the Declaration of Trust and offering documents to determine whether your Plan is eligible to invest in the collective investment trust.

In addition, the governing instruments of any such plan must permit the investment of plan assets in a collective investment trust and adopt the terms of the Declaration of Trust.

By completing the Authorization and Certifications section of the attached form, you or an authorized fiduciary of such plan must represent that the Plan satisfies the eligibility criteria set forth in the offering documents and that the governing instruments of the Plan permit the investment of Plan assets in a collective investment trust. You also authorize John Hancock USA to enter into a participation agreement on your behalf to invest all contributions allocated to the portfolio in the underlying collective investment trust.

Important information regarding the John Hancock Lifetime Blend Target Date Trusts

- John Hancock Lifetime Blend Target Date Trusts (the “TD Trusts) are funds-of funds, investing in other passively- and actively-managed collective investment funds maintained by John Hancock Trust Company (JHTC) and in a John Hancock Stable Value Guaranteed Income Fund (SVGI) contract, among other investments. The TD Trusts will invest in units of the underlying collective investment funds that do not charge fees benefitting the Trustee or its affiliates. SVGI charges no management or operating expense fees but investments in SVGI may confer economic benefits on John Hancock Life Insurance Company (USA) (JHUSA).
- The TD Trusts follow an asset allocation strategy that will change over time according to a predetermined “glide path” shown in the relevant Fund Declaration. Each TD Trust has a target allocation to underlying funds that invest in the broad asset classes of equity and fixed-income securities, but, subject to the limitations on allocation to SGVGI as described below and on other investment vehicles sponsored, managed or advised by an affiliate of JHTC, may also allocate its assets to underlying funds that invest outside these asset classes to protect the TD Trust or help it achieve its objective. Under normal circumstances, any deviation from the broad equity/fixed income target allocation is not expected to be greater than (plus or minus) 10%.
- Each TD Trust has a specific target allocation to the SVGI but, unlike other underlying investments, JHTC will have no discretion to actively deviate from the target allocations to SVGI shown in the SVGI allocation glidepath table in the relevant Fund Declaration.
- You acknowledge that you have reviewed and approved the terms of the relevant Fund Declarations, including the allocation glidepaths and rebalancing terms, and direct JHTC to allocate the TD Trusts assets in accordance with the terms of the Fund Declarations. JHTC may change the target allocation glidepaths or rebalancing terms only upon 90-days prior written notice to you. Should you object to any such change, you may withdraw Plan assets from the TD Trusts and select another investment option without penalty.
- By investing Plan assets in the Funds you approve and/or direct (i) the Funds’ investment in SVGI; (ii) the target allocations to SVGI described in the relevant Fund Declaration; (iii) the rebalancing guidelines described in the relevant Fund Declaration; and (iv) the retention of spread revenue, if any, by JHUSA . You acknowledge that you retain sole fiduciary responsibility for the Funds’ investments and the SVGI allocation glidepath, as described in the relevant Fund Declaration.

Appendix C – Supplemental Information Regarding Stable Value Funds

Stable Value Fund Authorizing Documents

Participation in a Stable Value Fund is governed by the terms of the Declaration of Trust, which are summarized by the offering documents and Fund (Fact) Sheet. By completing the Authorization and Certifications section of the attached form, you agree that you have received, reviewed, understand, and agree to the terms of the Declaration of Trust and the offering documents.

Important instructions for adding a Stable Value Fund

- Only certain qualified plans may invest in a Stable Value Fund. It is important to review the Declaration of Trust and offering documents to determine whether your Plan is eligible to invest in the Stable Value Fund.

  In addition, the governing instruments of any such plan must permit the investment of plan assets in a collective investment trust.

  By completing the Authorization and Certifications section of the attached form, you or an authorized fiduciary of such plan must represent that the Plan satisfies the eligibility criteria set forth in the offering documents and that the governing instruments of the Plan permit the investment of Plan assets in a collective investment trust. You also authorize John Hancock USA to enter into a participation agreement on your behalf to invest all contributions allocated to the Stable Value Fund in the underlying collective investment trust.
- Competing Fund - In order to invest in the Stable Value Fund, a plan must not offer any investment option that is a Competing Fund, either in the Contract or elsewhere. The definition of a Competing Fund will vary for each Stable Value Fund and is contained in the Declaration of Trust and offering documents. Competing Funds are indicated on the attached list of Investment Options. If adding a Stable Value Fund to the Contract, any Competing Funds currently offered must be removed by completing Section 4 of the attached form.

Important instructions for removing a Stable Value Fund or transferring assets out of a Stable Value Fund

Withdrawals from a Stable Value Fund are subject to the same restrictions that apply to the underlying collective investment trust. The trustee of the underlying trust has the right to delay any participant-initiated withdrawals if it determines that immediate withdrawal may have an adverse impact to the trust. In addition, plan-initiated withdrawals (or participant-initiated withdrawals that are deemed to be plan-initiated withdrawals) may under certain conditions, be:

- subject to a Put as described in Section 6, without the application of a market value adjustment; or
- subject to the application of a market value adjustment.

If you elect to remove a Stable Value Fund, you must select one of the applicable options in Section 6. In addition, because a transfer of participant assets out of a Stable Value Fund may be subject to a put or a market value adjustment, you must also select one of the applicable options in Section 6 if the current DIO for your Contract is a Stable Value Fund, and you elect (in Section 5) to change your Contract's DIO. (Changing your Contract's DIO will automatically transfer the assets of participants who were default invested in the current Stable Value Fund DIO into new DIO.)

Refer to the Fund's Declaration of Trust and offering documents for details regarding transferring out of the Stable Value Fund.

Important instructions for contracts that currently have a Stable Value Fund selected

In order to offer a Stable Value Fund, the Plan must not offer any investment option that is a Competing Fund. Therefore, while the Contract offers a Stable Value Fund, please ensure that Funds being added to the Contract are not indicated as Competing Funds on the attached list of Investment Options in Appendix C. If your Contract offers a Stable Value Fund and you elect to add a Competing Fund, the Competing Fund will not be added to the Contract and the processing of the attached form may be delayed.

Investment Listing

Investment option(s) which are shaded may only be available under certain limited circumstances.

The availability of the investment options listed below may have changed since the production of this form. Please visit the Plan Sponsor website, www.jhpensions.com/er > *Your contract reports > Investments > Contract investment options > View all available investment options*, **or contact your Client Account Representative for a current listing or to determine whether all the investment options listed are available to your Contract.** Fund availability is subject to regulatory approval and may vary from state to state. Maximum of 275 distinct investment options can be selected per contract. Each Target Date or Target Risk Fund is considered a distinct investment option.

ASSET ALLOCATION - TARGET DATE

Code	American Century One Choice Target Date Portfolios
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
AM	American Century One Choice Target Date Portfolios
ACA	American Century One Choice In Retirement
ACE	American Century One Choice 2030
ACF	American Century One Choice 2035
ACG	American Century One Choice 2040
ACH	American Century One Choice 2045
ACI	American Century One Choice 2050
ACJ	American Century One Choice 2055
ACK	American Century One Choice 2060
ACL	American Century One Choice 2065

Code	American Funds Target Date Retirement Funds
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
AF	American Funds Target Date Retirement Series
AFA	American Funds 2010 Target Date Retirement Fund
AFB	American Funds 2015 Target Date Retirement Fund
AFC	American Funds 2020 Target Date Retirement Fund
AFD	American Funds 2025 Target Date Retirement Fund
AFE	American Funds 2030 Target Date Retirement Fund
AFF	American Funds 2035 Target Date Retirement Fund
AFG	American Funds 2040 Target Date Retirement Fund
AFJ	American Funds 2045 Target Date Retirement Fund
AFK	American Funds 2050 Target Date Retirement Fund
AFL	American Funds 2055 Target Date Retirement Fund
AFM	American Funds 2060 Target Date Retirement Fund
A65	American Funds 2065 Target Date Retirement Fund
A70	American Funds 2070 Target Date Retirement Fund

ASSET ALLOCATION - TARGET DATE (continued)

Code	BlackRock LifePath Dynamic Funds
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
BD	BlackRock LifePath Dynamic Funds
BDJ	BlackRock LifePath Dynamic Retirement Fund
BDI	BlackRock LifePath Dynamic 2030 Fund
BDH	BlackRock LifePath Dynamic 2035 Fund
BDG	BlackRock LifePath Dynamic 2040 Fund
BDF	BlackRock LifePath Dynamic 2045 Fund
BDE	BlackRock LifePath Dynamic 2050 Fund
BDD	BlackRock LifePath Dynamic 2055 Fund
BDC	BlackRock LifePath Dynamic 2060 Fund
BDB	BlackRock LifePath Dynamic 2065 Fund
BDA	BlackRock LifePath Dynamic 2070 Fund

Code	BlackRock LifePath Index Funds
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
BR	BlackRock LifePath Index Funds
BRA	BlackRock LifePath Index Retirement Fund
BRE	BlackRock LifePath Index 2030 Fund
BRF	BlackRock LifePath Index 2035 Fund
BRG	BlackRock LifePath Index 2040 Fund
BRH	BlackRock LifePath Index 2045 Fund
BRI	BlackRock LifePath Index 2050 Fund
BRJ	BlackRock LifePath Index 2055 Fund
BRK	BlackRock LifePath Index 2060 Fund
BRL	BlackRock LifePath Index 2065 Fund
B70	BlackRock LifePath Index 2070 Fund

ASSET ALLOCATION - TARGET DATE (continued)

Code	John Hancock Lifetime Blend Target Date Trusts (2010-2070)
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
R1	John Hancock Lifetime Blend Target Date Trusts (2010-2070)
R12	John Hancock Lifetime Blend 2010 CIT
R11	John Hancock Lifetime Blend 2015 CIT
R10	John Hancock Lifetime Blend 2020 CIT
JR9	John Hancock Lifetime Blend 2025 CIT
JR8	John Hancock Lifetime Blend 2030 CIT
JR7	John Hancock Lifetime Blend 2035 CIT
JR6	John Hancock Lifetime Blend 2040 CIT
JR5	John Hancock Lifetime Blend 2045 CIT
JR4	John Hancock Lifetime Blend 2050 CIT
JR3	John Hancock Lifetime Blend 2055 CIT
JR2	John Hancock Lifetime Blend 2060 CIT
JR1	John Hancock Lifetime Blend 2065 CIT
JRA	John Hancock Lifetime Blend 2070 CIT

Code	John Hancock Lifetime Blend Target Date Trusts R2 (2010-2070)
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
R2	John Hancock Lifetime Blend Target Date Trusts R2 (2010-2070)
J4L	John Hancock Lifetime Blend 2010 CIT R2
J4K	John Hancock Lifetime Blend 2015 CIT R2
J4J	John Hancock Lifetime Blend 2020 CIT R2
J4I	John Hancock Lifetime Blend 2025 CIT R2
J4H	John Hancock Lifetime Blend 2030 CIT R2
J4G	John Hancock Lifetime Blend 2035 CIT R2
J4F	John Hancock Lifetime Blend 2040 CIT R2
J4E	John Hancock Lifetime Blend 2045 CIT R2
J4D	John Hancock Lifetime Blend 2050 CIT R2
J4C	John Hancock Lifetime Blend 2055 CIT R2
J4B	John Hancock Lifetime Blend 2060 CIT R2
J4A	John Hancock Lifetime Blend 2065 CIT R2
J4M	John Hancock Lifetime Blend 2070 CIT R2

ASSET ALLOCATION - TARGET DATE (continued)

Code	John Hancock Multimanager Lifetime Portfolios
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
RL	John Hancock Multimanager Lifetime Portfolios
LXB	John Hancock Multimanager 2010 Lifetime Portfolio
LXC	John Hancock Multimanager 2015 Lifetime Portfolio
LXD	John Hancock Multimanager 2020 Lifetime Portfolio
LXE	John Hancock Multimanager 2025 Lifetime Portfolio
LXF	John Hancock Multimanager 2030 Lifetime Portfolio
LXG	John Hancock Multimanager 2035 Lifetime Portfolio
LXH	John Hancock Multimanager 2040 Lifetime Portfolio
LXI	John Hancock Multimanager 2045 Lifetime Portfolio
LXJ	John Hancock Multimanager 2050 Lifetime Portfolio
LXK	John Hancock Multimanager 2055 Lifetime Portfolio
LXL	John Hancock Multimanager 2060 Lifetime Portfolio
L6A	John Hancock Multimanager 2065 Lifetime Portfolio
LXM	John Hancock Multimanager 2070 Lifetime Portfolio

Code	John Hancock Lifetime Blend Portfolios
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
RM	John Hancock Lifetime Blend Portfolios
LXQ	John Hancock 2010 Lifetime Blend Portfolio
LXR	John Hancock 2015 Lifetime Blend Portfolio
LXS	John Hancock 2020 Lifetime Blend Portfolio
LXT	John Hancock 2025 Lifetime Blend Portfolio
LXU	John Hancock 2030 Lifetime Blend Portfolio
LXV	John Hancock 2035 Lifetime Blend Portfolio
LXW	John Hancock 2040 Lifetime Blend Portfolio
LXX	John Hancock 2045 Lifetime Blend Portfolio
LXY	John Hancock 2050 Lifetime Blend Portfolio
LXZ	John Hancock 2055 Lifetime Blend Portfolio
LYA	John Hancock 2060 Lifetime Blend Portfolio
L6B	John Hancock 2065 Lifetime Blend Portfolio
LXP	John Hancock 2070 Lifetime Blend Portfolio

ASSET ALLOCATION - TARGET DATE (continued)

Code	MFS Lifetime Funds
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
MF	MFS Lifetime Funds
MXA	MFS Lifetime Income Fund
MXC	MFS Lifetime 2025 Fund
MXD	MFS Lifetime 2030 Fund
MXE	MFS Lifetime 2035 Fund
MXF	MFS Lifetime 2040 Fund
MXG	MFS Lifetime 2045 Fund
MXH	MFS Lifetime 2050 Fund
MXI	MFS Lifetime 2055 Fund
MXJ	MFS Lifetime 2060 Fund
MFJ	MFS Lifetime 2065 Fund

Code	Nuveen Lifecycle Index Retirement Funds
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
TC	Nuveen Lifecycle Index Retirement Funds
TCA	Nuveen Lifecycle Index Retirement Income Fund
TCB	Nuveen Lifecycle Index 2010 Fund
TCD	Nuveen Lifecycle Index 2015 Fund
TCF	Nuveen Lifecycle Index 2020 Fund
TCH	Nuveen Lifecycle Index 2025 Fund
TCJ	Nuveen Lifecycle Index 2030 Fund
TCK	Nuveen Lifecycle Index 2035 Fund
TCL	Nuveen Lifecycle Index 2040 Fund
TCN	Nuveen Lifecycle Index 2045 Fund
TCO	Nuveen Lifecycle Index 2050 Fund
TCQ	Nuveen Lifecycle Index 2055 Fund
TCR	Nuveen Lifecycle Index 2060 Fund
TCT	Nuveen Lifecycle Index 2065 Fund

ASSET ALLOCATION - TARGET DATE (continued)

Code	RetirementJourney American Funds
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
CA	RetirementJourney American Funds
CMM	RetirementJourney American Funds 2010 Fund R
CML	RetirementJourney American Funds 2015 Fund R
CMK	RetirementJourney American Funds 2020 Fund R
CMJ	RetirementJourney American Funds 2025 Fund R
CMI	RetirementJourney American Funds 2030 Fund R
CMH	RetirementJourney American Funds 2035 Fund R
CMG	RetirementJourney American Funds 2040 Fund R
CMF	RetirementJourney American Funds 2045 Fund R
CME	RetirementJourney American Funds 2050 Fund R
CMD	RetirementJourney American Funds 2055 Fund R
CMC	RetirementJourney American Funds 2060 Fund R
CMB	RetirementJourney American Funds 2065 Fund R
CMA	RetirementJourney American Funds 2070 Fund R

Code	RetirementJourney Index Retirement Funds
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
CW	RetirementJourney Index Retirement Funds
CNO	RetirementJourney Index Conservative Retirement Fund
CNN	RetirementJourney Index Conservative 2035 Fund
CNM	RetirementJourney Index Conservative 2045 Fund
CNL	RetirementJourney Index Conservative 2055 Fund
CNK	RetirementJourney Index Conservative 2065 Fund
CNJ	RetirementJourney Index Moderate Retirement Fund
CNI	RetirementJourney Index Moderate 2035 Fund
CNH	RetirementJourney Index Moderate 2045 Fund
CNG	RetirementJourney Index Moderate 2055 Fund
CNF	RetirementJourney Index Moderate 2065 Fund
CNE	RetirementJourney Index Growth Retirement Fund
CND	RetirementJourney Index Growth 2035 Fund
CNC	RetirementJourney Index Growth 2045 Fund
CNB	RetirementJourney Index Growth 2055 Fund
CNA	RetirementJourney Index Growth 2065 Fund

ASSET ALLOCATION - TARGET DATE (continued)

Code	RetirementJourney T. Rowe Price Blend Funds
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
CT	RetirementJourney T. Rowe Price Blend Funds
COD	RetirementJourney T. Rowe Price Blend 2005 Fund
COC	RetirementJourney T. Rowe Price Blend 2010 Fund
COB	RetirementJourney T. Rowe Price Blend 2015 Fund
COA	RetirementJourney T. Rowe Price Blend 2020 Fund
CNZ	RetirementJourney T. Rowe Price Blend 2025 Fund
CNX	RetirementJourney T. Rowe Price Blend 2030 Fund
CNW	RetirementJourney T. Rowe Price Blend 2035 Fund
CNV	RetirementJourney T. Rowe Price Blend 2040 Fund
CNU	RetirementJourney T. Rowe Price Blend 2045 Fund
CNT	RetirementJourney T. Rowe Price Blend 2050 Fund
CNS	RetirementJourney T. Rowe Price Blend 2055 Fund
CNR	RetirementJourney T. Rowe Price Blend 2060 Fund
CNQ	RetirementJourney T. Rowe Price Blend 2065 Fund
CNP	RetirementJourney T. Rowe Price Blend 2070 Fund

Code	State Street Target Retirement Funds
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
SS	State Street Target Retirement Funds
SSA	State Street Target Retirement Fund
SSE	State Street Target Retirement 2025 Fund
SSF	State Street Target Retirement 2030 Fund
SSH	State Street Target Retirement 2035 Fund
SSI	State Street Target Retirement 2040 Fund
SSJ	State Street Target Retirement 2045 Fund
SSK	State Street Target Retirement 2050 Fund
SSL	State Street Target Retirement 2055 Fund
SSM	State Street Target Retirement 2060 Fund
SSN	State Street Target Retirement 2065 Fund
S70	State Street Target Retirement 2070 Fund

ASSET ALLOCATION - TARGET DATE (continued)

Code	T. Rowe Price Retirement Funds
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
TR	T. Rowe Price Retirement Funds
TRP	T. Rowe Price Retirement 2010
TRQ	T. Rowe Price Retirement 2015
TRR	T. Rowe Price Retirement 2020
TRS	T. Rowe Price Retirement 2025
TRT	T. Rowe Price Retirement 2030
TRU	T. Rowe Price Retirement 2035
TRV	T. Rowe Price Retirement 2040
TRW	T. Rowe Price Retirement 2045
TRX	T. Rowe Price Retirement 2050
TRY	T. Rowe Price Retirement 2055
TRZ	T. Rowe Price Retirement 2060
TRA	T. Rowe Price Retirement 2065

Code	Vanguard Target Retirement Funds
	The entire suite of Portfolios must be added or removed from the Contract, individual Portfolio selection is not available
VG	Vanguard Target Retirement Funds
VGA	Vanguard Target Retirement Income
VGD	Vanguard Target Retirement 2020
VGE	Vanguard Target Retirement 2025
VGF	Vanguard Target Retirement 2030
VGG	Vanguard Target Retirement 2035
VGH	Vanguard Target Retirement 2040
VGI	Vanguard Target Retirement 2045
VGJ	Vanguard Target Retirement 2050
VGK	Vanguard Target Retirement 2055
VGL	Vanguard Target Retirement 2060
MZP	Vanguard Target Retirement 2065
V70	Vanguard Target Retirement 2070

ASSET ALLOCATION - TARGET RISK

Code	John Hancock Lifestyle Blend Portfolios
LBC	John Hancock Lifestyle Blend Conservative Portfolio
LBM	John Hancock Lifestyle Blend Moderate Portfolio
LBB	John Hancock Lifestyle Blend Balanced Portfolio
LBG	John Hancock Lifestyle Blend Growth Portfolio
LBA	John Hancock Lifestyle Blend Aggressive Portfolio

ASSET ALLOCATION - TARGET RISK (continued)

Code	John Hancock Lifestyle Blend Portfolios CIT
JHY	John Hancock Lifestyle Blend Conservative CIT
JHX	John Hancock Lifestyle Blend Moderate CIT
JHW	John Hancock Lifestyle Blend Balanced CIT
JHV	John Hancock Lifestyle Blend Growth CIT
JHU	John Hancock Lifestyle Blend Aggressive CIT

Code	JH Lifestyle - Managed Volatility
AVC	John Hancock Managed Volatility Conservative Portfolio
AVM	John Hancock Managed Volatility Moderate Portfolio
AVB	John Hancock Managed Volatility Balanced Portfolio
AVG	John Hancock Managed Volatility Growth Portfolio

Code	John Hancock Multimanager Lifestyle Portfolios
CLS	John Hancock Multimanager Conservative Lifestyle Portfolio
MLS	John Hancock Multimanager Moderate Lifestyle Portfolio
BLS	John Hancock Multimanager Balanced Lifestyle Portfolio
GLS	John Hancock Multimanager Growth Lifestyle Portfolio
ALS	John Hancock Multimanager Aggressive Lifestyle Portfolio

Code	Conservative
CSD	Calvert Short Duration Income Fund - managed by Calvert Investment Management, Inc.**,†,††,††††
DLD	DoubleLine Low Duration Bond Fund - managed by DoubleLine Capital LP**,††,†,†††,††††
FCP	Federated Hermes Capital Preservation Fund^,**,†,†††,†††† - managed by Federated Hermes, Inc. - Plans that select the Stable Value Fund are restricted from selecting any fixed-income investment options that are deemed to be 'Competing'. These 'Competing Funds' are marked with ††.
GDF	Guggenheim Limited Duration Fund - managed by Guggenheim Partners Investment Management, LLC**,††,†,†††,††††
IPG	Invesco Premier US Government Money Fund^, - managed by Invesco Advisers, Inc.**,††,†,†††,††††
MSV	John Hancock Stable Value Fund^,†,††,††† - managed by John Hancock Life Insurance Company (U.S.A.) - Plans that select the Stable Value Fund are restricted from selecting any fixed-income investment options that are deemed to be 'Competing'. These 'Competing Funds' are marked with **.
SVG	John Hancock Stable Value Guaranteed Income Fund^,†,††,††† - managed by John Hancock Life Insurance Company (U.S.A.) - Plans that select the Stable Value Fund are restricted from selecting any fixed-income investment options that are deemed to be 'Competing'. These 'Competing Funds' are marked with ††††.
LAS	Lord Abbett Short Duration Income Fund - managed by Lord, Abbett & Co. LLC**,†,†††,††††,††
MMR	Money Market Fund ^, - sub-advised by John Hancock Investment Management**,††,†,†††,††††
CNY	New York Life Insurance Company Anchor Account Fund^,**,††,†††,†††† - managed by Reliance Trust Company - Plans that select the Stable Value Fund are restricted from selecting any fixed-income investment options that are deemed to be 'Competing'. These 'Competing Funds' are marked with †.
PKC	Payden Managed Income Fund - managed by Payden & Rygel**,††††,†
PTC	PGIM Short-Term Corporate Bond Fund - managed by PGIM Investments LLC†,††††,††
PST	PIMCO Short-Term Fund - managed by Pacific Investment Management Company**,††,†††,††††,†
RMS	Reliance MetLife Stable Value Fund^,**,†,††,†††† - managed by Reliance Trust Company - Plans that select the Stable Value Fund are restricted from selecting any fixed-income investment options that are deemed to be 'Competing'. These 'Competing Funds' are marked with †††.
STB	T. Rowe Price Short Term Bond Fund - managed by T. Rowe Price Associates, Inc.**,†,††,†††,††††
TLT	Thornburg Limited Term Income Fund - managed by Thornburg Investment Management, Inc.†,††
VST	Vanguard Short-Term Bond Index Fund - managed by Vanguard Group, Inc.†,††††,††
GOV	Vanguard Short-Term Federal Fund - managed by Vanguard Group, Inc.†,††††,††
VSI	Vanguard Short-Term Investment-Grade Fund - managed by Vanguard Group, Inc.†,††††,††

^ You must select ONE of the capital preservation funds above for your Contract's Investment Option.

Code	Income
ABG	AB Global Bond Fund - managed by AllianceBernstein L.P.
ABH	AB High Income Fund - managed by AllianceBernstein L.P.
ABI	AB Income Fund - managed by AllianceBernstein L.P.
ACP	Allspring Core Plus Bond Fund - managed by Allspring Funds Management, LLC.
WGS	Allspring Government Securities Fund - managed by Allspring Funds Management, LLC.

INVESTMENT LISTING (continued)

AIA	American Century Inflation Adjusted Bond Fund - managed by American Century Investment Management, Inc.
ABO	American Funds Bond Fund of America - managed by American Funds Group
CWB	American Funds Capital World Bond Fund - managed by American Funds Group
AFS	American Funds Strategic Bond - managed by American Funds Group
AGS	American Funds U.S. Government Securities Fund - managed by American Funds Group
BCP	Baird Core Plus Bond Fund - managed by Robert W. Baird & Co. Incorporated.
BYB	BlackRock High Yield Fund - managed by BlackRock Investment Management, LLC††††
BIB	BlackRock Inflation Protected Bond Fund - managed by BlackRock Investment Management, LLC
BRT	BlackRock Total Return Fund - managed by BlackRock Investment Management, LLC
BGH	BrandywineGLOBAL High Yield Fund - managed by Legg Mason Partners Investment Funds, Inc.
LBW	BrandywineGLOBAL-Global Opportunities Bond Fund - managed by Guggenheim Partners Investment Management, LLC
DFF	DFA Five-Year Global Fixed-Income Fund - managed by Dimensional Fund Advisors, Inc. (DFA)**,††††
INP	DFA Inflation-Protected Securities Fund - managed by Dimensional Fund Advisors, Inc. (DFA)
DGF	DFA Intermediate Government Fixed-Income Fund - managed by Dimensional Fund Advisors, Inc. (DFA)
DCF	DoubleLine Core Fixed Income Fund - managed by DoubleLine Capital LP
DTR	DoubleLine Total Return Bond Fund - managed by DoubleLine Capital LP
EVH	Eaton Vance High Income Opportunities Fund - managed by Eaton Vance Management††††
FHY	Federated Hermes Institutional High Yield Bond Fund - managed by Federated Hermes, Inc.
FTR	Federated Hermes Total Return Bond Fund - managed by Federated Hermes, Inc.
FBF	Fidelity Advisor Total Bond Fund - managed by Fidelity Management & Research Company (Fidelity)
FRI	Floating Rate Income Fund - sub-advised by BCSF Advisors, LP (Bain Capital Credit)**,††,††††,†,†††
GTR	Guggenheim Total Return Bond Fund - managed by Guggenheim Partners Investment Management, LLC
HIP	Hartford Inflation Plus Fund - managed by Hartford Funds Management Company, LLC
HSI	Hartford Strategic Income Fund - managed by Hartford Funds Management Company, LLC
HWB	Hartford World Bond Fund - managed by Hartford Funds Management Company, LLC
HYF	John Hancock High Yield Fund - sub-advised by John Hancock Investment Management
INE	Invesco Core Bond Fund - managed by Invesco Advisers, Inc.
ICP	Invesco Core Plus Bond Fund - managed by Invesco Advisers, Inc.
OIB	Invesco International Bond Fund - managed by Invesco Advisers, Inc.
ALA	John Hancock Alternative Asset Allocation Fund - sub-advised by John Hancock Investment Management
JHB	John Hancock Bond Fund - managed by John Hancock Investment Management
JHI	John Hancock Income Fund - managed by John Hancock Investment Management
JIG	John Hancock Investment Grade Bond Fund - managed by John Hancock Investment Management
JPB	JPMorgan Core Bond Fund - managed by J.P. Morgan Investment Management Inc.
JGB	JPMorgan Global Bond Opportunities Fund - managed by J.P. Morgan Investment Management Inc.
LSC	Loomis Sayles Core Plus Bond Fund - managed by Loomis, Sayles & Company, L.P.
LBD	Lord Abbett Bond Debenture Fund - managed by Lord, Abbett & Co. LLC
LAB	Lord Abbett Core Bond Fund - managed by Lord, Abbett & Co. LLC
LAC	Lord Abbett Core Fixed Income Fund - managed by Lord, Abbett & Co. LLC

LAH	Lord Abbett High Yield Fund - managed by Lord, Abbett & Co. LLC
MWT	Metropolitan West Total Return Bond Fund - managed by Metropolitan West Asset Management, LLC
MFK	MFS Income Fund - managed by MFS Investment Management
TSC	Nuveen Core Impact Bond Fund - managed by Nuveen Asset Management, LLC
SIF	Nuveen Strategic Income Fund - managed by Nuveen Asset Management, LLC
MSH	NYLI MacKay High Yield Corporate Bond Fund - managed by New York Life Investment Management LLC††††
GLB	Opportunistic Fixed Income Fund - sub-advised by Wellington Management Company, LLP
PGR	PGIM Global Total Return Fund - managed by PGIM Investments LLC
PTR	PGIM Total Return Bond Fund - managed by PGIM Investments LLC
PIM	PIMCO Income Fund - managed by Pacific Investment Management Company
PBF	PIMCO International Bond Fund (USD-Hedged) - managed by Pacific Investment Management Company
PIG	PIMCO Investment Grade Credit Bond Fund - managed by Pacific Investment Management Company
PRR	PIMCO Real Return Fund - managed by Pacific Investment Management Company
PGI	Putnam Global Income Fund - managed by Putnam Investments
COE	T. Rowe Price Retirement Income Bond CIT - managed by T. Rowe Price Associates, Inc.
INC	T. Rowe Price Spectrum Income Fund - managed by T. Rowe Price Associates, Inc.
TGB	Templeton Global Bond Fund - managed by Franklin Templeton
BIF	Total Bond Market Fund - sub-advised by John Hancock Investment Management
VIT	Vanguard Intermediate-Term Bond Index Fund - managed by Vanguard Group, Inc.
VTB	Vanguard Total Bond Market Index Fund - managed by Vanguard Group, Inc.
VTI	Vanguard Total International Bond Index Fund - managed by Vanguard Group, Inc.
VSF	Virtus Seix Floating Rate High Income Fund - managed by Virtus Fund Advisers, LLC††,††††,†††,†

Code	**Growth and Income**
ABF	American Funds American Balanced Fund - managed by American Funds Group
CIB	American Funds Capital Income Builder - managed by American Funds Group
ARC	American Funds Retirement Income Portfolio - Conservative - managed by American Funds Group
ARE	American Funds Retirement Income Portfolio - Enhanced - managed by American Funds Group
ARM	American Funds Retirement Income Portfolio - Moderate - managed by American Funds Group
IFA	American Funds The Income Fund of America - managed by American Funds Group
BHE	BlackRock High Equity Income Fund - managed by BlackRock Investment Management, LLC
BGA	BlackRock Global Allocation Fund - managed by BlackRock Investment Management, LLC
DGI	DWS RREEF Global Infrastructure Fund - managed by Deutsche Asset Management, Inc.
FAB	Fidelity Balanced Fund - managed by Fidelity Management & Research Company (Fidelity)
FIR	First Eagle Global Fund - managed by First Eagle Investment Management, LLC
TFF	Franklin Global Allocation Fund - managed by Franklin Templeton
FUF	Franklin Utilities Fund - managed by Franklin Templeton
HBI	Hartford Balanced Income Fund - managed by Hartford Funds Management Company, LLC
PAX	Impax Sustainable Allocation Fund - managed by Impax Asset Management LLC

INVESTMENT LISTING (continued)

IEI	Invesco Equity and Income Fund - managed by Invesco Advisers, Inc.
JBF	Janus Henderson Balanced Fund - managed by Janus Henderson Investors
JFB	John Hancock Balanced Fund - managed by John Hancock Investment Management
JED	John Hancock Emerging Markets Debt Fund - managed by John Hancock Investment Management
JHA	John Hancock Infrastructure Fund - managed by Wellington Management Company, LLP
LGL	Lazard Global Listed Infrastructure Fund - managed by Lazard Asset Management LLC.
LSG	Loomis Sayles Global Allocation Fund - managed by Loomis, Sayles & Company, L.P.
IAS	Macquarie Asset Strategy Fund - managed by Macquarie Investment Management Global Limited
MEM	MFS Emerging Markets Debt Fund - managed by MFS Investment Management
MTR	MFS Total Return Fund - managed by MFS Investment Management
ULT	MFS Utilities Fund - managed by MFS Investment Management
MSI	NYLI Income Builder Fund - managed by New York Life Investment Management LLC
AAF	PIMCO All Asset Fund - managed by Pacific Investment Management Company
PLD	PIMCO Long Duration Total Return Fund - managed by Pacific Investment Management Company
PSP	Principal Spectrum Preferred & Capital Securities Income Fund - managed by Principal Funds, Inc.**,††,†††,††††
TCP	T. Rowe Price Capital Appreciation Fund - managed by T. Rowe Price Associates, Inc. (Restricted)
VBI	Vanguard Balanced Index Fund - managed by Vanguard Group, Inc.
VLT	Vanguard Long-Term Treasury Index Fund - managed by Vanguard Group, Inc.

Code	**Growth**
IND	500 Index Fund - sub-advised by John Hancock Investment Management
AEI	AB Equity Income Fund - managed by AllianceBernstein L.P.
WDC	Allspring Disciplined US Core Fund - managed by Allspring Funds Management, LLC.
ACX	American Century Value Fund - managed by American Century Investment Management, Inc.
AAM	American Funds American Mutual Fund - managed by American Funds Group
CGI	American Funds Capital World Growth and Income Fund - managed by American Funds Group
EPG	American Funds EUPAC Fund - managed by American Funds Group
AFI	American Funds Fundamental Investors - managed by American Funds Group
ICA	American Funds The Investment Company of America - managed by American Funds Group
WMI	American Funds Washington Mutual Investors Fund - managed by American Funds Group
BRZ	BlackRock International Fund - managed by BlackRock Investment Management, LLC
BBV	BlackRock Large Cap Focus Value Fund - managed by BlackRock Investment Management, LLC
CBI	ClearBridge International Growth Fund - managed by Legg Mason Partners Investment Funds, Inc.
CLD	ClearBridge Large Cap Value Fund - managed by Legg Mason Partners Investment Funds, Inc.
CCC	Columbia Contrarian Core Fund - managed by Columbia Management Investment Advisers, LLC
CDI	Columbia Dividend Income Fund - managed by Columbia Management Investment Advisers, LLC
CGE	Columbia Global Value Fund - managed by Columbia Management Investment Advisers, LLC
COV	Columbia Overseas Value Fund - managed by Columbia Management Investment Advisers, LLC
DGE	DFA Global Equity Fund - managed by Dimensional Fund Advisors, Inc. (DFA)

INVESTMENT LISTING (continued)

DFG	DFA Global Real Estate Securities Fund - managed by Dimensional Fund Advisors, Inc. (DFA)
DFI	DFA International Small Cap Value Fund - managed by Dimensional Fund Advisors, Inc. (DFA)
DFU	DFA International Small Company Fund - managed by Dimensional Fund Advisors, Inc. (DFA)
DVF	DFA International Value Fund - managed by Dimensional Fund Advisors, Inc. (DFA)
DLC	DFA US Large Cap Value Fund - managed by Dimensional Fund Advisors, Inc. (DFA)
DUL	DFA US Large Company Fund - managed by Dimensional Fund Advisors, Inc. (DFA)
DHL	Diamond Hill Large Cap Fund - managed by Diamond Hill Capital Management, Inc.
DCI	Dodge & Cox International Stock Fund - managed by Dodge & Cox Funds
DCS	Dodge & Cox Stock Fund - managed by Dodge & Cox Funds
DIE	Domini Impact International Equity Fund - managed by Domini Social Investments & Wellington Management
EBE	Eaton Vance RBA Equity Strategy Fund - managed by Eaton Vance Management
EIF	Equity Income Fund - sub-advised by T. Rowe Price Associates, Inc.
FAD	Fidelity Advisor Diversified International Fund - managed by Fidelity Management & Research Company (Fidelity)
FDS	Fidelity Advisor Diversified Stock Fund - managed by Fidelity Management & Research Company (Fidelity)
FLC	Fidelity Leveraged Company Stock Fund - managed by Fidelity Management & Research Company (Fidelity)
FII	Fidelity International Index Fund - managed by Fidelity Management & Research Company (Fidelity)
MCV	Franklin Mutual Beacon Fund - managed by Franklin Templeton
DIS	Franklin Mutual Global Discovery Fund - managed by Franklin Templeton
EQI	Fundamental Large Cap Value Fund - sub-advised by John Hancock Investment Management
HLC	Harbor Large Cap Value Fund - managed by Harbor Capital Advisors, Inc.
HCE	Hartford Core Equity Fund - managed by Hartford Funds Management Company, LLC
HEI	Hartford Equity Income Fund - managed by Hartford Funds Management Company, LLC
HIO	Hartford International Opportunities Fund - managed by Hartford Funds Management Company, LLC
HSM	Hartford Schroders International Multi-Cap Value Fund - managed by Hartford Funds Management Company, LLC
IIF	International Equity Index Fund - sub-advised by SSgA Funds Management, Inc.
IDI	Invesco Diversified Dividend Fund - managed by Invesco Advisers, Inc.
IOF	Invesco EQV International Equity Fund - managed by Invesco Advisers, Inc.
IGI	Invesco Growth and Income Fund - managed by Invesco Advisers, Inc.
OSF	Invesco Main Street Fund - managed by Invesco Advisers, Inc.
OIG	Invesco Oppenheimer International Growth Fund - managed by Invesco Advisers, Inc.
EFG	iShares MSCI EAFE Growth ETF - managed by iShares Delaware Trust Sponsor LLC
EFV	iShares MSCI EAFE Value ETF - managed by iShares Delaware Trust Sponsor LLC
JGE	Janus Henderson Global Equity Income Fund - managed by Janus Henderson Investors
DVA	John Hancock Disciplined Value Fund - managed by Robeco Investment Management, Inc.
ITS	John Hancock Disciplined Value International Fund - sub-advised by Robeco Investment Management, Inc.
JIE	John Hancock Global Environmental Opportunities Fund - sub-advised by Boston Common Asset Management, LLC
JEL	John Hancock ESG Large Cap Core Fund - managed by Trillium Asset Management, LLC
JHG	John Hancock Fundamental Large Cap Core Fund - managed by John Hancock Investment Management
JEU	John Hancock Global Equity Fund - managed by John Hancock Investment Management

INVESTMENT LISTING (continued)

J2A	John Hancock International Dynamic Growth Fund - sub-advised by Axiom Investors LLC
IGR	John Hancock International Growth Fund - sub-advised by Wellington Management Company, LLP
JPE	JPMorgan U.S. Equity Fund - managed by J.P. Morgan Investment Management Inc.
LAZ	Lazard International Equity Fund - managed by Lazard Asset Management LLC.
IVY	Macquarie International Core Equity Fund - managed by Macquarie Investment Management Global Limited
MFB	MFS Blended Research Core Equity Fund - managed by MFS Investment Management
MFI	MFS International Diversification Fund - managed by MFS Investment Management
MIF	MFS Massachusetts Investors Fund - managed by MFS Investment Management
MFV	MFS Value Fund - managed by MFS Investment Management
BIE	Neuberger Berman International Equity Fund - managed by Neuberger Berman Investment Advisers LLC
EBM	Neuberger Berman Multi-Cap Opportunities Fund - managed by Neuberger Berman Investment Advisers LLC
BSF	Neuberger Berman Sustainable Equity Fund - managed by Neuberger Berman Investment Advisers LLC
TCE	Nuveen Equity Index Fund - managed by Nuveen Asset Management, LLC
TCC	Nuveen Large Cap Responsible Equity Fund - managed by Nuveen Asset Management, LLC
TCV	Nuveen Large-Cap Value Index Fund - managed by Nuveen Asset Management, LLC
YLI	NYLI PineStone International Equity Fund - managed by New York Life Investment Management LLC
OFU	Oakmark Fund - managed by Harris Associates L.P.
OIF	Oakmark International Fund - managed by Harris Associates L.P.
PEF	Parnassus Value Equity Fund - managed by Parnassus Investments
CRR	PIMCO Commodity Real Return Strategy Fund - managed by Pacific Investment Management Company
PRA	Principal Global Real Estate Securities Fund - managed by Principal Funds, Inc.
PIV	Putnam International Value Fund - managed by Putnam Investments
PUE	Putnam Large Cap Value Fund - managed by Putnam Investments
PRF	Putnam Research Fund - managed by Putnam Investments
SIT	Sit Dividend Growth Fund - managed by Sit Investment Associates, Inc.
SSU	State Street Institutional U.S. Equity Fund - managed by SSgA Funds Management, Inc.
TDG	T. Rowe Price Dividend Growth Fund - managed by T. Rowe Price Associates, Inc.
TPI	T. Rowe Price International Value Equity Fund - managed by T. Rowe Price Associates, Inc.
TRO	T. Rowe Price Overseas Stock Fund - managed by T. Rowe Price Associates, Inc.
TFN	Templeton Foreign Fund - managed by Franklin Templeton
ISF	Templeton Institutional Foreign Smaller Companies Fund - sub-advised by Franklin Templeton
DIV	Templeton World Fund - managed by Franklin Templeton
TGO	Thornburg Global Opportunities Fund - managed by Thornburg Investment Management, Inc.
TSM	Total Stock Market Index Fund - sub-advised by John Hancock Investment Management
VEI	Vanguard Equity-Income Fund - managed by Vanguard Group, Inc.
VHD	Vanguard High Dividend Yield Index Fund - managed by Vanguard Group, Inc.
VIG	Vanguard International Growth Fund - managed by Vanguard Group, Inc.
VIV	Vanguard International Value Fund - managed by Vanguard Group, Inc.
VTS	Vanguard Total International Stock Index Fund - managed by Vanguard Group, Inc.

INVESTMENT LISTING (continued)

VTA	Vanguard Total World Stock Index ETF - managed by Vanguard Group, Inc.
LVI	Vanguard Value Index Fund - managed by Vanguard Group, Inc.
VDS	Victory Diversified Stock Fund - managed by Victory Capital Management
VTF	Victory Trivalent International Small Cap Fund - managed by Victory Capital Management
COF	WCM Focused International Equity CIT - managed by Reliance Trust Company
COG	WCM Focused US Equity CIT - managed by Reliance Trust Company

Code	Aggressive Growth
ABE	AB Discovery Growth Fund - managed by AllianceBernstein L.P.
ABV	AB Discovery Value Fund - managed by AllianceBernstein L.P.
ABL	AB Large Cap Growth Fund - managed by AllianceBernstein L.P.
ABD	AB Small Cap Growth Fund - managed by AllianceBernstein L.P.
ABS	AB Sustainable Global Thematic Fund - managed by AllianceBernstein L.P.
AIE	Aberdeen Emerging Markets ex-China Fund - managed by Aberdeen Asset Management Inc.
WFD	Allspring SMID Cap Growth Fund - managed by Allspring Funds Management, LLC.
IDM	Allspring Emerging Markets Equity Fund - managed by Allspring Funds Management, LLC.
WFG	Allspring Growth Fund - managed by Allspring Funds Management, LLC.
WFA	Allspring Small Company Growth Fund - managed by Allspring Funds Management, LLC.
WFV	Allspring Special Mid Cap Value Fund - managed by Allspring Funds Management, LLC.
WSS	Allspring Special Small Cap Value Fund - managed by Allspring Funds Management, LLC.
WFS	American Beacon Small Cap Value Fund - managed by American Beacon Advisors, Inc.
AEM	American Century Emerging Markets Fund - managed by American Century Investment Management, Inc.
ACY	American Century Focused Dynamic Growth Fund - managed by American Century Investment Management, Inc.
HER	American Century Heritage Fund - managed by American Century Investment Management, Inc.
ASC	American Century Small Cap Value Fund - managed by American Century Investment Management, Inc.
ACU	American Century Ultra Fund - managed by American Century Investment Management, Inc.
AFX	American Funds AMCAP Fund - managed by American Funds Group
ANP	American Funds New Perspective Fund - managed by American Funds Group
ANW	American Funds New World Fund - managed by American Funds Group
ASW	American Funds SMALLCAP World Fund - managed by American Funds Group
GFA	American Funds The Growth Fund of America - managed by American Funds Group
AOM	AMG River Road Mid Cap Value Fund - managed by River Road Asset Management, LLC
AVS	Avantis U.S. Small Cap Value Fund - managed by American Century Investment Management, Inc.
BAI	Baird Mid Cap Growth Fund - managed by Robert W. Baird & Co. Incorporated.
BEF	Baron Real Estate Fund - managed by Baron Capital, Inc.
BLA	BlackRock Advantage Small Cap Growth Fund - managed by BlackRock Investment Management, LLC
BHS	BlackRock Health Sciences Opportunities Fund - managed by BlackRock Investment Management, LLC
BLM	BlackRock Mid-Cap Growth Equity Fund - managed by BlackRock Investment Management, LLC
BCF	Blue Chip Growth Fund - sub-advised by T. Rowe Price Associates, Inc.

INVESTMENT LISTING (continued)

EMC	Carillon Eagle Mid Cap Growth Fund - managed by Eagle Asset Management, Inc.
CLC	ClearBridge Large Cap Growth Fund - managed by Legg Mason Partners Investment Funds, Inc.
CBM	ClearBridge Mid Cap Fund - managed by Legg Mason Partners Investment Funds, Inc.
CRE	Cohen & Steers Real Estate Securities Fund - managed by Cohen & Steers Capital Management, Inc.
CSC	Columbia Small Cap Value Fund - managed by Columbia Management Investment Advisers, LLC
DEM	DFA Emerging Markets Value Fund - managed by Dimensional Fund Advisors, Inc. (DFA)
DFR	DFA Real Estate Securities Fund - managed by Dimensional Fund Advisors, Inc. (DFA)
DUT	DFA U.S. Targeted Value Fund - managed by Dimensional Fund Advisors, Inc. (DFA)
SCP	DFA US Small Cap Fund - managed by Dimensional Fund Advisors, Inc. (DFA)
DHS	Diamond Hill Small-Mid Cap Fund - managed by Diamond Hill Capital Management, Inc.
SOC	Domini Impact Equity Fund - managed by Domini Social Investments & Wellington Management
EVA	Eaton Vance Atlanta Capital SMID-Cap Fund - managed by Eaton Vance Management
FKL	Federated Hermes Kaufmann Large Cap Fund - managed by Federated Hermes, Inc.
MDT	Federated Hermes MDT Mid Cap Growth Fund - managed by Federated Hermes, Inc.
FMD	Federated Hermes MDT Small Cap Growth Fund - managed by Federated Hermes, Inc.
FEF	Fidelity Advisor Energy Fund - managed by Fidelity Management & Research Company (Fidelity)
FAE	Fidelity Advisor Equity Growth Fund - managed by Fidelity Management & Research Company (Fidelity)
FAO	Fidelity Advisor Growth Opportunities Fund - managed by Fidelity Management & Research Company (Fidelity)
FNI	Fidelity Advisor New Insights Fund - managed by Fidelity Management & Research Company (Fidelity)
FTA	Fidelity Advisor Technology Fund - managed by Fidelity Management & Research Company (Fidelity)
CON	Fidelity Contra Fund - managed by Fidelity Management & Research Company (Fidelity)
FMC	Fidelity Mid Cap Index Fund - managed by Fidelity Management & Research Company (Fidelity)
FNC	Fidelity NASDAQ Composite Index Fund - managed by Fidelity Management & Research Company (Fidelity)
FRE	Fidelity Real Estate Index Fund - managed by Fidelity Management & Research Company (Fidelity)
FSF	Financial Industries Fund - sub-advised by John Hancock Investment Management
FDT	Franklin DynaTech Fund - managed by Franklin Templeton
FGV	Franklin Growth Fund - managed by Franklin Templeton
SCG	Franklin Small-Mid Cap Growth Fund - managed by Franklin Templeton
QAC	Fundamental All Cap Core Fund - sub-advised by John Hancock Investment Management
HCA	Harbor Capital Appreciation Fund - managed by Harbor Capital Advisors, Inc.
HAR	Harbor Mid Cap Value Fund - managed by Harbor Capital Advisors, Inc.
HSC	Harbor Small Cap Value Fund - managed by Harbor Capital Advisors, Inc. (Restricted)
HGO	Hartford Growth Opportunities Fund - managed by Hartford Funds Management Company, LLC
HMC	Hartford MidCap Fund - managed by Hartford Funds Management Company, LLC
HSU	Hartford Schroders US Mid Cap Opportunities Fund - managed by Hartford Funds Management Company, LLC
PAC	Impax Small Cap Fund - managed by Impax Asset Management LLC
DMK	Invesco Developing Markets Fund - managed by Invesco Advisers, Inc.
ODM	Invesco Discovery Mid Cap Growth Fund - managed by Invesco Advisers, Inc.
WWF	Invesco Global Fund - managed by Invesco Advisers, Inc.

INVESTMENT LISTING (continued)

OMS	Invesco Main Street Mid Cap Fund - managed by Invesco Advisers, Inc.
IRE	Invesco Real Estate Fund - managed by Invesco Advisers, Inc.
SCO	Invesco Small Cap Growth Fund - managed by Invesco Advisers, Inc.
GLD	iShares Gold Trust ETF - managed by iShares Delaware Trust Sponsor LLC
JEF	Janus Henderson Enterprise Fund - managed by Janus Henderson Investors
JFF	Janus Henderson Forty Fund - managed by Janus Henderson Investors
JGL	Janus Henderson Global Life Sciences Fund - managed by Janus Henderson Investors
JHT	Janus Henderson Triton Fund - managed by Janus Henderson Investors
DVM	John Hancock Disciplined Value Mid Cap Fund - sub-advised by Robeco Investment Management, Inc.
JDM	John Hancock Diversified Macro Fund - sub-advised by Graham Capital Management, L.P.
JHE	John Hancock Emerging Markets Equity Fund - managed by John Hancock Investment Management
JFA	John Hancock Fundamental All Cap Core Fund - sub-advised by John Hancock Investment Management
JHM	John Hancock Mid Cap Growth Fund - sub-advised by Wellington Management Company, LLP
JHS	John Hancock Small Cap Core Fund - managed by John Hancock Investment Management
JHJ	John Hancock Small Cap Dynamic Growth Fund - managed by Axiom Investors LLC
JSG	John Hancock U.S. Growth Fund - sub-advised by John Hancock Investment Management
JEE	JPMorgan Emerging Markets Equity Fund - managed by JPMorgan Investment Advisors, Inc.
JPM	JPMorgan Large Cap Growth Fund - managed by J.P. Morgan Investment Management Inc.
JPI	JPMorgan SMID Cap Fund - managed by J.P. Morgan Investment Management Inc.
KSV	Keeley Small Cap Dividend Value Fund - managed by Keeley Asset Management Corp.
LVO	Lord Abbett Value Opportunities Fund - managed by Lord, Abbett & Co. LLC
ISG	Macquarie Small Cap Growth Fund - managed by Macquarie Investment Management Global Limited
DSC	Macquarie Small Cap Value Fund - managed by Macquarie Investment Management Global Limited
ISV	Macquarie SMID Cap Core Fund - managed by Macquarie Investment Management Global Limited
MGF	MFS Growth Fund - managed by MFS Investment Management
MIG	MFS International Growth Fund - managed by MFS Investment Management
MMM	MFS Mid Cap Growth Fund - managed by MFS Investment Management
MMV	MFS Mid Cap Value Fund - managed by MFS Investment Management
MCI	Mid Cap Index Fund - sub-advised by John Hancock Investment Management
MVF	Mid Value Fund - sub-advised by T. Rowe Price Associates, Inc.
BGF	Neuberger Berman Genesis Fund - managed by Neuberger Berman Investment Advisers LLC
BIV	Neuberger Berman Intrinsic Value Fund - managed by Neuberger Berman Investment Advisers LLC
EME	Northern Emerging Markets Equity Index Fund - managed by Northern Trust Investments, Inc.
TRM	Northern Small Cap Value Fund - managed by Northern Trust Investments, Inc.
TCI	Nuveen Large-Cap Growth Index Fund - managed by Nuveen Asset Management, LLC
TQS	Nuveen Quant Small/Mid-Cap Equity Fund - managed by Nuveen Asset Management, LLC
TCS	Nuveen Small-Cap Blend Index Fund - managed by Nuveen Asset Management, LLC
ESC	Nuveen Small-Cap Value Fund - managed by Nuveen Asset Management, LLC
PMC	Parnassus Mid Cap Fund - managed by Parnassus Investments

INVESTMENT LISTING (continued)

JMG	PGIM Jennison Mid Cap Growth Fund - managed by Jennison Associates LLC
PJS	PGIM Jennison Small Company Fund - managed by Jennison Associates LLC
PQM	PGIM Quant Solutions Mid-Cap Value Fund - managed by PGIM Investments LLC
PRS	Principal Real Estate Securities Fund - managed by Principal Funds, Inc.
PUG	Putnam Large Cap Growth Fund - managed by Putnam Investments
PSC	Putnam Small Cap Growth Fund - managed by Putnam Investments (Restricted)
REF	Real Estate Securities Fund - sub-advised by Wellington Management Company, LLP
RPM	Royce Small-Cap Fund - managed by Royce & Associates, LP.
OPP	Royce Small-Cap Opportunity Fund - managed by Royce & Associates, LP.
RFR	Royce Small-Cap Total Return Fund - managed by Royce & Associates, LP.
STF	Science & Technology Fund - sub-advised by T. Rowe Price Associates, Inc.
SCI	Small Cap Index Fund - sub-advised by John Hancock Investment Management
SMV	Small Cap Value Fund - sub-advised by John Hancock Investment Management
TGF	Sprott Gold Equity Fund - managed by Sprott Asset Management LP
TPG	T. Rowe Price Growth Stock Fund - managed by T. Rowe Price Associates, Inc.
HLS	T. Rowe Price Health Sciences Fund - managed by T. Rowe Price Associates, Inc.
TID	T. Rowe Price International Discovery Fund - managed by T. Rowe Price Associates, Inc.
TPL	T. Rowe Price Large Cap Growth Fund - managed by T. Rowe Price Associates, Inc.
TRE	T. Rowe Price New Era Fund - managed by T. Rowe Price Associates, Inc.
TPQ	T. Rowe Price Integrated US Small-Cap Growth Equity Fund - managed by T. Rowe Price Associates, Inc.
SCT	T. Rowe Price Science & Technology Fund - managed by T. Rowe Price Associates, Inc.
MSO	T. Rowe Price Small Cap Value Fund - managed by T. Rowe Price Associates, Inc.
TMC	Thrivent Mid Cap Stock Fund - managed by Thrivent Asset Management, LLC
TGI	Touchstone Mid Cap Growth Fund - managed by Touchstone Advisors Inc
UND	Undiscovered Managers Behavioral Value Fund - managed by J.P. Morgan Investment Management Inc. (Restricted)
VEM	Vanguard Emerging Markets Stock Index Fund - managed by Vanguard Group, Inc.
VEN	Vanguard Energy Fund - managed by Vanguard Group, Inc.
EXP	Vanguard Explorer Fund - managed by Vanguard Group, Inc.
LGI	Vanguard Growth Index Fund - managed by Vanguard Group, Inc.
VMI	Vanguard Materials Index Fund - managed by Vanguard Group, Inc.
VOT	Vanguard Mid-Cap Growth ETF - managed by Vanguard Group, Inc.
VOE	Vanguard Mid-Cap Value ETF - managed by Vanguard Group, Inc.
VSG	Vanguard Small Cap Growth Index Fund - managed by Vanguard Group, Inc.
VIS	Vanguard Small Cap Value Index Fund - managed by Vanguard Group, Inc.
VSE	Vanguard Strategic Equity Fund - managed by Vanguard Group, Inc.
VEV	Victory Sycamore Established Value Fund - managed by Victory Capital Management (Restricted)
VCM	Virtus Ceredex Mid-Cap Value Equity Fund - managed by Virtus Fund Advisers, LLC
RWL	Virtus Silvant Large Cap Growth Stock Fund - managed by Virtus Fund Advisers, LLC
DON	WisdomTree MidCap Dividend ETF - managed by WisdomTree Trust

INVESTMENT LISTING (continued)

EZM	WisdomTree MidCap ETF - managed by WisdomTree Trust
DES	WisdomTree SmallCap Dividend ETF - managed by WisdomTree Trust