



Fortuna
Wrap Fee Program Brochure
(Part 2A Appendix 1 of Form ADV)

MML Investors Services, LLC
1295 State Street
Springfield, Massachusetts 01111-0001

(855) 877-6164

www.fortunainvest.com

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This Wrap Fee Program Brochure (this “Brochure”) provides information about the qualifications and business practices of MML Investors Services, LLC (referred to as “we”, “us,” or “MMLIS” throughout the document). If you have any questions about the contents of this Brochure, please contact us at 1-855-877-6164. The information in this Brochure has not been approved or verified by the United States Securities and Exchange Commission (“SEC”) or by any state securities authority.

Additional information about MMLIS is also available on the SEC’s website at www.adviserinfo.sec.gov. You can search this site by a unique identifying number, known as a CRD number. The CRD number of MMLIS is 10409. MMLIS is an SEC registered investment adviser and securities broker-dealer. Please note that registration does not imply a certain level of skill or training.

Item 2 Material Changes

This Item discusses material changes, if any, that have been made to this Brochure since the last annual amendment of our Form ADV and provides clients with a summary of such changes. The following material changes has been made to this brochure since the last annual update on March 26, 2019.

Item 9 has been updated to include information about a settlement that MML Investors Services, LLC (“MMLIS” or the “Firm”), in its capacity as a broker-dealer, entered into with FINRA in March 2020. FINRA made findings that the Firm failed to ensure that access to a third-party system was limited to only those former registered representatives of a company that was acquired by the Firm for whom access was agreed to be given. As a result, additional former registered representatives and associated persons of the Firm had access to the third-party system after the acquisition. Because MMLIS was unaware that these additional registered representatives and associated persons had access to the third-party system after the acquisition, the Firm did not notify the third party when those registered representatives and associated persons ceased to be associated with the Firm. As a result, the third-party did not timely shut off those former registered representatives’ and associated persons’ access to the third-party system. The third party system stored customer records and information, including nonpublic personal information. Without admitting or denying the findings, the Firm consented to a censure, a fine of \$75,000, and the entry of findings that it failed to prevent certain registered and associated persons who had been terminated from the Firm from continuing to access customer records and information, including nonpublic personal information, in violation of the SEC’s Regulation S-P and FINRA Rule 2010. This settlement does not relate to the advisory services described in this Brochure.

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Item 4 Services, Fees and Compensation

MML Investors Services, LLC (“MMLIS”) is a registered investment adviser and broker-dealer. We are a member of the Financial Industry Regulatory Authority, known as FINRA, and also a member of the Securities Investor Protection Corporation, known as SIPC. MMLIS began conducting business in 1981 and has been registered as an investment adviser since 1993. MassMutual Holding LLC is the principal owner of MMLIS. Massachusetts Mutual Life Insurance Company (“MassMutual”) is MassMutual Holding LLC’s principal owner.

MMLIS makes available a number of investment advisory programs and services. This Brochure provides information about Fortuna managed services (the “Managed Service”). If you wish to learn more about other investment advisory programs and services that MMLIS offers, you may contact MMLIS or an investment adviser representative of MMLIS to receive a similar disclosure brochure for those programs and services. Our brochures can also be found through the SEC’s website, www.adviserinfo.sec.gov.

We want you to make an informed investment decision regarding the Managed Service. To that end, this Brochure provides important information and disclosure regarding the Managed Service, including information regarding material arrangements and potential conflicts of interest that we think you will find informative. You should carefully review all of the features and risks of the Managed Service, along with all of the disclosures contained in this Brochure and on the Managed Service’s website, before opening an advisory account and beginning to invest, to ensure that the Managed Service is suitable and appropriate for your investment needs.

The Managed Service

The Managed Service is an electronic, algorithmic, and goal-based automated investment advisory service that is made available to clients through an account on a web-based site (the “Site”), available at www.fortunainvest.com. The Managed Service provides discretionary management of your assets based primarily on information you provide, such as your investment objectives (e.g., retirement or other investment goals), time horizon to reach your retirement or other investment goals, and risk tolerance level.

The Managed Service uses information about your age, financial situation, risk profile, and current investments (collectively, “Client Information”) and your financial and/or retirement goals to manage a diversified investment portfolio. The Managed Service makes investment decisions using a proprietary, automated computer algorithm (“Algorithm”) and capital markets assumptions, risk categories, asset allocation targets for those categories (collectively, “Investment Programs”) developed by FutureAdvisor, Inc., the Managed Service’s sub-adviser (“FutureAdvisor” or “Sub-Adviser”). FutureAdvisor also serves as the Managed Service’s technology services provider, in which capacity it maintains the proprietary platform on which the Managed Service operates, including the Site. FutureAdvisor, a wholly-owned subsidiary of Blackrock, Inc. (“BlackRock”), is a registered investment adviser and provider of digital investment advisory and other related technology and consulting services.

Advisory Account Management

For the Managed Service, MMLIS has contracted with Sub-Adviser to provide ongoing investment management of Client’s advisory account maintained by MMLIS (the “Advisory Account”) and to direct trades to National Financial Services, LLC, the custodian for accounts in the Managed Service (“Custodian”). MMLIS is responsible for determining the suitability of the Investment Program for your Advisory Account and for ongoing oversight and supervision of Sub-Adviser’s activities, but has delegated direct, day-to-day investment discretion to the Sub-Adviser.

The Managed Service’s target asset classes include, but are not limited to, equities, emerging markets, fixed income, and real estate, exposure to which is obtained through broad market index exchange-traded funds (“ETFs”) and mutual fund shares. In addition, you may transfer in certain securities subject to eligibility requirements determined by Sub-Adviser. Sub-Adviser will cause your Advisory Account to invest in mutual fund shares or ETFs, including U.S. iShares ETFs or mutual funds, which are advised or sub-advised by BlackRock Fund Advisors or Sub-Adviser’s other affiliates. The use of such securities presents a potential conflict of interest discussed in Item 9 below under “Additional Information—Participation or Interest in Client Transactions, Margin and Lending, Personal Trading.”

The Managed Services utilizes a “cash sweep” solution where uninvested cash balances (such as from securities transactions, dividends, interest payments, or deposits) in your Advisory Account are deposited into a selected investment option each business day. MMLIS, in its capacity as investment adviser, selects the sweep investment vehicle for the cash sweep solution. Any yield or return on assets invested in the cash sweep solution is added to your Advisory Account.

Advisory Account Opening

As a condition of opening an Advisory Account and beginning to invest through the Managed Service, you are required to enter into an investment advisory contract with us and FutureAdvisor (the “Advisory Agreement”), open an underlying custodial account (or multiple custodial accounts) through us with Custodian (the “Custodial Account”), and transfer at least \$5,000 of eligible assets (including cash) into that account (the “Managed Service Minimum”), unless we waive this condition. Among other things, in the Advisory Agreement and related agreements you acknowledge your ability and willingness to conduct your advisory relationship with us in the Managed Service on an electronic basis, receiving all Advisory Account information and documents, including this Brochure, and any updates or changes to the same, through the Site and/or the Managed Service’s electronic communications, and signing all agreements related to the Managed Service, including the Advisory Agreement, electronically. This is a requirement both now and in the future irrespective of any other agreement with us or our affiliates to the contrary.

Operations and Policies

Custodian will perform the execution of the purchase and sale orders related to your Advisory Account that Sub-Adviser directs to it, including orders that rebalance your investment portfolio. These orders will be automatically generated by FutureAdvisor through the Managed Service.

You may impose reasonable restrictions on the management of the account by restricting or ‘locking’ the sale of certain single equity securities held in your Advisory Account, but you may not specify securities in which your Advisory Account may or may not invest. The Managed Service has an annual contact process in which you can alter such restrictions and update your personal information so that your account is managed pursuant to a different Investment Program. At all times, you have sole authority to liquidate and withdraw securities and cash from your Custodial Account, subject to the usual and customary settlement procedures, and except as otherwise may be required for payment of fees and expenses (as described below). You may also, at any time, transfer additional eligible assets into your Custodial Account, cancel existing or enroll additional Custodial Accounts to the Managed Service, or terminate your Advisory Account (and thus the Managed Service’s management of your Custodial Account). We may terminate your Advisory Account under a variety of circumstances described in the Advisory Agreement.

The Managed Service also sends current clients periodic e-mails containing financial and/or retirement best practices, market commentary, alerts, evaluations, and other relevant content. Certain of these communications can be customized, modified, or de-activated, while others cannot, and if you refuse to accept them or are otherwise unable to or become unable to receive them, we will close your Advisory Account. You must therefore maintain an accurate and up-to-date e-mail address with the Managed Service.

The Advisory Agreement

Before opening an Advisory Account and beginning to invest through the Managed Service, you must carefully read and accept the Advisory Agreement and understand the consequences of entering into a discretionary, automated advisory relationship with us and FutureAdvisor. The Advisory Agreement contains various terms, conditions, rights, limitations, and obligations, including fee payment obligations, to which you will be subject when you have an active Advisory Account and are investing through the Managed Service. We may change the Advisory Agreement from time to time according to its terms. Other important disclosures concerning the Managed Service are provided on the Site as well as terms of use for the Site and we encourage you to review them.

The Educational Analysis Tool

The Educational Analysis Tool (the “Educational Tool”) is made available to you without charge to provide educational materials and to help you determine whether you would like to open an Advisory Account and begin investing through the Managed Service. To use the Educational Tool, you must agree to terms of use for the Site and the Educational Tool within it with MMLIS and FutureAdvisor (the “Terms of Use”) and provide us with information about yourself and your financial situation, investment time horizon, and risk tolerance. Based upon that information, the Educational Tool generates sample goal projections and asset allocation recommendations for you (“Sample Asset Allocations”). Subject to the Terms of Use, you also have the option to authorize us to access information pertaining to the accounts you have with third party financial institutions, such as your brokerage firm (“Linked Accounts”), for use in the projections and other educational information provided through the Educational Tool.

The Educational Tool is intended to be used only for educational and informational purposes. The Sample Asset Allocations provided are meant solely as an indication of the types of recommendations available through the Managed Service and may differ, in whole or in part, from the advice you would receive as a client of the Managed Service. In providing access to the Educational Service, MMLIS and FutureAdvisor do not intend to establish an advisory or

brokerage relationship with you. Any investment advisory relationship with MMLIS and FutureAdvisor only begins if and when you have completed your enrollment in the Managed Service. Moreover, when you use the Educational Tool, neither MMLIS nor FutureAdvisor: (i) make any determination as to whether the Educational Tool and the information provided by it are suitable for you, (ii) provide ongoing management or trading for your accounts; (iii) provide performance reporting, (iv) supervise or monitor your assets; or (v) otherwise have any access to the assets in your financial accounts (including Linked Accounts). Accordingly, neither MMLIS nor FutureAdvisor will be responsible for any actions you take with respect to the Sample Asset Allocations, and you are solely responsible for making your own investment decisions. Note that, the investment risks described in this Brochure in general terms apply equally to the Sample Asset Allocations provided through the Educational Tool.

If you use the Educational Tool, you do not pay any fees or expenses to MMLIS. However, you should be aware that if you choose to implement Sample Asset Allocations by executing trades, you will be charged fees, commissions, and/or expenses by the applicable adviser and/or broker-dealer executing your trades, and you will also bear the underlying investment fees and expenses of those securities.

Fees and Expenses

For the services provided in connection with the Managed Service, we charge you a quarterly advisory fee (“Advisory Fee”), up to a maximum annualized rate equivalent to 1.00% of your Advisory Account assets (including cash, dividends, and accrued interest) (the “Advisory Fee Rate”). We may negotiate or discount the Advisory Fee Rate for certain clients. The Advisory Fee is called a “wrap” fee in that it represents payment for advisory, custodial, trade execution, and related services that we and our service providers, including Custodian (which provides custody, clearing, transaction execution and account reporting) and FutureAdvisor (which provides the Algorithm, the underlying Investment Programs, discretionary Advisory Account management, and maintenance of the Managed Service’s proprietary technology platform, including the Site), deliver to you as part of the Managed Service.

Pursuant to an agreement we have entered into with FutureAdvisor, we generally pay a portion of the Advisory Fee to FutureAdvisor equivalent on an annualized basis to 0.10% (before any fee waivers) of your Advisory Account assets as compensation for its sub-advisory services, exclusive of any BlackRock affiliated fund revenues. In addition, we pay FutureAdvisor implementation fees and periodic platform fees for developing and maintaining the proprietary technology platform on which the Managed Service operates, including the Site. Special arrangements between MMLIS and Sub-Adviser, including partial fee waivers on the first \$1.5 billion in assets managed by Sub-Adviser, affect the aggregate fees paid by MMLIS to FutureAdvisor. We may share a portion of the Advisory Fee with other parties involved in providing services to you in connection with the Managed Service pursuant to agreements we have with those parties, as permitted by law. In particular, we will share a portion of the Advisory Fee with Custodian. In addition, we or Sub-Adviser will pay a fee to the provider of financial account aggregation services, currently, Yodlee, Inc. (“Yodlee”). We also share a portion of the Advisory Fee, between 0.10% and 0.60%, with our investment adviser representatives assigned to the Advisory Account for services provided in connection with client onboarding and advisory account maintenance. This compensation may be more than what the investment adviser representative would receive if the client participated in another program or paid separately for investment advice, custodial and other services. Such individuals may therefore have a financial incentive to recommend the Managed Service over other programs or services.

Advisory Fee Considerations

Fees and expenses can have an impact on your investment portfolio. Important considerations regarding the Advisory Fee are as follows—you should carefully evaluate each of them before opening your Advisory Account and beginning to invest through the Managed Service.

- The Advisory Fee may be more or less than the cost of the services included in the Managed Service if they were provided separately or from another source. This can depend on several things, such as the amount of the Advisory Fee, the amount of activity in your Advisory Account, and the value of advisory, custodial, trade execution, and other services that are provided under the arrangement. To determine the reasonableness of the Advisory Fee, you should consider the costs of the development and ongoing management of an asset allocation or investment strategy, the gathering and monitoring of information to make investment decisions, the costs of implementing those decisions, transaction costs, fees and taxes, commissions, markups/markdowns or dealer spreads on transactions, custodial costs, performance reports, and tax statements.
- The Advisory Fee may be higher or lower than the ongoing or up-front fees or charges you pay on your existing investment advisory or brokerage accounts. In particular, it may be higher than those fees you paid or currently pay for other MMLIS brokerage products and services, although it may be lower than the fees you paid or currently pay for other MMLIS investment advisory services. It is also in addition to, and not in place of, any

compensation that we receive from any other existing services that we provide to you. While we only offer the Managed Service on a “wrap” fee basis, based on individual circumstances, it may be in your interest to invest through a standard MMLIS brokerage account that is outside of this offering, in which you pay commissions per trade.

- You may be able to obtain automated, algorithmic investment management services that rely on Investment Programs similar to those used by the Managed Service for a lower fee than our Advisory Fee. In addition, the securities in which the Managed Service causes your Advisory Account to invest are generally available to you outside of any advisory program offered by MMLIS or FutureAdvisor and you could therefore generally avoid an additional layer of fees by not using the Managed Service and by making your own decisions regarding the investment. In this case, you would not receive the advisory services we provide.
- If you are a participant in an employer-sponsored retirement plan such as a 401(k) plan and decide to roll assets out of the plan into an Advisory Account, we have a financial incentive to recommend that you do so because we will be paid Advisory Fees on those assets. Those Advisory Fees are likely to be higher than those a participant pays through a plan. In addition, commissions and sales charges may be charged when liquidating such securities prior to the transfer to the Advisory Account, in addition to commissions and sales charges previously paid on transactions in the plan.
- We calculate the Advisory Fee based on the entire balance of your Advisory Account (*i.e.*, the balance of all of your Custodial Accounts), including any cash allocation. As a result, the Advisory Fee may, at times, exceed the return on the cash portion of your Advisory Account, resulting in a net loss, or “cash drag” to you. While the cash portion of your Advisory Account will generally not be significant, the cash drag could be meaningful in a very low or even negative interest rate environment. In addition, inflation can erode the purchasing power of uninvested cash.
- Custodial fees are generally included in the Advisory Fee *except* for items such as the following, which are charged separately and in addition to that fee: regulatory fees; exchange fees; electronic fund and wire transfer fees; fees resulting from any special requests you may have; fees or commissions for securities transactions (including, without limitation, dealer mark-ups, mark-downs, or spreads) that are not executed through MMLIS and cleared by Custodian; and fees and charges customary to securities brokerage accounts (e.g., account transfer fees and retirement account maintenance fees).
- All fees paid to MMLIS for investment advisory services are separate and distinct from the fees and expenses charged by mutual funds and ETFs to their shareholders. These fees and expenses, which include internal management and operating fees and expenses, early termination or redemption fees, and other fees and expenses that may be assessed by the investment vehicle’s sponsor, custodian, transfer agent, adviser, shareholder service provider, or other service providers, are described in each fund’s prospectus or disclosure statement and are embedded in the securities purchased by Sub-Adviser on every client’s behalf. As described in this Brochure, certain of these fees and expenses may be earned or received by Sub-Adviser’s affiliates. The fees and expenses may reduce the net asset value of the mutual fund or ETF, and therefore may directly affect its performance and indirectly affect Advisory Account performance or an index benchmark comparison. These fees and expenses may change from time to time at the discretion of the mutual fund or ETF sponsor.
- The Managed Service may not invest in the share class of a mutual fund with the lowest possible expense ratio, nor may a particular fund sponsor allow all share classes to be available for investment by the Managed Service. The Managed Service may also change the share class in which you are invested at any time. Any of these actions could indirectly affect the performance of your Advisory Account.
- Under the Managed Service, we act as an introducing broker-dealer for your Custodial Account transactions in addition to an investment adviser for your Advisory Account. If you open a Custodial Account with securities previously purchased through us, you likely already have paid a commission on the purchase to us. Similarly, if you open your Custodial Account with cash proceeds from the sale of securities through us, we may have already received commissions on the sale.

Calculation and Billing Procedures

The Advisory Fee is paid for the first quarter your Advisory Account is open in arrears and after that, in advance, based on the Advisory Fee Rate and the aggregate assets in your Advisory Account (including cash, dividends, and accrued interest). We bill and collect the Advisory Fee in four quarterly installments generally at the beginning of January, April, July, and October (each, a “Payment Date”). We calculate the Advisory Fee by multiplying (i) the fair market value of

the aggregate assets in your Advisory Account (including cash, dividends, and accrued interest) as of the last business day of the quarter preceding the Payment Date by (ii) one-fourth of the Advisory Fee Rate. The Advisory Fee for the first quarter your Advisory Account is open is pro-rated based on the day which management of your Advisory Account begins.

We will submit an invoice to Custodian with the total amount of the Advisory Fee to be debited on each Payment Date. The Advisory Fee is calculated by aggregating all of your Custodial Accounts and is billed to the largest of those taxable accounts or, if you do not have any taxable accounts enrolled in the Managed Service, on a pro-rated basis to your tax-exempt Custodial Accounts. This is the only method of billing the Managed Service supports and you may not select another method. The Managed Service will place trades in your Custodial Account in order to make cash available to pay the Advisory Fee without prior notification. The obligation to pay Advisory Fees may limit your ability to sell or otherwise liquidate securities in or to withdraw cash or securities from your Custodial Account. It is your responsibility to verify the accuracy of Advisory Fee calculations, as Custodian will not determine whether fees have been properly calculated.

Refund of Fees upon Termination; Other Effects

You may terminate your Advisory Account at any time. If you do so, we will pro-rate the Advisory Fee paid for that quarter based on the last day of the month in which we close your account. We will rebate to your Custodial Account through Custodian any excess Advisory Fees you have paid or, if that account has been closed, remit them directly to you. Notwithstanding the foregoing, if you terminate your Advisory Account prior to the first Payment Date, the Account's termination date will be deemed a Payment Date and a pro-rated Advisory Fee will be due and payable for the initial quarter based on the period beginning on the first Custodial Account trade date and ending on the Advisory Account termination date, and the opening Custodial Account balance.

Upon termination, the Advisory Agreement terminates and you are solely responsible for monitoring all of the securities in your Custodial Account. Neither MMLIS nor FutureAdvisor will have any continuing obligation to act or offer advice with regard to those assets, as the case may be. We may also, at our discretion, transfer the assets in your Custodial Account to a standard MMLIS brokerage account subject to our prevailing brokerage agreement and fee schedule. You will be solely responsible for managing the assets in that standard brokerage account. If we do not move your assets to such an account, we will liquidate those assets in order to end our business relationship with you, which may result in adverse tax consequences.

Item 5 Account Requirements and Types of Clients

Depending on the program, MMLIS generally provides investment advisory services to individuals, high net worth individuals, various types of business organizations, pension and profit sharing plans, charitable institutions, foundations, endowments, trusts and different types of retirement accounts, including SEPs, Simple, and traditional IRAs.

The Managed Service is offered to individuals for their investment and retirement accounts. Managed Service clients must be permanent legal residents of the United States, at least 18 years old, and not on any governmental sanctions list of prohibited individuals. Use of the Managed Service is subject to our discretion, and we may prohibit any person from participating for any reason or no reason at all. The Managed Service allows you to open an Advisory Account jointly with your spouse or spousal equivalent, although certain features and functionality will differ for the second Managed Service client, as specified in the Advisory Agreement. All advisory accounts are opened electronically through the Site.

The Managed Service requires that you, as a condition of opening your Advisory Account, transfer at least \$5,000, the Managed Service Minimum, of eligible assets (including cash) into your Custodial Account. Ineligible assets will not be permitted to be transferred into your Advisory Account. If ineligible assets are found to have been transferred into your Advisory Account, we will liquidate those assets or transfer them to an account where they are eligible. If at any time the amount of assets in your Advisory Account is less than Managed Service Minimum, we may terminate your Advisory Account and the Advisory Agreement, and instruct Custodian to transfer your Custodial Account assets to a standard MMLIS brokerage account subject to the fees and charges normally assessed by MMLIS on standard brokerage accounts. We may waive the Managed Service Minimum for particular clients or certain circumstances.

Before proceeding to open an Advisory Account, you must make an individual determination that the Managed Service is suitable and appropriate for your financial situation in light of its inherent limitations and the fact that it is an automated, algorithmic advisory service. If the Managed Service is not appropriate for you, or if you prefer a non-technology-enabled advisory service, you should consider some of the other MMLIS advisory offerings or possibly another investment or brokerage service or product entirely.

Item 6 Portfolio Manager Selection and Evaluation

FutureAdvisor

FutureAdvisor has been designated the Managed Service's sole and exclusive sub-advisor, in which capacity it develops and provides the Algorithm and the underlying Investment Programs, and provides discretionary, ongoing management of client accounts through the Algorithm. FutureAdvisor also serves as the Managed Service's technology service provider, in which capacity it maintains the proprietary platform on which the Managed Service operates, including the Site. After conducting a review of FutureAdvisor, we believe that it has the requisite expertise and capabilities to serve in these various capacities. On an on-going basis, MMLIS examines factors such as the experience, expertise, investment philosophies, and infrastructure of FutureAdvisor to provide these services. As described above, we compensate FutureAdvisor for its services by sharing a portion of your Advisory Fee with them and by paying them additional implementation and platform fees.

FutureAdvisor has been in business since May 2010 and was acquired by BlackRock on October 1, 2015. FutureAdvisor employs automated, algorithmic asset allocation, portfolio analysis, rebalancing, and selection, tax efficient asset placement and tax-loss harvesting strategies on behalf of its direct advisory clients and third party financial institutions with whom it has entered into agreements to offer advisory, consulting, and/or technology services. The Algorithm will rely on FutureAdvisor's Investment Programs and internal lists of eligible securities. The performance of Managed Service accounts may differ, potentially materially, if we were to exercise control over the underlying Algorithm inputs and the securities eligible for investment.

You can obtain digital, goal-based investment advisory services directly from FutureAdvisor that are in many respects similar to the Managed Service, but in certain other respects are different. While both the Managed Service and FutureAdvisor's direct-to-client services will rely on the same or similar Investment Programs and will require clients to use an unaffiliated third party custodian, the fees and expenses you will pay, along with other terms and conditions applicable to your Advisory Account, may in fact differ substantially between FutureAdvisor's direct-to-client advisory services and the Managed Service. In the future, we may engage a different third party (or multiple third parties), or an affiliate of ours, to perform any or all of the services that FutureAdvisor performs or may delegate to FutureAdvisor the performance of additional functions for the Managed Service. We will make the determination to adjust FutureAdvisor's role in connection with the Managed Service based on our internal reviews of FutureAdvisor and the Algorithm. FutureAdvisor may also terminate their agreement with us under certain circumstances. This could materially impact our ability to continue offering the Managed Service in its current form.

Advisory Account Performance

We make available to you information regarding your Advisory Account performance. In representing Advisory Account performance, the Managed Service may rely on a time-weighted calculation standard to adjust for significant asset flows into or out of your account. Other generally accepted methods of calculation exist that may yield different results. Our process for review of Advisory Accounts is described below in Item 9 under "Additional Information—Advisory Account Monitoring and Review."

Please refer to Item 4 for a description of the services provided and fees.

Performance-Based Fees and Side-By-Side Management

This Item is not applicable.

Methods of Analysis, Investment Strategies, and Risk of Loss

Methods of Analysis

Client Information Gathering

The Managed Service's goal projections and investment decisions are based primarily on the information you provide during the account opening process, such as, your investment objectives (e.g., retirement or other investment goals), your risk tolerance level, and in some cases the time horizon to reach your investment goals. The Managed Service elicits this information through your responses to a proprietary Risk Tolerance Questionnaire ("RTQ") you complete, and additional information you supply to us or aggregate automatically, when you open your Advisory Account. Based on this

information and the underlying Investment Programs, the Algorithm generates personalized projections for, and provides ongoing management of, your Advisory Account.

The Managed Service does not allow you to specify different investment objectives, goals, or risk tolerance levels for different portions (e.g., different Custodial Accounts) of your Advisory Account, or to create sub-portfolios, each having different investment strategies. The Managed Services does, however, allow you to open additional advisory accounts if you have additional financial goals. Each additional advisory account will be subject to a separate investment advisory agreement. The Managed Service manages the aggregate assets of your Advisory Account (and Custodial Accounts) as a single investment portfolio with a unified investment strategy, based on the information and inputs described above.

Reliance on Client Information

You are responsible for providing true, accurate, and complete information to us and to promptly notify us whenever there are changes to this information that could affect the Managed Service's projections or decisions, the ability to communicate with you, or other personalized aspects. Such changes may include the addition of a new investment account, a life-change event that affects your investment horizon, or a change to your e-mail address. We will not independently verify any information you provide to the Managed Service. Accordingly, if the information you supply is not truthful or complete, or if you fail to promptly update your information should it change, the quality and applicability of the Managed Service's goal projections and investment decisions will be compromised, which may prevent the Managed Service from helping you achieve your financial and/or retirement goals. In addition, the Managed Service does not consider in its analysis accounts and assets that you do not enroll in the Managed Service (i.e., it does not consider assets outside of your Custodial Accounts).

Information Sources

The main information sources for market statistics, financial, and other performance data on which the Managed Service relies are third party data vendors. We pay these vendors access fees for their data services.

Investment Philosophy

The Managed Service utilizes proprietary, automated, computer algorithms which are designed to minimize costs and expenses associated with investing and achieving certain diversification requirements. The Managed Service employs a variety of methods and strategies to make investment decisions and recommendations.

The Managed Service's investment strategies are primarily based on the following principles: diversification; risk management, and tax awareness.

- With respect to diversification, the Managed Service employs a 'buy and rebalance' strategy, which invests in a diversified set of asset classes through low-fee ETFs.
- With respect to risk management, this principle is built into the methodology through assessment of your risk tolerance and the use of investment glidepaths, which decrease your portfolio's allocation to equities and increase your allocation to bonds over time as you approach retirement. Please note that the Managed Services does not utilize investment glidepaths for Advisory Accounts identified with the goal of "general investing".
- With respect to tax awareness, the Managed Service's methodology incorporates the tax consequences of investment decisions where appropriate, whether allocating your holdings in a tax-efficient way (e.g. bonds in tax-advantaged accounts), avoiding unnecessary capital gains taxes, or opportunistically harvesting tax losses.

The Managed Service's investment philosophy was developed by FutureAdvisor. The investment philosophy can be expected to evolve over time and is subject to change by FutureAdvisor and/or MMLIS.

Managed Service Limitations

While the Managed Service has been designed to be broadly applicable to many clients, it may not be appropriate for you if you are already in retirement and drawing down your savings; if you have specific investment restrictions; if you have a very short or a very long investment horizon; or if you have especially complex investment objectives and needs, potentially because your investment portfolio includes illiquid securities, annuities, and/or extremely low basis securities. The Managed Service does not provide exposure to alternative asset classes, nor does it pursue esoteric investment strategies using derivatives and other financial instruments. Also, because the Managed Service is an online advisory service, it is not appropriate if you have limited or no access to technology. If the Managed Service is inappropriate for you, or if it does not meet your communication preferences and you would instead prefer a non-automated, non-algorithmic advisory service featuring a one-on-one relationship with an MMLIS investment adviser representative and greater ability to control and direct the investment of your assets, you should consider one of the other advisory programs offered by MMLIS. More information about each of them is provided in a separate brochure. Alternatively, if you do

not seek a “wrap” fee-based discretionary advisory service, you should instead consider a standard MMLIS brokerage account that is outside of this offering, in which you pay commissions per trade.

Should you determine that the Managed Service is appropriate notwithstanding the above considerations, you must keep in mind that unless you enroll all of your investment accounts, the Managed Service is meant to be a component of your overall investment strategy and not your sole investment strategy. Moreover, the Managed Service’s projections and decisions are limited in scope to the questions we ask in the RTQ you complete when you open an Advisory Account and the information that you supply to us or aggregate automatically. As the Managed Service does not provide comprehensive financial planning, there may be additional relevant information or other financial circumstances that the Managed Service does not consider (e.g., your debt load or other financial obligations) that could inform its investment decisions. We urge you to carefully consider the Managed Service’s costs and benefits before opening an advisory account and beginning to invest.

Risk of Loss

General Investment Risk. While the Managed Service attempts to optimize investment returns for your risk tolerance, neither MMLIS nor FutureAdvisor makes any representation or warranty that the Managed Service’s investment decisions will be successful and result in profitable investing. There are no assurances that your use of the Managed Service will help you reach your goals. Investing in securities involves risk of loss that you should understand and be prepared to bear, while the automated nature of the Managed Service and reliance on the Algorithm and the Site presents certain additional risks. Investment performance can never be predicted or guaranteed and the value of your Advisory Account will fluctuate, potentially significantly, due to market conditions and other factors. Past performance is no guarantee of future results, and any historical returns, expected returns, or probability projections provided by the Managed Service or through the Educational Tool may not reflect the actual future performance of your Advisory Account. When evaluating investment risk, financial loss may be viewed differently by each client and may depend on many different risk items, each of which may affect the probability of adverse consequences and the magnitude of any potential losses. The following risks are not all-inclusive, but you should carefully consider them before opening an Advisory Account and beginning to invest.

Risks of the Algorithm. The Managed Service is highly reliant on the accurate operation of the Algorithm, underlying technology, and related systems and architecture. The Managed Service depends on investment decisions generated entirely by Sub-Adviser’s Algorithm. The Algorithm is an automated system and will only be customized within its limitations, which include the underlying Investment Programs supplied by Sub-Adviser and the information you supply. If the Algorithm were to malfunction, fail, operate in a diminished manner, be based on methodologies and/or assumptions that are erroneous or out of date, you could sustain investment losses, some or all of which could be significant. Further, although Sub-Adviser monitors and periodically updates the Algorithm, there may be a delay between the times events occur, especially during times of significant market volatility, and the times models and assumptions underlying the Algorithm are updated to take into account such events. As a result, any such delays may have a negative impact on the recommendations made for Advisory Accounts. Additionally, the Algorithm employs a number of quantitative models that involve assumptions based upon a limited number of variables that may be extracted from complex financial markets or instruments that they are intended to replicate. Any one or all of these assumptions, whether or not supported by past experience, could prove over time to be incorrect, which could cause you to sustain significant investment losses. The Sub-Adviser may enhance or otherwise modify the Algorithm or other elements of the Managed Service at any time without notice to you in order to make changes we deem necessary or appropriate for the provision of the Managed Service. These changes may, at times, have an impact on the Algorithm and/or the analysis and advice provided through the Managed Service. While these changes are intended to improve or enhance the performance, reliability, or utility of one or more of the Algorithm, the Managed Service or the Site, there can be no guarantee that such changes will result in the desired improvement or enhancement. In some cases, these enhancements or modifications may cause unforeseen consequences with the provision of the Managed Service that could be detrimental to you.

Risks of Monte Carlo Simulation. Monte Carlo simulations are used to generate retirement or other investment goal projection forecasts. Monte Carlo simulation is a statistical modeling technique that charts the probability of discrete financial outcomes at certain times in the future. The outcomes presented using Monte Carlo simulation represent only a few of the many possible outcomes, will vary over time, and are not guarantees of investment returns. Moreover, since past investment performance and general market conditions may not necessarily be repeated in the future, your retirement or other investment goals may not be fulfilled by relying on investment decisions that are driven by Monte Carlo

simulation results. Differences in account size, age, risk tolerance, transaction timing, and prevailing market conditions at the time of investment may also lead to different results, and you may lose money.

Dependence on Client Provided Information and Capital Markets Assumptions. The Managed Service and the investment decisions made by the Algorithm are highly dependent on the accuracy of the information you provide through the Site and enrollment process, including your risk tolerance and responses to the questionnaire presented during your enrollment in the Managed Service. You must carefully consider the tradeoff between risk and return in deciding upon your desired risk tolerance. A lower risk tolerance could, as a result of your Advisory Account containing larger weights in lower-risk asset classes, such as fixed income, reduce the possibility that you will reach your financial and/or retirement goals. A higher risk tolerance could, as a result of your Advisory Account containing larger weights in riskier asset classes, such as equities, expose you to higher volatility than you are comfortable accepting, which could also, depending on your investment horizon, reduce the possibility that you will reach your financial and/or retirement goals. In addition, the assumed risk, return, volatility, and correlation of the investment decisions corresponding to your declared risk tolerance are based, in part, on the capital markets assumptions used in Sub-Adviser's Investment Programs. Those assumptions, which are based on historical asset class returns (as reflected by certain indices), proprietary models, subjective assessments of the current market environment, and forecasts of likelihood of future events, may turn out to be incorrect, which may cause you to accept more or less risk than you desired and undermine the Managed Service's ability to help you reach your financial and/or retirement goals.

Model Risk. Models and techniques deployed by the Managed Service are based on the information and data available as well as on assumptions, assessments, and estimates, all of which may be subject to error. As a result, those models and techniques may not account for all relevant factors or may not account for any such factors correctly. More generally, there can be no assurance that such models and techniques will be effective.

Risk of Reliance on Data. The Managed Service is highly reliant on data from third party and other external sources, and discretion will be exercised to determine what data to gather, which may have an impact on the Managed Service's projections and decisions. In addition, due to the automated nature of data gathering and the fact that much of this data comes from third party sources, not all desired and/or relevant data will be available to, or processed by, the Managed Service at all times. Certain data or data types may not be utilized by the Managed Service in generating or making goal projections and/or investment decisions, and data that is actually utilized may not be the most accurate data, may contain errors, and may be contaminated.

Risk of Liquidation-Driven Losses. As stated above, the Managed Service may not be appropriate for new clients if you are already in retirement or have a short term investment horizon before you plan to access any assets in your Advisory Account. While all investing has risks, please be aware that investing over a short period of time can present greater exposure to short-term volatility and market fluctuations. As a result, the Managed Service generally invests all of your Advisory Account assets in securities suitable for the length of your investment horizon unless you designate up to approximately 10% of Advisory Account equity securities as restricted (in which case those securities are "locked" and cannot be sold). However, if you change your plans and need access to your Advisory Account assets at any point prior to the end of your stated investment horizon, the prices at which these assets are liquidated may cause you to experience a significant loss, in addition to tax liabilities and penalties, undermining the Managed Service's ability to help you reach your financial and/or retirement goals.

Tax-Related Risks. While the Managed Service's discretionary investment decisions include a component that seeks to achieve tax optimized portfolio management, by relocating less tax-efficient assets into tax-advantaged accounts, this component is only one of many that should comprise an individual's comprehensive tax management plan, and supplementary tax advice that is outside the Managed Service's scope may be necessary to minimize the impact of tax liabilities that you could incur through the Managed Service. Any tax optimized decisions the Managed Service implements on your behalf are not intended to serve as tax advice, and no representation is made that you will obtain or avoid any particular tax consequences as a result of those decisions. Dividends, capital gains, transfers, and sales of securities may create taxable events unless your account is tax-exempt (e.g., an individual retirement account). We urge you to consult with your personal tax and legal advisors regarding the tax consequences of investing through the Managed Service and engaging in the tax-harvesting strategy, based on your particular circumstances. The Managed Service assumes no responsibility to you for the tax consequences of any transaction.

Clients and their personal tax advisors are responsible for how the transactions in clients' accounts are reported to the Internal Revenue Service ("IRS") or any other taxing authority. MMLIS assumes no responsibility to you for the tax consequences of any transaction and does not provide any tax advice. The Managed Service was not developed to be used by, and it cannot be used by, any client to avoid tax penalties or interest. The performance of the new securities purchased for tax-loss harvesting purposes may have different expenses, returns, volatility and other characteristics

relative to the securities that are sold for tax-loss harvesting purposes. The effectiveness of the tax-loss harvesting strategy to reduce the tax liability of a client will depend on the client's entire tax and investment profile, including purchases and dispositions in a client's (or client's spouse's) accounts outside of the Managed Service and type of investments (e.g., taxable or nontaxable) or holding period (e.g., short-term or long-term). The utilization of losses harvested through the strategy will depend upon the recognition of capital gains in the same or a future tax period, and in addition may be subject to limitations under applicable tax laws, e.g., if there are insufficient realized gains in the tax period, the use of harvested losses may be limited to a \$3,000 deduction against income and distributions. Losses harvested through the strategy that are not utilized in the tax period when recognized (e.g., because of insufficient capital gains and/or significant capital loss carryforwards), generally may be carried forward to offset future capital gains, if any. The Managed Service only monitors for wash sales for accounts in the Managed Service. Clients are responsible for monitoring their and their spouse's accounts, including those managed by investment advisers, outside of the Managed Service to ensure that transactions in the same security or a substantially similar security do not create a "wash sale." A wash sale is the sale at a loss and purchase of the same security or substantially similar security within 30 days of each other. If a wash sale transaction occurs, IRS may disallow or defer the loss for the current tax reporting purposes. More specifically, the wash sale period for any sale at a loss consists of 61 calendar days: the day of the sale, the 30 days before the sale, and the 30 days after the sale. The wash sale rule postpones losses on a sale, if replacement shares are bought around the same time. The Managed Service may lack visibility to certain wash sales, should they occur as a result of external or unlinked accounts, and therefore the Managed Service may not be able to provide notice of such wash sale.

Account Funding Risk. The sale or liquidation of any investment or other asset to fund your Advisory Account may have adverse tax consequences, early redemption penalties, or other costs or penalties as a result of such sale or liquidation, including the loss of living, death, or other benefits of that investment or asset. In addition, if you fund your Advisory Account with securities, the liquidation of those securities by the Managed Service in connection with the initial account rebalancing, as determined by the Algorithm, may have similar effects. Accordingly, you should not transfer securities to your Advisory Account that you are not willing to have liquidated by the Managed Service. Separately, if you transfer an entire account to Custodian, you may incur "transfer out" fees charged by other brokers.

Withdrawal Risk. Cash withdrawals from, or other changes to, your Advisory Account may cause us to execute trades in that account at then-prevailing market prices or prevent the Managed Service from executing other trades intended to rebalance your investment portfolio, resulting in your current asset allocation deviating from the target asset allocation and taxable gains or losses, undermining your long-term investment objectives. Further, dividend and other income generated by the securities held in your Advisory Account will be used by the Managed Service to rebalance that account, will not necessarily be reinvested in those same securities, and will not be made available for withdrawal.

Risk of Account Restrictions. Through the Managed Service, you may impose certain restrictions on the sale of certain securities currently held in your Advisory Account. Accounts with such restrictions may perform differently from accounts without restrictions and that performance may vary. For example, such restrictions may adversely impact account performance by preventing the Managed Service from implementing an optimal asset allocation in light of your investment objectives, goals, and risk tolerance.

Diversification and Asset Allocation Risk. The Managed Service's asset allocation is constructed using modern portfolio theory, which seeks to construct portfolios to optimize expected return based on a given level of market risk, and is based on the risk and return characteristics and relationships of the asset class exposures, as dictated by the capital market assumptions embedded in Sub-Adviser's Investment Programs. The asset classes selected are intended to reflect the types of fundamental equity and fixed income exposures that are commonly included within diversified investment portfolios. Other asset classes not selected by the Algorithm may have characteristics similar or superior to those that are selected.

In addition, the asset classes selected can perform differently from each other at any given time (as well as over the long term), so your Advisory Account's performance will be affected by the allocation among the various asset classes. The Managed Service's asset allocation decisions may result in more portfolio concentration in a certain asset class or classes, which could reduce overall return if the concentrated assets underperform the Managed Service's expectations. Depending on market conditions, there may be times where diversified portfolios underperform less diversified portfolios, as diversification and asset allocation strategies do not guarantee low volatility, profit, or protection against investment loss.

Moreover, the value of an entire asset class can decline for a variety of reasons outside of our control, including, but not limited to, changes in the macroeconomic environment, unpredictable market sentiment, forecasted or unforeseen economic developments, interest rates, regulatory changes, and domestic or foreign political, demographic, or social events. A high allocation in a particular asset class may negatively affect your overall Advisory Account performance to the extent that the asset class underperforms relative to other market assets. Conversely, a low allocation to a particular

asset class that outperforms other asset classes in a particular period will cause your account to underperform relative to the overall market.

Correlation Risk. Certain investments made by the Managed Service will experience returns that individually or in the aggregate are correlated (possibly highly) with various market indices, including various equity, debt, or other markets around the world. On the other hand, there may be periods of time when your returns are not correlated with various market indices or the returns of other investment strategies.

Economic Risk. Your Advisory Account's investments are likely to be exposed to risks relating to weakness in various global economies and the economic cycle. Numerous factors affecting Advisory Account performance, such as market volatility, interest rates, commodity prices, equity prices, currency prices, credit spreads, and deflationary and inflationary pressures, may be affected by the economic cycle and long-term economic trends. Predictions about financial market conditions and economic factors are highly uncertain, and the presence, duration, and impact of any market or economic conditions could have a materially adverse effect on Advisory Account investments.

Financial Market Disruptions and Regulatory Change Risk. In recent years, disruptions in the global financial markets, have had materially adverse consequences for the values, liquidity, and stability of certain types of investments, including the types of investments that the Managed Service makes on your behalf. Similar or dissimilar disruptions may occur in the future, and their duration, severity, and ultimate effect are difficult to forecast. It is possible that changes in applicable laws and regulations will affect your Advisory Account and the Managed Service. The consequences of additional regulation on the liquidity and the efficient and orderly functioning of the markets in which the Managed Service invests cannot be predicted and may materially diminish the profitability of the investments the Managed Service makes on your behalf.

Reliance on Technology; Backup Measures. The Managed Service, including the investment activities and investment strategies employed in the Managed Service and by the Sub-Adviser are dependent upon various computer and telecommunications technologies, many of which are provided by or are dependent upon third parties such as data feed, data center, telecommunications, or utility providers. The successful deployment, implementation, and/or operation of such activities and strategies, and various other critical activities of the Sub-Adviser, could be severely compromised by system or component failure, telecommunications failure, power loss, a software related "system crash," unauthorized system access or use (such as "hacking"), computer viruses, malware, worms and similar programs, fire or water damage, human errors in using or accessing relevant systems, or various other events or circumstances. Such events or circumstances may affect the Managed Services, Sub-Adviser or the Site directly and/or may affect one or more third parties that provide services to the Sub-Adviser and/or you. It is not possible to provide comprehensive and foolproof protection against all such events, and no assurance can be given about the ability of applicable third parties to continue providing their services. As an automated, algorithmic investment advisory service, any event that interrupts such computer and/or telecommunications systems or operations could compromise the Managed Service, have a material adverse effect on clients, and cause your Advisory Account to experience losses, including by preventing trading, modifying, liquidating, and/or monitoring its clients' investments. Moreover, any unauthorized access to the information systems of MMLIS and/or Sub-Adviser or certain third parties could result in the loss, disclosure, or improper use of information relating to investments and/or personally identifiable information of clients; any such loss, disclosure, or use could have a material adverse effect on such clients.

In addition, there are operational, information security, and related risks associated with the use of electronic, Internet-based technologies to provide the Managed Service. In general, cyber incidents can result from deliberate attacks or unintentional events and are not limited to, gaining unauthorized access to digital systems, and misappropriating assets or sensitive information, corrupting data, or causing operational disruption, including denial-of-service attacks on websites. Cybersecurity failures or breaches affecting the Managed Service or its third party vendors have the ability to cause disruptions to the Managed Service, potentially causing you to experience financial losses, the inability to access the Managed Service, violations of applicable privacy and other laws that adversely affect you and/or other damages.

In the case of events that interrupt the Sub-Adviser's computer and/or telecommunications systems or operations, the Sub-Adviser hopes to resume trading, modifying, liquidating, and/or monitoring clients' investments relatively promptly, subject to any circumstances that are outside of its control. In the case of severe business disruptions (e.g., regional power outage or loss of personnel), the Sub-Adviser may not resume such activities for one or more business days because (among other things) such resumption is dependent on other critical business constituents, such as brokers and exchanges, and on the nature of the disruption. Although the foregoing reflects the Sub-Adviser's objectives, designs, and/or plans, no assurance can be given that these objectives, designs, and/or plans will be realized, or that, in particular, the Sub-

Adviser would be able to resume operations following a business disruption. Any such disruption could have a material adverse effect on clients.

Securities Investment Risks

All securities and other investments carry some level of risk, including the risk that you could lose your entire investment. Prices of securities can be volatile and a variety of risks, including market, currency, economic, political, technological, regulatory, social, and business risks, can adversely affect the value of and return on any Advisory Account investments.

The investment risks of certain types of securities in which the Managed Service causes your Advisory Account to invest include the following:

- *Market Risk:* Generally, the market value of securities may go up or down in response to the prospects of individual companies, particular sectors or governments, and/or general macroeconomic conditions throughout the world due to increasingly interconnected global economies and financial markets.
- *Sector Risk:* To the extent an Advisory Account invests more heavily in particular sectors, industries, or sub-sectors of the market, its performance will be especially sensitive to developments that significantly affect those sectors, industries, or sub-sectors. An individual sector, industry, or sub-sector of the market may be more volatile, and may perform differently, than the broader market. The several industries that constitute a sector may all react in the same way to economic, political, or regulatory events and may otherwise not perform as expected. Alternatively, the lack of exposure to one or more sectors or industries may adversely affect performance.
- *ETFs and Mutual Funds:* In addition to all the risks involved in investing in securities generally, these securities are subject to the risk that they may not effectively achieve the performance of the index, industry, or other market they are intended to track (if they do seek such tracking), in addition to the risk that expenses reduce returns, that management is not successful at its stated program, that there are conflicts of interest, that the investment is illiquid or has low trading volume, and that non-investment operations become subject to error and mismanagement, resulting in losses. These securities can be expected to incur costs in addition to those fees described in this Brochure, thus reducing your returns. They may also have exposure to derivative instruments, which may not perform as expected, along with other investment risks described in their prospectuses, statements of information, and other disclosure documents.
- *Equities:* Equities are subject to changes in value and their values may be more volatile than other asset classes. The value of equity securities varies in response to many factors including those specific to the issuer and the industry in which the issuer operates. Equity markets tend to move in cycles, which may cause stock prices to fall over short or extended periods of time. In addition, stocks of mid-cap companies tend to be more volatile than those of large-cap companies, while small-cap and international stocks tend to have greater volatility than large- and mid-cap U.S. stocks. Historically, U.S. and non-U.S. stock markets have experienced periods of substantial price volatility and may do so again in the future.
- *Fixed Income:* Generally, the value of fixed income securities changes inversely with changes in interest rates. As interest rates rise, the market value of these securities tends to decrease and conversely, as interest rates fall, their market value tends to increase. This risk is typically greater for securities based on longer-term interest rates than for those based on shorter-term interest rates. Further, fixed income securities may experience a decline in income when interest rates decrease, as an issuer may be able to prepay principal prior to the security's maturity, requiring reinvestment in securities with lower yields. They may also be subject to credit (or default) risk, whereby the issuer fails to make timely principal or interest payments, or liquidity risk, whereby a security is difficult to purchase or sell or becomes difficult to sell after being purchased. These risks have been especially pronounced in recent times due to disruptions in the global debt markets and are elevated for high-yield fixed income securities (sometimes called "junk" bonds).
- *Developed Countries Securities:* Developed countries securities may be subject to regulatory, political, currency, security, demographic, and economic risk specific to those countries. Developed countries may be impacted by changes to the economic health of key trading partners, regulatory burdens, debt burdens, and commodity prices or availability. Developed countries are generally a significant portion of the global economy and have experienced slower economic growth than other countries or regions.
- *Non-U.S. Securities:* Non-U.S. securities have special risks not typically associated with U.S. securities, which may be more pronounced in connection with developing or emerging markets securities. These risks may include

adverse fluctuations in foreign currency values, adverse political, social, and economic developments affecting one or more foreign countries, less publicly available information and more volatile or less liquid securities markets, restrictions on receiving the investment proceeds from a foreign country, foreign tax laws or tax withholding requirements, unique trade clearance or settlement procedures, potential difficulties in enforcing contractual obligations or other legal rules that jeopardize shareholder protection, less transparent accounting practices, and inadequate or irregular foreign regulation.

- *Other Risks:* Certain securities may have exposure, whether intentional or unintentional, to various market movements, and other sources of risk, whether known or unknown. Such sources of risk may include changes in current or future levels and/or volatility of interest rates, inflation rates, currency prices, commodity prices, sovereign credit spreads, corporate credit spreads, and equity, fixed income, and other markets, as well as correlations between any of these risks.

Risk of Trade Timing. Sub-Adviser is authorized under the Advisory Agreement to exercise discretionary authority in determining the timing of purchases and sales of securities for your Advisory Account in accordance with its internal trading policies and procedures, which include procedures for mitigating potential market risk. While trades are generally sent to Custodian for execution on the same business day as the Algorithm generates them, for various reasons that are out of Sub-Adviser's control, including market volatility, peak demand, or systems upgrades or maintenance, there could be delays in the amount of time it takes Sub-Adviser to direct trades to Custodian, Custodian to process those trades, and those trades to be executed. Changes in trade timing could significantly reduce the profit potential from those transactions or could cause you to experience a significant loss, even where Sub-Adviser intends those changes to mitigate market risk.

The Managed Service generally executes transactions by placing "market orders". A "market order" is an order to buy or sell an investment immediately at the best available current price. Because market orders are executed immediately (as opposed to an order that specifies a target price at which the security should be bought or sold and remains open for a longer period of time, during which the price of the security may or may not hit the target price) market orders bear inherent risks, particularly in times of high volatility and for investments that are thinly traded. This could result in the client paying a higher purchase price or receiving a lower sale price when the Managed Service places market orders on the client's behalf. It could also result in higher execution fees charged by the brokers handling these transactions. The Sub-Adviser may, at its discretion use other order types and conditions (e.g., time-in-force), as appropriate, to achieve best execution.

Risk of Trading Delays. During periods of extraordinary market volatility or illiquidity, Sub-Adviser may delay the submission or orders to the Custodian until markets have regained stability, including in circumstances where securities have enacted their market-wide circuit breaker procedures or have halted trading of one or more securities. Such measures may be taken without notification to you and may cause delays in your ability to withdraw cash from your account or make additional investments, and therefore may result in loss. Such delays may also cause your asset allocation to deviate from the Managed Service's target, or prevent you from generating Custodial Account liquidity or making other changes to your Custodial Account. While Sub-Adviser will make the decision to institute a trading suspension based on its consideration of what is in your best interest in light of then-prevailing market conditions, suspensions could nonetheless have unintended consequences that Sub-Adviser is unable to anticipate.

Voting Client Securities

MMLIS (and FutureAdvisor) does not vote on behalf of clients or otherwise render any advice with respect to proxies, consents, waivers, voluntary corporate actions, or other legal notices regarding any securities held in clients' accounts. You may receive these notices from Custodian or an issuer's corporate communications service provider. Questions regarding proxies and other legal notices should be directed to the contact person identified by the associated issuer.

Item 7 Client Information Provided to Portfolio Manager

Client Information

Generally

When you first open your Advisory Account, you will supply us with information concerning your age, financial situation, risk profile, and current investments. Some of this information will be elicited through the RTQ we have developed for the Managed Service. The Algorithm generates financial and/or retirement goal projections and makes investment decisions based on the information you provide to us and also based on financial account information that you provide.

You can review and update your information anytime through the Site if it changes, but the Managed Service will provide you with a formal opportunity to do so on an annual basis. All the information you supply to the Managed Service, including any updates to that information, flows into the Algorithm, which ordinarily runs on a daily basis when U.S. markets are open, and affects the Managed Service's goal projections and investment decisions, including decisions to rebalance your Advisory Account.

Restricted Securities

Through the Site, you may designate up to approximately 10% of Advisory Account equity securities as restricted, in which case those securities will be "locked" and not sold by the Managed Service. You may not, however, specify securities in which your Advisory Account may or may not invest or impose other investment limitations.

Householding

The Managed Service offers a householding feature, which aggregates Custodial Accounts held by you and your spouse or spousal equivalent. To use householding, you and your spouse must share the same risk tolerance and investment horizon (*i.e.*, number of years until your retirement or other investment goal). Householding takes into account all of your household's Custodial Accounts to determine the asset classes in which each of them will invest. Although taxable and non-taxable Custodial Accounts may each be concentrated within specific asset classes, the household's Advisory Account will be managed in the aggregate towards one goal and one investment objective. As a result, householded Custodial Accounts may have different positions (driven by tax, regulatory, or other differences), and the returns of one spouse or account may significantly differ from those of the other spouse or another account.

You can enable or disable (*i.e.*, dividing your householded Custodial Accounts into separately managed accounts) the householding feature through the Site. If you enable it, changes made by one spouse to the Advisory Account's investment objective, goal, and/or risk tolerance will be applied to all Custodial Accounts, including those of the other spouse (and vice versa); one spouse will be able to initiate withdrawals and cash transfers from the other's Custodial Account; and information related to all Custodial Accounts that are part of the householded relationship will be available to all members of the household. Certain other aspects of the Managed Service will also differ for the spouse or spousal equivalent, as described in the Advisory Agreement. In light of the foregoing, you are under no obligation to enable the Managed Service's householding feature and you should thoroughly discuss the implications of doing so with your spouse in light of your household's investment needs. If you disable householding, additional trading activity may be required to rebalance the Custodial Accounts that were part of the householded relationship and the spouse that separates from the Managed Service will need to open a new Advisory Account in order to continue investing through it. You need to consider if the householding feature is appropriate for you as it is not easily turned off and on.

Account Aggregation

The Educational Tool has an account aggregation feature that allows you to automatically aggregate your current investment portfolio information as it relates to Linked Accounts held at MMLIS and our affiliates, as well as third party banks, brokers, and other financial institutions ("Account Information"). This Account Information will serve as an input to the information that Sub-Adviser uses to generate goal projections. The Educational Tool relies on an external vendor, currently Yodlee, to serve as a conduit between the financial institutions and the Sub-Advisor for your Account Information. By enabling the account aggregation feature, you will be deemed to have agreed to Yodlee's end user terms, which, among other things, allow Yodlee to use so-called "blind data"—Account Information that does not include any personal identifying information—for its own corporate purposes, including sale of the blind data to third parties. We are not responsible for and do not guarantee the accuracy of your Account Information, nor are we obligated to validate such information. You can disable automatic aggregation of your read-only Account Information anytime through the Site, but if you do, the Educational Tool will not consider those non-aggregated assets as an Algorithm input for purposes of generating goal projections. The value of your aggregated account holdings will ordinarily be displayed on the Site and you should confirm their accuracy through sources independent of the Managed Service.

Only Custodial Accounts (*i.e.*, accounts enrolled in the Managed Service) are managed as part of the Advisory Account; accordingly, Linked Accounts will not be managed unless they are enrolled in the Managed Service.

Item 8 Client Contact with Portfolio Managers

As an automated investment advisory service, with investment decisions effected automatically by Sub-Adviser through the Algorithm, the Managed Service does not rely on traditional portfolio managers or provide you with an opportunity to contact or consult with those persons at MMLIS or FutureAdvisor responsible for the Managed Service or the Algorithm, as the case may be. However, the Managed Service does have an annual contact process in which you can

indicate if, as a result of changes to your financial situation or information, Sub-Adviser should change the investment decisions the Managed Service effects for your Advisory Account. You can update your information through the Site should it change, or modify any permitted restrictions on equity securities held in your Custodial Account by contacting MMLIS, anytime you wish. We also offer you the ability to interact with one of our investment adviser representatives about general Advisory Account questions by using the information specified on the Site. At all times, you are responsible for taking action if you want to initiate changes to your Advisory Account, including initiating the closure of that account should you determine that the Managed Service no longer suits your current investment needs.

Item 9 Additional Information

Disciplinary Information

Like all registered investment advisers, MMLIS is obligated to disclose disciplinary event that are material to any client or prospective client when evaluating our services. Therefore, the disciplinary information for MMLIS is presented below.

MMLIS Disciplinary Information

On June 17, 2011, MMLIS entered into an AWC for the resolution of charges with FINRA. The alleged rule violations relate to MMLIS' compliance with FINRA Rules applicable to compensation in connection with Trade Reporting and Compliance Engine ("TRACE") eligible securities during the period October 9, 2008 through June 26, 2009 (the "Review Period"). During the Review Period, in 14 transactions, MMLIS purchased or sold TRACE-eligible securities as an agent for customers in transactions for a commission or service charge that was in excess of a fair amount, taking into consideration all relevant circumstances. MMLIS also failed to enforce its written supervisory procedures by charging commission in excess of the procedures' limits. The conduct constituted violations of NASD Rule 2440, NASD Rule 3010, NASD Rule 2110 (for conduct prior to December 15, 2008), and FINRA Rule 2010 (for conduct on or after December 15, 2008). Under the AWC, MMLIS consented to a censure and a fine of \$32,500.

On November 16, 2011, MMLIS entered into an AWC for the resolution of alleged rule violations with FINRA. The alleged rule violations related to MMLIS' compliance with FINRA Rules applicable to filing Forms U5 and amendments to Forms U4 and U5. From approximately May 13, 2008 through October 10, 2010, MMLIS failed to file in a timely manner at least 98 filings, including 5 Form U5 filings and 93 amendments to Forms U4 and U5. Forms U4 and U5 contain information regarding the firm's registered representatives and the rule requires timely updates to these forms. FINRA also found that MMLIS failed to establish and maintain a supervisory system and establish, maintain, and enforce supervisory procedures that were reasonably designed to achieve compliance with the reporting requirements set forth in Article V of FINRA's By-Laws. This conduct constituted violations of NASD Conduct Rule 2110 (for conduct prior to December 15, 2008) and 3010 and FINRA Rule 2010 (for conduct after December 14, 2008). Under the AWC, MMLIS consented to a censure, a fine of \$300,000, and undertakings related to a review of its supervisory systems, written supervisory procedures, and quarterly reporting in 2012 to FINRA of any Form U5 filings or amendments to Forms U4 or U5 the were not timely filed during that quarter.

On December 6, 2012, the Director of The Rhode Island Department of Business Regulation (the "Director") entered into a Consent Order Making Findings and Imposing Remedial Sanctions (the "Order") for the resolution of a matter involving MMLIS. The matter was resolved prior to the institution of administrative proceedings. MMLIS neither admitted nor denied the findings. The matter arose out of the conduct of two former MMLIS representatives who have been barred from engaging in any securities business in the state of Rhode Island as a result of their conduct. On March 28, 2011, MMLIS advised the Securities Division that one of these representatives had embezzled money from one of his clients over the course of ten years by inducing the client to invest in fraudulent and non-existent promissory notes sold through the representative's outside business activity. The Director alleged that MMLIS failed to reasonably supervise these representatives in violation of R.I. Gen. Laws Section 7-11-212(b)(1). The Order directs MMLIS to: (i) immediately cease and desist from any further violations of the Rhode Island Uniform Securities Act of 1990 and the rules promulgated thereunder; (ii) pay a penalty in the amount of \$250,000 to the Rhode Island Department of Business Regulation; (iii) confirm in writing that it has reimbursed the client for losses according to the terms of a settlement negotiated among the parties; and (iv) retain an independent consultant to conduct a comprehensive review of its Rhode Island Detached Branch Offices and registered representatives in such locations and issue a written report to be filed with the Director.

On August 21, 2013, MMLIS entered into an AWC with FINRA, which found that MMLIS violated FINRA Rules by failing to reasonably supervise and investigate certain of its registered representatives engaged in the sale of promissory notes not approved by MMLIS. Without admitting or denying the findings, MMLIS consented to a censure, a fine of

\$125,000, and agreed to pay restitution to investors totaling \$787,847.70. MMLIS provided proof to FINRA that it paid such restitution to investors.

MMLIS entered into a Consent Agreement and Order (“Agreement”) with the Commonwealth of Pennsylvania, acting through the Department of Banking and Securities (“Department”), Bureau of Securities Licensing, Compliance and Examinations (“Bureau”) for the resolution of a matter effective July 6, 2015. MMLIS neither admitted, nor denied the allegations. The matter arose out of the conduct of a deceased former MMLIS representative who operated an unapproved outside business activity through which he issued, offered, and sold unregistered promissory notes to certain Pennsylvania residents. The issuance, offer, and sale of the notes by the representative were not approved by MMLIS. The Bureau received five complaints and was aware of twelve notes totaling approximately \$385,000. MMLIS was subject to a sanction under Section 305(a)(vii) of the Pennsylvania Securities Act of 1972, 70 P.S. § 1-305(a)(vii) (the “1972 Act”) for a failure to reasonably supervise an MMLSI agent. The Order directed MMLIS to (i) pay an administrative assessment in the amount of \$100,000; (ii) pay legal and investigative costs in the amount of \$25,000; (iii) comply with the 1972 Act, and its Regulations as adopted by the Department, 70 P.S. § 1- 101, *et. seq*; and (iv) represent to the Department that it had made payments to certain Pennsylvania residents related to the securities activities of the representative and his outside business. Payment to certain Pennsylvania residents in the amount of \$150,840.62 was made on June 30, 2015.

MMLIS entered into an AWC with FINRA for the resolution of a matter effective November 15, 2016. FINRA made findings that MMLIS disadvantaged certain retirement plan and charitable organization customers that were eligible to purchase Class A shares in certain mutual funds without a front-end sales charge (“Eligible Customers”). FINRA found that these Eligible Customers were instead sold Class A shares with a front-end sales charge or Class B or C shares with back-end sales charges and higher ongoing fees and expenses. The AWC stated that MMLIS failed to establish and maintain a supervisory system and written policies and procedures reasonably designed to ensure that Eligible Customers who purchased mutual fund shares received the benefit of applicable sales charge waivers. The AWC also stated that MMLIS failed to reasonably supervise the application of sales charge waivers to eligible mutual fund sales. FINRA found that MMLIS relied on its financial advisors to determine the applicability of sales charge waivers, but failed to maintain adequate written policies or procedures to assist financial advisors in making this determination, including failing to establish and maintain written procedures to identify applicable sales charge waivers in fund prospectuses for Eligible Customers. Without admitting or denying the findings, MMLIS consented to a censure and agreed to pay restitution to investors totaling \$1,864,167.77, plus interest.

MMLIS (and three other broker-dealers affiliated with MassMutual) entered into an AWC with FINRA for the resolution of a matter effective June 30, 2017. FINRA made findings that MMLIS failed to maintain certain electronic books and records in a non-erasable and non-rewritable format known as the “Write Once, Read Many” (WORM) format that is intended to prevent the alteration or destruction of broker-dealer records stored electronically. The findings also stated that MMLIS failed to (i) provide the required 90-day notice to FINRA prior to retaining a vendor to provide electronic storage, (ii) implement an audit system as required for such electronic books and records, (iii) provide letters of undertaking from independent third-parties with the ability to access and download information from MMLIS’ electronic storage media; and (iv) enforce written supervisory procedures concerning MMLIS’ storage of electronic brokerage records in WORM format. Without admitting or denying the findings, MMLIS consented to a censure and agreed to a fine in the amount of \$750,000 (to be paid jointly and severally by the three other MassMutual affiliated broker-dealers). MMLIS also agreed to certain undertakings, mainly to submit to FINRA within 60 days a written plan of how MMLIS will conduct a comprehensive review of the adequacy of the relevant policies and procedures (written and otherwise), including a description of remedial measures leading to full compliance.

MMLIS entered into an AWC with FINRA for the resolution of a matter effective March 20, 2020. FINRA made findings that the Firm failed to ensure that access to a third-party system was limited to only those former registered representatives of a company that was acquired by the Firm for whom access was agreed to be given. As a result, additional former registered representatives and associated persons of the Firm had access to the third-party system after the acquisition. Because MMLIS was unaware that these additional registered representatives and associated persons had access to the third-party system after the acquisition, the Firm did not notify the third party when those registered representatives and associated persons ceased to be associated with the Firm. As a result, the third-party did not timely shut off those former registered representatives’ and associated persons’ access to the third-party system. The third party system stored customer records and information, including nonpublic personal information. Without admitting or denying the findings, the Firm consented to a censure, a fine of \$75,000, and the entry of findings that it failed to prevent certain registered and associated persons who had been terminated from the Firm from continuing to access customer records and information, including nonpublic personal information, in violation of the SEC’s Regulation S-P and FINRA Rule 2010

For more information about the above events and other disciplinary and legal events involving MMLIS, please refer to the Investment Advisor Public Disclosure at www.adviserinfo.sec.gov and FINRA BrokerCheck at www.finra.org.

Other Financial Industry Activities and Affiliations

MMLIS

Generally

We are owned by MassMutual Holding LLC, which, in turn, is principally owned by Massachusetts Mutual Life Insurance Company (“MassMutual”). We are dually registered with the SEC as an investment adviser and a broker-dealer and our principal officers are registered as investment adviser and/or registered representatives of MMLIS. In our capacity as a broker-dealer, we sell variable insurance products and general securities to the general public, including, but not limited to, stocks, bonds, municipal and government securities, and mutual funds. The products available through MMLIS include products issued by our affiliated insurance companies as well as those issued by unaffiliated issuers. As part of this business, MMLIS, through our registered representatives and/or investment adviser representatives, provides a broad range of securities brokerage services to clients, including those who may participate in the Managed Service. Our registered representatives are all licensed to sell securities and may effect securities transactions for compensation for any client.

Compensation of Representatives

Our registered representatives and investment adviser representatives are all licensed insurance agents or brokers of MassMutual and/or other affiliated or unaffiliated insurance companies. They receive a portion of the Advisory Fees paid to MMLIS in connection with the Managed Service. We use compensation schedules to calculate the compensation paid to our investment adviser representatives. This compensation could create an incentive for investment adviser representatives to recommend our advisory offerings (including the Managed Service) to clients over other services. We address this potential conflict of interest through clear and prominent disclosure to our clients, confirmation of the suitability of the Investment Programs for new Advisory Accounts, and supervision of the investment adviser representatives acting or advising in respect of the Managed Service. Additional information regarding our compensatory arrangements with MMLIS investment adviser representatives is provided below in this Item 9 under “Additional Information—Client Referrals and Other Compensation.”

Custodian Rebates

We may receive rebates or service credits on certain charges from Custodian based on the number of client accounts established by the Managed Service and the amount and/or type of assets in those accounts. This is in addition to the Advisory Fees we receive under the Advisory Agreement. As a result, we have an incentive for clients to participate in the Managed Service. Any such rebates are paid directly to MMLIS and are not shared with our investment adviser representatives or those persons’ branch manager. Custodian will also pay us fees to attend MMLIS sponsored sales and/or training conferences.

Distribution Fees

In some cases, certain mutual funds held in the account will pay 12b-1 fees. In such instances, those 12b-1 fees will be credited to your Advisory Account.

Custodian Excess Trading Fee

MMLIS does not pay individual transaction fees to Custodian and MMLIS does not charge individual transaction fees to clients. However, when the number of trades in a client’s account exceeds a certain threshold, Custodian will charge MMLIS a set fee per trade. MMLIS does not pass this fee on to the client. This presents a conflict of interest because MMLIS has an incentive to limit the number of trades in a client’s account below the threshold that would lead to Custodian charging MMLIS a transaction fee. MMLIS mitigates this conflict by delegating day-to-day investment discretion to the Sub-Advisor.

FutureAdvisor

FutureAdvisor is a wholly-owned subsidiary of BlackRock, a broad financial services organization. Sub-Advisor’s Algorithm will utilize ETFs, mutual funds, and registered investment companies advised or sub-advised by BlackRock Fund Advisors or other BlackRock affiliates, including U.S. iShares ETFs (collectively, “BlackRock Products”), which Sub-Advisor, in turn, purchases on your behalf. BlackRock affiliates include several federally registered broker-dealers,

investment advisers, commodity pool operators, and commodity trading advisers. They also include a national banking association organized under the laws of the U.S. that operates as a limited purpose trust company and a municipal advisor registered with both the SEC and the Municipal Securities Rulemaking Board.

Custody Matters

Generally

MMLIS, in our capacity as a registered broker-dealer, acts as introducing broker (and the broker of record) for all transactions initiated by Sub-Adviser for your Custodial Account. Sub-Adviser's transactions will be generated by its Algorithm, and will include the amount, type, and timing of securities purchases and sales. The Managed Service's Custodian, National Financial Services, LLC, an SEC registered broker dealer and affiliate of Fidelity Investments, acts as the custodian and clearing firm for your Custodial Account. In that capacity, Custodian will perform centralized cashiering, bookkeeping, and execution clearing and settlement functions. It will also handle the delivery and receipt of securities purchased or sold for your Custodial Account, receive and distribute dividends and other distributions, and process exchange offers, rights offerings, warrants, tender offers, and redemptions.

Selection

Under the Advisory Agreement, you authorize MMLIS and Sub-Adviser to transact for your Custodial Account through Custodian and/or other broker-dealers. The Managed Service will assist you in opening a Custodial Account with Custodian when you open your Advisory Account. It will not offer you the option of designating a different custodian or broker-dealer to carry your Custodial Account or to execute transactions for that account. We and Sub-Adviser retain the discretion to negotiate with and select the Managed Service's custodial and brokerage counterparties, and to cause the execution of your securities transactions at the time, in the manner, and with the counterparty we consider appropriate. As a result of these arrangements, you may receive a less favorable price for your transactions than you could obtain by using another broker-dealer or if you were able to control the execution of those transactions. You should carefully review the disclosures presented to you by Custodian when opening your Custodial Account to evaluate the potential impact on investing through the Managed Service.

Order Initiation

Sub-Adviser initiates purchase and sale orders for your Custodial Account in accordance with its internal trade processes and procedures. Generally, Sub-Adviser's trades are sent to Custodian on the same business day as the Algorithm generates them. Due to the large number of trades generated by the Algorithm both for Managed Service clients and other Sub-Adviser clients, Sub-Adviser may effect transactions for some custodial accounts on one day and for other custodial accounts on the following day or days, which may result in price differences. In such case, Sub-Adviser will have discretion to sequence the custodial accounts for which the trades are initiated through industry standard methods such as randomization or rotation with the goal of treating all accounts equitably over time and ensuring that no client or set of clients is continually favored or disadvantaged.

Sub-Adviser generally does not aggregate orders for a client with orders of other clients. Consequently, seeking fairness to all of its clients, Sub-Adviser submits client transaction orders pursuant to a randomized selection process seeking to ensure that each client has generally equal priority over time. By not aggregating transaction orders for a client with orders of other clients, clients may receive disparate prices from trading at different times during the day and may potentially incur higher (or lower) transactional costs.

Order Execution

Once received by Custodian, Sub-Adviser's transactions may be subject to internal processing delays in certain circumstances. In particular, transactions Sub-Adviser sends to Custodian on non-business days, thirty minutes or less before markets close (typically 4:00 PM ET), and after markets close may not execute until the next business day. Further, deposits to your Custodial Account are typically subject to a processing period that may be up to five business days or longer; related transactions may not occur until the next business day after this processing period is complete. In addition, Custodian may, at any time and without notice, delay or manage Sub-Adviser's trading orders. There is no guarantee that trades executed by Custodian on the same day or on different days receive the same execution price. Your access to Custodial Account funds is generally not affected by the Managed Service's order execution processes and procedures, including decisions by Custodian to delay or manage intra-day trading.

Order Aggregation

Although Sub-Adviser manages each Client's Custodial Account separately, there may be times when custodial account transactions are aggregated in order to achieve a trade minimum imposed by Custodian, to obtain more favorable

execution, or for other reasons. When transactions are so aggregated, the actual prices applicable to the aggregated transactions will generally be averaged, and the account will be deemed to have purchased or sold its proportionate share of the securities involved at the average price obtained. However, in most instances each client's custodial account transactions will be executed separately from one another.

Custody

While we do not maintain physical custody of assets in your Custodial Account, we do cause the Advisory Fees due and payable on each Payment Date to be debited from your Custodial Account on or about that date, as described under Item 4 "Services, Fees and Compensation". In addition, we may be deemed to have custody of the assets in your Custodial Account, as "custody" is defined in Rule 206(4)-2 of the Investment Advisers Act of 1940 (the "Advisers Act"), if you give us authority to withdraw assets from the Custodial Account in the account opening documentation or pursuant to a standing payment instruction. Because this authority includes withdrawals in addition to deductions for fees, we are required to undergo an annual surprise inspection of client accounts by an independent public accountant. Although Custodian, not MMLIS or FutureAdvisor, has sole responsibility with respect to the collection of income, physical acquisition, and safekeeping of the assets, investments, funds, and other property held in your Custodial Account.

Principal and Cross Trades

The Managed Service will not effect any principal or agency cross securities transactions for client accounts, nor will it cross trades between client accounts.

Code of Ethics

MMLIS has adopted an Investment Adviser Code of Ethics (the "Code") for certain of our associated persons in compliance with Rule 204A-1 under the Advisers Act. The Code establishes required standards of business conduct as well as policies and procedures that are reasonably necessary to detect and prevent personal trading activities that are, or might be, an abuse of fiduciary duties or create conflicts of interest.

The Code requires that all investment adviser representatives and certain other MMLIS affiliated personnel (together, "Access Persons") acknowledge receipt and report violations of the Code. The Code sets forth standards with regard to an Access Person's personal trading and establishes general prohibitions, including but not limited to, the observance of personal trade blackout periods for certain persons. The Code places additional obligations on Access Persons including the obligation to submit periodic reports to MMLIS regarding their personal accounts, including initial and annual holdings reports and quarterly transactions. SEC rules and guidance exempt certain types of securities and transactions from reporting under the Code.

The general principles set forth in the Code that govern personal trading activities for Access Persons include:

- the duty at all times to place the interest of advisory clients first;
- the requirement that all covered personal trades be consistent with the Code so as to avoid any actual or potential conflict of interest; and
- the fundamental standard that individuals should not take inappropriate advantage of their positions with respect to MMLIS and/or its advisory clients.

To prevent and detect violations of the Code, we review transactions within accounts that have been reported by Access Persons. We will provide you with copies of the current version of the Code upon request.

Participation or Interest in Client Transactions, Margin and Lending, Personal Trading

Participation or Interest in Client Transactions

Other MMLIS Advisory Activities

MMLIS (including the investment adviser representative) and its affiliates have investment responsibilities, render investment advice to, and perform other investment advisory services for, other individuals and entities ("Other Accounts"). MMLIS and its affiliates, and their respective partners, directors, trustees, officers, agents, investment adviser representatives, and employees may buy, sell, or trade in any securities for their respective accounts ("Affiliated Accounts") or Other Accounts. MMLIS (including the investment adviser representative) and its affiliates may give advice or exercise investment responsibility, and take such other actions with respect to, such Other Accounts and Affiliated Accounts, which may be similar to, differ from, or contradict, the advice given, or the timing or nature of action

taken, by the Managed Service with respect to clients' accounts. Additionally, Other Accounts and Affiliated Accounts may at any time, acquire, hold, increase, decrease, dispose of, or otherwise deal with positions in investments in which client's account may have an interest from time to time. MMLIS has no obligation to purchase for any client's account a position in any investment which Other Accounts or Affiliated Accounts may acquire, nor will a client be given any first refusal, co-investment, or other rights in respect of any such investment.

BlackRock Products

The Managed Service will utilize BlackRock Products, including U.S. iShares ETFs, which FutureAdvisor, in turn, purchases on your behalf. Any portion, up to 100%, of an Advisory Account, may be invested in such securities (excluding any cash allocation). We believe that BlackRock Products are appropriate for the Managed Service as they offer access to many different types of asset classes and market segments on a cost-effective basis with high liquidity levels. However, as a BlackRock subsidiary, FutureAdvisor faces potential conflicts of interest in the Algorithm's utilization and Sub-Adviser's resulting purchase of BlackRock Products, as those products generate fees and/or other compensation for BlackRock affiliates, including management, administration, distribution (*i.e.*, 12b-1), transfer agent, custodial, legal, audit, securities lending, and other customary fees and expenses described in the relevant prospectus, and which you would bear as a shareholder. In hindsight, circumstances could be construed that utilizing BlackRock Products conferred a benefit upon the product itself or the BlackRock-affiliated investment adviser or sub-adviser to your detriment.

With respect to clients subject to the Employee Retirement Income Security Act of 1974, as amended ("ERISA") or Section 4975 of the Internal Revenue Code of 1986, as amended (the "Code"), FutureAdvisor may offset the fees that it receives with respect to such clients in an amount that reflects at least the compensation that BlackRock affiliates receive from U.S. iShares ETFs or other BlackRock products in which a client's ERISA account is invested, or will comply with an exemption from the prohibited transaction rules in ERISA or the Section 4975 of the Code which may or may not require any offset of fees. FutureAdvisor may also, in its sole discretion, waive or offset fees for clients not subject to ERISA or Section 4975 of the Code. The details of the applicable payment terms are provided in the Advisory Agreement. By entering into the Advisory Agreement, you will be considered to have consented to Sub-Adviser causing your Custodial Account to acquire and hold BlackRock Products.

When executing transactions in BlackRock Products, Sub-Adviser will comply with ERISA and the applicable regulations adopted by the U.S. Department of Labor. Entering into transactions on behalf of a client account for the purchase of a BlackRock product can constitute, or result in, prohibited transactions under Section 406 of ERISA or Section 4975 of the Code. The Department of Labor has granted an exemption to BlackRock (PTE 2012-09 or the "Exemption"), which is an individual prohibited transaction exemption from the application of certain provisions of ERISA, the Federal Employees' Retirement System Act of 1986, as amended and Section 4975 of the IRC with respect to certain transactions which are summarized in Sections III and IV of the Exemption (the "Covered Transactions"). Under the Exemption, FutureAdvisor is permitted to enter into certain transactions with or involving one of its affiliates or a minority passive shareholder on behalf of a client account, provided that certain conditions are satisfied (the "Exempted Transactions"). The Exempted Transactions include, but are not limited to, the purchase, holding, and sale of ETFs under the Investment Company Act of 1940 and advised by an investment adviser of BlackRock (such as the US iShares ETFs).

Strategic Partner Program

We have a strategic partner program in which we provide marketing support to certain investment companies that sponsor mutual funds and/or ETFs that are used in certain of our advisory products and services. Strategic partners are given increased access to our associated persons on both the advisory and brokerage sides of our business, which persons may publicize those partners and their products and services through proprietary marketing materials, websites, or other channels. Strategic partners may make cash payments to compensate us for these access and marketing services, which we use to defray some of the expenses associated with offering the strategic partner's products and services. They may also provide our associated persons with access to resources and arrangements intended to provide education and information regarding the related products or services.

While BlackRock is currently one of our strategic partners, the arrangements we have with them do not relate to the Managed Service, and BlackRock will not provide any direct compensation to MMLIS as a result of investments FutureAdvisor causes the Managed Service to make in BlackRock Products. Still, our strategic partnership with BlackRock could engender a financial incentive for MMLIS and our representatives to recommend the Managed Service over other advisory programs and services that do not rely on BlackRock Products since additional assets invested by the Managed Service could give BlackRock an incentive to continue participating as a strategic partner, which generates additional compensation to MMLIS (BlackRock made cash payments to MMLIS in 2017 totaling more than \$2 million in connection with the strategic partnership arrangement).

Margin and Lending

The Managed Service does not utilize leverage in the form of margin borrowing, options trading, short selling, or securities lending activities. If you enroll an existing brokerage account maintained by Custodian when you open your Advisory Account, you must satisfy in full any existing margin loan or the Managed Service will liquidate assets to do so. In addition, you may not pledge any of the assets held in your Custodial Account. Any of your other brokerage accounts maintained by Custodian will not be affected by these restrictions and the related actions taken by the Managed Service.

Personal Trading

Personal transactions in securities by MMLIS's associated persons will be subject to the procedures described above in the Code. MMLIS may from time to time perform a variety of services for, or solicit business from, a variety of companies, including issuers of securities that the Managed Service may cause clients to acquire. In connection with providing these services, MMLIS and its associated persons may come into possession of material nonpublic and other confidential information which, if disclosed, might affect an investor's decision to buy, sell, or hold a security. Under applicable law, MMLIS and its associated persons are prohibited from improperly disclosing or using such information for their personal benefit or for the benefit of any other person, regardless of whether such other person is a client of MMLIS, and MMLIS will have no responsibility or liability for not disclosing such information to clients.

Review of Accounts

Advisory Account Monitoring and Review

Once an Advisory Account has been opened, the Managed Service continuously monitors the underlying Custodial Account(s). Sub-Adviser's Algorithm ordinarily runs on a daily basis when U.S. markets are open, and may take action to rebalance your portfolio as a result of one or more of the following occurrences:

- overall market movement;
- a significant change to or replacement of one or more of the securities held in your Custodial Account;
- changes to your financial and/or retirement goals or the time remaining prior to those goals;
- additional contributions or withdrawals of cash or securities;
- material changes to the information you have supplied;
- tax conditions;
- changes to the Algorithm (including the underlying Investment Programs); or
- other factors identified by Sub-Adviser as material to your financial and/or retirement goals and investment recommendations.

Account rebalancing will occur without taking into consideration the realization of taxable gain or loss that may result for a taxable account. With the exception of the initial Custodial Account rebalancing upon opening an Advisory Account, the Managed Service will not notify you prior to any rebalancing. However, you will receive confirmations from Custodians that the associated Custodial Account trades have been placed (unless you have suppressed those confirmations). You can view your current portfolio anytime through the Site.

On an annual basis, we will contact you (directly or through FutureAdvisor) by e-mail to initiate a review of your Advisory Account and confirm that your financial situation, investment objectives, or personal information has not changed, which could make another Investment Program more appropriate for the management of your account, and that you do not wish to impose permitted restrictions on certain Custodial Account equity securities or modify existing permitted restrictions.

Advisory Account Reporting

Performance Reporting

The Managed Service will provide you with performance information including, among other things, the aggregate value of your Advisory Account assets, a measure of account performance, and updated financial and/or retirement goal projections. Separately, Custodian will provide you with a statement reflecting the holdings, balances, and activity in your Custodial Account on no less than a quarterly basis and, unless you request confirm suppression, written confirmations of all trades cleared and settled through your account. Account statements provided by Custodian will reflect the payment of Advisory Fees. You should carefully compare the Managed Service's performance information with the custodial statements and confirmations issued by Custodian and contact us immediately upon discovery of any errors, discrepancies, or irregularities.

Tax Reporting

Custodian will provide you with information that is necessary for Custodial Account tax reporting following the end of each calendar year. You are solely responsible for payment of any and all taxes that may be due as a result of transactions related to your Advisory Account.

Client Referrals and Other Compensation

Advisory Fee Changes

As noted above in Item 4 in this Brochure, we may offer more favorable Advisory Fee arrangements, including reduced or waived fees for certain clients. These arrangements may create a conflict of interest for a client to maintain a certain advisory account balance, or continue to invest through the Managed Service altogether, if doing so would maintain eligibility to qualify for a preferential fee arrangement.

Use of Solicitors

We may enter into marketing arrangements with third party solicitors who will receive compensation from us for referring prospective investment advisory clients to MMLIS. Where required by federal or state law, each such marketing arrangement will be governed by a written agreement between MMLIS and the solicitor that complies with the SEC's "cash solicitation" rule (Advisers Act Rule 206(4)-3). In particular, clients will be provided with copies of Part 2A of MMLIS' Form ADV, a separate solicitor disclosure statement that describes the nature of the marketing or referral arrangement (including compensation features) applicable to the client being referred, and any other document required to be provided under applicable law. The fees and expenses that we pay to a solicitor under these referral arrangements are not passed on to referred clients, but depending on the circumstances, the existence of such marketing or referral arrangements may affect the way we establish Advisory Fee Rates or our willingness to negotiate fee reductions in particular instances.

Compensation Received by Representatives and other Associated Persons

Our investment adviser representatives are compensated by MMLIS for their activities related to the Managed Service, as well as for other advisory services provided to clients, and for the sale and servicing of various investment products. An investment adviser representative's overall compensation will typically include base commissions and other forms of compensation that may vary from product to product, service to service, and/or by the amount of the assets in client accounts. Specifically, you should be aware that the amount of compensation paid to that representative may increase in part based upon the opening of your Advisory Account and the amount of assets in the account within a defined time period. He or she may also be eligible for additional cash compensation (such as medical, retirement, and/or other benefits) and non-cash compensation (such as conferences and sales support services) from MMLIS and/or our affiliates based upon similar criteria, including overall sales and productivity, as applicable. Further, our investment adviser representatives who are career agents of MassMutual are required to meet minimum overall production requirements in order to continue their status as a career agent of MassMutual.

The above compensation arrangements may give our investment adviser representatives an incentive to offer you the Managed Service in order to meet the targets imposed on them and to recommend that you increase the amount you have invested through the Managed Service. Additionally, investment adviser representatives' managers are compensated by MMLIS and MMLIS affiliates generally based on overall sales goals, including those that include the Managed Service, achieved by the representatives whom they supervise and may qualify for additional compensation based on non-sales related factors, as set by MMLIS and/or MMLIS affiliates from time to time. Generally, the manager's compensation is aligned with that of his or her investment adviser representatives, as noted above.

Certain of our investment adviser representatives may also be affiliated with, and provide investment advisory services through, an investment adviser that is not affiliated with MMLIS. In that respect, these investment adviser representatives may offer investment advisory programs through both MMLIS and that third party adviser. The compensation that they receive from the third party adviser for offering investment advisory services may be more or less than the compensation that they receive from MMLIS. While the investment advisory programs made available by the third party adviser may have significant differences from the programs that we make available, the investment adviser representatives may have an incentive to recommend an investment advisory program that offers them the greatest compensation potential—if that happens to be the Managed Service, then they will have an incentive to open new advisory accounts.

Investment Specialists

Certain MMLIS investment specialists may receive compensation to provide sales support to our investment adviser representatives. This compensation may be based on criteria related to new advisory accounts or subsequent contributions to advisory accounts for which they may have provided sales support. This compensation may give them an incentive to favor the presentation of the Managed Service over other investment products for which they do not receive compensation.

Financial Information

We do not require or solicit payment of more than \$1,200 in fees per client, six months or more in advance, and therefore are not required to include a balance sheet for our most recent fiscal year in this Brochure. To the best of our knowledge, we are not aware of any material financial conditions that would be reasonably likely to impair our ability to continuously meet our contractual commitments to clients. We are not the subject of any bankruptcy petition, nor have we been subject to one at any time during the past ten years. You should review FutureAdvisor's Brochure for any disclosures that FutureAdvisor may be required to make under this Item.

Disaster Recovery and Business Continuity

We have a disaster recovery and business continuity plan that provides detailed steps to mitigate and recover from the loss of office space, communications, services, or key personnel. That plan covers natural disasters such as snow storms, hurricanes, and flooding and man-made disasters such as loss of electrical power, loss of water pressure, fire, bomb threat, nuclear emergency, chemical event, biological event, T-1 communications line outage, Internet outage, railway accident, and aircraft accident. Electronic files are backed up daily and archived offsite. Alternate offices are identified to support ongoing operations if our main office is unavailable. It is our intention to contact all clients promptly after a disaster that dictates moving our offices to an alternate location.

Future Changes

From time to time we may change certain aspects of the Managed Service, including the investment philosophy, underlying best practices, and the terms and conditions of advisory accounts. If such changes are made, this Brochure will be updated as needed and an updated copy will be made available to clients.

IMPORTANT NOTICES TO CLIENTS

To help the government fight the funding of terrorism and money laundering activities, Federal law requires all financial institutions to obtain, verify, and record information that identifies each person who opens an account with MMLIS. This means that when you open your Advisory Account, the Managed Service will ask for your name, address, date of birth, and other information, including your driver's license or other documents, that will allow us to identify you. If you cannot provide the information or documentation the Managed Service requires, we may be unable to open your Advisory Account and to allow you to begin investing through the Managed Service.

Privacy Notice

At MML Investors Services, LLC ("MMLIS") we recognize that our relationships with you are based on integrity and trust. As part of that trust relationship, we want you to understand that in order to provide our products and services to you, we must collect, use and share personal information about you. This Privacy Notice describes policies and practices about how we protect, collect and share personal information related to the financial products and services you receive from us. It also describes how you can limit some of that sharing.

We Protect Your Personal Information By:

- Using security measures that include physical, electronic and procedural safeguards to protect your personal information from unauthorized access or use in accordance with state and federal requirements.
- Training employees to safeguard personal information and restricting access to personal information to those employees who need it to perform their job functions.
- Contractually requiring business partners with whom we share your personal information to safeguard it and use it exclusively for the purpose for which it was shared.

Personal Information We May Collect:

The types of personal information we may collect depends on the type of product or service you have with us and may include:

- Information that you provide to us on applications or forms, during conversations with us or our representatives, or when you visit our website (for example, your name, address, Social Security number, date of birth, income, and assets).
- Information about your transactions with us and our affiliates, including your account balances and transactional history.
- Information from third parties such as consumer or other reporting agencies or other institutions if you transfer positions or funds to us.

We May Share All of the Personal Information We Collect, as Described Above, With:

- Registered representatives who provide our products and services to you;
- Our affiliated companies, such as insurance or investment companies, insurance agencies or broker-dealers that market our products and services to you;
- Companies that perform marketing or administrative services for us;
- Nonaffiliated companies in order to perform standard business functions on our behalf including those related to processing transactions you request or authorize, or maintaining your account;
- Courts and government agencies in response to court orders or legal investigations;
- Credit bureaus; and
- Other financial institutions with whom we may jointly market products, if permitted in your state.

In addition, we may share certain of your personal information with your registered MMLIS representative, when he or she leaves MMLIS to join another financial institution (whom we call a "departing representative") so that he or she can continue to work with you at his or her new firm.

Important Privacy Choices

MMLIS respects your privacy choices. If you prefer that we do not share your personal information about your accounts held with us with your departing representative, you can opt out of such sharing, that is, you may direct us not to do so. If you wish to opt out of the sharing of your personal information with your departing representative, you may:

- Call us at **1-855-877-6164**

You may make this privacy choice and contact us at any time, however, if we do not hear from you we may share your information with your departing representative as described above. If this is a joint account, if one joint owner tells us not to share information that choice will apply to the other owner or owners. If you have already told us your choice, there is no need to do so again.

Other than as described above, we will only share your personal information as permitted by law and, if the law requires us to obtain your consent or give you the opportunity to opt out of some types of sharing, we will do so before sharing the information.

For California and Vermont residents, we will not share your personal information with your departing representative unless we receive your express consent.

If you are no longer our customer, we may continue to share your personal information as described in this Privacy Notice.

If you have any questions or concerns about this Privacy Notice, please contact us at **1-855-877-6164**.