



FIAM LLC

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This brochure provides information about the qualifications and business practices of FIAM LLC ("FIAM"). Throughout this brochure and related materials, FIAM may refer to itself as a "registered investment adviser" or as "being registered." These statements do not in any way imply a certain level of skill or training. If you have any questions about the contents of this brochure, please contact us at 617-563-7000. 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 FIAM is also available on the SEC's website at www.adviserinfo.sec.gov.

MATERIAL CHANGES

Material changes have been made to this brochure since its annual updating amendment filed on March 30, 2020 as described below.

- Updates have been made throughout this brochure to remove information relating to FIAM's provision of non-discretionary investment advice to Intermediaries in connection with Fidelity Advisor Separately Managed Accounts.
- Updates have been made to the "Other Financial Industry Activities and Affiliations" section to reflect Digital Brokerage Services LLC as an affiliated broker-dealer and the removal of Fidelity (Canada) Asset Management ULC.
- Updates have been made to the Transactions with Certain Brokers disclosure in the "Brokerage Practices" section to address exchanges in which FIAM or its affiliates have an interest.
- Updates have been made to describe the types of asset management services and products that FIAM manages.

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Advisory Business

FIAM is an investment management firm primarily providing advisory and sub-advisory services to various institutional clients. FIAM has been in business since 2006. FIAM is a Fidelity Investments company, and is wholly owned by FIAM Holdings LLC, which in turn is owned by FMR LLC. FIAM is part of the Fidelity Asset Management Solutions (FAMS) business unit which provides a broad array of investment solutions with its Global Institutional Solutions (GIS), Global Asset Allocation (GAA), and institutional equity, fixed income, high income, and alternative asset management teams through FIAM and FIAM's affiliate, Fidelity Institutional Asset Management Trust Company.

FIAM's clients are generally institutional accounts, including pension and profit sharing plans, corporate entities, charitable organizations, state or municipal government entities, other investment advisers, non-U.S. mutual funds/investment funds, U.S. mutual funds or privately-offered unregistered investment funds or other collective investment vehicles. FIAM also sub-advises funds or accounts for affiliated advisers and unaffiliated advisers. FIAM serves as an adviser or subadviser to various accounts for which FIAM's affiliates or FIL Limited, FIL's subsidiaries or affiliates ("FIL") have contracted to provide investment advisory services. These accounts include collective investment vehicles authorized in jurisdictions outside the United States. FIAM disclaims that it is a related person of FIL. FIAM also provides advice with respect to investments in securities, derivatives, real property, and other assets.

FIAM may, to the extent permitted by its management contracts, delegate investment discretion to a subadviser who manages all or a portion of the portfolio. If FIAM has engaged FIL or another subadviser to a FIAM account or a portion of a FIAM account, the subadviser's trading and associated policies will apply to that account subject to applicable law. FIAM also uses affiliates for services including but not limited to trading, corporate compliance and investment compliance, proxy voting, or utilize the services of certain personnel of its affiliates as supervised persons of FIAM under personnel sharing arrangements or other inter-company arrangements. FIAM also has access to investment research from its affiliates and/or the services of personnel of an affiliate, as well as shares its own investment research with those affiliates. As part of its non-discretionary advisory services, FIAM or its affiliates provide investment research services, which include written research notes and ratings and portfolio modeling services, which may be provided to affiliates and unaffiliated investment managers and financial institutions, including FIL. FIAM or its affiliates have access to investment research on a substantially delayed basis from various subsidiaries and affiliates of FIL (including Fidelity Investments Canada ULC ("FIC"), which are investment advisers registered with the SEC operating principally in the United Kingdom, Canada, Japan and Hong Kong or Participating Affiliates (as defined below) of such registered advisers. Certain of FIL's subsidiaries and affiliates (including FIC), which are not companies registered with the SEC (each, a "Participating Affiliate"), may have access to information (such as through employees who work for both a FIL registered adviser and the unregistered FIL subsidiary or affiliate) concerning securities recommendations for the registered adviser's U.S. clients. FIAM disclaims that it is a related person of FIL.

Under certain circumstances, FIAM may provide non-discretionary consulting services to clients. As part of its advisory services, FIAM or its affiliates provide advice to certain FIAM accounts regarding certain commodity interests; however, trading commodity interests is not a principal investment strategy of any FIAM account or client and FIAM is not registered as a commodity pool operator or commodity trading advisor.

FIAM and/or its affiliates may provide all necessary office facilities and personnel for servicing some of their accounts' investments, and pay the salaries and fees of officers of certain accounts and of personnel of certain accounts performing services relating to research, statistical and investment activities. In addition, FIAM or its affiliates provide the management and administrative services necessary for the operation of some of the accounts. These services include providing facilities for maintaining each client's organization; facilitating relations with custodians, transfer and pricing agents, accountants, underwriters and other persons dealing with clients; preparing all general shareholder communications and conducting shareholder relations; maintaining each fund's, if applicable, records and the registration and notice filing status of each client's shares under applicable law, respectively; developing management and shareholder

services for each fund, if applicable; and furnishing reports, evaluations and analyses. In addition, FIAM or its affiliates, or FIL or its affiliates, have reimbursed, and may in the future reimburse, certain costs, commissions, fees or levies of FIAM's clients.

From time to time, a manager, analyst or other employee of FIAM or its affiliates will express views regarding a particular company, security, industry, or market sector. The views expressed by any such person are the views of only that individual as of the time expressed and do not necessarily represent the views of FIAM or its affiliates or any other person in their organizations. Any such views are subject to change at any time based upon market or other conditions, and FIAM and its affiliates disclaim any responsibility to update such views. These views may not be relied on as investment advice and, because investment decisions for an account managed by FIAM or its affiliates are based on numerous factors, may not be relied on as an indication of trading intent on behalf of an account.

FIAM or its affiliates generally have authority to determine which securities to purchase or sell, the total amount of such purchases and sales, and the brokers or dealers through which transactions are effected. However, with respect to each discretionary account, FIAM's and its affiliates' authority is subject to certain limits, including applicable investment objectives, policies and restrictions. These limitations are based on a variety of factors, such as regulatory constraints, as well as policies imposed by a client or its governing body (e.g., board of trustees) and may cause differences in commission rates. With respect to certain of FIAM's pooled investment vehicle clients (e.g. investment company, private funds and undertakings for collective investment in transferable securities established pursuant to the Undertakings for Collective Investment in Transferable Securities Directive of the European Parliament and of the Council as amended from time to time (UCITS)), many of the applicable investment policies and limitations are set out in each client's filings with the relevant authority. With regard to accounts or collective investment products governed by ERISA, the client is responsible for a plan's compliance with ERISA (Employee Retirement Income Security Act of 1974, as amended) requirements concerning investments in "employer securities," "employer real property," "qualifying employer securities" or "qualifying employer real property" (as such terms are defined in Section 407 of ERISA) (collectively, "restricted securities") and for identifying certain financial intermediaries or parties in interest that could result in prohibited transactions under ERISA, including, but not limited to, broker-dealers affiliated with such plan. The client is responsible for informing FIAM in writing of any restrictions on account investments (including identifying such restricted securities or parties in interest to the plan) required in order for that plan to comply with ERISA. In the absence of such information or notification from a client, FIAM takes no responsibility to limit investments in such restricted securities or monitor transactions with client-affiliated financial intermediaries or other parties in interest to the plan to the extent such restrictions are necessary to avoid a non-exempt prohibited transaction under ERISA.

FIAM does not generally provide claims filing services seeking recovery as a potential class member of a securities class action or enter into securities litigation on behalf of its separate account clients. For FIAM's collective investment products, FIAM handles such activities according to its policies and procedures. These policies and procedures provide for, among other things, the handling of certain events, such as dissolution of a collective investment product prior to receipt of certain class action proceeds, and the disposition of de minimis amounts and/or proceeds.

Upon request, FIAM may provide pricing information to a client about securities held in that client's account that have been subject to a fair market valuation. However, FIAM does not provide pricing services.

Collective investment funds managed by FIAM may invest any uninvested cash of the fund in a registered investment company known as the Fidelity Cash Central Fund ("Cash Central Fund"), for which affiliates of FIAM act as adviser and service providers. The Cash Central Fund was created exclusively for cash management purposes of the Fidelity mutual funds and other advisory accounts of Fidelity, FIAM, and their affiliates, including the collective investment funds. The Cash Central Fund incurs certain costs related to its investment activities (such as custodial expenses) but does not pay an investment management fee from its assets. Instead, Fidelity Management & Research LLC ("FMR") or an affiliate pays the investment management fee on behalf of the investing funds or accounts. Investors in collective investment funds

managed by FIAM do not pay any additional fees for the fund's use of this cash sweep vehicle. Additional information about the Cash Central Fund, including the prospectus and annual and semi-annual reports, is available upon request.

Regulatory Assets Under Management:

As of December 31, 2021, FIAM managed \$168,380,058,475 of client assets on a discretionary basis. As of December 31, 2021, FIAM did not have any non-discretionary regulatory assets under management.

Fees and Compensation

Investment management fees charged to FIAM's clients are based on the type of product, vehicle and amount of assets held in the client's account. Fees are generally based on an account's average net assets but also may include performance fee and minimum fee arrangements.

Provided below is a general fee schedule of effective rates based on asset class. These fees will vary based on a variety of factors, including portfolio size, breakpoints, type of product structure, servicing requirements, asset aggregation among accounts, and any performance or minimum fee arrangement. Fees may be subject to negotiation and are subject to review and approval by the client in accordance with the requirements of applicable law. In addition, certain clients of FIAM have arrangements providing for the lowest available fee for a particular investment strategy under most favored nation clauses, or for a waiver of all or a portion of their fees. Such arrangements may also take into account the scope of a client's relationship with FIAM and its affiliates and provide for an additional discount from the rates noted below.

<u>Asset Class</u>	<u>Effective Rates</u>
• U.S. Equity	20.5 – 80 bps
• Non-U.S. Equity	20.5 – 110 bps
• Investment Grade Fixed Income	13.0 – 40 bps
• Non-Investment Grade Fixed Income	27 – 80 bps
• Asset Allocation	33 – 45 bps
• Real Estate Securities	27 – 77.5 bps

The majority of FIAM's clients pay all of their other operating expenses. However, certain of FIAM's clients have all-inclusive fee arrangements, pursuant to which FIAM's affiliates pay certain of the applicable client's expenses. FIAM's affiliates' fees for providing these services are negotiated on an individual basis and vary significantly among clients and investment strategies. FIAM and its affiliates also advise private funds and other accounts, and charge fees based on assets under management as well as performance fees. FIAM's private funds are subject to the fee arrangements disclosed in each such fund's offering memorandum and/or subscription documents provided to an investor, which arrangement may include performance fees. The management fee received by FIAM with respect to certain private funds may be reduced by the amount of certain financial advisory, directors, break-up, or other similar fees received by FIAM or its affiliates from third parties in connection with an investment by the fund, as and to the extent set out in each such fund's offering memorandum and/or governing documents. Such private funds also bear their own organizational, operating, investment, administrative, custodial, and other expenses and fees as disclosed in each such fund's offering memorandum and/or subscription documents.

FIAM or its affiliates provide to or receive from other affiliated investment managers, financial institutions, and/or FIL and its subsidiaries and affiliates non-discretionary advisory services in the form of research services. With respect to such services, fees are negotiable, paid in arrears and depend upon a variety of factors.

Compensation to FIAM is payable on a quarterly basis in arrears or on such other terms as FIAM may from time to time agree or as FIAM may be entitled to under the terms of operating agreements, investment

management agreements and/or subscription documents of any privately-offered investment fund that FIAM advises. Agreements that FIAM enters into with its investment advisory or non-investment advisory affiliates may be of finite or indefinite duration as permitted by applicable law; however, the parties generally have the right to terminate the agreement on 30-90 days' advance written notice. In the case of investment companies registered under the Investment Company Act of 1940, as amended (the "1940 Act") and UCITS, the advisory or sub-advisory contract with FIAM is subject to approval by the relevant boards of directors or trustees of any such investment companies and UCITS. Clients are generally billed for fees incurred. Fees for collective investment vehicles are deducted directly from the assets of those vehicles or are directly invoiced to investors in the funds vehicles.

FIAM receives its investment management fee from its clients. Clients typically have made independent arrangements for a custodian, for example, which they pay directly. In addition, clients will incur brokerage and other transaction costs. For information regarding FIAM's brokerage arrangements, see "Brokerage Practices."

Performance-Based Fees and Side-By-Side Management

FIAM accepts both performance-based fees and asset-based fees for the management of accounts, and certain of FIAM's supervised persons manage both types of accounts. A conflict of interest arises when a portfolio manager manages accounts simultaneously when one account has performance fee and incentive compensation arrangements and another account does not. In general, the management of multiple funds and accounts (including proprietary accounts of FIAM or one or more affiliates of FIAM) gives rise to conflicts of interest if, for example, the accounts have different objectives, benchmarks, time horizons, and fees as the portfolio manager must allocate his or her time and investment ideas across multiple funds and accounts. Because a portfolio manager must allocate his or her time and investment ideas across these multiple funds and accounts, an economic incentive exists for the portfolio manager to invest more effort on behalf of those funds and accounts that include a performance-adjusted component to increase their and/or the adviser's performance and hence the adviser's and portfolio manager's compensation.

In addition, as a result of certain regulations governing the ability of accounts investing side-by-side or differences in investment strategies or mandates, it is possible that different account types are not permitted to participate in an investment opportunity at the same time.

Conflicts of interest also arise when account orders do not get fully executed due to being aggregated with those of other accounts managed by FIAM and or its respective affiliates. FIAM and its affiliates have adopted policies and procedures (for example, trade allocation procedures) and maintain a compliance program designed to help manage these actual and potential conflicts. There can be no assurance, however, that all conflicts have been addressed in all situations.

FIAM seeks to manage such competing interests for the time and attention of the portfolio managers by having portfolio managers focus on a particular investment discipline or certain disciplines, using similar investment strategies in connection with the management of multiple funds and accounts. Accordingly, portfolio holdings, position sizes and industry and sector exposures tend to be similar across similar accounts, which may minimize conflicts of interest. The separate management of the trade execution and valuation of funds from the portfolio management process also helps to reduce conflicts of interest. Moreover, if a portfolio manager identifies a limited investment opportunity that may be suitable for more than one account, the portfolio may not be able to take full advantage of that opportunity due to an allocation of that opportunity across all accounts. FIAM seeks to manage such conflicts by using procedures intended to provide a fair allocation of buy and sell opportunities among accounts.

FIAM and/or certain of its affiliates may execute transactions for an account that may adversely impact the value of securities held by another account of FIAM and/or certain of its affiliates. For example, FIAM and/or certain of its affiliates manage accounts that engage in short sales, and could sell short a security for such

an account that another account of FIAM and/or certain of its affiliates also trades or holds. In the case of a portfolio manager trading on behalf of multiple accounts, and subject to limited exceptions consistent with each account's investment objectives and strategies, FIAM generally does not allow such a portfolio manager to place trade orders that conflict with trade orders placed for any existing positions for which he or she has portfolio management responsibility without prior approval of FIAM's Chief Investment Officer. Although FIAM or its affiliates monitor these and other transactions to attempt to ensure equitable treatment of all accounts, there can be no assurance that the price of a security held by an account would not be impacted as a result of transactions entered for another account. Securities selected for some accounts may outperform securities selected for other accounts. Although FIAM attempts to seek best execution on all orders, there may be instances in which it may appear that one client (or segment of clients) may receive a more favorable execution than another client (or segment of clients), depending upon the timing and nature of the order and other factors.

FIAM's or its affiliates use of multiple investment strategies presents additional conflicts. For example, a conflict of interest situation is presented when different clients invest in different parts of an issuer's capital structure, including circumstances in which one or more clients own private securities or obligations of an issuer and other clients own or seek to acquire securities of the same issuer. For example, a client acquiring a loan, loan participation or a loan assignment of a particular borrower in which one or more other clients have an equity investment; or investing for a client in senior debt obligations of an issuer while investing in junior debt obligations or equity of the same issuer for another client. While it is typical for different clients to hold investments in different parts of the same issuer's capital structure under normal circumstances, the interests of stockholders and debt holders (or junior debtholders and senior debtholders) may conflict. Examples include when an issuer is in a distressed financial condition, involved in a merger or acquisition, or a going-private transaction. Investment personnel are mindful of potentially conflicting interests of our clients and take appropriate measures to ensure that the interests of all clients are taken into consideration. To further mitigate potential conflicts of interest, FIAM or its affiliates have implemented policies and procedures that are reasonably designed to provide fair and equitable allocation of trades across client accounts.

To the extent that FIAM engages in short selling on behalf of client accounts, FIAM's compliance program seeks to manage actual and potential conflicts associated with the contemporaneous management of long-short investment products ("long-short funds"), and long-only products ("long-only funds"), and to balance the needs of investors in both products. This compliance program restricts certain conduct and trading and investment activity related to the long-short funds and short sales, and could result in accounts, including privately-offered funds managed by FIAM or its affiliates, being restricted from making certain trades and investments that they would have otherwise made. If FIAM has engaged a subadviser to a FIAM account or a portion of a FIAM account, the subadviser's conflict of interest policies will apply to that account subject to applicable law.

The policies described here and elsewhere in this document, including FIAM's trade allocation policies, seek to mitigate these actual and potential conflicts of interest. There can be no assurance, however, that all conflicts have been addressed in all situations.

Types of Clients

FIAM's clients are generally institutional accounts, including pension and profit sharing plans, corporate entities, charitable organizations, state or municipal government entities, other investment advisers, non-U.S. mutual funds/investment funds, U.S. mutual funds or privately-offered unregistered investment funds and other collective investment vehicles. FIAM also sub-advises funds or accounts for affiliated advisers and unaffiliated advisers. FIAM serves as an adviser or subadviser to various accounts for which FIAM's

affiliates or FIL have contracted to provide investment advisory services. These accounts include, among others, unit trusts and investment companies authorized in jurisdictions outside the United States.

FIAM will generally accept only institutional accounts on a fully discretionary basis. Other accounts may be considered on a case-by-case basis, and may be subject to a minimum asset amount. Investment companies managed by FIAM may have different minimum initial investment amounts according to their respective offering documents.

FIAM's clients for the provision of general securities research are its affiliates and in certain cases, and on a delayed basis, FIL and its affiliates. FIAM does not provide its research to any other third parties.

Methods of Analysis, Investment Strategies and Risk of Loss

FIAM uses a variety of methods of security analysis to select investments in managing client assets, including: fundamental analysis (i.e., evaluating each issuer's financial condition, industry position, environmental, social and corporate governance ("ESG") factors, and the market and economic conditions impacting their profitability); quantitative analysis (i.e., mathematical and statistical modeling), technical analysis (i.e., statistical analysis or market activity); cyclical analysis (i.e., evaluating issuers based in part on their sensitivity to business cycles); and factor-based analysis (i.e., evaluating investment opportunities based on exposure to targeted characteristics). FIAM also uses general macro-economic analysis as a component of its security analysis methods. Inputs and incorporation of these different forms of analysis will vary, depending on product mandate, and vary over time depending on internal and external factors as well as market environment. As part of due-diligence in fundamental analysis, FIAM uses extensive in-person and/or remote corporate visits and interviews with company management teams in conducting research, offering statements of various municipalities as a source of information, as well as information and analysis relating to foreign sovereigns and currency markets.

FIAM and its affiliates also transact in futures contracts, swap transactions and swaptions, including interest rate, total return and credit default swaps; written covered call options, futures transactions, currency forward transactions, currency forward trading and other currency related derivatives in pursuit of mandate investment objectives. Margin may be required in connection with certain client futures, options, swaps and other derivatives transactions or in connection with short sales. FIAM does not engage in the purchase of securities on margin, except it may do so in connection with clearance and settlement of securities and permitted derivatives transactions.

FIAM's affiliates engage in securities lending to parties such as broker-dealers or other institutions. FIAM's affiliates have established allocation policies for its clients reasonably designed to ensure that lending opportunities are allocated equitably among participating clients in the same program over time.

Investing in securities involves a risk of loss that clients need to be prepared to bear. With respect to FIAM's privately-offered funds, more detailed information relating to the investment strategies used to manage a particular fund and the risks of investing in the fund are set out in the applicable fund's confidential offering memorandum. Investment risks that apply, depending upon the mandate, include but are not limited to market risk, currency risk, sovereign risk, concentration risk, market capitalization risk, liquidity risk and counterparty risk. Not all risks are described and other risks may apply to any investment.

Due to regulatory and issuer-specific limits that apply to the ownership of securities of certain issuers, FIAM and/or its affiliates limit investments in the securities of such issuers. Similar limitations apply to futures and other derivatives, such as options. In addition, FIAM and/or its affiliates from time-to-time determine that, because of regulatory requirements that apply to FIAM and/or its affiliates in relation to investments in a particular country or in an issuer operating in a particular regulated industry, investments in the securities of issuers domiciled or listed on trading markets in that country or operating in that regulated industry above certain thresholds is impractical or undesirable. The foregoing limits and thresholds may apply at the

account level or in the aggregate across all accounts (or certain subsets of accounts) managed, sponsored, or owned by, or otherwise attributable to, FIAM and/or its affiliates. For investment risk management and other purposes, FIAM and/or its affiliates also generally apply internal aggregate limits on the amount of a particular issuer's securities that are owned by all such accounts. In connection with the foregoing limits and thresholds, FIAM limits or excludes clients' investments in particular issuers, futures, derivatives and/or other instruments (or limits the exercise of voting or other rights) and investment flexibility may be restricted. In addition, to the extent that client accounts already own securities that directly or indirectly contribute to such an ownership threshold being exceeded, FIAM generally sells securities held in such accounts to bring account-level and/or aggregate ownership below the relevant threshold. If any such sales result in realized losses for client accounts, those client accounts may bear such losses depending on the particular circumstances. Additionally, funds and accounts are subject to operational risks, which can include risks of loss arising from failures in internal processes, people or systems, such as routine processing errors or major systems failures, or from external events, such as exchange outages.

FIAM and its affiliates establish internal limits, and are subject to external limits, on how much the funds and accounts they manage can invest in any one other fund. Additionally, regulatory restrictions limit the amount that one fund can invest in another, which means that FIAM is limited in the amount it can cause a fund it manages to invest in any particular fund.

With the increased use of technologies to conduct business, FIAM and its affiliates are susceptible to operational, information security and related risks. For example, computer, communications, data processing, networks, backup, business continuity or other operating, information or technology systems, including those outsourced to other providers, may fail to operate properly or become disabled, overloaded or damaged as a result of a number of factors. These factors could include events that are wholly or partially beyond our control and may have a negative effect on our ability to conduct business activities. We believe that we have taken reasonable steps to mitigate these risks, but do not believe that we can eliminate them altogether. In general, cyber incidents can result from deliberate attacks or unintentional events and may arise from external or internal sources. Cyber-attacks include, but are not limited to, gaining unauthorized access to digital systems (e.g., through "hacking" or malicious software coding) for purposes of misappropriating assets or sensitive information; corrupting data, equipment or systems; or causing operational disruption. Cyber-attacks may also be carried out in a manner that does not require gaining unauthorized access, such as causing denial-of-service attacks on websites (i.e., efforts to make network services unavailable to intended users). Cyber incidents affecting FIAM, Fidelity, its affiliates, or any other service providers (including, but not limited to, accountants, custodians, transfer agents and financial intermediaries used by a fund or account) have the ability to cause disruptions and impact business operations, potentially resulting in financial losses, interference with the ability to calculate NAV, impediments to trading, the inability to transact business, destruction to equipment and systems, violations of applicable privacy and other laws, regulatory fines, penalties, reputational damage, reimbursement or other compensation costs, or additional compliance costs. Similar adverse consequences could result from cyber incidents affecting issuers of securities in which a fund or account invests, counterparties with which a fund or account engages in transactions, governmental and other regulatory authorities, exchange and other financial market operators, banks, brokers, dealers, insurance companies and other financial institutions (including financial intermediaries and service providers) and other parties.

For All Investment Strategies

Past performance is no guarantee of future results. An investment may be risky and may not be suitable for an investor's goals, objectives and risk tolerance. Investors should be aware that an investment's value may be volatile and any investment involves the risk that you may lose money. Performance for individual accounts will differ from performance for composites and representative accounts due to factors, including but not limited to, portfolio size, trading restrictions, account objectives and restrictions, and factors specific

to a particular investment structure. None of FIAM's investment strategies is insured by a bank and/or the Federal Deposit Insurance Corporation.

The value of a strategy's investments will vary in response to many factors, including adverse issuer, political, regulatory, market or economic developments. The value of an individual security or a particular type of security can be more volatile than and perform differently from the market as a whole. Nearly all accounts are subject to volatility in non-U.S. markets, either through direct exposure or indirect effects on U.S. markets from events abroad, including fluctuations in foreign currency exchanges rates and, in the case of less developed markets, currency illiquidity. Developments that disrupt global economies and financial markets, such as war, acts of terrorism, the spread of infectious illness or other public health issues, recessions or other events may magnify factors that affect performance. In addition, some countries experience low or negative interest rates, from time to time, which may magnify interest rate risk for the markets as a whole and for the funds or accounts. The discontinuation and replacement of LIBOR (an indicative measure of the average interest rate at which major global banks could borrow from one another) and other benchmark rates may have a significant impact on the financial markets and may adversely impact fund or account performance. Additionally, funds or accounts that pursue debt investments are subject to risks of prepayment or default, as well as changes to bankruptcy or debtor relief laws, which may impede collection efforts or alter timing and amount of collections.

For International Investment Strategies

The performance of international strategies depends upon currency values, political and regulatory environments, and overall economic factors in the countries in which they invest. Foreign markets often are more volatile than the U.S. market due to increased risks of adverse issuer, political, regulatory, market, or economic developments and often perform differently from the U.S. market. Government actions as a result of the political process can result in additional market volatility in those regions affected by a particular issue (e.g. Brexit). Foreign exchange rates also can be extremely volatile. The risks are particularly significant for strategies that focus on a single country or region, or single group or type of countries. Non-U.S. security trading, settlement, and custodial practices (including those involving securities settlement where fund or account assets are released prior to receipt of payment) that are less developed than those in U.S. markets may result in increased investment or valuation risks, increased counterparty exposure, or substantial delays (including those arising from failed trades or the insolvency of, or breach of duty by, a non-U.S. broker-dealer, securities depository, subcustodian, clearinghouse or other party) for funds and accounts that invest in non-U.S. markets.

For Emerging Markets Strategies

The securities, derivatives and currency markets of emerging market countries are generally smaller, less developed, less liquid, and more volatile than those of the United States and other developed markets and disclosure (including financial disclosures) and regulatory standards in many respects are less stringent. There also may be a lower level of monitoring and regulation of markets in emerging market countries and the activities of investors in such markets and enforcement of existing regulations may be extremely limited and arbitrary. Emerging market countries are more likely to experience political uncertainty and instability, including the risk of war, terrorism, nationalization, limitations on the removal of funds or other assets, or diplomatic developments that affect investments in these countries. In many cases, there is a heightened possibility of government control of the economy, expropriation or confiscatory taxation, imposition of withholding taxes on interest payments, or other similar developments.

For Strategies with Investments that Are Denominated in non-U.S. Currencies

Currency Risks: Investments that are denominated in a foreign currency are subject to the risk that the value of a particular currency will change in relation to one or more other currencies. Among the factors that may affect currency values are trade balances, the level of short-term interest rates, differences in

relative values of similar assets in different currencies, long-term opportunities for investment and capital appreciation and political developments.

Currency Hedging: Some investments denominated in non-U.S. currencies may not hedge foreign exchange risk. Accordingly, any hedging of currency exposure that is implemented will primarily involve hedging back to the U.S. dollar or other relevant currency, but in certain circumstances may involve other hedging activities. In addition, any currency hedging strategy used may not successfully limit any foreign exchange risk.

For Small to Mid-Capitalization Investment Strategies

Stock markets and issuers of small and mid-cap companies are volatile and can decline significantly in response to adverse issuer, political, regulatory, market, or economic developments. Investments in smaller companies may involve greater risks than those in larger, better known firms. Securities of smaller and medium-size issuers can perform differently from the market as a whole and other types of stocks, and may be more volatile than those of larger issuers.

For All Fixed Income Investment Strategies

The performance of fixed income strategies will change daily based on changes in interest rates and market conditions and in response to other economic, political or financial developments. Debt securities are sensitive to changes in interest rates depending on their maturity, and involves the risk that their prices may decline if interest rates rise or, conversely, if interest rates decline, their prices may increase. Debt securities carry the risk of default, prepayment risk and inflation risk. Changes specific to an issuer, such as its financial condition or its economic environment, can affect the credit quality or value of an issuer's securities. Lower-quality debt securities (those rated or considered below investment grade quality, also referred to as high yield debt securities) and certain types of other securities are more volatile and speculative and involve greater risk due to increased sensitivity to adverse issuer, political, regulatory and market developments, especially in periods of general economic difficulty. The value of mortgage securities may change due to shifts in the market's perception of issuers and changes in interest rates, regulatory or tax changes.

For All Real Estate Securities and Real Property Investment Strategies

The real estate industry is particularly sensitive to economic downturns. The value of investments in real estate or securities of issuers in the real estate industry can be affected by changes in real estate values and rental income, property taxes, interest rates, tax and regulatory requirements, overbuilding, extended vacancies of properties, and the issuer's management skill. As a consequence, investments related to real estate may be more volatile than other investments and the possibility of partial or total loss of capital exists. This risk may be amplified for strategies that narrowly focus on a single sector, such as data centers, or geographic region. Mortgage-backed securities are subject to the risk that mortgagors may not meet their payment obligations and/or to prepayment risk. Each investment also has its unique interest rate and payment priority characteristics and risks.

Strategies that engage in real estate development will be subject to risks normally associated with such activities, including risks relating to the availability and timely receipt of zoning and other regulatory approvals (both in the United States and in non-U.S. jurisdictions), the cost and timely completion of construction (including risks beyond FIAM's control, such as weather or labor conditions or material shortages) and the availability of both construction and permanent financing on favorable terms. These risks could result in substantial unanticipated delays or expenses and, under certain circumstances, could prevent completion of development activities once undertaken, any of which could have an adverse effect on performance. In particular, the development of data center facilities involve unique construction requirements that expose strategies investing in these projects to risks which could have an adverse effect on the strategy's performance.

For Investment Strategies that Use Derivatives

Derivatives may be volatile and involve significant risk, including but not limited to credit risk, currency risk, leverage risk, counterparty risk, liquidity risk and valuation risk. Using derivatives can disproportionately increase losses and reduce opportunities for gains in certain circumstances. Derivatives involve leverage because they can provide investment exposure in an amount exceeding the initial investment. Leverage can magnify investment risks and cause losses to be realized more quickly. A small change in the underlying asset, instrument, or index can lead to a significant loss. Assets segregated to cover these transactions may decline in value and are not available to meet redemptions. Government legislation or regulation could affect the use of these transactions and could limit the ability to pursue such investment strategies.

For Investment Strategies that Use Leverage

The use of leverage may result in a portfolio controlling substantially more assets than it has equity. Leverage increases the return on investments purchased with borrowed funds if the return on such investments is greater than the cost of borrowing. However, the use of leverage exposes the strategy to additional levels of risk, including (i) greater losses from investments than would otherwise have been the case in the absence of such borrowing to make the investments, (ii) margin calls or changes in margin requirements that may force premature liquidations of investment positions at inopportune times and/or at depressed values and (iii) losses on investments where the investment fails to earn a return that equals or exceeds the cost of leverage related to such investments. In the event of a sudden, precipitous drop in value of assets, assets might not be able to be liquidated quickly enough to repay borrowings, further magnifying the losses incurred by the strategy.

For Investment Strategies that Utilize Short Selling

Strategies that utilize short selling are subject to the risk of additional volatility and decreased liquidity. Potential losses from an uncovered short position in an equity security are unlimited. Losses could occur if short sales were poorly correlated with the strategy's other investments, or if the manager were unable to liquidate its positions because the market for securities subject to short sales is or becomes illiquid. Short sales may be restricted in response to market events and/or regulation. Furthermore, additional costs may be incurred in connection with short sale transactions, and the ability to continue to borrow a security is not guaranteed. Such restrictions and costs may prevent the full implementation of such investment strategies and may have a material adverse effect on them.

For Target Date and Asset Allocation Investment Strategies

Investment performance of the FIAM target date products and asset allocation strategies depends on the performance of the underlying investment options and on the proportion of the assets invested in each underlying investment option. The performance of the underlying investment options depends, in turn, on their investments. The performance of these investments will vary day to day in response to many factors. The investment risk of each target date product changes over time as its asset allocation, including its proportion of equity to fixed income investments changes, but generally, there is always an equity allocation even after the target date has been met. The target date products and asset allocation strategies are subject to the volatility of the financial markets, including that of the underlying investment options' asset classes. Principal invested is not guaranteed at any time, including at or after the target date products' target dates. FIAM reserves the right to buy and sell futures contracts (both long and short positions) in any target date pool in an effort to manage cash flows efficiently, remain fully invested, or facilitate asset allocation. Depending on how they are used, these instruments may effectively increase or decrease the pool's allocation in one or more asset classes. Leverage can increase market exposure, magnify investment risks, and cause losses to be realized more quickly. No target date investment option is considered a complete retirement program and there is no guarantee any single investment option will provide sufficient retirement

income at or through retirement. Principal invested is not guaranteed at any time, including at or after the target date products' target dates.

For Investment Strategies that Use Quantitative Investing

As a result of the factors used in the quantitative analysis, the weight placed on each factor, and changes in the factor's historical trends, securities selected using quantitative analysis can perform differently from the market as a whole, or securities selected using only fundamental analysis. The factors used in quantitative analysis and the weight placed on those factors may not be predictive of a security's value. If the factors that affect a security's value change over time and are not adequately reflected in the quantitative model, the strategy may fail to achieve its investment objective.

For Relative Value Strategies

Relative value strategies generally take long positions in securities believed to be undervalued and short or underweight positions in securities believed to be overvalued. In the event that the perceived mispricings underlying a strategy's trading positions were to fail to converge toward, or were to diverge further from expectations, the strategy might incur a loss.

For ESG Strategies

Investing based on ESG factors may cause a strategy to forgo certain investment opportunities available to strategies that do not use such criteria. Because of the subjective nature of ESG investing, there can be no guarantee that ESG criteria used by FIAM or its affiliates in its ESG strategies will reflect the beliefs or values of any particular client. Additionally, FIAM or its affiliates must rely upon ESG-related information and data obtained through third-party reporting that may be incomplete or inaccurate, which could result in FIAM or its affiliates imprecisely evaluating an issuer's practices with respect to ESG factors.

For Sector Strategies

Non-Diversification: The strategy may be primarily invested in a specific industry or sector. The strategy may not be widely diversified among a wide range of industries, sectors, issuers, geographic areas, capitalizations or types of securities. Accordingly, the strategy may be subject to more rapid change in value than otherwise.

Health Care Sector Concentration: Companies in the health care sector can be significantly affected by government regulation and reimbursement rates, as well as government approval of products and services, which could have a significant effect on price, and availability, and can be significantly affected by rapid obsolescence and patent expirations.

Industrials Sector Concentration: Companies in the industrials sector can be significantly affected by general economic trends, changes in consumer sentiment and spending, commodity prices, legislation, government regulation and spending, import controls, and worldwide competition, and can be subject to liability for environmental damage, depletion of resources, and mandated expenditures for safety and pollution control.

Technology Sector Concentration: Companies in the technology sector can be significantly affected by obsolescence of existing technology, patent expirations, short product cycles, falling prices and profits, competition from new market entrants, research and development costs, availability and price of components, global demand and general economic conditions.

Biotechnology Sector Concentration: Companies in the biotechnology industry can be significantly affected by patent considerations, intense competition, rapid technological change and obsolescence, and government regulation. These companies are also affected by regulatory approval for new drugs and medical products, product liability, and similar matters. The biotechnology sector may experience

considerable volatility in reaction to research and other business developments which may affect only one, or a few companies within the sector. The market values of investments in the biotechnology industry are often based upon speculation and expectations about future products, research progress, and new product filings with regulatory authorities. In addition, compared to more developed industries, there may be a thin trading market in biotechnology securities.

Disciplinary Information

There are no legal or disciplinary events that are material to the evaluation of FIAM's business or the integrity of its management.

Other Financial Industry Activities and Affiliations

Certain of FIAM's supervised persons are registered representatives of an affiliated registered broker-dealer, Fidelity Distributors Company LLC.

Broker-Dealers

FIAM or its affiliates have relationships or arrangements with the following broker-dealers:

Fidelity Distributors Company LLC ("FDC LLC"), a wholly-owned subsidiary of Fidelity Global Brokerage Group, Inc., is the principal underwriter and general distributor of shares in the Fidelity family of registered, open-end management investment companies and Fidelity exchange-traded funds. FDC LLC markets products such as mutual funds, ETFs, private funds, and commingled pools advised by FMR, an affiliate thereof, or certain unaffiliated advisers to certain third party financial intermediaries and institutional investors. On behalf of certain FDC LLC investment advisor affiliates, FDC LLC also solicits intermediaries, institutions and governmental entities who are interested in purchasing investment advisory services directly or for their clients. FDC LLC also acts as a solicitor for FIAM's investment management services and products, and acts as a placement agent for certain privately offered investment funds advised by FIAM. FDC LLC is a registered broker-dealer under the Securities Exchange Act of 1934, as amended ("Exchange Act").

Fidelity Brokerage Services LLC ("FBS"), a wholly owned subsidiary of Fidelity Global Brokerage Group, Inc., is a registered broker-dealer under the Exchange Act, and provides brokerage products and services, including the sale of shares of investment companies advised by FMR to individuals and institutions including retirement plans administered by affiliates. Pursuant to referral agreements and for compensation, representatives of FBS refer customers to various services offered by FBS' related persons, and FBS acts as a solicitor for FIAM's investment management services and products. FBS also acts as a placement agent for certain privately-offered investment funds advised by FIAM. In addition, FBS is the distributor of insurance products, including variable annuities, which are issued by FIAM's related persons, Fidelity Investments Life Insurance Company (FILI) and Empire Fidelity Investments Life Insurance Company (EFILI). FBS provides shareholder services to certain of FIAM's or FIAM's affiliates' clients.

Fidelity Global Brokerage Group, Inc., a wholly-owned subsidiary of FMR LLC, wholly-owns five broker-dealers Fidelity Brokerage Services LLC, National Financial Services LLC, Fidelity Distributors Company LLC, Fidelity Prime Financing LLC and Digital Brokerage Services LLC, and also has an equity interest in eBX LLC (eBX), a holding company and a registered broker-dealer under the Exchange Act, which was formed for the purpose of developing, owning and operating an alternative trading system, the "Level ATS." Transactions for clients of FIAM, other affiliates of FIAM or other entities for which FIAM or its affiliates serve as adviser or subadviser or provide discretionary trading services, as well as clients of FIAM's affiliates, are executed through the Level ATS. Such transactions present a conflict of interest as FIAM has an incentive to direct transactions to its affiliate. Please see a discussion of FIAM's brokerage and trading

policies in the “Brokerage Practices” section for more information. FIAM disclaims that it is a related person of eBX.

Digital Brokerage Services LLC (“DBS”), a wholly owned subsidiary of Fidelity Global Brokerage Group Inc., is a registered broker-dealer under the Exchange Act. DBS operates a primarily digital/mobile application- based brokerage platform, which enables retail investors to open brokerage accounts via the mobile application and purchase and sell equity securities, including shares of investment companies advised by FMR. DBS receives remuneration from FMR for expenses incurred in servicing and marketing FMR products.

Fidelity Clearing Canada ULC (“FCC”) is engaged in the institutional brokerage business and provides clearing and execution services for other brokers. FCC is a wholly-owned subsidiary of 483A Bay Street Holdings LP, which is a joint venture majority owned by FIL Limited and minority owned by Fidelity Canada Investors LLC. FCC is a registered investment dealer in all provinces and territories of Canada, a futures commission merchant in Ontario and Manitoba, a derivatives dealer in Québec and a member of the Investment Industry Regulatory Organization of Canada. Certain owners of Fidelity Canada Investors LLC are also employees of FMR LLC. FIAM disclaims that it is a related person of FCC.

National Financial Services LLC (“NFS”) is a registered broker-dealer under the Exchange Act and is a fully disclosed clearing broker-dealer. As such, NFS provides clearing, settlement and execution services for other broker-dealers, including its affiliate Fidelity Brokerage Services. Fidelity Capital Markets (FCM) is a division of NFS which provides trade executions for FIAM and other advisory clients. Additionally, FCM operates CrossStream, an alternative trading system that allows orders submitted by its subscribers to be crossed against orders submitted by other subscribers. CrossStream is used to execute transactions for FIAM or FIAM’s affiliates’ investment company and other advisory clients. NFS is also registered as an investment adviser under the Investment Advisers Act of 1940 to support FCM’s transition management business for ERISA plan fiduciaries. The NFS registered investment adviser does not have any advisory clients, does not provide investment advice and does not receive compensation for investment advisory services. NFS may provide transfer agent or sub transfer agent services and other custodial services to certain of FIAM’s or FIAM’s affiliates’ clients. NFS also provides securities lending services to certain of FMR’s or FMR’s affiliates’ clients. NFS is a wholly-owned subsidiary of Fidelity Global Brokerage Group Inc., a holding company that provides certain administrative services to NFS and other affiliates.

Luminex Trading & Analytics LLC (“LTA”), is a registered broker-dealer and alternative trading system, and was formed for the purpose of establishing and operating an electronic execution utility (the “LTA ATS”) that allows orders submitted by its subscribers to be crossed against orders submitted by other subscribers. FMR Sakura Holdings, Inc., a wholly owned subsidiary of FMR LLC, the ultimate parent company of FIAM, is the majority owner of LTA. LTA charges a commission to both sides of each trade executed in the LTA ATS. The LTA ATS is used to execute transactions for FIAM’s or FIAM’s affiliates’ investment company and other advisory clients. NFS serves as a clearing agent for transactions executed in the LTA ATS.

FMR is authorized to place portfolio transactions with FCM and use CrossStream and LTA ATS, alternative trading systems operated by NFS and LTA, respectively, if it reasonably believes the quality of the transaction is comparable to what it would be with other qualified broker-dealers. In addition, FMR places client trades with broker-dealers that use NFS or FCC as a clearing agent.

In all cases, transactions executed by affiliated brokers on behalf of investment company clients are effected in accordance with Rule 17e-1 under the 1940 Act, and procedures approved by the Trustees of FMR’s clients in the Fidelity group of funds.

FCM and LTA cross transactions on an agency basis between clients of FMR or its affiliates, including investment company clients, non-investment company clients, and other non-advisory clients (agency cross transactions), as permitted by applicable rules and regulations. Such transactions will be executed, to the extent required by law, in accordance with (i) Rule 206(3)-2 under the Advisers Act, requiring written

consent, confirmations of transactions and annual reporting, and (ii) procedures adopted by the Board of Trustees of FMR's clients in the Fidelity group of funds pursuant to Rule 17e-1 under the 1940 Act.

Conflicts of interest with respect to the Fidelity mutual funds that arise from dealings with affiliated brokers are governed by various policies adopted by the Fidelity Funds Boards of Trustees. For example, Section 10(f) of the 1940 Act is intended to prevent affiliated underwriters from "dumping" undesirable securities on funds or otherwise using fund purchases to benefit the underwriting syndicate. In accordance with Rule 10f-3, the Fidelity Funds Boards of Trustees have adopted procedures by which the funds are permitted to purchase securities in offerings for which FCM acts as a principal underwriter, provided that certain conditions are satisfied. Additionally, Section 17(a) prevents affiliated brokers on their own behalf from selling securities to or buying securities from the funds, except to the extent allowed by law, to prevent those affiliated brokers from taking advantage of the funds. The Fidelity Funds Boards of Trustees have adopted policies and procedures preventing affiliated brokers from engaging in such transactions, except to the extent allowed by law. Furthermore, Section 17(e) prevents affiliated brokers from charging excessive fees for transactions on behalf of the funds. Under Rule 17e-1, affiliated brokers are permitted to receive a "usual and customary brokerage commission" in connection with transactions effected on a securities exchange, and the Rule 17e-1 procedures adopted by the Fidelity Funds Boards of Trustees ensure that the fees do not exceed the usual and customary requirements. In addition, FIAM has adopted various policies and procedures to address provisions of and prohibitions under the Adviser's Act and ERISA (where applicable) with respect to potential conflicts of interest and self dealing.

Trades may be executed through alternative trading systems or national securities exchanges in which FMR or its affiliates have an interest. Any decision to execute a trade through an alternative trading system or exchange in which FMR or its affiliates have an interest would be made in accordance with applicable law, including best execution obligations. For trades placed on such a system or exchange, not limited to ones in which FMR or its affiliates may have an ownership interest, FMR or its affiliates may benefit in the form of increased valuation(s) of its equity interest, where it has an ownership interest, or other remuneration, including rebates.

Securities Lending Agent:

FIAM does not engage in securities lending activities on behalf of its collective investment products. However, NFS provides securities lending services to the Fidelity group of funds and other client accounts (lending accounts) that are advised by FMR or FMR's affiliates under a securities lending agency agreement subject to a flat fee arrangement and a limit, or cap, on total daily compensation. An economic incentive exists for NFS to increase the amount of securities out on loan to generate income equal to the daily cap; however, FMR, not NFS, determines daily the securities that are eligible to participate in the securities lending program. NFS has established policies and procedures designed to help ensure that the information NFS receives about the lending accounts in its capacity as securities lending agent is used solely in connection with the agency securities lending program and is not accessed by trading personnel who effect transactions in NFS proprietary accounts or in the accounts of NFS' other clients.

NFS also borrows securities from the Fidelity group of funds pursuant to SEC exemptive relief. NFS uses automated third-party software to allocate loans to a pre-approved list of borrowers provided by FMR to help ensure the fair allocation of lending opportunities between NFS and other borrowers. The above referenced policies and procedures help ensure that the information NFS receives in its capacity as securities lending agent is not used by NFS in its role as borrower.

If a borrower in a securities loan defaults, NFS would indemnify a lending account to the extent that the collateral deposited by the borrower is insufficient to make the lending account whole, which subjects NFS to collateral shortfall risk ("shortfall risk"). Management of the shortfall risk creates an incentive for NFS to limit the amount of securities lending activity NFS conducts on behalf of the lending accounts, which has the potential to reduce the volume of lending opportunities for certain types of loans. FMR has established policies and procedures that provide for FMR or its affiliates, as applicable, to compare loans entered into

by NFS on behalf of the lending accounts with opportunities for securities loans that NFS passed over. Missed opportunities will be evaluated by FMR or its affiliates, as applicable, and reviewed with NFS. NFS has purchased insurance to mitigate shortfall risk.

Investment Company or Other Pooled Investment Vehicle

FIAM provides portfolio management services as subadviser for a number of unaffiliated registered investment companies. FIAM disclaims that it is a related person of the investment companies for which it provides investment management services. FIAM provides portfolio management services as adviser for a number of affiliated, privately-offered funds. FIAM also advises or sub-advises other non-U.S. pooled vehicles.

Related persons of FIAM are general partners of a partnership or a managing member of an LLC or other pooled investment vehicle, such as a privately-offered unregistered investment fund, in which clients of FIAM are solicited to invest and FIAM advises. These unregistered investment companies invest in a wide variety of interests, including securities and derivatives instruments, real estate and other privately-offered funds.

Other Investment Advisers

FIAM or its affiliates have relationships or arrangements with the investment advisers identified below. FIAM or its affiliates provide certain investment management personnel to or use the investment management personnel of certain of the following investment advisers under personnel sharing arrangements or other inter-company arrangements. FIAM generally shares its research with the investment advisers noted below, and in certain cases, on a delayed basis. In addition, FIAM or its affiliates provide certain administrative services to certain of the following investment advisors, including, but not limited to, securities and derivatives trade execution, investment compliance and proxy voting.

Fidelity Management & Research Company LLC (“FMR”) is a wholly-owned subsidiary of FMR LLC and a registered investment adviser under the Advisers Act. FMR principally provides portfolio management services as an adviser or subadviser to registered investment companies. FMR provides portfolio management services as a subadviser to certain of FIAM’s clients. FMR or its affiliates provide certain administrative services to FIAM and its affiliates, including, but not limited to, securities execution, investment compliance and proxy voting..

Fidelity Personal and Workplace Advisors LLC (“FPWA”), a wholly owned subsidiary of Fidelity Advisory Holdings LLC, which in turn is wholly owned by FMR LLC, is a registered investment adviser under the Advisers Act. FPWA provides non-discretionary investment management services and serves as the sponsor to investment advisory programs. FMR acts as sub-advisor to FPWA in providing discretionary portfolio management services to certain FPWA client accounts.

Fidelity Institutional Wealth Adviser LLC (“FIWA”), a wholly-owned subsidiary of FMR LLC, is a registered investment adviser under the Advisers Act. FIWA provides non-discretionary investment advice to third-party financial institutions in connection with the provision of model asset allocation portfolios (“Fidelity Model Portfolios”) and model-delivered separately managed accounts (“Fidelity Advisor Separately Managed Accounts” or “Fidelity Advisor SMAs”). FIWA also sponsors the Fidelity Managed Account XchangeSM program (“FMAX”), a turn-key asset management program made available to individual investors through financial intermediaries, which includes Fidelity Model Portfolios and Fidelity Advisor SMAs.

Strategic Advisers LLC (“Strategic Advisers”) is a wholly owned subsidiary of Fidelity Advisory Holdings LLC, which in turn is wholly owned by FMR LLC, and is a registered investment adviser under the Advisers Act. Strategic Advisers provides discretionary and non-discretionary advisory services and acts as the investment manager to registered investment companies that invest in affiliated and unaffiliated funds and as sub-adviser to various retail accounts, including separately managed accounts. Strategic Advisers acts

as sub-advisor to FPWA in providing discretionary portfolio management services to certain FPWA client accounts, and assists FPWA in evaluating other sub-advisors. FIAM, or its affiliates, provide portfolio management services as sub-advisor to certain of Strategic Advisers' customers.

FMR Investment Management (UK) Limited ("FMRIM (UK)"), an indirect wholly-owned subsidiary of FMR, is registered as an investment adviser under the Advisers Act and has been authorized by the U.K. Financial Conduct Authority to provide investment advisory and portfolio management services. FMRIM (UK) provides investment advisory and portfolio management services as a sub-advisor to certain of FIAM's clients, including investment companies in the Fidelity group of funds, and also provides trading services to FMR and its affiliates. FMRIM (UK) provides portfolio management services as an adviser or sub-advisor to clients of other affiliated and unaffiliated advisers. FMRIM (UK) is also authorized to undertake insurance mediation as part of its benefits consulting business. FMRIM (UK) is also registered with the Central Bank of Ireland.

Ballyrock Investment Advisors LLC ("Ballyrock") is a wholly-owned subsidiary of FMR LLC, and is registered as an investment adviser under the Advisers Act. Ballyrock provides investment advisory services to collateralized loan obligation ("CLO") issuers, with a focus on investments in high yield debt securities, including primarily bank loans. FMR or its affiliates provides portfolio management services as a sub-advisor to clients of Ballyrock.

Impresa Management LLC ("Impresa") is owned by trusts, the trustees of which are individuals, certain of whom are employees of FMR LLC. Impresa is a registered investment adviser under the Advisers Act and serves as (i) an investment adviser and general partner or manager for certain limited partnerships or limited liability companies, one or more of which are employees' securities companies (the "Investor Entities"); and (ii) an investment adviser and/or the ultimate general partner or manager (either directly or indirectly through subsidiary entities) to certain collective investment entities in which the Investor Entities invest and to funds or other special purpose vehicles that co-invest or hold investments alongside such collective investment vehicles. Impresa also provides investment advisory services as an adviser to other affiliated entities or sub-advisor to other affiliated or unaffiliated entities. Impresa generally invests, on behalf of its clients, in securities of private companies, purchased and sold in privately negotiated transactions, and generally does not purchase publicly traded securities. From time to time, Impresa clients acquire or hold publicly traded securities as a result of a private portfolio company's initial public offering, the purchase of additional securities in such an initial public offering or through the acquisition of a portfolio company by a public company. Impresa from time to time invests in less established or early-stage companies, as well as later-stage private companies. For more information regarding conflicts of interest relating to proprietary trading, see "Code of Ethics, Participation or Interest in Client Transactions and Personal Trading on page 22.

Fidelity Investments Canada ULC ("FIC") is a wholly-owned indirect subsidiary of 483A Bay Street Holdings LP, which is a joint venture majority owned by FIL Limited and minority owned by Fidelity Canada Investors LLC. FIC, a registered investment fund manager and mutual fund dealer in all provinces and territories of Canada, provides management and administrative services to Canadian mutual funds, pooled funds and institutional accounts. FIAM or its affiliates serve as subadvisor for accounts managed or distributed by FIC or its affiliates. Certain owners of Fidelity Canada Investors LLC are also employees of FMR LLC. FIAM disclaims that it is a related person of FIC.

FIL Limited ("FIL") was incorporated in 1969 and serves as investment manager and adviser to offshore funds and private accounts. FIL and FIAM provide portfolio management services as an adviser or a subadvisor to FIAM or its affiliates, or FIL and their clients, respectively. FIL and its affiliates provide distribution services to, and act as a solicitor for FIAM's investment management services and its products. FIAM disclaims that it is a related person of FIL.

FIL Investments (Japan) Limited ("FIJ") is an indirect wholly-owned subsidiary of FIL, Pembroke Hall, 42 Crow Lane, Pembroke, Bermuda, a Bermuda company, and is registered as an investment adviser under the Advisers Act. FIJ provides discretionary investment management services to clients of FMR,

FIAM's or its affiliates' clients with respect to Japan and other Asian countries and issuers, and serves as subadviser (generally through a delegation from FIL Investment Advisors) for certain of FMR's clients. FIAM and its affiliates serve as subadviser to clients of FIJ. FIJ recommends to its clients, or invest on behalf of its clients, in securities that are the subject of recommendation to, or discretionary trading on behalf of, FIAM's or its affiliates' clients. FIAM disclaims that it is a related person of FIJ.

FIL Investment Advisors ("FIA") is a wholly-owned subsidiary of FIL and is registered as an investment adviser under the Advisers Act. FIA provides research and discretionary investment management services to FIAM's or its affiliates' clients with respect to companies outside the U.S., and serves as subadviser for certain of FIAM's or its affiliates' clients, or invest in, on behalf of its clients, securities that are the subject of recommendation to, or discretionary trading on behalf of, FIAM's or its affiliates' clients. FIAM disclaims that it is a related person of FIA.

FIL Investment Advisors (UK) Limited ("FIA (UK)") is an indirect wholly-owned subsidiary of FIL, and is registered as an investment adviser under the Advisers Act. FIA (UK) provides discretionary investment management services to certain of FIAM's or its affiliates' clients with respect to companies outside the U.S. and serves as subadviser (generally through a delegation from FIA) for certain of FIAM's or its affiliates' clients. FIA (UK) recommends to its clients, or invests in, on behalf of its clients, securities that are the subject of recommendation to, or discretionary trading on behalf of, FIAM's or its affiliates' clients. FIAM disclaims that it is a related person of FIA (UK).

FIL Investment Management (Singapore) Limited ("FI(S)L") is an indirect wholly-owned subsidiary of FIL and is a "Participating Affiliate" of FIA. FI(S)L, under the supervision and review of FIA and in accordance with FIA's applicable investment guidelines and compliance policies, determines the securities to be purchased and sold for a limited number of FIA's clients. FI(S)L recommends to its clients, or invests in on behalf of its clients, securities that are the subject of recommendations to, or discretionary trading on behalf of, FIAM's or its affiliates' clients. FIAM disclaims that it is a related person of FI(S)L.

Fidelity Management & Research (Japan) Limited ("FMR (Japan)"), a direct wholly-owned subsidiary of FMR, is a registered investment adviser under the Advisers Act, and has been authorized by the Japan Financial Services Agency (Kanto Local Finance Bureau) to provide investment advisory and discretionary investment management services. FMR (Japan) supplies investment research and investment advisory information and provides discretionary investment management services to certain clients of FMR and its affiliates, including investment companies in the Fidelity group of funds, to FIAM and its affiliates, and to clients of other affiliated and unaffiliated advisers.

Fidelity Management & Research (Hong Kong) Limited ("FMR (Hong Kong)"), a wholly-owned subsidiary of FMR, is a registered investment adviser under the Advisers Act, and has been authorized by the Hong Kong Securities & Futures Commission to advise on securities, advise on futures contracts, provide asset management services and conduct trading services. FMR (Hong Kong) provides investment advisory or portfolio management services as an adviser or subadviser for certain clients of FMR and its affiliates, including investment companies in the Fidelity group of funds, to FIAM and its affiliates, and for clients of other affiliated and unaffiliated advisers. FMR (Hong Kong) also provides trading services to FIAM and its affiliates.

Fidelity Management & Research (Canada) ULC ("FMR-Canada") is an indirect wholly-owned subsidiary of FMR. FMR-Canada is registered as a portfolio manager and a commodity trading manager with the Ontario Securities Commission. FMR-Canada provides portfolio management services as a sub-adviser to certain of FMR's and its affiliates' clients.

FIAM or its affiliates provide certain investment management personnel to or use the investment management personnel of certain of the investment advisers noted above and the trust companies noted below under personnel sharing arrangements or other inter-company arrangements. In addition, FIAM or its affiliates provide certain administrative services to certain of the foregoing investment advisers, including, but not limited to, securities and derivatives trade execution, investment compliance and proxy voting.

Banking, Thrift Institutions and Trust Companies

FIAM or its affiliates have relationships or arrangements with the following banking and trust institutions. FIAM or its affiliates provide certain investment management personnel to or use the investment management personnel of certain of the following banking and trust institutions under personnel sharing arrangements or other inter-company arrangements. In addition, FIAM or its affiliates provide certain administrative services to certain of the following investment advisors, including, but not limited to, securities and derivatives trade execution, investment compliance and proxy voting.

Fidelity Management Trust Company (“FMTC”), a limited-purpose trust company organized and operating under the laws of the Commonwealth of Massachusetts, provides non-discretionary trustee and custodial services to employee benefits plans and IRAs through which individuals invest in mutual funds managed by FMR or its affiliates, and discretionary investment management services to institutional clients, and acts as trustee and investment manager of collective investment trusts. FMTC is a wholly-owned subsidiary of FMR LLC.

Fidelity Personal Trust Company, FSB (“FPTC”) is a federal savings bank that offers fiduciary services to its customers that include trustee or co-trustee services, custody, principal and income accounting, investment management services, and recordkeeping and administration. FPTC is a wholly owned subsidiary of Fidelity Thrift Holding Company, Inc., which in turn is wholly owned by FMR LLC.

Fidelity Institutional Asset Management Trust Company (“FIAM TC”), a trust company organized under the laws of the State of New Hampshire, provides investment management services principally for institutional clients including employee benefit plans and acts as trustee and investment manager of its collective investment trusts. FIAM TC is a wholly-owned subsidiary of FIAM Holdings LLC, which in turn is wholly-owned by FMR LLC. FIAM or its affiliates provide certain administrative services to FIAM TC, including, but not limited to, trade execution, investment compliance and proxy voting.

FIAM or its affiliates provide certain investment management personnel to certain of the foregoing banking and trust institutions under personnel sharing arrangements or other inter-company agreements. In addition, FIAM or its affiliates provide certain administrative services to certain of the foregoing banking and trust institutions, including, but not limited to, securities and derivatives trade execution, investment compliance and proxy voting.

Insurance Companies or Agencies

FIAM or its affiliates have relationships or arrangements with the following insurance companies and agencies:

Fidelity Investments Life Insurance Company (“FILI”), a wholly-owned subsidiary of FMR LLC, is engaged in the distribution and issuance of life insurance and annuity products that offer shares of investment companies managed by FIAM or its affiliates.

Empire Fidelity Investments Life Insurance Company (“EFILI”), a wholly-owned subsidiary of FILI, is engaged in the distribution and issuance of life insurance and annuity products that offer shares of investment companies managed by FIAM or its affiliates to residents of New York.

Fidelity Insurance Agency, Inc., a wholly-owned subsidiary of FMR LLC, is engaged in the business of selling life insurance and annuity products of affiliated and unaffiliated insurance companies.

Sponsor or Syndicator of Limited Partnerships: Other Personnel Sharing Arrangements

Related persons of FIAM are a general partner of a partnership or a managing member of an LLC or other pooled investment vehicle, such as a privately-offered unregistered investment fund, in which clients of FIAM are solicited to invest and FIAM or an affiliate advises. These unregistered investment companies

invest in a wide variety of interests including securities and derivatives instruments, real estate and other privately-offered funds.

FMR LLC provides certain personnel to FIAM under personnel sharing arrangements or other inter-company arrangements that are utilized in the management of FIAM's privately offered real property funds.

Code of Ethics, Participation or Interest in Client Transactions and Personal Trading

Code of Ethics

From time to time, FIAM or its affiliates purchase or sell for the accounts of clients' securities in which FIAM's or its affiliates' in-house accounts (including institutional accounts), affiliates, directors, officers or employees have a position, or securities in which FIAM or its affiliates have a material financial interest. FIAM or its affiliates invest in the same securities or related securities, (e.g., warrants, options or futures) that FIAM or its affiliates recommend to clients. In addition, subject to the procedures discussed below, FIAM or its affiliates recommend securities to clients, or buy or sell securities for client accounts, at or about the same time that FIAM or its affiliates buy or sell the same securities for its own (or a related person's own) account.

These situations result, in part, from the breadth of securities purchased by FIAM's or its affiliates' varied clients and the fact that personnel of FIAM or its affiliates are permitted to invest in securities for their personal accounts. The conflicts of interest involved in such transactions are governed by FIAM's Code of Ethics for Personal Investing (Code), which has been adopted and approved by FIAM under Rule 204A-1 under the Advisers Act.

The Code applies to all officers, directors, and employees of FIAM or its affiliates ("Advisory Personnel") and requires that they place the interests of FIAM's clients above their own. The Code establishes securities transactions requirements for all Advisory Personnel and their covered persons, including their spouses.

In accordance with Rule 204A-1 of the Advisers Act, the Code: (1) describes the fiduciary duty Advisory Personnel have to FIAM's clients; (2) requires Advisory Personnel of FIAM to comply with federal securities laws; (3) requires Advisory Personnel of FIAM to report, and for FIAM or its affiliates to review, such Advisory Personnel's and their covered persons' transactions and holdings periodically (core money market funds excepted), including transactions in mutual funds advised by FIAM or an affiliate and certain other funds; (4) requires Advisory Personnel of FIAM to report any violations of the Code to FIAM's or its affiliate's Ethics Office; and (5) requires FIAM or its affiliates to provide each of its Advisory Personnel with a copy of the Code and any amendments, and requires Advisory Personnel to acknowledge their receipt and understanding of the Code.

In addition, the Code: (i) requires Advisory Personnel and their covered persons to move their covered accounts to Fidelity Brokerage Services LLC unless an exception has been granted; (ii) requires preclearance of transactions in covered securities; (iii) requires reporting of transactions in covered securities on a quarterly basis; (iv) requires reporting of accounts and holdings of covered securities on an annual basis; (v) prohibits personal trading by a portfolio manager within seven days before or after a trade in the same security by a client account managed by such portfolio manager except in limited circumstances; (vi) prohibits purchases of securities in initial public offerings unless an exception has been approved; (vii) prohibits investments in limited offerings without prior approval; and (viii) requires disgorgement of profits from short-term transactions unless an exception has been approved. Violations of the Code's requirements may also result in the imposition of remedial action, including termination.

Conflicts of Interest

In certain instances, the purchase or sale of securities for the accounts of clients is restricted in connection with distributions of securities where FIAM, its affiliates or their clients are proposing to act as selling shareholder in the distribution. Any such activity is evaluated in accordance with the Exchange Act's Regulation M, the 1940 Act, the Employee Retirement Income Security Act of 1974 ("ERISA") and other applicable rules and regulations and from time to time results in restrictions on the ability of client accounts to purchase or sell in the distribution and/or secondary market. From time to time, FCM, a division of NFS, an affiliated broker-dealer of FIAM and its affiliates, acts as a selling agent or principal underwriter in underwritings of municipal, equity or other securities that FIAM or its affiliates recommend to clients. The trustees of FIAM's or its affiliates' U.S. mutual fund clients evaluate any such activity, if applicable, by FIAM or its affiliates in accordance with Rule 10f-3 under the 1940 Act and procedures adopted pursuant to Rule 10f-3.

A conflict of interest situation is presented where a portfolio manager considers investing a client account in securities of an issuer in which FIAM, its affiliates or their (or their fund clients') respective directors, officers or employees already hold a significant position for their own account, including positions held indirectly through certain funds or accounts managed by FIAM or one of its affiliated advisers (collectively, "Proprietary Accounts"). Because the 1940 Act, as well as other applicable laws and regulations, restrict certain transactions between affiliated entities or between an advisor and its clients, client accounts managed by FIAM or its affiliates, including accounts sub-advised by third parties, are, in certain circumstances, prohibited from participating in offerings of such securities (including initial public offerings and other offerings occurring before or after an issuer's initial public offering) or acquiring such securities in the secondary market. For example, ownership of a company by the Investor Entities advised by Impresa or other Proprietary Accounts has, in certain situations, resulted in restrictions on FIAM's and its affiliates' client accounts' ability to acquire securities in the company's initial public offering and subsequent public offerings, private offerings, and in the secondary market, and additional restrictions could arise in the future; to the extent such client accounts acquire the relevant securities after such restrictions are subsequently lifted, the delay could affect the price at which the securities are acquired. A conflict of interest situation is presented when FIAM or its affiliates acquire, on behalf of their client accounts, securities of the same issuers whose securities are already held in Proprietary Accounts, because such investments could have the effect of increasing or supporting the value of the Proprietary Accounts. A conflict of interest situation also arises when FIAM or its affiliates investment advisory personnel consider whether client accounts they manage should invest in an investment opportunity that they know is also being considered by an affiliate of FIAM for a Proprietary Account, to the extent that not investing on behalf of such client accounts improves the ability of the Proprietary Account to take advantage of the opportunity. FIAM and its affiliates have adopted policies and procedures and maintains a compliance program designed to help manage such actual and potential conflicts of interest.

A conflict of interest situation is also presented when a portfolio manager manages accounts simultaneously when one account has certain performance fee and incentive compensation arrangements and another account does not. In addition, conflicts of interest are presented when the account's orders do not get fully executed due to being aggregated with those of other accounts managed by FIAM or its respective affiliates. The policies described here, and elsewhere in this document, including descriptions of FIAM's trade allocation policies, seek to mitigate these actual and potential conflicts of interest. There can be no assurance, however, that all conflicts have been addressed in all situations.

Portfolio managers are permitted to invest in the strategies they manage even when, under certain circumstances, the strategy is closed to new investors.

FIAM will provide a copy of its Code to any client or prospective client upon request.

From time to time, in connection with its business, FIAM obtains material non-public information. In compliance with applicable laws, FIAM has adopted a comprehensive set of policies and procedures that prohibit the use of material non-public information by investment professionals or any other employees. FIAM also has procedures addressing the use of third party paid research consultants.

In addition, FIAM has implemented a policy on Business Entertainment and Workplace Gifts intended to set standards for business entertainment and the giving or receiving of gifts, help employees make sound decisions with respect to these activities, and ensure that the interests of FIAM's clients come first. Similarly, to support compliance with applicable "pay to play" rules, FIAM has implemented a Political Contributions and Activities policy which requires employees to pre-clear political contributions and activities. FIAM also has a policy regarding commercial bribery and bribery of government officials that prohibits directly or indirectly giving, offering, authorizing, promising, accepting, or receiving any bribe, facilitation payments, kickback or payoff (whether in cash or any other form) with the intent to improperly obtain or retain business or any improper advantage.

On occasion and subject to applicable law and governing documents, real estate investments owned by an affiliate of FIAM may be sold to a real estate fund (or a joint venture in which the fund invests) in connection with the fund's launch or a closing. Because prior to transfer such assets would be owned by FIAM's affiliate, conflicts of interest arise regarding the decision of whether to transfer such assets and the valuation of those holdings at the time of such transfers. More information on these arrangements can be found in the offering memorandum for each relevant fund, as applicable.

Additional information relating to specific conflicts of interest relevant to certain FIAM private funds is set out in the applicable fund's confidential offering memorandum.

Brokerage Practices

Selection of Brokers and Dealers to Effect Client Transactions

FIAM or its affiliates generally have authority to select brokers (whether acting as a broker or a dealer) to place or execute clients' portfolio securities transactions. FIAM or its affiliates are responsible for the placement of portfolio securities transactions for certain client accounts for which an affiliate or related person has investment discretion. In selecting a broker or dealer for a specific securities transaction, FIAM or its affiliates evaluate a variety of criteria and use good faith judgment in seeking to obtain execution of portfolio securities transactions at commissions or costs that are reasonable in relation to the brokerage and research services provided, where allowed under applicable law. In addition, FIAM and its affiliates may only choose brokers or dealers that are approved counterparties. Before a counterparty can establish a relationship with FIAM or its affiliates, the counterparty must meet minimum standards.

Transactions with Certain Brokers

FIAM or its affiliates are sometimes authorized to place portfolio transactions with Fidelity Capital Markets (FCM), a division of NFS, an affiliated broker-dealer of FIAM and its affiliates, or other broker-dealers with whom they are under common control, and use CrossStream and LTA ATS, alternative trading systems operated by NFS and LTA, respectively, if they reasonably believe the quality of the transaction is comparable to what it would be with other qualified broker-dealers. With respect to client trades that are executed by FIAM's affiliates, FIAM and such affiliates seek to ensure that the trade execution obtained is comparable to that of unaffiliated brokers and that the continued use of such affiliate is appropriate. Such transactions will, to the extent applicable, be executed in accordance with applicable law, including (i) Rule 206(3)-2 under the Advisers Act, requiring written consent, confirmations of transactions, and annual reporting, (ii) for clients that are investment companies registered under the 1940 Act, procedures adopted by the board of trustees of such clients pursuant to Rule 17e-1 under the 1940 Act, and (iii) ERISA.

In addition, FIAM or its affiliates place client trades with broker-dealers that use NFS or FCC as a clearing agent. Similarly, equity trades may be executed through national securities exchanges in which FIAM or its affiliates have an interest. Any decision to execute a trade through an alternative trading system or exchange in which FMR or its affiliates have an interest are made in accordance with applicable law, including best execution obligations. For trades placed on such a system or exchange, FIAM or its affiliates may benefit in the form of increased valuations(s) of its equity interest, or other remuneration, but it is not

possible to predict the likelihood of that occurring or quantify the amount of any such benefit in advance. By investing or remaining invested in an account managed by FIAM, you are deemed to have authorized the possible execution of trades through affiliated brokers, alternative trading systems or exchanges in which FIAM or its affiliates have an interest.

Transactions Among Clients

FIAM or its affiliates execute transactions between clients of FIAM or its affiliates, including investment company clients, non-investment company clients, and other non-advisory clients. When affecting such cross transactions, FIAM or its affiliates are presented with conflicting divisions of loyalties and responsibilities regarding both parties to such transactions. Such cross transactions will be executed in accordance with applicable law and policies and procedures. When FIAM or its affiliates engage in adviser cross transactions, where FIAM or its affiliates directly effect an agency transaction between advisory clients without involving a broker, FIAM or its affiliates will receive no compensation (other than its advisory fee), directly or indirectly, for the agency transaction. In selecting securities broker-dealers ("brokers"), including affiliates of FIAM, to execute client portfolio securities transactions, FIAM or its affiliates consider the factors they deem relevant in the context of a particular trade and in regard to FIAM's or its affiliates' overall responsibilities with respect to the account and other investment accounts, including any instructions from the client's portfolio manager, which emphasize, for example, speed of execution over other factors. Based on the factors considered, FIAM or its affiliates may choose to execute an order using electronic channels including broker-sponsored algorithms, internal crossing, or by verbally working an order with one or more brokers. Other possibly relevant factors include, but are not limited to, the following: price; costs; the size, nature and type of the order; speed of execution, financial condition and reputation of the broker; broker specific considerations (e.g. not all brokers are able to execute all types of trades); broker willingness to commit capital; the nature and characteristics of the markets in which the security is traded; the trader's assessment of whether and how closely the broker likely will follow the trader's instructions to the broker; confidentiality and the potential for information leakage; the nature or existence of post-trade clearing, settlement, custody and currency convertibility mechanisms; and the provision of brokerage and research products and services, if applicable and where allowed by law.

In seeking best execution for portfolio securities transactions, FIAM and/or its affiliates from time to time select a broker that uses a trading method, including algorithmic trading, for which the broker charges a higher commission than its lowest available commission rate. FIAM and/or its affiliates may also select brokers that charge more than the lowest commission rate available from another broker. Occasionally FIAM and/or its affiliates execute an entire securities transaction with a broker and allocate all or a portion of the transaction and/or related commissions to a second broker where a client does not permit trading with an affiliate of FIAM or in other limited situations. In those situations, the commission rate paid to the second broker may be higher than the commission rate paid to the executing broker. For futures transactions, the selection of a futures commission merchant is generally based on the overall quality of execution and other services provided by the futures commission merchant. FIAM and/or its affiliates execute futures transactions verbally and electronically.

FIAM and certain of its affiliates share trading facilities to execute the trades for their respective clients. As a result, an affiliate of FIAM, from time to time, will execute a transaction on behalf of one of its accounts that may have an adverse effect on the terms of other transactions subsequently executed by FIAM or FIAM's affiliate on behalf of a FIAM account (e.g., when a purchase on behalf of an account managed by an affiliate of FIAM increases the value of a security subsequently purchased by a client of FIAM, or when a sale by an account managed by an affiliate of FIAM lowers the sale price received and subsequent sale by a client of FIAM). Because of regulatory and prudential limits on aggregate ownership of certain securities by FIAM and its affiliates, purchases of such securities by FIAM's clients may be limited.

If FIAM grants investment management authority to a subadviser, that subadviser will be authorized to provide the services described in the sub-advisory agreement, and generally will do so in accordance with applicable law and the subadviser's policies, which may differ from FIAM and its affiliates' policies.

To facilitate trade settlement and related activities in non-U.S. securities transactions, FIAM or its affiliates effect spot foreign currency transactions with foreign currency dealers.

The funds to which FIAM provides management services may obtain custodial, clearing and related services through prime brokerage arrangements. These arrangements facilitate fund borrowings and permit the funds to use other brokers to execute transactions, while maintaining only a limited number of custodial relationships. A prime broker is compensated primarily through interest on credit balances, margin borrowings, stock loans and brokerage fees and commissions. In selecting prime brokers, FIAM considers, among other things, the clearance and settlement capabilities of the prospective prime broker, the prime broker's ability to provide effective and efficient reporting, the prime broker's creditworthiness and financial stability, and the likelihood that the prime broker will often be chosen as an executing broker on the basis of the considerations described above with respect to the selection of brokers. A prime broker may provide services to FIAM, distinct from the custodial, lending and related services the prime broker provides to the funds or other accounts. The prime broker may introduce FIAM to prospective investors in a fund. To the extent FIAM receives such services, conflicts may exist between FIAM's interests and the interests of the relevant fund.

Investment Research Products and Brokerage Services Furnished by Research Providers and Brokers

FIAM and its affiliates have established policies and procedures relating to brokerage commission uses in compliance with Section 28(e) of the Exchange Act, the provisions of the 1940 Act, and various interpretations of the staff of the SEC thereunder, and with regard to FMRIM (UK), where applicable, the revised Markets in Financial Instruments Directive in the European Union, commonly referred to as "MiFID II", as implemented in the United Kingdom through the Conduct of Business Sourcebook Rules of the UK Financial Conduct Authority (the "FCA").

For accounts managed outside the European Union, FIAM or its affiliates may execute portfolio securities transactions with brokers that provide products and services (as defined in Section 28(e) of the Exchange Act) ("Research and Brokerage Services") that assist them in fulfilling their investment management responsibilities") in accordance with applicable law. Research and Brokerage Services that FIAM or its affiliates have received during the last fiscal year include, when permissible under applicable law, but are not limited to, economic, industry, company, municipal, sovereign (U.S. and non-U.S.), legal or political research reports; market color; company meeting facilitation; compilation of securities prices, earnings, dividends and similar data; quotation services, data, information and other services; analytical computer software and services; and investment recommendations. Brokers also provide Research and Brokerage Services in the form of a specific proprietary or third-party product or service, upon request by FIAM or its affiliates. Some of these Research and Brokerage Services supplement FIAM's or its affiliates' own research activities in providing investment advice to their clients. In addition to receiving these Research and Brokerage Services via written reports and computer-delivered services, such reports may also be provided by telephone and in person meetings with securities analysts, corporate and industry spokespersons, economists, academicians and government representatives and others with relevant professional expertise.

In addition, when permissible under applicable law, Research and Brokerage Services include those that assist in the execution, clearing and settlement of securities transactions, as well as other incidental functions (including, but not limited to, communication services related to trade execution, order routing and algorithmic trading, post-trade matching, exchange of messages among brokers or dealers, custodians and institutions, and the use of electronic confirmation and affirmation of institutional trades).

To the extent permitted by applicable law, from time to time, certain brokers who execute client transactions receive compensation in recognition of their Research and Brokerage Services that is in excess of the amount of compensation that other brokers might have charged. An economic incentive exists for FIAM or its affiliates to select or recommend a broker-dealer based on their interest in receiving the Research and

Brokerage Services, rather than on FIAM's or its affiliates' clients interest in receiving most favorable execution. FIAM's or its affiliates' expenses likely would be increased if they attempted to generate these additional Research and Brokerage Services through their own efforts or if they paid for these Research and Brokerage Services with their own resources. FIAM and its affiliates manage the receipt of Research and Brokerage Services and the potential conflicts through their Commission Uses Program. The Commission Uses Program effectively "unbundles" commissions paid to brokers who provide Research and Brokerage Services, i.e., commissions consist of an execution commission, which covers the execution of the trade (including clearance and settlement), and a research charge, which is used to cover Research and Brokerage Services. Those brokers have client commission arrangements (each a "CCA") in place with FIAM and its affiliates (each of those brokers is referred to as "CCA brokers").

In selecting brokers for executing transactions on behalf of clients of FIAM and its affiliates, FIAM instructs its trading desks to select brokers and execute portfolio transactions on behalf of their clients based on the quality of execution and without any consideration of what Research and Brokerage Services the CCA broker provides. Commissions paid to a CCA broker include both an execution commission and either credits or transmits the research portion (also known as "soft dollars") to a CCA pool maintained by each CCA broker. Soft dollar credits ("credits") accumulated in CCA pools are used to pay research expenses. In some cases, FIAM or its affiliates request that a broker which is not a party to any particular transaction provide a specific proprietary or third-party product or service, which would be paid with credits from the CCA pool. The administration of Research and Brokerage Services is managed separately from the trading desks, and traders have no responsibility for administering the research program, including the payment for research. FIAM or its affiliates may use a third-party aggregator to facilitate payments to research providers. Where an aggregator is involved, the aggregator would maintain credits in an account that is segregated from the aggregator's proprietary assets and the assets of its other clients ("segregated account") and use those credits to pay research providers as instructed by FIAM or its affiliates. Furthermore, where permissible under applicable law, certain of the Research and Brokerage Services that FIAM or its affiliates receive are furnished by brokers on their own initiative, either in connection with a particular transaction or as part of their overall services. Some of these Research and Brokerage Services are provided at no additional cost to FIAM or its affiliates or might not have an explicit cost associated with them.

In connection with the allocation of client brokerage, FIAM or its affiliates make a good faith determination that the compensation paid to brokers and dealers is reasonable in relation to the value of the Research and Brokerage Services provided to FIAM or its affiliates, viewed in terms of the particular client transaction for the client or FIAM's or its affiliates' overall responsibilities to that client or other clients for which FIAM or its affiliates have investment discretion; however, each Research and Brokerage Service received in connection with a client's brokerage may not benefit all clients and certain clients may receive the benefit of Research and Brokerage Services obtained with other clients' commissions. As required under applicable laws or client policy, commissions generated by certain clients may only be used to obtain certain Research and Brokerage Services. As a result, certain client accounts may pay more proportionately of certain types of Research and Brokerage Services than others, while the overall amount of Research and Brokerage Services paid by each client continues to be allocated equitably. Certain non-equity accounts that on rare occasion may receive an equity security through an issuer restructuring or other event and are required or determine to dispose of such equity security, subject to applicable law and client policy, may trade at execution only rates outside of the Commission Usage Program. While FIAM or its affiliates take into account the Research and Brokerage Services provided by a broker or dealer in determining whether compensation paid is reasonable, neither FIAM, its affiliates, nor their respective clients incur an obligation to any broker, dealer or third party to pay for any Research and Brokerage Services (or portion thereof) by generating a specific amount of compensation or otherwise. Typically, for accounts managed by FIAM or its affiliates outside of the European Union or the United Kingdom, these Research and Brokerage Services assist FIAM or its affiliates in terms of their overall investment responsibilities to a client or any other client accounts for which FIAM or its affiliates may have investment discretion. Certain client accounts use brokerage commissions to acquire Research and Brokerage Services that may also benefit other client accounts managed by FIAM or its affiliates, and not every client account uses the Research and Brokerage Services that have been acquired through that account's commissions. In addition, FIAM or its affiliates, if

acting as an adviser to certain non-U.S. accounts that have been subadvised to FIAM or its affiliates, have reimbursed, and may reimburse, certain commissions or costs of those clients.

For accounts that are managed within the United Kingdom, FMRIM (UK) uses research payment accounts (“RPAs”) to cover costs associated with equity and high income external research that is consumed by those accounts in accordance with MiFID II and FCA regulations. With RPAs, clients pay for external research through a separate research charge that is generally assessed and collected alongside the execution commission.* For accounts that use an RPA, FMRIM (UK) establishes a research budget. The budget is set by first grouping accounts by strategy (e.g., asset allocation, blend, growth, etc.), and then determining what external research is consumed to support the strategies and portfolio management services provided within the European Union or the United Kingdom. In this regard, research budgets are set by research needs and are not otherwise linked to the volume or value of transactions executed on behalf of the account. For accounts where portions are managed both within and outside the United Kingdom, external research is paid using both a CCA and an RPA. Determinations of what is eligible research and how costs are allocated are made in accordance with FIAM’s and its affiliates’ policies and procedures. Costs for research consumed by accounts that use an RPA are allocated among the accounts within defined strategies pro rata based on the assets under management for each account. The research charge paid on behalf of any one account that uses an RPA varies over time.

FMRIM (UK) is responsible for managing the RPA and may delegate its administration to a third-party administrator for the facilitation of the purchase of external research and payments to research providers. RPA assets are maintained in accounts at a third-party depository institution, held in the name of FMRIM (UK). FMRIM (UK) provides the adviser to certain accounts, and upon request, a summary of: (i) the providers paid from the RPA; (ii) the total amount they were paid over a defined period; (iii) the benefits and services received by FMRIM (UK); and (iv) how the total amount spent from the RPA compares to the research budget set for that period, noting any rebate or carryover if residual funds remain in the RPA.

Impacted accounts, like those accounts that participate in CCA pools, may make payments to a broker that include both an execution commission and a research charge, but unlike CCAs (for which research charges may be retained by the CCA broker and credited to the CCA, as described above), the broker will receive separate payments for the execution commission and the research charge and will promptly remit the research charge to the RPA. Assets in the RPA are used to satisfy external research costs consumed by the accounts. If the costs of paying for external research exceed the amount initially agreed in relation to accounts in a given strategy, the adviser may continue to charge those accounts beyond the initially agreed amount in accordance with MiFID II, continue to acquire external research for the accounts using its own resources (referred to as “hard dollars”), or cease to purchase external research for those accounts until the next annual research budget. If assets for specific accounts remain in the RPA at the end of a period, they may be rolled over to the next period to offset next year’s research charges for those accounts or rebated to those accounts.

Accounts managed by FMRIM (UK) that trade only fixed income securities will not participate in RPAs because fixed income securities trade based on spreads rather than commissions, and thus unbundling the execution commission and research charge is impractical. Therefore, FMRIM (UK) and its affiliates have established policies and procedures to ensure that external research that is paid for through RPAs is not made available to FMRIM (UK) portfolio managers that manage fixed income accounts in any manner inconsistent with MiFID II and FCA regulations.

Although FIAM or its affiliates do not use client commissions to pay for products or services that do not qualify as Research and Brokerage Services or eligible external research under MiFID II and FCA

* The staff of the SEC addressed concerns that reliance on an RPA mechanism to pay for research would be permissible under Section 28(e) of the Exchange Act by indicating that they would not recommend enforcement against investment advisers who used an RPA to pay for Research and Brokerage Services so long as certain conditions were met. Therefore, references to “research charges” as part of the RPA mechanism to satisfy MiFID II requirements can be considered “commissions” for Section 28(e) purposes.

regulations, where allowed by applicable law, they may use commission dollars to obtain certain products or services that are not used exclusively in FIAM or its affiliates' investment decision-making process ("mixed-use products or services"). In those circumstances, FIAM or its affiliates will make a good faith effort to evaluate the various benefits and uses to which they intend to put the mixed-use product or service, and will pay for that portion of the mixed-use product or service that does not qualify as Research and Brokerage Services with hard dollars.

FIAM or its affiliates have arrangements with certain third-party research providers and brokers through whom FIAM or its affiliates effect client trades, whereby FIAM or its affiliates pay with account commissions or hard dollars for all or a portion of the cost of research products and services purchased from such research providers or brokers. If hard dollar payments are used, FIAM or its affiliates may still cause the client to pay more for execution than the lowest commission rate available from the broker providing research products and services to FIAM or its affiliates, or that may be available from another broker. FIAM's or its affiliate's potential determination to pay for research products and services separately (e.g., with hard dollars) is wholly voluntary on FIAM's or its affiliate's part and may be extended to additional brokers or discontinued with any broker participating in this arrangement.

If FIAM has engaged a subadviser to a FIAM account or a portion of a FIAM account, subject to applicable law, the subadviser's policies will apply to trading for that account. Those policies may differ from FIAM's policies.

Other Considerations and Brokerage Arrangements

Commission Recapture and Broker Restrictions

From time to time, FIAM or its affiliates engages in brokerage transactions with brokers who are not affiliates of FIAM who have entered into arrangements with FIAM or its affiliates under which the broker may rebate a portion of the compensation paid by a client account ("Commission Recapture Program"). Not all brokers with whom the client account trades have been asked to participate in brokerage commission recapture. A FIAM client may only participate in the Commission Recapture Program if the client has opted to participate in the Commission Recapture Program. A FIAM client may participate in its own commission recapture arrangement as well as FIAM's Commission Recapture Program upon notice to FIAM. Should a FIAM client elect not to participate in FIAM's Commission Recapture Program, those rebated commissions that would have been allocated to the client's account remain with the broker for FIAM's use in obtaining research services as provided for under applicable law.

FIAM and its affiliates recommend that clients do not request them to direct client portfolio transactions to specific brokers. Clients may nonetheless make such requests, and FIAM or its affiliates may direct such brokerage, subject to FIAM's or its affiliates' attempt to seek quality execution and provided that the broker is an approved counterparty of FIAM or its affiliate. In seeking to accommodate such directed brokerage requests, FIAM and/or its affiliates may execute an entire securities transaction with a broker and allocate all or a portion of the transaction and/or related commissions to a second broker where a client does not permit trading with an affiliate of FIAM or in other limited situations. Clients should be aware that if they direct portfolio transactions to specific brokers or if clients restrict trading with specific brokers (for example, because of affiliations): (a) FIAM or its affiliates may be unable to achieve most favorable execution of such directed or restricted transactions; (b) the client may pay higher brokerage commissions on such directed or restricted transactions because FIAM or its affiliates may be unable to aggregate such transactions with other orders; and (c) the client may receive less favorable prices on such directed or restricted broker transactions.

In selecting brokers for non-private fund clients of FIAM to execute client portfolio transactions, FIAM or its affiliates consider the factors they deem relevant in the context of a particular trade and in regard to FIAM's or its affiliates' overall responsibilities with respect to the account and other investment accounts, including

any instructions from the client's portfolio manager. FIAM and its affiliates do not receive client referrals for such selection. See above for more information.

As described above, certain of FIAM's funds may use prime brokers. In selecting prime brokers, FIAM considers, among other things, the clearance and settlement capabilities of the prospective prime broker, the prime broker's ability to provide effective and efficient reporting, the prime broker's creditworthiness and financial stability, and the likely frequency that the prime broker will be chosen as an executing broker on the basis of the considerations described above with respect to the selection of brokers. A prime broker may provide services to FIAM, distinct from the custodial, lending and related services the prime broker provides to the funds or other accounts. The prime broker may introduce FIAM to prospective investors in a fund. To the extent FIAM receives such services, conflicts may exist between FIAM's interests and the interests of the relevant fund.

To facilitate trade settlement and related activities in non-U.S. securities transactions, FIAM or its affiliates effect spot foreign currency transactions with foreign currency dealers or engage a third party to do so. In certain circumstances, a FIAM client may direct the execution of foreign currency transactions with or through a particular party. Due to local law and regulation, logistical or operational challenges, or the process for settling securities transactions in certain markets (e.g., short settlement periods), in certain circumstances, spot currency transactions are effected on behalf of clients by parties other than FIAM or its affiliates, including clients' custodian banks (working through sub-custodians or agents in the relevant non-U.S. jurisdiction) or broker-dealers that executed the related securities transaction.

If FIAM has engaged a subadviser to a FIAM account or a portion of a FIAM account, subject to applicable law, the subadviser's commission recapture and associated policies will apply to trading for that account. These policies may differ from FIAM's policies.

Trade Allocation Policies

Bunched Trades

For trades executed on behalf of FIAM's clients, it is the practice, when appropriate, to combine, or "bunch" orders of various accounts, including those of its clients, its affiliates' clients (including FIAM), and, in certain instances, proprietary accounts, for order entry and execution. Bunched orders are executed through one or more brokers. The allotment of trades among brokers is based on a variety of factors, which include price, order size, the time of order, the security and market activity. A bunched trade executed with a particular broker is generally allocated pro rata among the accounts that are participating in the bunched trade until any account has been filled. After any account has been filled, the trade is allocated pro rata among the remaining accounts. Each broker's execution of a bunched order may be at a price different than another broker's bunched order execution price for the same security. Additionally, as a result of accommodating the differing arrangements regarding the payment for research that is required by MiFID II, clients in a bunched trade may not pay a pro rata share of all costs associated with that bunched trade.

Allocation of Trades

FIAM and its affiliates have established allocation policies for their various accounts (including proprietary accounts) and securities types (e.g., equity, fixed income and high income) to ensure allocations are appropriate given clients' differing investment objectives and other considerations. These policies also apply to initial and secondary offerings and to private security investments. When, in FIAM's or its affiliates' opinion, the supply/demand is insufficient under the circumstances to satisfy all outstanding orders, across all securities types the amount executed generally is distributed among participating accounts based on account net asset size (for purchases) and security position size (for sales), or otherwise according to the allocation policies. With limited exceptions, the trading systems contain rules that allocate trades on an automated basis in accordance with these policies. Generally, any exceptions to FIAM's and its affiliates' policies (i.e., special allocations) must be approved by senior trading and compliance personnel and documented.

FIAM's and its affiliates' trade allocation policies identify circumstances under which it is appropriate to modify or deviate from the general allocation criteria and describe the alternate procedures. For allocations based on net assets, the trade allocation policies for each of equity, fixed income, and high income define the method of calculating net assets to be used depending on particular circumstances. The trade allocation policies define net assets generally by reference to each account's assets managed by each of the equity, fixed income, or high income divisions, and by reference to certain security and account types, such as high income, investment grade or equity securities and accounts, as summarized below;

Security and Account Type	Equity Trading Desk	Fixed Income Trading Desk	High Income Trading Desk
High Income	1%	1% (except 100% if buying High Income security on Fixed Income desk)	100%
Equity	100%	1%	1%
Fixed Income	1%	100%	1% (except 100% if buying Fixed Income security on High Income desk)

The high income trade allocation policy also defines net assets similarly for bank loan and real estate accounts when acquiring bank loan and real estate securities, respectively. The high income policy generally provides that 100% of a bank loan account's net assets, but only 10% of net assets for other types of high income accounts, will be taken into account when allocating bank loans. Conversely, the high income trade allocation policy generally provides that only 10% of a bank loan account's net assets will be taken into account when allocating high income securities other than bank loans.

The equity trade allocation policy further provides that certain portfolios that are not managed by the equity division, but as part of their principal investment strategies or objectives trade common stock and instruments that trade on the equity desk, would receive an asset measure that is based on the theoretical maximum amount that each portfolio could invest in securities that trade on the equity desk. The equity and high income trade allocation policies also provide that certain multi-asset class portfolios that have principal investment strategies or objectives that include securities across all asset types will have 100% of their assets taken into account for allocation purposes when trading on the equity or high income trading desks, respectively. The equity trade allocation policy allows for certain specialized accounts, such as international, real estate investment or convertible securities accounts to receive an increased allocation by increasing the weighting of an account's net assets by a factor of two or four where the securities correlate closely to the investment objective or focus of the account. FIAM and its affiliates utilize standard criteria, such as country of risk or country of incorporation, to determine whether an international security correlates to the investment objective or focus of the account. Short sale and "buy to cover" transactions generally are subject to the same general allocation criteria as non-short sale transactions, and thus could experience significant delays in execution, which could materially impact the performance of accounts whose strategies rely on short sales.

What constitutes net assets differs for certain specialized accounts. For portfolios that raise capital through private offerings, the equity, high income, and fixed income trade allocation policies define net assets based on expected, committed, and/or funded capital, or a combination thereof, depending upon the stage of the portfolio's fundraising process. The high income policy defines net assets for collateralized loan obligation portfolios based on expected and total market exposure. Additionally, under the fixed income trade allocation policy, when defining what constitutes net assets for separately managed account (SMA) clients when trading alongside other client accounts, the assets of SMAs that follow similar investment strategies

are grouped into an omnibus trading account, where that omnibus trading account is treated as a single portfolio for allocation purposes. After a retail SMA omnibus trading account receives an allocation of a purchase or sale of a security or other investment, such allocation will generally be further allocated among the SMAs participating in the account on a pro rata basis based on the final order size of each SMA.

Alternate allocation methods other than net asset size (for purchases) and security position size (for sales) are employed under certain circumstances. The equity trade allocation policy allows for certain accounts designed to have common investment and trading strategies (e.g., one portfolio modeled on another portfolio) to receive allocations that would facilitate keeping the portfolios' holdings proportionately balanced. The fixed income trade allocation policy allows for several alternate allocation methods, in some cases only where the portfolio managers of all accounts involved in the allocation agree to the use of the alternate method(s) as follows:

- pro rata allocations based on the size of the accounts' orders;
- rotating investment opportunities among accounts that trade consistently on specific trading desks (e.g., taxable bond desks or money market desks);
- bunching securities or other investments that are deemed to be fungible and then allocating the bunched orders on a series basis so as to keep like-securities or other investments grouped together; and/or
- providing a priority allocation for trades the execution of which are contingent on the execution of other trades.

The fixed income trade allocation policy also provides for increased or priority allocations for accounts specializing in a particular type of security or other investment including the following:

- priority allocations for certain accounts for repurchase agreements;
- increased allocations of municipal securities to single state municipal money market and municipal bond accounts for obligations that are tax-exempt within their state; and
- a priority allocation of U.S. Treasury money market securities to Treasury-only money market accounts.

In addition, futures contracts are allocated based on order size.

All of the trade allocation policies generally provide for minimum allocations based on market-defined minimum denominations, or otherwise allow increased or decreased allocations in the following circumstances:

- to avoid a *de minimis* allocation
- to round to a trading round lot, or
- in the case of the high income trade allocation policy, to complete a sale of all holdings to avoid residual holdings in an amount less than a basic unit of trading.

Trade allocations are also impacted by various regulatory requirements depending on where the trade is executed and what types of accounts are included in the trade. In such circumstances, some accounts may need to be prioritized over others when supply/demand is insufficient. Client accounts receive priority of allocation over proprietary accounts. Accounts for which all the assets are those of FIAM or its affiliates and are not otherwise used to seed new investment products or to meet potential claims of insurance policyholders are generally considered to be proprietary accounts. Accounts owned or managed for the benefit of individual employees of FIAM or its affiliates or officers or trustees of various investment products are generally considered client accounts, subject to applicable law.

FIAM engages subadvisers for certain FIAM accounts. Those accounts or portions of accounts will be subject to that subadviser's trade allocation and associated trading policies, subject to applicable law. As a

result, a client's accounts or portions of accounts may be subject to differing trade allocation policies as described above.

Identification and Resolution of Errors

As an investment adviser, FIAM maintains policies and procedures that address the identification and correction of errors consistent with applicable standards of care and clients' investment management agreements. To the extent that an error occurs, FIAM's policy is to identify and resolve the error as promptly as possible. FIAM will address and resolve errors on a case by case basis, in its discretion, based on each error's facts and circumstances. FIAM is not obligated to follow any single method of resolving errors.

An incident is any occurrence or event that interrupts normal investment-related activities or that deviates from applicable law, the terms of an investment management agreement, or applicable internal or external policies or procedures. Incidents can occur at FIAM or at one of FIAM's service providers and can be identified by any of the same.

The determination of whether an incident constitutes an error is made by FIAM in its sole discretion based on the relevant facts and circumstances of each incident considered in light of the applicable standard of care. Errors include, without limitation: (i) purchases or sales that exceed the amount of securities intended to trade for a fund or account; (ii) the purchase (or sale) of a security when it should have been sold (or purchased); (iii) the purchase or sale of a security not intended for the fund or account, and/or contrary to investment guidelines or restrictions; and (iv) incorrect allocations of trades.

Situations that generally would be considered by FIAM to be incidents but not errors include, without limitation, (i) failure by a portfolio manager to provide timely notification of an incorrect purchase of a security although the security purchased was appropriate for the fund or account; (ii) passive or active breach of an internal or account-level limit; (iii) failure to update a portfolio manager in a timely manner regarding an increase in shares outstanding or additional room to buy for a security that had been at an aggregate limit; and (iv) external events, such as securities exchange outages. Other situations that result from failures in internal processes, people or systems, such as other routine processing errors or major systems failures, may be deemed to be incidents and not errors depending on the facts and circumstances. For example, computer, communications, data processing, networks, backup, business continuity or other operating, information or technology systems, including those FIAM or its affiliates outsources to other providers, may fail to operate properly or become disabled, overloaded or damaged as a result of a number of factors. These factors could include events that are wholly or partially beyond FIAM's or its affiliate's control and may have a negative impact on our ability to conduct business activities. Though losses arising from operating, information or technology systems failures could adversely affect a client account's performance, such losses would likely not be reimbursable under FIAM's policies.

Additionally, incidents involving fund monitoring or aggregate monitoring compliance violations may or may not be deemed by FIAM to be errors depending on the facts and circumstances. For example, an active breach of a client mandate or regulatory limit (e.g., due to an acquisition of additional securities for an account) may be deemed to be an error and may be compensable depending on the particular circumstances, but a passive breach of such a limit (e.g., due to a reduction in the issuer's outstanding securities) would not be considered an error and would not be compensable. Active breaches of issuer or regulatory limits, including poison pill limits, may be deemed to be errors and may be compensable depending on the circumstances, but passive breaches generally will not. Further, a passive breach of an aggregate limit on holdings of a security established internally by FIAM and its affiliates, and instances where all available aggregate capacity on a security is not fully utilized, generally are not considered errors and are not compensable, but an active breach of an internal aggregate limit may be deemed to be an error and compensable depending on the particular circumstances. To the extent that client accounts already own securities that directly or indirectly contribute to certain ownership thresholds being exceeded, FIAM may sell securities held in such accounts to bring account-level and/or aggregate ownership below the relevant threshold. If any such sales result in losses for client accounts, those client accounts may bear such losses depending on the particular circumstances.

FIAM is responsible for notifying, when appropriate, the affected client of an error. FIAM generally will not notify clients about incidents deemed not to be errors and non-compensable errors, unless otherwise agreed with particular clients. All errors requiring reimbursement to a Fidelity affiliated mutual fund or ETF of \$100,000 or more must be reported to the Compliance Committee (or other applicable Committee) of the fund's or ETF's Board of Trustees at its next scheduled meeting.

When FIAM determines that reimbursement is appropriate, the account will be compensated as determined in good faith by FIAM. Resolution of errors includes, but is not limited to, permitting client accounts to retain gains or reimbursing client accounts for losses resulting from the error. The calculation of the amount of any loss will depend on the facts and circumstances of the error, and the methodology used by FIAM may vary. Unless prohibited by applicable regulation or a specific agreement with the client, FIAM will net a client's gains and losses from the error or a series of related errors with the same root cause and compensate the client for the net loss. In general, compensation is expected to be limited to direct monetary losses and will not include any amounts that FIAM deems to be speculative or uncertain, nor will it cover investment losses not caused by the error. FIAM may elect to establish an error account for the resolution of errors which could be used depending on the facts and circumstances.

Review of Accounts

Each portfolio manager of FIAM and any applicable investment review groups or committee reviews the holdings in the funds or accounts for which he or she is responsible. Account assignments are made based on several factors, including the relevant experience and ability of the portfolio managers, the complexity of the strategies, the physical location of personnel, and the similarities among strategies assigned to a portfolio manager. A portfolio manager may manage two or more accounts, and generally the accounts have similar investment objectives and draw on research and trading staffs for support. If FIAM has delegated advisory services to an affiliated subadviser, portfolio managers of the affiliated subadviser generally follow the same review guidelines.

FIAM and its affiliates manage clients' separate account mandates as described in each investment management agreement and as provided for in that client's statement of account objectives within the context of the investment guidelines dictated by that client. FIAM does not undertake to ascertain a client's investment objectives outside of the guidelines determined by the client as stated in the investment management agreement. Any changes in a client's investment objectives will be directed by the client as memorialized in the investment management agreement and FIAM undertakes no obligation to update the client's investment objectives unless it has agreed to do so in its investment management agreement with a client.

FIAM and its affiliates generally apply investment guidelines consistent with any applicable policies as determined by FIAM or its affiliates, which include default interpretative guidance or accepted market practice for certain phrases or terminology in the absence of specific and/or explicit guidance from a client, in the case of a separate or sub-advised account, or in a collective investment vehicle's investment guidelines. FIAM and its affiliates may, in certain circumstances, take up to 30 days to fully implement and be in compliance with guidelines for a new separate or sub-advised account or collective investment vehicle, or for certain changes to investment guidelines in the case of an existing account or product, unless otherwise agreed to or directed by the client. Monitoring of an account's investment guidelines occurs as described in FIAM and its affiliates policies and procedures and any investment management agreement.

In its role as an adviser or subadviser, FIAM may supply the boards of trustees of FIAM's registered U.S. investment company clients, along with other clients, with monthly or periodic reports providing, among other items, comparative performance data and certain brokerage commission reports.

Reports to other non-investment company and unregistered investment fund clients are prepared when requested by such clients, and clients of FIAM and its affiliates may receive customized or different reports

than other clients. From time to time FIAM or its affiliates also supply to investors in unregistered funds it or its affiliates manage monthly unaudited performance information and annual audited financial statements. In limited circumstances in response to client inquiries, FIAM or its affiliates provide research related information with respect to securities held in the relevant client's portfolio, in some instances on a delayed basis.

To help the government fight money laundering and the funding of terrorism, federal law requires FIAM to obtain a client's name, date of birth, address, and a government-issued identification number before opening the account, and to verify the information. In certain circumstances, FIAM and its affiliates may obtain and verify comparable information for any person authorized to make transactions in an account or beneficial owners of certain entities. Further documentation is required for certain entities such as trusts, estates, corporations, partnerships, and other organizations. A client's account may be restricted or closed if we cannot obtain and verify this information. FIAM is not responsible for any losses or damages (including, but not limited to, lost opportunities) that may result if a client's account is restricted or closed.

In so far as FIAM shares research as described above, the research is not customized for any account.

Client Referrals and Other Compensation

FIAM and its affiliates compensate affiliates and FIL for client referrals. In addition, FIAM and/or its affiliates may engage non-affiliated solicitors for compensation in accordance with applicable law from time to time. Discretionary compensation of FIAM's sales personnel is based in part on their success in raising assets on behalf of FIAM.

Custody

Although FIAM generally does not hold client assets, FIAM may be "deemed," for purposes of the Advisers Act, to have custody of certain of its discretionary client's assets (for example, an adviser is deemed to have custody under the Advisers Act where an affiliate serves as qualified custodian or where the advisor, or its affiliate, has the ability to deduct advisory fees or legal capacity to access collective fund clients' accounts). Discretionary clients for which FIAM is deemed to have custody will receive account statements from the independent, qualified custodian or prime broker that has been appointed to serve as custodian with respect to clients' accounts. Clients should carefully review those statements.

Investment Discretion

FIAM's discretionary authority to manage accounts on behalf of its clients and any limitations that are imposed on such authority are described in the "Advisory Business" section of this brochure. FIAM typically assumes this authority after the execution of a duly authorized investment management agreement, which may incorporate a power of attorney and once an account has been funded. In limited cases, FIAM's investment trade decisions on behalf of a client's account may be overridden by the client, in which case FIAM may not be held responsible for any loss associated with such action or other consequences that have an adverse material effect on the account. Such limitations on FIAM's discretion are described in the investment management agreement entered into with each client and are subject to negotiation.

FIAM does not have investment discretion in the course of providing investment research as described above and any decision as to whether and how to implement such research is made by the recipient of such research.

Voting Client Securities

When authorized by clients, FIAM or its affiliates (“Fidelity”) generally cast votes on behalf of client accounts by proxy at shareholder meetings of issuers in which Fidelity invests client assets. Fidelity has established formal written proxy voting guidelines (the “Guidelines”) which are designed to ensure that proxies are voted in accordance with the best interests of clients as determined by Fidelity’s sole judgment. Fidelity has also adopted these Guidelines as part of its proxy voting policies and procedures in accordance with Rule 206(4)-6 under the Advisers Act. FMR provides proxy voting services to FIAM and its affiliates.

Clients may obtain a complete set of Guidelines, as well as a record of how their proxies were voted, by contacting FIAM at the address or phone number found on the cover of this brochure.

In evaluating proxies, Fidelity recognizes that companies can conduct themselves in ways that have important environmental and social consequences. While Fidelity always remains focused on maximizing long-term shareholder value, we also consider potential environmental, social and governance (ESG) impacts that we believe are material to individual companies and investing funds’ investment objectives and strategies.

Fidelity will vote on proposals not specifically addressed by the Guidelines based on an evaluation of a proposal’s likelihood to enhance the long-term economic returns or profitability of the company or to maximize long-term shareholder value.

Proposals Relating to Director Elections

Fidelity generally will support director nominees in elections where all directors are unopposed (uncontested elections), except where board composition raises concerns, and/or where a director clearly appears to have failed to exercise reasonable judgment or otherwise failed to sufficiently protect the interests of shareholders. Fidelity will evaluate board composition and generally will oppose the election of certain or all directors if, by way of example: inside or affiliated directors serve on boards that are not composed of a majority of independent directors; there are no women on the board or if a board of ten or more members has fewer than two women directors; or the director is a public company CEO who sits on more than two unaffiliated public company boards. Fidelity will evaluate board actions and generally will oppose the election of certain or all directors if, by way of example: the director attended fewer than 75% of the total number of meetings of the board and its committees on which the director served during the company’s prior fiscal year, absent extenuating circumstances; the company made a commitment to modify a proposal or practice to conform to these guidelines, and failed to act on that commitment; the company has not adequately addressed concerns communicated by Fidelity in the process of discussing executive compensation; within the last year, and without shareholder approval, a company’s board of directors or compensation committee has either re-priced outstanding options, exchanged outstanding options for equity, tendered cash for outstanding options, or adopted or extended a golden parachute; or the board adopted or extended an anti-takeover provision without shareholder approval. Fidelity generally will support proposals calling for directors to be elected by a majority of votes cast if the proposal permits election by a plurality in the case of contested elections. Fidelity may oppose a majority voting shareholder proposal where a company’s board has adopted a policy requiring the resignation of an incumbent director who fails to receive the support of a majority of the votes cast in an uncontested election.

Fidelity believes that strong management creates long-term shareholder value. As a result, Fidelity generally will vote in support of management of companies in which the Fidelity Funds’ and other clients’ assets are invested. Fidelity will vote its proxy on a case-by-case basis in a contested election (where directors are forced to compete for election against outside director nominees), taking into consideration a number of factors, among others: management’s track record and strategic plan for enhancing shareholder value; the long-term performance of the company compared to its industry peers; and the qualifications of the shareholder’s and management’s nominees. Fidelity will vote for the outcome it believes has the best prospects for maximizing shareholder value over the long-term.

Proposals Relating to Executive Compensation

Fidelity generally will support proposals to ratify executive compensation unless such compensation appears misaligned with shareholder interests or is otherwise problematic, taking into account (i) the actions taken by the board or compensation committee in the previous year, including whether the company repriced or exchanged outstanding stock options without shareholder approval; adopted or extended a golden parachute without shareholder approval; or adequately addressed concerns communicated by Fidelity in the process of discussing executive compensation; (ii) the alignment of executive compensation and company performance relative to peers; and (iii) the structure of the compensation program, including factors such as whether incentive plan metrics are appropriate, rigorous and transparent; whether the long-term element of the compensation program is evaluated over at least a three-year period; the sensitivity of pay to below median performance; the amount and nature of non-performance-based compensation; the justification and rationale behind paying discretionary bonuses; the use of stock ownership guidelines and amount of executive stock ownership; and how well elements of compensation are disclosed.

Proposals Relating to Equity Compensation Plans

The Guidelines generally oppose equity compensation plans or amendments to authorize additional shares under such plans if: the company grants stock options and equity awards in a given year at a rate higher than a benchmark rate (“burn rate”) considered appropriate by Fidelity and there were no circumstances specific to the company or the compensation plans that led Fidelity to conclude that the rate of awards is otherwise acceptable; the plan includes an evergreen provision, which is a feature that provides for an automatic increase in the shares available for grant under an equity compensation plan on a regular basis; or the plan provides for the acceleration of vesting of equity compensation even though an actual change in control does not occur. As to stock option plans, considerations include the following: the Guidelines that support the pricing of options should be priced at 100% of fair market value on the date they are granted; the Guidelines generally oppose the pricing of options at a discount to the market, although the price may be as low as 85% of fair market value if the discount is expressly granted in lieu of salary or cash bonus; and the Guidelines generally oppose the re-pricing of underwater options (options with an exercise price that is higher than the current price of the stock) because it is not consistent with a policy of offering options as a form of long-term compensation. Fidelity also generally opposes a stock option plan if the board or compensation committee has repriced options outstanding in the past two years without shareholder approval.

Proposals Relating to Changes in Corporate Control

The Guidelines generally oppose measures that are designed to prevent or obstruct corporate takeovers. Such measures include: classified boards, “blank check” preferred stock, golden parachutes, poison pills, supermajority provisions, restricting shareholders’ right to call special meetings or to set board size, and any other provision that eliminates or limits shareholder rights.

Proposals Relating to Shareholder Rights

The Guidelines generally (i) support simple majority voting, (ii) oppose cumulative voting, and (iii) oppose new classes of stock with differential voting rights, subject to evaluation of such proposals in the context of their likelihood to enhance long-term economic returns or maximize long-term shareholder value.

Proposals Relating to Environmental and Social Issues

Fidelity generally considers management’s recommendation and current practice on shareholder proposals concerning environmental or social issues because it generally believes that management and the board are in the best position to determine how to address these matters. Fidelity, however, also believes that transparency is critical to sound corporate governance. Therefore, Fidelity may support shareholder proposals that request additional disclosures from companies regarding environmental or social issues, including where it believes that the proposed disclosures could provide meaningful information to the investment management process without unduly burdening the company. This means that Fidelity may

support shareholder proposals calling for reports on sustainability, renewable energy, and environmental impact issues. Fidelity also may support proposals on issues in other areas, including but not limited to equal employment, board diversity and workforce diversity.

Securities on Loan

Securities on loan as of a record date cannot be voted. In certain circumstances, Fidelity may recall a security on loan before record date (for example, in a particular contested director election or a noteworthy merger or acquisition). Generally, however, securities out on loan remain on loan and are not voted because, for example, the income a fund derives from the loan outweighs the benefit the fund receives from voting the security. In addition, Fidelity may not be able to recall and vote loaned securities if Fidelity is unaware of relevant information before record date, or is otherwise unable to timely recall securities on loan.

Conflicts of Interest

Voting of shares is conducted in a manner consistent with the best interests of the funds. In other words, securities of a company generally will be voted in a manner consistent with these guidelines and without regard to any other Fidelity companies' business relationships. For example, Fidelity's affiliates manage or administer employee benefit plans, or provide brokerage, underwriting, insurance, or banking services to companies whose management solicit proxies. Fidelity also has business or personal relationships with participants in proxy contests, corporate directors or candidates for directorships. Fidelity takes its responsibility to vote shares in the best interests of the funds seriously and have implemented policies and procedures to address actual and potential conflicts of interest.

IPR, which is part of the Fidelity Fund and Investment Operations department, is charged with administering the Guidelines as agent to facilitate the voting of proxies. IPR votes proxies without regard to any other Fidelity companies' business relationships with that portfolio company. Like other Fidelity employees, IPR employees have a fiduciary duty to never place their own personal interest ahead of the interests of fund shareholders. In the event of a conflict of interest, Fidelity employees are required to follow the escalation process included in Fidelity's corporate policy on conflicts of interest.

Clients may not direct FIAM's vote if FIAM has been given proxy voting authority, subject to applicable law.

In very limited circumstances, clients have asked FIAM to follow that client's investment voting guidelines. In such cases, FIAM may engage a third party to vote such proxies.

If FIAM has engaged a subadviser, that subadviser may vote proxies according to its own proxy voting guidelines for those FIAM accounts or portions of FIAM accounts for which the subadviser has been granted such authority.

Financial Information

FIAM does not solicit prepayment of client fees more than six months in advance.

FIAM is not aware of any financial condition that is reasonably likely to impair its ability to meet contractual commitments to clients.

Requirements for State-Registered Advisers

FIAM is not registered with any state securities authority.