

Teachers Advisors, LLC

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This Brochure provides information about the qualifications and business practices of Teachers Advisors, LLC (“TAL”). If you have any questions about the contents of this Brochure, please contact us at (212) 490-9000. The information in this Brochure has not been approved or verified by the United States Securities and Exchange Commission or by any state securities authority.

Additional information about TAL also is available on the SEC’s website at www.adviserinfo.sec.gov.

TAL is a registered investment adviser. Registration of an investment adviser does not imply any certain level of skill or training.

Item 2 Material Changes

This Brochure dated March 31, 2023 contains material updates from the previous annual update of this Brochure dated March 31, 2022 with respect to assets under management, and clarifications and updated disclosures regarding the use of soft dollars and voting client securities. This update also includes changes and elaborations to fees, policies, affiliates, strategies, and enhancements and clarifications throughout.

Item 3 Table of Contents

Item 2 Material Changes	2
Item 3 Table of Contents	3
Item 4 Advisory Business	4
Item 5 Fees and Compensation	8
Item 6 Performance-Based Fees and Side-By-Side Management	21
Item 7 Types of Clients	22
Item 8 Methods of Analysis, Investment Strategies and Risk of Loss	25
Item 9 Disciplinary Information	61
Item 10 Other Financial Industry Activities and Affiliations	62
Item 11 Code of Ethics, Participation or Interest in Client Transactions and Personal Trading	66
Item 12 Brokerage Practices	71
Item 13 Review of Accounts	80
Item 14 Client Referrals and Other Compensation	81
Item 15 Custody	83
Item 16 Investment Discretion	84
Item 17 Voting Client Securities	85
Item 18 Financial Information	87
Additional Information	88
EXHIBIT A	88
Privacy Statement	90

Item 4 Advisory Business

Teachers Advisors, LLC (“TAL”) offers or provides its services to a wide range of client types including: (i) registered investment companies, including open-end and closed-end funds and other pooled investment vehicles (collectively, “Funds”), (ii) institutional asset management businesses including unregistered investment funds, separately managed accounts, insurance company separate accounts, insurance company general accounts, and pension plans, (iii) special purpose entities organized to issue collateralized debt obligations and collateralized loan obligations (collectively, “CDOs”), (iv) banking institutions, (v) Undertaking for Collective Investment in Transferable Securities (“UCITS”), (vi) individual and institutional separately managed account clients primarily through investment advisory programs including dual contract arrangements (“Retail SMA Accounts”), (vii) Exchange Traded Funds (“ETFs”) and (viii) Collective Investment Trusts (“CITs”). Additionally, TAL provides investment allocation advice, portfolio analysis or strategy diligence services for affiliated and unaffiliated clients.

TAL is a subsidiary of Nuveen Finance, LLC, which is an indirect subsidiary of Nuveen, LLC (“Nuveen”). Nuveen is a subsidiary, and represents the asset management division, of Teachers Insurance and Annuity Association of America (“TIAA”), a leading financial services provider. TIAA constitutes the ultimate principal owner of TAL. TAL was incorporated on October 19, 1993 and registered with the SEC as an investment adviser on July 21, 1994. For additional information on the ownership structure, please see Form ADV Part 1, Schedules A and B, and Item 10.

TAL primarily provides its services on a discretionary basis but may also provide services on a non-discretionary basis.

TAL’s discretionary authority over an account is generally subject to directions, guidelines and limitations imposed by the client and, in the case of a Retail SMA, the program sponsor, or other financial intermediary (together “Sponsor”). TAL will endeavor to follow reasonable directions, investment guidelines and limitations. TAL reserves the right to decline to manage an account with investment restrictions that are unduly burdensome or materially incompatible with TAL’s investment approach.

As of December 31, 2022, TAL managed \$341.3 billion in discretionary assets under management and \$14.0 million in non-discretionary assets under management.

Investment Advisory Services for Registered Investment Companies

Subject to the supervision of each client’s Board of Trustees, TAL provides management and certain administrative services necessary for the operation of its registered investment company

clients, including open-end funds, closed-end funds and ETFs. TAL's responsibilities include, without limitation, investment advisory services, research services, recommending and placing of orders for the purchase and sale of securities for its registered investment company clients' portfolios (based on the investment objectives and needs of each client), supervising relationships with custodians, administrators, transfer and pricing agents, accountants, auditors, underwriters and other persons interacting with the clients, developing management and shareholder services, and furnishing reports, evaluations and analysis on a variety of subjects.

Investment Advisory Services for Institutional Asset Management

TAL provides asset management and related services to the institutional market. TAL manages unregistered investment funds, non-U.S. funds including UCITS, institutional separately managed accounts, insurance company separate accounts, insurance company general accounts, and pension accounts utilizing equity, fixed income, and other strategies. Additionally, TAL provides investment allocation advice, and portfolio analysis to affiliated and unaffiliated clients. The research and investment staff responsible for the equity and fixed-income asset classes and strategies, as well as policies and procedures governing these investments and the unregistered products, are similar to that of TAL's registered investment company clients. TAL may outsource some of these services to unaffiliated third parties for a negotiated fee. TAL may, under certain circumstances, tailor advisory services to the needs of individual clients. Clients serviced by TAL may also impose restrictions on investing in certain securities or types of securities.

TAL provides investment management services for proprietary assets owned by TIAA under an investment management agreement with TIAA, which services include investment selection (subject to and in accordance with investment guidelines provided by TIAA), portfolio monitoring, trading and other investment-related services. The advice and services that TAL provides to TIAA cover a broad variety of publicly traded investments and derivatives activity, including cross-currency, interest rate and other derivatives activity.

TAL provides investment management services for proprietary assets owned by TIAA-CREF Life Insurance Company ("TC Life") under an investment management agreement with TIAA (appointing TAL as a sub-adviser with respect to the management of such TC Life assets), which services include investment selection (subject to, and in accordance with, investment guidelines provided by TIAA), portfolio monitoring, trading and other investment-related services. The advice and services that TAL provides to TIAA on behalf of the TC Life assets cover a broad variety of publicly traded investments.

Investment Advisory Services for CLOs

TAL provides investment advisory, sub-advisory and supervisory services pursuant to management agreements to a number of special purpose entities organized to issue CLOs.

CLOs typically issue securities collateralized by a portfolio of loans and/or other assets. As a provider of advisory services, TAL performs a number of functions including advising the CLOs on the acquisition and disposition of collateral, subject to the investment criteria and trading restrictions applicable to the CLO and monitoring the performance of the CLO's portfolio. The scope of these advisory functions is delineated in each CLO's advisory agreement and in the indenture governing the issue of the securities. The investors in CLOs are typically institutional investors such as insurance companies, pension funds and commercial banks with whom TAL or its affiliates may have other business relations. For example, TIAA, the parent of TAL may have co-invested monies with these investors and/or these investors may have invested monies as seed capital in Funds for which TAL or an affiliate thereof, acts as investment adviser. CLO clients may impose restrictions on investing in certain types of securities, subject to limitations and conditions prescribed by the applicable indenture.

Banking Advisory Services

TAL provides limited investment advice as well as portfolio monitoring, trading and other investment-related services for proprietary assets owned by the TIAA, FSB (the "Bank") under an investment services agreement with the Bank. The advice and services that TAL provides to the Bank covers a variety of publicly traded investments, including, without limitation, certain types of broadly syndicated commercial and industrial bank loans.

Separately Managed Account Program Clients ("Retail SMAs")

As noted above, TAL provides investment advisory services to individual and institutional separately managed account clients, Retail SMAs, primarily through investment advisory managed account programs including dual contract arrangements. In a dual contract program, TAL provides its advisory services pursuant to an advisory agreement directly with the client and the client separately arranges with one or more third parties for custody, financial advisory and certain trading services to be provided on a partially-bundled or unbundled basis. In a partially-bundled program, certain of such services (typically custody, financial advisory, and certain trading) are provided for a bundled fee arrangement. In an unbundled arrangement, such services are contracted, provided and paid for separately.

For Retail SMAs, TAL is appointed to act as an investment adviser through a process administered or assisted by the Sponsor. Clients participating in a managed account program, generally with assistance from the Sponsor, may select TAL to provide investment advisory services for their account (or a portion thereof) for a particular strategy. TAL provides investment advisory services based upon the particular needs of the managed account program client as reflected in information provided to TAL by the Sponsor and will generally make its representatives available for communication as reasonably requested by clients and/or Sponsors. For Retail SMAs, certain administrative and trading support is provided by Nuveen Services, LLC, a division of Nuveen Investments Holdings, Inc., a TAL affiliate. See Item 10.

Clients are encouraged to consult their own financial advisors and legal and tax professionals on an initial and continuous basis in connection with selecting and engaging the services of an investment manager for a particular strategy and participating in a managed account program. In the course of providing services to Retail SMAs, TAL generally relies on information or directions communicated by the financial advisor acting with apparent authority on behalf of its client.

TAL has a process for executing specific transactions in a client's account for tax reasons. Under this process, TAL will generally follow the directions of a client or its financial advisor regarding harvesting tax losses or gains, subject to certain scope, amount and timing limitations. Generally, the directions entail a repurchase of the sold security after the "wash sale" (thirty (30) day period (e.g., in the case of equities)), or a purchase of another appropriate security (e.g., in the case of municipal bonds). TAL generally relies in good faith on directions communicated by a financial advisor acting with apparent authority on behalf of its client.

In providing such directions, the client and its financial advisor are responsible for understanding the merits and consequences of their directions in light of the client's particular tax situation. Daily market fluctuations may affect the dollar amount of gain or loss with respect to certain investment decisions. The monetary benefit derived from tax loss selling, for example, may not exceed the risk of not being fully invested during that time. Executing tax sales (and repurchases) may adversely affect performance. TAL is not a tax advisor, and therefore clients should consult with their tax specialist to review their particular tax situation. TAL may invest in ETFs or other pooled vehicles, including during the wash sale period. ETFs and other funds have certain imbedded costs, including management fees, of which the client account will bear a proportionate share while it is invested in the ETF or other fund.

TAL may provide or make available at no charge various reports or materials to certain Sponsors who typically use TAL services and products. These reports may analyze a prospective client's current holdings or show the effect of performance of a TAL composite over a particular time period in a manner directed by the Sponsor. Such reports are not intended to constitute investment advice, research or recommendations.

For certain strategies, TAL provides certain non-discretionary investment services to clients who may include banks, broker-dealers and other financial services firms (including UIT sponsors), and other investors. Such services may include asset allocation advice, equity and fixed income research and model portfolio recommendations for a variety of investment styles.

Collective Investment Trusts ("CITs")

TAL may sub-advise one or more bank collective investment trusts ("CITs"), each of which are advised by Nuveen Fund Advisors, LLC, an affiliate of TAL. Conflicts of interest may arise given the multiple potential services that TAL may provide. See Items 8 and 10.

Item 5 Fees and Compensation

The specific manner in which fees are charged by TAL is established in a client's written agreement with TAL. In general, fees paid to TAL for its services are also described below.

Registered Investment Companies (excluding ETFs and Closed-end Funds)

TAL asset management fees for its registered investment company clients are as follows:

- for international Funds between 4 and 84 basis points
- for fixed income Funds between 5 and 40 basis points
- for U.S. equity Funds between 4 and 45 basis points
- for real estate Funds approximately 46 basis points
- for funds of funds between 0 and 39 basis points
(excludes fees and expenses of underlying fund investments)
- for money market Funds approximately 10 basis points
- for life Funds between 6 and 50 basis points

Some of these fees include expenses for services other than management of the Funds.

Other fees such as 12b-1 fees are normally paid by the registered investment companies. Service fees for the Funds are paid to the Funds' distributor, Nuveen Securities, LLC, by TAL.

The Investment Management Agreement between TAL and its registered investment company clients is subject to approval by the Board of Trustees of each investment company. TAL's fees under such Investment Management Agreements are set forth in the registration statement and other documents of such investment companies on file with the SEC.

Additionally, the Investment Management Agreements between TAL and its registered investment company clients may be terminated at any time as to any fund or to all Funds, without the payment of any penalty, by the Board of Trustees of the investment company, or by a vote of a majority of the outstanding votes attributable to the shares of the applicable fund, or by TAL, on 60 days' written notice to the other party. The Agreements automatically terminate in the event of their assignment. In the event of termination of the Agreements, all compensation due will be calculated on a pro-rated basis through the date of termination and paid within fifteen business days of the date of termination.

In general, TAL's fees for its registered investment companies are exclusive of transaction costs, such as brokerage commissions related to buying and selling securities. Clients may incur other charges imposed by custodians, brokers, distributors and other third parties such as deferred sales charges, odd-lot differentials, transfer taxes, wire transfer and electronic fund fees, and other fees and taxes on securities transactions. Those charges, fees and commissions are in addition to TAL's fee and TAL shall not receive any portion of the commissions, fees and costs (other than in situations where TAL invests clients' assets in a fund for which it serves as investment adviser). TAL's clients generally will incur brokerage and other transaction costs either separately or through a bundled fee. Additional information about TAL's brokerage practices and brokerage costs can be found under Item 12.

Regarding investments in investment companies, when a Fund invests in other investment companies such as mutual funds and exchange traded funds, the Fund bears a proportionate share of expenses charged by the investment company in which it invests.

The management fees are disclosed in a Fund's prospectus and Item 12 further describes the factors that TAL considers in selecting or recommending broker-dealers for client transactions and determining the reasonableness of their compensation (*e.g.*, commissions).

Advisory Fees for Certain Funds

Fees for advisory services provided to certain Funds (*e.g.*, ETFs, UCITS, Closed-End, UITs, etc.) are separately negotiated between TAL and the third-party or affiliated investment adviser. Fees are generally based on a percentage of assets under management. These fees are disclosed in the relevant prospectus or offering documents.

Institutional Asset Management Fees

TAL acts as an investment adviser to its institutional business advisory clients unregistered investment funds and separately managed accounts (collectively, "Institutional Clients") and receives fees for such services at a negotiated rate based on each investment vehicle's particular investments and circumstances. Fees for such services are set forth in the Confidential Private Placement Memorandum, prospectus or other relevant offering document or applicable governing, operating or investment management agreement. Institutional Clients each have their own investment parameters as described in their offering materials or investment management agreement and will typically have minimum investment levels and may offer breakpoints on fees for larger investments. In addition, Institutional Clients incur other charges imposed by custodians, administrators, brokers, distributors and other third parties. These charges, fees and commissions are in addition to TAL's management fee.

TIAA-CREF Real Property Fund LP

66 basis points of total expenses

The management fee is payable quarterly in arrears. The Fund is currently made available solely to registered investment management companies and other pooled vehicles advised by TAL or its affiliates. The Fund has entered into a sub-advisory agreement with Nuveen Alternatives Advisors, LLC (NAA). TAL will pay a sub-advisory fee to NAA based on the agreement.

Separately Managed Accounts and Fees

TAL charges its clients management fees for all separately managed accounts. Most separately managed accounts use fee schedules which include breakpoints based on assets under management within the account. Withdrawals or market movement may adversely affect the effective fee rate. Other fee and breakpoint structures may be used from time to time. TAL deducts fees from clients' assets and bills clients for fees incurred based on the clients' requirements. Frequency is also determined on a client-by-client basis but is no less than quarterly.

The basic fee schedules charged by TAL for institutional separately managed accounts are as follows (based on a percentage of the average daily net assets of each account):

EQUITY SEPARATELY MANAGED ACCOUNT STRATEGIES	
Emerging Markets Equity	
Minimum account size	\$20 million
<u>Breakpoint Schedule</u>	
First \$50 million	85 basis points
Next \$50 million	80 basis points
Over \$100 million	75 basis points
Global Equity	
Minimum account size	\$10 million
<u>Breakpoint Schedule</u>	
First \$50 million	40 basis points
Next \$50 million	35 basis points
Over \$100 million	30 basis points

Global Equity ESG	
Minimum account size	\$30 million
<u>Breakpoint Schedule</u>	
All Assets	10 basis points
Global Equity Select	
Minimum account size	\$10 million
<u>Breakpoint Schedule</u>	
First \$50 million	40 basis points
Next \$50 million	35 basis points
Over \$100 million	30 basis points
Growth and Income	
Minimum account size	\$10 million
<u>Breakpoint Schedule</u>	
First \$50 million	45 basis points
Next \$50 million	40 basis points
Over \$100 million	35 basis points
International Equity	
Minimum account size	\$10 million
<u>Breakpoint Schedule</u>	
First \$50 million	50 basis points
Next \$50 million	45 basis points
Over \$100 million	40 basis points
International Opportunities	
Minimum account size	\$10 million
<u>Breakpoint Schedule</u>	
First \$50 million	60 basis points
Next \$50 million	55 basis points
Over \$100 million	50 basis points

International Small Cap Opportunities	
Minimum account size	\$10 million
<u>Breakpoint Schedule</u>	
First \$50 million	75 basis points
Next \$50 million	70 basis points
Over \$100 million	65 basis points
International Small Cap Focused	
Minimum account size	\$10 million
<u>Breakpoint Schedule</u>	
First \$50 million	75 basis points
Next \$50 million	70 basis points
Over \$100 million	65 basis points
Quant International Small-Cap Equity	
Minimum account size	\$10 million
<u>Breakpoint Schedule</u>	
First \$50 million	65 basis points
Next \$50 million	60 basis points
Over \$100 million	55 basis points
Large-Cap Growth	
Minimum account size	\$5 million
<u>Breakpoint Schedule</u>	
First \$50 million	45 basis points
Next \$50 million	40 basis points
Over \$100 million	35 basis points

Large-Cap Value	
Minimum account size	\$5 million
<u>Breakpoint Schedule</u>	
First \$50 million	45 basis points
Next \$50 million	40 basis points
Over \$100 million	35 basis points
Low Carbon Value ESG	
Minimum account size	\$5 million
<u>Breakpoint Schedule</u>	
First \$50 million	60 basis points
Next \$50 million	55 basis points
Over \$100 million	50 basis points
Mid-Cap Growth	
Minimum account size	\$5 million
<u>Breakpoint Schedule</u>	
First \$50 million	47 basis points
Next \$50 million	42 basis points
Over \$100 million	37 basis points
Mid-Cap Value	
Minimum account size	\$5 million
<u>Breakpoint Schedule</u>	
First \$50 million	47 basis points
Next \$50 million	42 basis points
Over \$100 million	37 basis points

Real Estate Securities	
Minimum account size	\$10 million
<u>Breakpoint Schedule</u>	
First \$50 million	50 basis points
Next \$50 million	45 basis points
Over \$100 million	40 basis points
Quant Small-Cap Equity	
Minimum account size	\$5 million
<u>Breakpoint Schedule</u>	
First \$50 million	45 basis points
Next \$50 million	40 basis points
Over \$100 million	35 basis points
Quant Small/Mid-Cap Equity	
Minimum account size	\$5 million
<u>Breakpoint Schedule</u>	
First \$50 million	45 basis points
Next \$50 million	40 basis points
Over \$100 million	35 basis points
Social Choice International Equity	
Minimum account size	\$30 million
<u>Breakpoint Schedule</u>	
First \$50 million	30 basis points
Next \$50 million	25 basis points
Over \$100 million	20 basis points

Social Choice Low Carbon Equity	
Minimum account size	\$30 million
<u>Breakpoint Schedule</u>	
First \$50 million	24 basis points
Next \$50 million	22 basis points
Over \$100 million	20 basis points
Social Choice Equity	
Minimum account size	\$30 million
<u>Breakpoint Schedule</u>	
First \$100 million	15 basis points
Next \$150 million	14 basis points
Over \$250 million	13 basis points

FIXED INCOME SEPARATE ACCOUNT STRATEGIES	
Core Bond	
Minimum account size	\$50 million
<u>Breakpoint Schedule</u>	
First \$50 million	29 basis points
Next \$50 million	27 basis points
Over \$100 million	25 basis points
Core Plus Bond	
Minimum account size	\$50 million
<u>Breakpoint Schedule</u>	
First \$50 million	29 basis points
Next \$50 million	27 basis points
Over \$100 million	25 basis points

Emerging Markets Debt	
Minimum account size	\$50 million
<u>Breakpoint Schedule</u>	
First \$50 million	55 basis points
Next \$50 million	50 basis points
Over \$100 million	45 basis points
Emerging Markets Debt Local Currency	
Minimum account size	\$100 million
<u>Breakpoint schedule</u>	
First \$100 million	60 basis points
Next \$50 million	55 basis points
Over \$150 million	50 basis points
Green Bond	
Minimum account size	\$50 million
<u>Breakpoint Schedule</u>	
First \$50 million	39 basis points
Next \$50 million	37 basis points
Over \$100 million	35 basis points
High Yield	
Minimum account size	\$50 million
<u>Breakpoint Schedule</u>	
First \$50 million	34 basis points
Next \$50 million	32 basis points
Over \$100 million	30 basis points

Inflation-Linked Bond	
Minimum account size	\$50 million
<u>Breakpoint Schedule</u>	
<u>First \$50 million</u>	24 basis points
Next \$50 million	22 basis points
Over \$100 million	20 basis points
International Bond	
Minimum account size	\$50 million
<u>Breakpoint Schedule</u>	
First \$50 million	49 basis points
<u>Next \$50 million</u>	47 basis points
Over \$100 million	45 basis points
Securitized Credit	
Minimum account size	\$100 million
<u>Breakpoint Schedule</u>	
First \$100 million	40 basis points
Next \$50 million	35 basis points
Over \$150 million	30 basis points
Short-Duration Impact Bond	
Minimum account size	\$50 million
<u>Breakpoint Schedule</u>	
First \$50 million	29 basis points
Next \$50 million	27 basis points
Over \$100 million	25 basis points

Short-Term Bond	
Minimum account size	\$50 million
<u>Breakpoint Schedule</u>	
First \$50 million	24 basis points
Next \$50 million	22 basis points
Over \$100 million	20 basis points
Core Impact Bond	
Minimum account size	\$50 million
<u>Breakpoint Schedule</u>	
First \$50 million	34 basis points
Next \$50 million	32 basis points
Over \$100 million	30 basis points
Global Core Impact Bond	
Minimum account size	\$50 million
<u>Breakpoint Schedule</u>	
First \$50 million	36 basis points
Next \$50 million	34 basis points
Over \$100 million	32 basis points
5-15 Year Laddered Tax-Exempt Bond	
Minimum account size	\$50 million
<u>Breakpoint Schedule</u>	
First \$50 million	24 basis points
Next \$50 million	22 basis points
Over \$100 million	20 basis points

CLO Fees

TAL's fees in connection with CLO investment advisory services are generally based on the principal amount of the collateral securities and other assets under management and are separately negotiated in each transaction. Consequently, fees in such transactions will vary.

Such fees are generally not directly charged to investors but are payable from cash flow derived from the CLO's assets during the applicable period. Such fees are payable in accordance with the "Priority of Payments" for each CLO, which establishes the priority with which cash flow generated by the CLO's portfolio is applied to payments to CLO investors and service providers to the CLO.

The fee structure for CLOs frequently consists of a base management fee that is payable prior to any payments to CLO investors, and a management fee that is subordinate to payments to CLO senior note holders. An additional management fee may be negotiated that is payable once the subordinated and/or equity investors have received a specified internal rate of return.

The fee structure for CLO collateral management fees typically consists of: (i) a base management fee of up to 30 basis points of the principal balance of the CLO portfolio; and (ii) a subordinated management fee of up to 40 basis points of the principal balance of the CLO's portfolio. There may be a 20% incentive fee which becomes payable to TAL if the IRR (internal rate of return) of the applicable CLO is 12% or higher; and only on the portion above 12%. TAL charges a fee of up to 20 basis points for monitoring services on a limited basis to specific clients.

Retail SMAs

For Retail SMAs offered through dual contract programs, TAL and Sponsors each charge their fees separately. Fees charged to dual contract accounts are individually contracted between TAL and the client.

For Retail SMAs, TAL's fees are generally payable quarterly or at such other times as agreed upon by the parties involved based upon the market value of assets in the account on the date of valuation. Payment arrangements, including the timing (in advance or in arrears) and billing procedures (which may include sending an invoice and/or deduction of fees), will be agreed upon by TAL and the client.

Certain dual contract Sponsors collect and remit TAL's fee to TAL separately.

Generally, if an account is opened or closed during a billing period, the advisory fees are prorated for that portion of the billing period during which the account was open.

Termination provisions vary by contract. Typically, a client or TAL may terminate its agreement at any time by providing thirty (30) days written notice. To the extent a client's investment management agreement for an Institutional Separate Account or dual contract Retail SMA provides that TAL's fees are to be paid in advance, the unearned portion of such fees will be refunded to the client upon termination of the service.

For managed account program agreements that provide that TAL's fees are to be paid in advance, TAL will refund any prepaid but unearned fees to the Sponsor. The sponsor is then responsible for refunding fees, as applicable, to the client upon termination of the service. The refunded amount will be determined on a pro rata basis if the service is terminated within the payment period. For managed account program clients, termination provisions vary by program. See also Item 15.

Advisory Fees for Non-Discretionary Accounts and Model Portfolio Advice

These services are furnished for a negotiated fee paid by the purchaser.

Advisory Fees for Multi-Asset Class Services

Fees for Multi-Asset Class Services are negotiated.

Additional Fee Disclosure

Regarding TAL's fees in general, from time to time, TAL may enter into negotiated fee arrangements that, in light of a particular investor's special circumstances, may result in fee schedules that differ from the usual basic fee schedules. Such circumstances may include, without limitation, the type of relationship such client has with TAL; the complexity and extent of services provided; whether a new account is expected to grow rapidly; the number of different accounts and total assets under management or custody for that client (and its affiliates); the investment product mix selected by the client, and other circumstances or factors that TAL deems relevant. Fees paid by certain clients who are qualified purchasers, including affiliates of TAL, are negotiable.

From time to time, a client may instruct TAL to suspend investment management services for their accounts for a period of time. Such accounts will generally be unmanaged during such time. TAL generally charges standard fees for all or a portion of such time to reflect the administrative costs associated with implementing such instructions. Termination provisions vary by contract. Typically, a client or TAL generally may terminate its agreement at any time by providing thirty (30) days written notice. To the extent a client's investment management agreement for a dual contract Retail SMA provides that TAL's fees are to be paid in advance, the unearned portion of such fees will be refunded to the client upon termination of the service.

Investors in TIAA-CREF Funds advised or sub-advised by TAL will not be advisory clients of TAL, and TAL will not provide investment advice or recommendations with respect to the merits and suitability of the particular investment and investment decision for the particular investor. Investors in TIAA-CREF Funds are encouraged to consult their own financial, tax and legal advisors regarding such decisions. TIAA-CREF Fund shares are available through many unaffiliated broker-dealers and other financial services firms.

Item 6 Performance-Based Fees and Side-By-Side Management

TAL offers investment advisory services to multiple accounts with different investment objectives, guidelines and policies, and with different fee structures.

TAL may receive both asset-based fees and performance-based fees as compensation for its advisory services. Performance-based fees may create an incentive for TAL to make investments that are riskier or more speculative than would be the case in the absence of a performance-based fee. In these instances, TAL's compensation may be greater than it would otherwise have been, as the fee will be based on account performance instead of, or in addition to, a percentage of assets under management.

To the extent that TAL manages accounts that are charged a performance-based fee account side-by-side with accounts are that not charged a performance-based fee, TAL maintains policies and procedures designed to treat all clients fairly. TAL periodically reviews allocations of investment opportunities and sequencing of transactions and compares the performance of such accounts, as well as assessing for adherence to such policies and procedures. Any exceptions or issues arising from the reviews are brought to the attention of TAL's Chief Compliance Officer.

Item 7 Types of Clients

TAL offers or provides its services to a wide range of client types including: (i) registered investment companies, (ii) institutional asset management businesses including unregistered investment funds, investment advisers, insurance company separate accounts, insurance company general accounts, trust accounts and pension plans, (iii) special purpose entities organized to issue collateralized debt obligations and collateralized loan obligations (collectively, “CLOs”), (iv) banking institutions, (v) Undertaking for Collective Investment in Transferable Securities (“UCITS”), (vi) individual and institutional separately managed account clients primarily through investment advisory programs including dual contract arrangements (“Retail SMAs”), (vii) Exchange Traded Funds (“ETFs”), and (viii) Collective Investment Trusts (“CITs”). Additionally, from time to time, TAL provides investment allocation advice, portfolio analysis or strategy diligence services for affiliated and unaffiliated clients.

Minimum Account Sizes

Please refer to Item 5 for the minimum account sizes of TAL’s Institutional Clients.

The minimum account size for TAL’s registered investment companies, , Closed End Funds, ETFs, UCITS, CLOs, insurance company separate accounts, Retail SMA, and CIT clients are as follows:

TIAA-CREF Funds (Institutional, Advisor, Premier, Retirement, Retail Share Classes and Class W)

- Minimum initial investment starts at \$2 million, and the minimum subsequent investment is \$1,000 for Institutional Class shares, unless an investor purchases shares by or through financial intermediaries that have entered into an appropriate agreement with a Fund or its affiliates.
- No minimum initial or subsequent investment for Advisor Class shares. Advisor Class shares are primarily offered through certain financial intermediaries and employer-sponsored employee benefit plans.
- No minimum initial or subsequent investment requirement for Premier Class shares. Premier Class shares are offered through certain financial intermediaries and employer-sponsored employee benefit plans.
- No minimum initial or subsequent investment requirement for Retirement Class shares. Retirement Class shares are offered through employer-sponsored employee benefit plans.

- Minimum initial investment for Retail Class shares is \$2,000 for Traditional IRA, Roth IRA and Coverdell accounts and \$2,500 for all other account types. Subsequent investments for all account types must be at least \$100. Retail Class shares are available for purchase through certain financial intermediaries or by contacting the Funds directly.
- No minimum initial or subsequent investment requirement for Class W shares. Class W shares are available for purchase directly from the Funds advised by TAL or its affiliates or other advisory clients or accounts of TAL or its affiliate that have entered into an arrangement with TAL to share expenses allocable to Class W.

TIAA-CREF Life Funds

- Requirements for the purchase and sale of these underlying Funds for variable insurance products are provided by the insurance companies issuing the product.

Closed-End Funds

- Minimum investment requirement is 100 common shares (\$1,000).

ETFs

- There are no minimum requirements for this client.

UCITS

- Minimum initial investment for A and C share class is \$5,000. Class A Shares are generally offered to retail investors; Class C Shares may be offered for distribution through certain dealers at the discretion of the distributor.
- Minimum initial investment for I share class is \$1,000,000. Class I Shares are only offered to institutional investors in certain limited circumstances at the discretion of the distributor.
- Minimum initial investment for P share class is \$5,000,000. Class P Shares are offered for distribution in certain countries and/or through certain dealers at the discretion of the distributor.
- Minimum subsequent investment for all share classes is \$5,000.
- Minimum and subsequent investment may be waived or reduced at the discretion of the UCITS's directors.

CLOs

- In general, investors must be Qualified Purchasers, as such term is defined in the Investment Company Act of 1940, as amended (the “Investment Company Act”).

TIAA Separate Account VA-1

- This product is not currently accepting new investors.

Retail SMAs

- For Retail SMAs, TAL typically requires a minimum account of \$100,000 for equity and asset allocation strategies and \$250,000 for fixed income strategies, although the specific minimum account size varies by program. TAL may waive these minimums based on client type, asset class, pre-existing relationship with client and other factors. For certain accounts, a negotiated minimum annual fee applies.

Collective Investment Trusts (“CITs”)

- Collective Investment Trust have entered into agreements to offer Institutional Class shares held in omnibus accounts. These accounts are exempt from initial and subsequent investment minimums.

Item 8 Methods of Analysis, Investment Strategies and Risk of Loss

TAL uses a variety of different analytic methods and investment strategies, depending on the nature of the fund or account it is managing or sub-advising. This section first describes the analytical methods TAL uses and, then separately, the investment strategies (which may refer to analytic methods) and their associated risks.

Methods of Analysis

Active Management

For equity strategies, TAL invests in securities it believes have the potential for capital appreciation, growth, and appear undervalued by the market based on evaluation of a securities potential worth. TAL generally looks for companies that it believes are leaders in their respective industries with sustainable competitive advantages. TAL also looks for companies that it believes have management teams that are dedicated to creating shareholder value.

For the fixed income portfolios, TAL conducts its own credit analysis, paying particular attention to economic trends and other market events to construct a portfolio of securities that is diversified, as applicable, by industry, maturity, duration, credit quality and country. For fixed income strategies, TAL invests in securities rated investment grade or below investment grade (“high yield”), and such investments for certain portfolios may be substantial. Additionally, a taxable fixed income portfolio may invest a portion of its assets in securities and other instruments that are, at the time of investment, illiquid. A taxable fixed income portfolio’s assets may also be invested in 30 U.S. dollar and non-dollar denominated debt obligations of non-U.S. corporations and governments, including those located in emerging markets countries. Taxable fixed income portfolios may pursue other strategies or invest in other instruments described in this Brochure.

A rating includes the rating given plus or minus. For taxable fixed income, TAL generally relies on the applicable rating(s) of S&P and/or Moody’s for retail SMAs, and of S&P, Moody’s and/or Fitch for institutional separate accounts. Split rated securities (i.e., those rated differently by different applicable rating agencies) are generally deemed to receive, as applicable: the middle of three ratings or the lower of two ratings. A portion of a portfolio’s assets may also be invested in securities that are unrated, but that TAL deems to be of comparable quality to a particular rating.

Taxable fixed income portfolios may also invest in other types of fixed income securities, such as asset-backed securities, residential and commercial mortgage-backed securities, corporate debt obligations, municipal securities and inverse floating rate securities.

Taxable fixed income portfolios may invest in and employ derivatives including, but not limited to, futures; interest rate swaps, caps, collars and floors; index swaps, total return swaps, credit default swaps and non-U.S. currency swaps; forward currency contracts and non-deliverable

forward currency contracts; options on futures, non-U.S. currencies and swaps (as well as selling call options and purchasing put options on individual or a basket of securities, as well as on swaps); and/or other derivatives. The derivatives in which the Taxable fixed income portfolios may invest may be exchange traded or traded over the counter. Taxable fixed income portfolios may also invest a portion of their total assets in dollar roll transactions.

A Taxable fixed income portfolio may utilize derivatives strategies to enhance return, hedge some of the risks of their investments in securities, as a substitute for a position in an underlying asset, to reduce transaction costs, to maintain full market exposure, to manage or generate cash flows, to manage the effective maturity and duration of portfolio securities, to increase yield or enhance returns, to create debt or non-U.S. currency exposure, to limit exposure to losses due to changes to non-U.S. currency exchange rates, to preserve capital, and/or other reasons to the extent permitted by client guidelines.

The portion of a Taxable fixed income portfolio that is invested in derivatives at times may be substantial. Taxable fixed income portfolios may also invest a portion of their assets in cash and cash equivalents. Additionally, certain Taxable Fixed income portfolios may invest in equity securities and warrants acquired in connection with investments made in certain fixed income securities.

Municipal Fixed income portfolios may invest in municipal securities that are secured by insurance (including, in certain portfolios, insurance that guarantees the timely payment of principal and interest), bank credit agreements, or escrow accounts. A certain portion of Municipal Fixed income portfolios' assets may be invested in taxable bonds. Inflation-protected municipal bond portfolios seek a current yield that compensates an investor for current inflation expectations, and also seek to mitigate the effect that subsequent increases in inflation may have on the purchasing power of the account by investing in inflation-linked instruments, such as Consumer Price Index ("CPI") swaps, in amounts sufficient to approximate the duration characteristics of the account's underlying municipal bond portfolio.

Certain investors select municipal bond strategies for interest that is exempt from U.S. federal income tax, and in some cases, state and/or local income tax. Changes in tax laws, adverse interpretations by the Internal Revenue Service or state tax authorities, or noncompliant conduct of a bond issuer, among other events, could lead to declines in the value of municipal bonds and other unfavorable results. Clients are encouraged to consult their own financial, tax and legal advisors regarding the suitability of investing in municipal bond strategies. Certain accounts invest in lower quality municipal bonds, including high yield bonds. Municipal Fixed-Income portfolios may pursue other strategies or invest in other instruments described in this Brochure.

Quantitative Indexing

TAL actively uses quantitative analysis to attempt to enhance a fund's performance relative to an index, while retaining a similar risk profile, instead of passively holding a representative basket

of securities designed to match the index. TAL uses proprietary quantitative models, or models utilizing econometric and mathematical techniques, based on financial and investment theories to evaluate and score a broad universe of stocks in which a fund invests. These models typically weigh many different variables, including the valuation of the individual stocks versus the market or its peers, future earnings and sustainable growth prospects, and the price and volume trends of the stock. The score is used to form the portfolio, and the following additional inputs may also be considered: weightings of the stock and its corresponding sector in the benchmark, correlation of the stocks in the universe and trading costs. The overall goal is to build a portfolio of stocks that generate favorable long-term total return, while also managing the relative risk of a fund versus its benchmark index.

Pure Indexing

TAL may use investment techniques designed to track various segments of the component indices of a fund's benchmark index. Funds using this technique may not invest in all securities in the indices comprising the funds' composite benchmark, but rather may use a sampling approach to create a portfolio that closely matches the overall characteristics of the relevant segments of the underlying indices.

ESG Integration

Nuveen, the asset management division of TIAA, has adopted certain principles on responsible investing at the enterprise level. TAL generally endeavors to consider environmental, social and governance (ESG) factors as part of investment research and/or portfolio construction. TAL does not undertake to apply specific requirements in this regard, and the degree to which ESG factors are integrated largely depends on the particular portfolio management team, strategy and account-level guidelines and requirements, and may vary materially. Unless a strategy expressly undertakes to employ ESG, impact, green, or other responsible investing factors, TAL will not necessarily include in or exclude from portfolios certain securities, industries or sectors based solely on such criteria. TAL believes that the integration of ESG characteristics into the investment research process can be a material input to mitigating business risk, capturing compelling return opportunities and fulfilling our shared responsibility to serve as good stewards of client capital.

ESG Criteria

ESG mandated strategies are subject to certain ESG criteria. The ESG criteria are generally implemented based on data provided by independent research vendor(s). In those limited cases where independent ESG criteria are not available for certain types of securities or for certain issuers, these securities may nonetheless be eligible should they meet certain internal ESG criteria.

With respect to equity or fixed income investments, the corporate evaluation process favors companies with leadership in ESG performance relative to their peers. Typically,

environmental assessment categories include climate change, natural resource use, waste management and environmental opportunities. Social evaluation categories include human capital, product safety and social opportunities. Governance assessment categories include corporate governance, business ethics and government & public policy. How well companies adhere to international norms and principles and involvement in major ESG controversies (examples of which may relate to the environment, customers, human rights & community, labor rights & supply chain, and governance) are other considerations. The ESG evaluation process with respect to corporate issuers is conducted on an industry-specific basis and involves the identification of key performance indicators, which are given more or less relative weight compared to the broader range of potential assessment categories. When ESG concerns exist, the evaluation process gives careful consideration to how companies address the risks and opportunities they face in the context of their sector or industry and relative to their peers. ESG criteria will generally preclude investment in companies significantly involved in certain business activities including, but not limited to, the production of alcohol, tobacco, military weapons, firearms, nuclear power, thermal coal, and gambling products and services.

The ESG evaluation process with respect to government issuers of fixed income investments favors issuers with leadership in ESG performance relative to all peers. Typically, environmental assessment categories include the issuer's ability to protect, harness, and supplement its natural resources, and to manage environmental vulnerabilities and externalities. Social assessment categories include the issuer's ability to develop a healthy, productive, and stable workforce and knowledge capital, and to create a supportive economic environment. Governance assessment categories include the issuer's institutional capacity to support long-term stability and well-functioning financial, judicial, and political systems, and capacity to address environmental and social risks. The government ESG evaluation process is conducted on a global basis and reflects how an issuer's exposure to and management of ESG risk factors may affect the long-term sustainability of its economy.

Impact Framework

TAL has developed a proprietary Impact framework which seeks to identify investments that provide direct exposure to issuers and/or individual projects with social or environmental benefits. Impact investments generally consist of publicly traded fixed income securities that finance initiatives in areas including affordable housing, community and economic development, renewable energy and climate change, and natural resources. These investments will be selected based on the same financial criteria used by TAL in selecting the fund or account's other fixed income investments. The portion of the fund or account invested in accordance with TAL's proprietary Impact framework is not additionally subject to ESG criteria provided by a third party.

Investment Strategies

Asset Allocation

- **Managed Allocation** – Seeks favorable returns that reflect the broad investment performance of the financial markets through capital appreciation and investment income. The fund will pursue this goal through a “fund of funds” approach, whereby the fund will make investments primarily in other mutual funds.

U.S. Equity

- **Equity Index** – Seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of equity securities selected to track the overall U.S. equity markets based on a market index.
- **Growth and Income** – Seeks a favorable long-term total return, through both capital appreciation and investment income, primarily from income-producing equity securities.
- **Large-Cap Growth** – Seeks a favorable long-term return, mainly through capital appreciation, primarily from equity securities.
- **Large-Cap Growth Index** – Seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of equity securities of large domestic growth companies based on a market index.
- **Large-Cap Value** – Seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of large domestic companies.
- **Large-Cap Value Index** – Seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of equity securities of large domestic value companies based on a market index.
- **Low Carbon Value ESG** - Seeks favorable long-term total return, delivering large cap value exposure with a limited carbon footprint.
- **Mid-Cap Growth** – Seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of medium-sized domestic companies.
- **Mid-Cap Value** – Seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of medium-sized domestic companies.
- **Quant Small-Cap Equity** – Seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of smaller domestic companies.
- **Quant Small/Mid-Cap Equity** – Seeks a favorable long-term total return, mainly through capital appreciation.

- **S&P 500 Index** – Seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of equity securities of large domestic companies selected to track U.S. equity markets based on a market index.
- **Small-Cap Blend Index** – Seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of equity securities in smaller domestic companies based on a market index.
- **Social Choice Equity** – Seeks a favorable long-term total return that reflects the investment performance of the overall U.S. stock market while giving special consideration to certain environmental, social and governance (“ESG”) criteria.
- **Social Choice Low Carbon Equity** – Seeks a favorable long-term total return that reflects the investment performance of the overall U.S. stock market while giving special consideration to certain environmental, social, and governance criteria (“ESG”), which include additional criteria relating to carbon emissions and fossil fuel reserves.

Fixed income

- **5-15 Year Laddered Tax-Exempt Bond** – Seeks current income that is exempt from regular federal income tax.
- **Core Bond** – Seeks total return, primarily through current income.
- **Bond Index** – Seeks total return that corresponds with the total return of a broad U.S. investment-grade bond market index.
- **Core Plus Bond** – Seeks total return, primarily through current income.
- **Green Bond** – Seeks total return while giving special consideration to certain environmental criteria.
- **High Yield** – Seeks total return primarily through high current income and, when consistent with its primary objective, capital appreciation.
- **Inflation-Linked Bond** – Seeks to provide inflation protection and income, primarily through investment in inflation-linked bonds.
- **Short-Duration Impact Bond** – Seeks current income while giving special consideration to certain environmental, social and governance (“ESG”) criteria.
- **Short-Term Bond** – Seeks current income.

- **Short-Term Bond Index** – Seeks total return that corresponds with the total return of a short-term U.S. investment-grade bond market index.
- **Core Impact Bond** – Seeks total return, primarily through current income, while giving special consideration to certain environmental, social and governance (“ESG”) criteria.
- **Securitized Credit** - Seeks a high level of current income and total return through investments in fixed income securities across securitized credit, including mortgage-backed securities (MBS), asset-backed securities (ABS) and commercial mortgage-backed securities (CMBS).

International

- **Emerging Markets Debt** – Seeks a total return.
- **Emerging Markets Equity** – Seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of emerging markets equity investments.
- **Emerging Markets Equity Index** – Seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of emerging market equity investments based on a market index.
- **Global Core Impact Bond** – Seeks long-term total return through income and capital appreciation by investing primarily in a portfolio of global fixed income securities while giving special consideration to the Impact framework or ESG criteria.
- **Global Equity** – Seeks a favorable long-term rate of return through capital appreciation and income, primarily from investing in equity securities of large and mid-sized companies in developed markets located around the world.
- **Global Equity ESG** - Seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of foreign issuers.
- **Global Equity Select** – Seeks a favorable long-term rate of return through capital appreciation and income, primarily from investing in equity securities of large and mid-sized companies in developed markets located around the world.
- **International Bond** – Seeks total return.
- **International Equity** – Seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of foreign issuers.
- **International Equity Index** – Seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of foreign equity investments based on a market index.

- **International Opportunities** – Seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of foreign issuers.
- **International Small Cap Focused** – Seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of foreign issuers.
- **International Small Cap Opportunities** - Seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of foreign issuers.
- **Quant International Small-Cap Equity** – Seeks a favorable long-term total return, mainly through capital appreciation.
- **Social Choice International Equity** – Seeks a favorable long-term total return that reflects the investment performance of the overall foreign equity markets while giving special consideration to certain environmental, social and governance (“ESG”) criteria.

Lifecycle

- **Lifecycle Retirement Income** – A fund-of-funds that seeks high total return over time primarily through income, with a secondary emphasis on capital appreciation, and invests in Class W shares of other TIAA-CREF Funds and in other investment pools or investment products according to a relatively stable asset allocation strategy that will not gradually adjust over time and is designed for investors who are already in or entering retirement and invests in several underlying equity, fixed income and direct real estate funds. The Lifecycle Retirement Income Fund seeks high total return over time primarily through income, with a secondary emphasis on capital appreciation.
- **Lifecycle Index Retirement Income** – A fund-of-funds that seeks high total return over time primarily through income, with a secondary emphasis on capital appreciation, and invests in Class W shares of several underlying equity and fixed income funds offered by TIAA-CREF Funds and potentially other investment pools or investment products and expects to allocate approximately 40% of assets to equity underlying funds and 60% of assets to fixed income underlying funds. The Lifecycle Index Retirement Income Fund seeks high total return over time primarily through income, with a secondary emphasis on capital appreciation.

Life Funds

- **Growth & Income** – Seeks a favorable long-term total return, through both capital appreciation and investment income, primarily from income-producing equity securities.
- **Growth Equity** – Seeks a favorable long-term return, mainly through capital appreciation, primarily from equity securities.

- **International Equity** – Seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of foreign issuers.
- **Large-Cap Value** – Seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of large domestic companies.
- **Real Estate Securities** – Seeks to obtain a favorable long-term total return through both capital appreciation and current income, by investing primarily in equity securities of companies principally engaged in or related to the real estate industry.
- **Small-Cap Equity** – Seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of smaller domestic companies.
- **Social Choice Equity** – Seeks a favorable long-term total return that reflects the investment performance of the overall U.S. stock market while giving special consideration to certain environmental, social and governance (“ESG”) criteria.
- **Stock Index** – Seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of equity securities selected to track the overall U.S. equity markets.
- **Core Bond** – Seeks total return, primarily through current income.
- **Balanced** – Seeks long-term total return, consisting of capital appreciation and current income.
- **Money Market** – Seeks current income consistent with maintaining liquidity and preserving capital.

Lifestyle

- **Lifestyle Aggressive Growth** – A fund-of-funds that seeks long-term growth of capital.
- **Lifestyle Conservative** – A fund-of-funds that seeks long-term total return, consisting of current income and capital appreciation.
- **Lifestyle Growth** – A fund-of-funds that seeks long-term growth of capital with some current income.
- **Lifestyle Income** – A fund-of-funds that seeks current income with some capital appreciation.
- **Lifestyle Moderate** – A fund-of-funds that seeks long-term total return, consisting of capital appreciation and current income.

Money Market

- **Money Market** – Seeks current income consistent with maintaining liquidity and preserving capital.

Real Estate

- **Real Estate Securities** – Seeks to obtain a favorable long-term total return through both capital appreciation and current income, by investing primarily in equity securities of companies principally engaged in or related to the real estate industry.

TIAA Separate Account VA-1

- Seeks favorable long-term return from a diversified portfolio selected to track the overall market for common stocks publicly traded in the United States, as represented by a broad stock market index.

Closed-end Funds

- **Multi-Asset Income Fund** - The Fund's investment objective is to provide attractive total return through high current income and capital appreciation. The Fund dynamically invests in a portfolio of equity and debt securities of issuers located around the world. This dynamic investment strategy uses a risk-based framework in which any amount can be allocated to an asset-class at any time. The Fund may invest in equity and debt securities of any type without limit. The relative allocations of the Fund's managed assets for investment between equity and debt securities, and relative allocations to the different types of equity and income strategies, will vary from time to time, consistent with the Fund's investment objective. The Fund uses leverage.
- **Mortgage and Income Fund** - The Fund's objective is to generate high current income through opportunistic investments in securitized credit. The Fund invests at least 65% of its managed assets in mortgage-backed securities (MBS), including residential MBS and commercial MBS, and up to 35% non-mortgage related asset-backed securities (ABS) including but not limited to any asset that generates reliable cash flows including collateralized loan obligations as well as pools of consumer auto loans, credit card receivables, aircraft leases and maintenance agreements, timeshare agreements, and solar photovoltaics. A maximum of 5% can be invested in catastrophe bonds, which are backed by a secured collateral account and considered by the Fund to be ABS. The fund uses leverage.

UCITS

- **Emerging Markets Impact Bond** – Seeks favorable long-term risk adjusted return, through income and capital appreciation by investing primarily in a portfolio of emerging markets fixed income securities. The Fund directs capital towards (i) issuers that demonstrate environmental, social and governance leadership and are best positioned to

address social and/or climate challenges, or (ii) securities that meet Nuveen's proprietary fixed income direct and measurable Impact Framework.

- **U.S. Core Impact Bond** – Seeks favorable long-term risk-adjusted return through income and capital appreciation by investing primarily in a portfolio of U.S. dollar fixed income securities. The Fund directs capital towards (i) issuers that demonstrate environmental, social and governance leadership and are best positioned to address social and/or climate challenges, or (ii) securities that meet Nuveen's proprietary fixed income direct and measurable Impact Framework.
- **Global Core Impact Bond** – Seeks long-term risk adjusted return through income and capital appreciation by investing primarily in a portfolio of global fixed income securities. The Fund directs capital towards (i) issuers that demonstrate environmental, social and governance leadership and are best positioned to address social and/or climate challenges, or (ii) securities that meet Nuveen's proprietary fixed income direct and measurable Impact Framework.

Retail SMAs

- **Low Carbon Value Equity ESG** – Seeks to outperform the broad benchmark over a full market cycle, while generating comparable total return characteristics relative to the Russell 1000 Value Index while adhering to comprehensive ESG and additional Low Carbon guidelines by investing in U.S. and non-U.S. securities with a market capitalization generally above \$3 billion at time of purchase.

ETFs

- **Enhanced Yield 1-5 Year U.S. Aggregate Bond** – Seeks to track the investment results, before fees and expenses, of the ICE BofA ML Enhanced Yield 1-5 Year US Broad Bond Index and is designed to broadly capture the 1-5 year U.S. investment grade fixed income market.
- **Enhanced Yield U.S. Aggregate Bond** – Seeks to track the investment results, before fees and expenses, of the ICE BofA ML Enhanced Yield US Broad Bond Index and generally invests in a sample of the securities in its Index whose risk, return and other characteristics resemble the risk, return and other characteristics of its Enhanced Index as a whole.
- **ESG Dividend** - Seeks to track the investment results, before fees and expenses, of the TIAA ESG USA High Dividend Yield Index which is comprised of listed equity securities issued by large- and mid-capitalization companies listed on U.S. exchanges that meet certain environmental, social and governance (ESG) criteria and select from securities with high dividend income and quality characteristics.

- **ESG Emerging Markets Equity** – Seeks to track the investment results, before fees and expenses, of the TIAA ESG Emerging Markets Equity Index which is comprised of listed equity securities issued by companies (and depositary receipts representing such securities) located in countries with emerging markets that meet certain environment, social and governance (ESG) criteria and selects from securities of large- and mid-capitalization companies located in one of the following 24 emerging markets countries: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey and the United Arab Emirates.
- **ESG High Yield Corporate Bond** – Seeks to track the investment results, before fees and expenses, of the Bloomberg MSCI U.S. High Yield Very Liquid ESG Select Index which is comprised of U.S. dollar-denominated, below investment grade, corporate bonds with above average liquidity that meet certain environment, social and governance (ESG) criteria.
- **ESG International Developed Markets Equity** – Seeks to track the investment results, before fees and expenses, of the TIAA ESG International Developed Markets Equity Index which is comprised solely of equity securities issued by companies (and depositary receipts representing such securities) located in countries with developed markets, excluding the United States and Canada, that meet certain environmental, social, and governance (ESG) criteria and selects from large- and mid-capitalization companies located in the following 21 developed market countries: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom.
- **ESG Large-Cap** – Seeks to track the investment results, before fees and expenses, of the TIAA ESG USA Large-Cap Index which is comprised of equity securities issued by large capitalization companies listed on U.S. exchanges that meet certain environmental, social and governance (ESG) criteria and select from securities that consist of large- and mid-capitalization segments of the U.S. market.
- **ESG Large-Cap Growth** – Seeks to track the investment results, before fees and expenses, of the TIAA ESG USA Large-Cap Growth Index which is comprised of equity securities issued by large capitalization companies listed on U.S. exchanges that meet certain environmental, social and governance (ESG) criteria and select from securities that exhibit overall growth style characteristics based on five variable: long-term forward earnings per share (EPS) growth rate, short-term EPS growth rate, current internal growth rate, long-term historical EPS growth trend and long-term historical sales per share growth trend.

- **ESG Large-Cap Value** – Seeks to track the investment results, before fees and expenses, of the TIAA ESG USA Large-Cap Value Index which is comprised of equity securities issued by large capitalization companies listed on U.S. exchanges that meet certain ESG criteria and selects from securities that generally consist of large- and mid-capitalization U.S. equity securities that exhibit overall style characteristics based on three variables: book value to price, 12-month forward earnings to prices and dividend yield.
- **ESG Mid-Cap Growth** – seeks to track the investment results, before fees and expenses, of the TIAA ESG USA Mid-Cap Growth Index which is comprised of equity securities issued by mid-capitalization companies listed on U.S. exchanges that meet certain environmental, social, and governance (ESG) criteria and selects from the securities which generally consists of mid-capitalization U.S. equity securities that exhibit overall growth style characteristics based on five variables: long-term forward earnings per share (EPS) growth rate, short-term forward EPS growth rate, current internal growth rate, long- term historical EPS growth trend, and long-term historical sales per share growth trend.
- **ESG Mid-Cap Value** – seeks to track the investment results, before fees and expenses, of the TIAA ESG USA Mid-Cap Value Index which is comprised of equity securities issued by mid-capitalization companies listed on U.S. exchanges that meet certain environmental, social, and governance (ESG) criteria and selects from the securities which generally consists of mid-capitalization U.S. equity securities that exhibit overall value style characteristics based on three variables: book value to price, 12-month forward earnings to price, and dividend yield.
- **ESG U.S. Aggregate Bond** – Seeks to track the investment results, before fees and expenses, of the Bloomberg Barclays MSCI US Aggregate ESG Select Index and is designed to broadly capture the U.S. investment grade, taxable fixed income market and utilizes certain environmental, social and governance criteria to select from the securities included in the Bloomberg Barclays US Aggregate Bond Index.
- **ESG Small-Cap** – seeks to track the investment results, before fees and expenses, of the TIAA ESG USA Small-Cap Index which is comprised of equity securities issued by small-capitalization companies listed on U.S. exchanges that meet certain environmental, social, and governance (ESG) criteria and selects from the securities which generally consists of equity securities that comprise the small-cap segment of the U.S. market.
- **Short-Term REIT** – Seeks to track the investment results, before fees and expenses, of the Dow Jones U.S. Select Short-Term REIT Index which is comprised of real estate investment trusts and generally invests in equity REITS traded on a national securities exchange in the United States that derive at least 75% of their total revenue from the ownership and operation of real estate assets and that have a minimum total market capitalization of \$200 million at the time of inclusion.

TIAA-CREF Real Property Fund LP

- Seeks a favorable long-term total return by primarily investing in a diversified portfolio of U.S. commercial core real estate assets well located in select targeted cities. Currently expected to be made available solely to registered management investment companies or series that are advised by TAL.

Multi-Asset Class Investments

- Allocation portfolios invest primarily in other funds that pursue certain strategies by investing in certain types of securities or investments, including with respect to all or a material portion of an account, and Affiliated Funds. The particular fund utilized will depend on the particular strategy or product.

Additional Information about Allocation Portfolios

Allocation portfolios may pursue other strategies or invest in other instruments described in this Brochure, including ETNs. A portfolio may utilize the following derivatives: options; futures contracts; options on futures contracts, including futures on equity and commodities indices; interest rate and currency futures; interest rate caps, collars, and floors; non-U.S. currency contracts; options on non-U.S. currencies; interest rate, total return, currency and credit default swaps, and options on the foregoing types of swap agreements. A portfolio may use these derivatives in an effort to manage market risk, currency risk, credit risk and yield curve risk; to manage the effective maturity or duration of securities in the portfolio; or for speculative purposes in an effort to increase yield or to enhance returns.

Index portfolios generally invest a substantial amount of their assets in common stocks included in a particular broad-based securities index, such as a large cap, mid cap or small cap index. A portfolio generally does not hold all of the stocks included in a particular index or hold them in the same weighting as the index.

Enhanced Equity Index/Large Cap Core Quantitative portfolios follow an actively managed strategy that uses a proprietary quantitative process to invest in common stocks.

Description of Material Risks Associated with Investment Strategies

- **Active Management Risk** – The risk that the strategy, investment selection or trade execution may cause a fund to underperform relative to its benchmark index or mutual funds with similar investment objectives.
- **Asset Allocation Risk** – The risk that a fund may not achieve its target allocations. In addition, there is the risk that the asset allocations may not achieve the desired risk-return characteristic or that the selection of underlying funds and the allocations among them will result in a fund underperforming other similar Funds or cause an investor to lose money.

- **Benchmark Risk** – The risk that a fund’s performance may not correspond to its benchmark index for any period of time and may underperform such index or the overall financial market. Additionally, to the extent that a fund’s investments vary from the composition of its benchmark index, a fund’s performance could potentially vary from the index’s performance to a greater extent than if a fund merely attempted to replicate the index.

- **Bond Market Liquidity Risk** – Dealer inventories of bonds, which provide an indication of the ability of financial intermediaries to “make markets” in those bonds, are at or near historic lows in relation to market size. This reduction in market making capacity has the potential to decrease liquidity and increase price volatility in the fixed income markets in which a fund invests, particularly during periods of economic or market stress. Decreased liquidity may also lead to higher volatility in the market price of a fund’s shares and wide bid-ask spreads. Although an exchange-traded fund intends to redeem its shares primarily in-kind, if an exchange-traded fund is forced to sell underlying investments at reduced prices or under unfavorable conditions to meet redemption requests or for other cash needs, a fund may suffer a loss.

- **Call Risk** – The risk that, during periods of falling interest rates, an issuer may call (or repay) a fixed income security prior to maturity, resulting in a decline in a fund’s income.

- **Cash Redemption Risk** – A fund’s investment strategy may require it to effect redemptions, in whole or in part, in cash. In order to obtain the cash needed for a redemption, a fund may be required to sell portfolio securities, which may cause a fund to recognize capital gains that it might not have recognized if it had satisfied the redemption in-kind. Therefore, to the extent a fund effects redemptions in cash, it may pay out higher annual capital gain distributions than if it satisfied redemptions entirely in-kind.

- **Concentration Risk** – To the extent that a fund’s portfolio is concentrated in the securities of issuers in a particular market, industry, group of industries, sector or asset class, a fund may be adversely affected by the performance of those securities, may be subject to increased price volatility and may be more susceptible to adverse economic, market, political or regulatory occurrences affecting that market, industry, group of industries, sector or asset class. The financial sector can be significantly affected by changes in, among other things, interest rates, government regulation, the rate of defaults on corporate, consumer and government debt, and the availability and cost of capital.

- **Counterparty and Third Party Risk** – Transactions involving a counterparty to a derivative or other instrument, or a third party responsible for servicing the instrument, are subject to the credit risk of the counterparty or third party, and to the counterparty’s or third party’s ability to perform in accordance with the terms of the transaction. If a counterparty defaults, a fund may have contractual remedies but the fund may be unable to enforce them due to the application of bankruptcy, insolvency and other laws affecting the

rights of creditors. Counterparty risk is still present even if a counterparty's obligations are secured by collateral because, for example, a fund's interest in collateral may not be perfected or additional collateral may not be promptly posted as required. A fund is also subject to counterparty risk to the extent it executes a significant portion of its securities or derivatives transactions through a single broker, dealer, or futures commission merchant.

- **Credit Risk (a type of Issuer Risk)** – The risk that the issuer of fixed income investments may not be able or willing, or may be perceived (whether by market participants, rating agencies, pricing services or otherwise) as not able or willing, to meet interest or principal payments when the payments become due.
- **Credit Spread Risk** – The risk that credit spreads (i.e., the difference in yield between securities that is due to differences in each security's respective credit quality) may increase when market participants believe that bonds generally have a greater risk of default. Increasing credit spreads may reduce the market values of a fund's securities. Credit spreads often increase more for lower-rated and unrated securities than for investment-grade securities. In addition, when credit spreads increase, reductions in market value will generally be greater for longer-maturity securities.
- **Currency Risk** – The risk of a decline in the value of a foreign currency versus the U.S. dollar, which reduces the dollar value of securities denominated in that foreign currency. The overall impact on a fund's holdings can be significant and long lasting depending on the currencies represented in the portfolio, how each currency appreciates or depreciates in relation to the U.S. dollar, and whether currency positions are hedged. Foreign currency exchange rates may fluctuate significantly over short periods of time, with respect to emerging market currencies or otherwise economically tied to emerging market currencies. Currency exchange rates can also be affected unpredictably by intervention by U.S. or foreign governments or central banks, or by currency controls or political developments.
- **Currency Management Strategies Risk** – Currency management strategies, including forward currency contracts, may substantially change a fund's exposure to currency exchange rates and could result in losses to the fund if currencies do not perform as Advisors expects. In addition, currency management strategies, to the extent that such strategies reduce a fund's exposure to currency risks, may also reduce the fund's ability to benefit from favorable changes in currency exchange rates. There is no assurance that Advisors' use of currency management strategies will benefit a fund or that they will be, or can be, used at appropriate times. Furthermore, there may not be a perfect correlation between the amount of exposure to a particular currency and the amount of securities in the portfolio denominated in that currency. Currency markets are generally less regulated than securities markets. Derivatives transactions, especially forward currency contracts and currency-related futures contracts and swap agreements, may involve significant amounts of currency management strategies risk. A fund's ability to use derivative instruments to

manage currency exposure may also be altered or constrained by pending SEC regulations, if such regulations are adopted as proposed.

- **Current Income Risks** – The risk that the income a fund receives may fall as a result of a decline in interest rates.
- **Cybersecurity Risk** – Cybersecurity breaches may allow an unauthorized party to gain access to fund assets, customer data, or proprietary information, or cause a fund and/or its service providers to suffer data corruption or lose operational functionality.
- **Derivatives Risk** – The risks associated with investing in derivatives may be different and greater than the risks associated with directly investing in the underlying securities and other instruments. A fund may use futures and options, single name or index credit default swaps, or forwards, and a fund may also use more complex derivatives such as swaps that might present liquidity, credit and counterparty risk. When investing in derivatives, a fund may lose more than the principal amount invested.
- **Dividend-paying Security Risk** - The risk that investments in dividend-paying securities could cause a Fund to underperform similar funds that invest without consideration of an issuer's track record of paying dividends. Securities of companies with a history of paying dividends may not participate in a broad market advance to the same degree as most other stocks, and a sharp rise in interest rates or economic downturn could cause a company to unexpectedly reduce or eliminate its dividend. There is no guarantee that the issuers of the securities held by a fund will declare dividends in the future or that, if declared, they will remain at their current levels or increase over time.
- **Downgrade Risk** – The risk that securities are subsequently downgraded should the Advisors and/or rating agencies believe the issuer's business outlook or creditworthiness has deteriorated. If this occurs, the values of these investments may decline, or it may affect the issuer's ability to raise additional capital for operational or financial purposes and increase the chance of default, as a downgrade may be seen in the financial markets as a signal of an issuer's deteriorating financial position.
- **Emerging Markets Risk** – The risk of foreign investment often increases in countries with emerging markets or otherwise economically tied to emerging market countries. For example, these countries may have more unstable governments than developed countries, and their economies may be based on only a few industries. Emerging market countries may also have less stringent regulation of accounting, auditing, financial reporting and recordkeeping requirements, which would affect the fund's ability to evaluate potential portfolio companies. As a result, there could be less information available about issuers in emerging market countries, which could negatively affect Advisors' ability to evaluate local companies or their potential impact on the fund's performance. Because their financial markets may be very small, share prices of financial instruments in emerging market countries may be volatile and difficult to determine. Financial instruments of

issuers in these countries may have lower overall liquidity than those of issuers in more developed countries. In addition, foreign investors such as the fund are subject to a variety of special restrictions in many emerging market countries. Moreover, legal remedies for investors in emerging markets may be more limited, and U.S. authorities may have less ability to bring actions against bad actors in emerging market countries. Frontier markets are those emerging markets that are considered to be among the smallest, least mature and least liquid, and as a result, the risks of investing in emerging markets are magnified in frontier markets.

- **Enhanced Index Risk** – The risk that a fund may underperform its benchmark index due to differences between the investments made by a fund and its benchmark index.
- **Equity Security Risk** – The risk that equity securities may decline significantly in price over short or extended periods of time. Such declines may occur because of declines in the equity market as a whole, or because of declines specific to a particular company, country, region, industry or sector
- **ESG/Impact/Green Investing Risk** - Strategies that select securities based on responsible investing, “green”, “impact” or environmental, social, and governance (ESG) or similar criteria may forgo certain market opportunities available to strategies or products that do not use these criteria. Because a portfolio’s ESG investment criteria and/or proprietary framework may exclude securities of certain issuers for non-financial reasons (i.e., companies that do not demonstrate sustainable ESG characteristics or are involved in certain prohibited activities), a portfolio may forgo some market opportunities available to portfolios that do not use these criteria or may be required to sell a security when it might otherwise be disadvantageous to do so. This may cause the portfolio to underperform the relevant market or other portfolios that do not use an ESG investment strategy. In addition, there is a risk that the companies identified by the portfolio’s ESG investment criteria do not operate as expected when addressing ESG issues. A company’s ESG performance or TAL practices or assessment of those actions could vary over time, which could cause the portfolio to be temporarily invested in companies that do not comply with the portfolio’s approach towards considering ESG characteristics. There are significant differences in interpretations of what it means for a company to have positive ESG characteristics. and TAL's interpretation may not align with the interpretation of certain investors and others. While TAL believes its evaluation of ESG characteristics is reasonable, its views and determinations may differ from other investors’ views. In making investment decisions, TAL relies on information and data that could be incomplete or erroneous, which could cause TAL to incorrectly assess a company’s ESG characteristics. The third-party data providers may differ in the data they provide for a given security or between industries or may only take into account one of many ESG-related components of a company. Furthermore, data availability and reporting with respect to ESG criteria may not always be available or may become unreliable. Finally, the regulatory landscape with respect to ESG globally is still under development and, as

a result, future regulations and/or rules adopted by applicable regulators could require a portfolio to change or adjust its investment process with respect to ESG investing.

- **Extension Risk** – The risk that, during periods of rising interest rates, borrowers may pay off their mortgage loans later than expected, preventing a fund from reinvesting principal proceeds at higher interest rates, resulting in less income than potentially available. These risks are normally present in mortgage-backed securities and other asset-backed securities. For example, homeowners have the option to prepay their mortgages. Therefore, the duration of a security backed by home mortgages can lengthen depending on homeowner prepayment activity. A decline in the prepayment rate and the resulting increase in duration of fixed income securities held by a fund can result in losses to investors in the fund.
- **Fixed Income Foreign Investment Risk** – Foreign investments, which may include fixed income securities of foreign issuers, or securities or contracts payable or denominated in non-U.S. currencies, can involve special risks that arise from one or more of the following events or circumstances: (1) changes in currency exchange rates; (2) possible imposition of market controls or currency exchange controls; (3) possible imposition of withholding taxes on dividends and interest; (4) possible seizure, expropriation or nationalization of assets; (5) more limited financial information about the foreign debt issuer or difficulties interpreting it because of foreign regulations and accounting standards; (6) lower liquidity and higher volatility in some foreign markets; (7) the impact of armed conflict or political, social or diplomatic events; (8) economic sanctions or other measures by the United States or other governments; (9) the difficulty of evaluating some foreign economic trends; and (10) the possibility that a foreign government could restrict an issuer from paying principal and interest on its debt obligations to investors outside the country. The type and severity of sanctions and other retaliatory actions, that may be imposed could vary broadly in scope, and their impact is impossible to predict. The imposition of sanctions could, among other things, cause a decline in the value and/or liquidity of securities issued by the sanctioned country or companies located in or economically tied to the sanctioned country and increase market volatility and disruption in the sanctioned country and throughout the world. Sanctions and other similar measures could limit or prevent the Fund from buying and selling securities (in the sanctioned country and other markets), significantly delay or prevent the settlement of securities transactions, and significantly impact a Fund's liquidity and performance. Brokerage commissions and custodial and transaction costs are often higher for foreign investments and it may also be difficult to use foreign laws and courts to force a foreign issuer make principal and interest payments on its debt obligations. In addition, the cost of servicing external debt will also generally be adversely affected by rising international interest rates because many external debt obligations bear interest at rates which are adjusted based upon international interest rates. To the extent a fund invests a significant portion of its assets in the securities of companies in a single country or region, it is more likely to be impacted by events or conditions affecting that country or region. Investment in a fund may be more exposed to a single country or a

region's economic cycles, stock market valuations and currency, which could increase its risk compared with a more geographically diversified fund. In addition, political, social, regulatory, economic or environmental events that occur in a single country or region may adversely affect the values of that country or region's securities and thus the holdings of the fund. The risks described above often increase in countries with emerging markets. For example, the ability of a foreign sovereign issuer, especially in an emerging market country, to make timely and ultimate payments on its debt obligations may be strongly influenced by the issuer's balance of payments, including export performance, its access to international credit and investments, fluctuations of interest rates and the extent of its foreign reserves. If a deterioration occurs in the foreign country's balance of payments, it could impose temporary restrictions on foreign capital remittances. In addition, there is a risk of restructuring certain foreign debt obligations that could reduce and reschedule interest and principal payments. Financial instruments of issuers in these countries may have lower overall liquidity than those of issuers in more developed countries. Emerging market countries typically have less established legal, accounting and financial reporting systems than those in more developed markets, which may reduce the scope or quality of financial information available to investors. Governments in emerging market countries are often less stable and more likely to take additional legal action with respect to companies, industries, assets or foreign ownership than those in more developed markets. Moreover, it can be more difficult for investors to bring litigation or enforce judgments against issuers in emerging markets or for U.S. regulators to bring enforcement actions against such issuers. The economies of some emerging markets may be particularly exposed to or affected by a certain industry or sector, and therefore issuers and/or securities of such emerging markets may be more affected by the performance of such industries or sectors.

- **Floating and Variable Rate Securities Risk** – Floating and variable rate securities provide for adjustment in the interest rate paid on the obligations. The terms of such obligations typically provide that interest rates are adjusted based upon an interest or market rate adjustment as provided in the respective obligations. The adjustment intervals may be regular, and range from daily up to annually, or may be event-based, such as based on a change in the prime rate. Because of the interest rate adjustment feature, floating and variable rate securities provide an investor with a certain degree of protection against rises in interest rates, although the investor will participate in any declines in interest rates as well. Generally, changes in interest rates will have a smaller effect on the market value of floating and variable rate securities than on the market value of comparable fixed income obligations. Thus, investing in floating and variable rate securities generally allows less opportunity for capital appreciation and depreciation than investing in comparable fixed income securities. Floating and variable rate securities may be subject to greater liquidity risk than other debt securities, meaning that there may be limitations on a fund's ability to sell the securities at any given time. Such securities also may lose value.

- **Foreign Investment Risk** – Foreign markets can be more volatile than the U.S. market due to increased risks of adverse issuer, political, regulatory, currency, market or economic developments as well as armed conflicts and can result in greater price volatility and perform differently from financial instruments of U.S. issuers. This risk may be heightened in emerging or developing markets. Foreign investments may also have lower liquidity and be more difficult to value than investments in U.S. issuers. To the extent the fund invests a significant portion of its assets in the securities of companies in a single country or region, it may be more susceptible to adverse economic, market, political or regulatory events or conditions affecting that country or region. Foreign investments may also be subject to risk of loss because of more or less foreign government regulation, less public information. Less stringent investor protections and less stringent accounting, corporate governance, financial reporting and disclosure standards. The imposition of sanctions, exchange controls (including repatriation restrictions), confiscations, trade restrictions (including tariffs) and other restrictions by the United States or other governments may also negatively impact a Fund's investments. The type and severity of sanctions and other measures that may be imposed could vary broadly in scope, and their impact is impossible to predict.
- **Fund of Funds Risk** – The ability of a fund to achieve its investment objective will depend in part upon the ability of the underlying funds to achieve their investment objectives. There can be no guarantee that any underlying fund will achieve its investment objective.
- **Geographic Concentration Risk** – To the extent a fund invests a significant portion of its assets in the securities of companies in a single country or region, it is more likely to be impacted by events or conditions affecting that country or region.
- **Green Investment Risk** – The risk that because a fund's proprietary impact framework may exclude securities of certain issuers for nonfinancial reasons, the fund may forgo some market opportunities available to funds that do not use these criteria. In addition, because a fund seeks to invest primarily in green investments, the value of a fund may be affected by events that adversely affect such investments, such as a decrease in governmental or other support for environmental initiatives and may fluctuate more than that of a fund that does not invest primarily in green investments.
- **Illiquid Investments Risk** – The risk that illiquid investments may be difficult to sell for the value at which they are carried, if at all, or at any price within the desired time frame. Illiquid investments are those that are not reasonably expected to be sold or disposed of in current market conditions in seven calendar days or less without the sale or disposition significantly changing the market value of the investment. Pursuant to applicable SEC regulations, a fund may not invest more than 15% of its net assets in illiquid investments that are assets. The Funds have implemented a liquidity risk management program and related procedures to identify illiquid investments pursuant to this regulation. A fund may be limited in its ability to invest in illiquid and "less liquid" investments, which may adversely affect a fund's performance and ability to achieve its investment objective. A

Fund's investments in illiquid investments may reduce the returns of the fund because it may be unable to sell the illiquid investment at an advantageous time or price, which could prevent the fund from taking advantage of other investment opportunities. There is also a risk that unusually high redemption requests, including redemption requests from certain large shareholders (such as institutional investors) or asset allocation changes, may make it difficult for a fund to sell investments in sufficient time to allow it to meet redemptions or require a fund to sell illiquid investments at reduced prices or under unfavorable conditions. Illiquid investments may trade less frequently, in lower quantities and/or at a discount as compared to more liquid investments, which may cause a fund to receive distressed prices and incur higher transaction costs when selling such investments. Securities that are liquid at the time of purchase may subsequently become illiquid due to events such as adverse developments for an issuer, industry-specific developments, market events, rising interest rates, changing economic conditions or investor perceptions and geopolitical risk. Dislocations in certain parts of the markets are resulting in reduced liquidity for certain investments. It is uncertain when financial markets will improve and economic conditions will stabilize. Liquidity of financial markets may also be affected by government intervention and political, social, health, economic or market developments. During periods of market stress, a fund's assets could potentially experience significant levels of illiquidity.

- **Income Risk** – A fund's income could decline during periods of falling interest rates or when a fund experiences defaults on debt securities it holds.
- **Income Volatility Risk** – Income volatility refers to the degree and speed with which changes in prevailing market interest rates diminish the level of current income from a portfolio of fixed income securities. The risk of income volatility is that the level of current income from a portfolio of fixed income securities may decline in certain interest rate environments.
- **Index Risk** – The risk that a fund's performance may not correspond to its benchmark index for any period of time and may underperform such index or the overall financial market. Additionally, to the extent that a fund's investments vary from the composition of its benchmark index, a fund's performance could potentially vary from the index's performance to a greater extent than if a fund merely attempted to replicate the index.
- **Industry/Sector Concentration Risk** – The risk that focusing on investment in specific industries or sectors makes a fund more vulnerable to developments particularly affecting those industries or sectors than a more broadly diversified fund would be. Financial instruments of companies in the same industry or sector may decline in price at the same time due to market conditions, interest rates or economic, regulatory, financial or industry/sector specific developments since these companies may share common characteristics and are more likely to react similarly to industry/sector specific market or economic developments. In addition, at times, a small number of companies may

represent a large portion of a single industry or sector, and these companies can be sensitive to adverse economic, regulatory or financial developments.

- **Interest Rate Risk** (a type of **Market Risk**) – The risk that increases in interest rates can cause the prices of fixed income investments to decline. This risk is heightened to the extent the fund invests in longer duration fixed income investments and during periods when prevailing interest rates are low or negative. Low interest rates may increase the fund's exposure to risks associated with rising interest rates. However, a Fund may be subject to heightened levels of interest rate risk due to rising interest rates (including a sharp rise in interest rates). In general, changing interest rates could have unpredictable effects on the markets and may expose fixed income and related markets to heightened volatility.
- **Investment Style Risk** – The risk that use of a particular investing style (such as growth or value investing) may fall out of favor in the marketplace for various periods of time and result in underperformance relative to the broader market sector or significant declines in the value of the fund's portfolio investments.
- **Issuer Risk (often called Financial Risk)** – The risk that an issuer's earnings prospects and overall financial position will deteriorate, causing a decline in the value of the issuer's financial instruments over short or extended periods of time. In times of market turmoil, perceptions of an issuer's credit risk can quickly change and even large, well-established issuers may deteriorate rapidly with little or no warning.
- **Large-Cap Risk** – The risk that large-capitalization companies are more mature and may grow more slowly than the economy as a whole and tend to go in and out of favor based on market and economic conditions.
- **Low Carbon Risk** – The risk that because a fund's investment will have special emphasis on companies with low current carbon emissions and limited exposure to fossil fuel reserves, a fund's portfolio might exclude certain issuers for nonfinancial reasons and a Fund may forgo some market opportunities that otherwise would be available.
- **Market Risk** – The risk that market prices of portfolio investments held by a fund may fall rapidly or unpredictably due to a variety of factors, including changing economic, political or market conditions. Market risk may affect a single issuer, industry or sector of the economy, or it may affect the market as a whole. From time to time, the fund may invest a significant portion of its assets in companies in one or more related sectors or industries, which would make the fund more vulnerable to adverse developments affecting such sectors or industries.
- **Market Trading Risks** – ETF shares may be bought and sold in the secondary market at market prices. Although it is expected that the market price of an ETF share typically will approximate its net asset value ("*NAV*"), there may be times when the market price and

the NAV diverge more significantly, particularly in times of market volatility or steep market declines. Thus, you may pay more or less than NAV when you buy ETF shares on the secondary market, and you may receive more or less than NAV when you sell those shares. Although an ETF's shares are listed for trading on a national securities exchange, it is possible that an active trading market may not develop or be maintained; in which case transactions may occur at wider bid/ask spreads. Trading of an ETF's shares may be halted by the activation of individual or market-wide trading halts (which halt trading for a specific period of time when the price of a particular security or overall market prices decline by a specified percentage).

- **Market Volatility, Liquidity and Valuation Risk** (types of **Market Risk**) – The risk that volatile or dramatic reductions in trading activity make it difficult for a fund to properly value its investments and that a fund may not be able to purchase or sell an investment at an attractive price, if at all.
- **Mid-Cap Risk** – The risk that the stocks of mid-capitalization companies often experience greater price volatility, lower trading volume and lower overall liquidity than the stocks of larger, more established companies.
- **Mortgage- and Asset-Backed Securities Risk** – Mortgage- and asset-backed securities generally can be prepaid at any time, and prepayments that occur either more quickly or more slowly than expected can adversely impact the value of such securities. They are also subject to extension risk, which is the risk that rising interest rates could cause mortgages or other obligations underlying the securities to be prepaid more slowly than expected, thereby lengthening the duration of such securities, increasing their sensitivity to interest rate changes and causing their prices to decline. A mortgage-backed security may be negatively affected by the quality of the mortgages underlying such security, the credit quality of its issuer or guarantor, and the nature and structure of its credit support.
- **Mortgage Roll Risk** – The risk that TAL will not correctly predict mortgage prepayments and interest rates, which will diminish the investment performance of a fund compared with what such performance would have been without the use of the strategy.
- **Non-Diversification Risk** – The fund is considered to be non-diversified under the Investment Company Act. Non-diversified status means that the fund can invest a greater percentage of its assets in the securities of a single issuer than a diversified fund. Investing in a non-diversified fund involves greater risk than investing in a diversified fund because a loss in value of a particular investment may have a greater effect on the fund's return since that investment may represent a larger portion of the fund's total portfolio assets.
- **Non-Investment-Grade Securities Risk** – Issuers of non-investment-grade securities, which are usually called “high-yield” or “junk bonds”, are typically in weaker financial health and such securities can be harder to value and sell and their prices can be more volatile than more highly rated securities. While these securities generally have higher

rates of interest, they also involve greater risk of default than do securities of a higher-quality rating. In addition, high-yield securities generally are less liquid than investment-grade securities and the risk associated with high-yield securities are heightened during times of weakening economic conditions or rising interest rates. Any investment in distressed or defaulted securities subjects a fund to even greater credit risk than investments in other below-investment-grade securities.

- **Non-U.S./Emerging Markets Risk** – Non-U.S. issuers or U.S. issuers with significant non-U.S. operations may be subject to risks in addition to those of issuers located in or that principally operate in the United States as a result of, among other things, political, social and economic developments abroad and different legal, regulatory and tax environments.
- **Non-U.S. Investment Risk** – Non-U.S. companies may be subject to risks in addition to those of companies located in the U.S. as a result of, among other things, political, social and economic developments abroad and different legal, regulatory and tax environments.
- **Other Investment Companies Risk** – When a fund invests in other investment companies, including ETFs, shareholders bear both their proportionate share of fund expenses and, indirectly, the expenses of the other investment companies. Furthermore, a fund is exposed to the risks to which the other investment companies may be subject.
- **Preferred Security Risk** — There are special risks associated with investing in preferred securities:
 - **Limited Voting Rights**—Generally, preferred security holders have no voting rights with respect to the issuing company unless preferred dividends have been in arrears for a specified number of periods, at which time the preferred security holders may elect a number of directors to the issuer’s board. Generally, once all the arrearages have been paid, the preferred security holders no longer have voting rights. In the case of certain preferred securities issued by trusts or special purpose entities, holders generally have no voting rights except if a declaration of default occurs and is continuing. In such an event, preferred security holders generally would have the right to appoint and authorize a trustee to enforce the trust’s or special purpose entity’s rights as a creditor under the agreement with its operating company.
 - **Special Redemption Rights**—In certain circumstances, an issuer of preferred securities may redeem the securities prior to their stated maturity date. For instance, for certain types of preferred securities, a redemption may be triggered by a change in federal income tax or securities laws or by regulatory or major corporate action. As with call provisions, a redemption by the issuer may negatively impact the return of the security held by a fund.
 - **Payment Deferral**—Generally, preferred securities may be subject to provisions that allow an issuer, under certain conditions, to skip (“non-cumulative” preferred securities) or defer (“cumulative” preferred securities) distributions without any adverse consequences to the issuer. Non-cumulative preferred securities can skip

distributions indefinitely. Cumulative preferred securities typically contain provisions that allow an issuer, at its discretion, to defer distribution payments for up to ten years. If a fund owns a preferred security that is deferring its distribution, the fund may be required to report income for tax purposes although it has not yet received such income. In addition, recent changes in bank regulations may increase the likelihood of issuers deferring or skipping distributions.

- Subordination—Preferred securities generally are subordinated to bonds and other debt instruments in a company’s capital structure and therefore are subject to greater credit risk than those debt instruments.
 - Floating Rate Payments—The dividend or interest rates on preferred securities may be floating, subjecting a Fund to floating and variable rate securities risk.
 - Fixed Rate Payments—The market value of preferred securities with fixed dividends or interest rates may decline in a rising interest rate environment.
 - Liquidity—Preferred securities may be substantially less liquid than many other securities, such as U.S. Government securities or common stock, subjecting a fund to illiquid investments risk.
 - Financial Services Industry—The preferred securities market is comprised predominately of securities issued by companies in the financial services industry. Therefore, preferred securities present substantially increased risks at times of financial turmoil, which could affect financial services companies more than companies in other sectors and industries.
 - Tax Risk—A Fund may invest in preferred securities or other securities the federal income tax treatment of which may not be clear or may be subject to recharacterization by the Internal Revenue Service (“IRS”). It could be more difficult for a fund to comply with the tax requirements applicable to regulated investment companies if the tax characterization of the fund’s investments or the tax treatment of the income from such investments were successfully challenged by the IRS.
 - Regulatory Risk—Issuers of preferred securities may be in industries that are heavily regulated and that may receive government funding. The value of preferred securities issued by these companies may be affected by changes in government policy, such as increased regulation, ownership restrictions, deregulation or reduced government funding.
- **Portfolio Construction Risk** – The risk that an adviser may be influenced by potential conflicts of interest in its construction and management of a fund’s portfolio since a fund’s performance may affect an affiliated insurance company’s exposure under its variable annuity contracts.
 - **Portfolio Turnover Risk** – In pursuing its investment objectives, a particular account may engage in trading that results in a high portfolio turnover rate, which may vary greatly from year to year, as well as within a given year. A higher portfolio turnover rate may result in correspondingly greater transactional expenses that are borne by an account. Such expenses may include bid-ask spreads, dealer mark- ups and other transactional costs on the sale of securities and reinvestments in other securities and may result in the realization

of taxable capital gains (including short-term gains, which are generally taxed to shareholders as ordinary income). These costs, which are not reflected in annual account expenses, may affect an account's performance.

- **Prepayment Risk** – The risk that, during periods of falling interest rates, borrowers may pay off their mortgage loans sooner than expected, forcing a fund to reinvest the unanticipated proceeds at lower interest rates, resulting in a decline in income. These risks are normally present in mortgage-backed securities and other asset-backed securities. For example, homeowners have the option to prepay their mortgages. Therefore, the duration of a security backed by home mortgages can shorten depending on homeowner prepayment activity. A rise in the repayment rate and the resulting decline in duration of fixed income securities held by a Fund can result in losses to investors in a fund.
- **Quantitative Analysis Risk** – The risk that securities selected for clients in whole, or in part, according to a quantitative analysis methodology can perform differently from the market as a whole based on the model and the factors used in the analysis, the weight placed on each factor and changes in the factor's historical trends and the risk that such quantitative analysis and modeling may not adequately take into account certain factors, may contain design flaws or inaccurate assumptions and may rely on inaccurate data inputs. If inaccurate market data is entered into a quantitative model, the resulting information will be incorrect. Because such models are based on assumptions of these and other market factors, the models may not take into account certain factors, or perform as intended, and may result in a decline in the value of the client's account.
- **Real Estate Investing Risk** – The risks associated with the ownership of real estate include, among others, declines in the value of real estate, negative changes in the climate for real estate, risks related to general and local economic conditions, decreases in property revenues, increases in prevailing interest rates, property taxes and operating expenses, changes in zoning laws and costs resulting from the cleanup of environmental problems.
- **Regulation S Securities Risk** – The risk that Regulation S securities may be less liquid than publicly traded securities. Regulation S securities may not be subject to the disclosure and other investor protection requirements that would be applicable to publicly traded securities. As a result, Regulation S securities may involve a high degree of business and financial risk and may result in losses.
- **REITs Risk** – In addition to the risks associated with investing in securities of real estate companies and real estate related companies, REITs are subject to certain additional risks. Equity REITs may be affected by changes in real estate values, rents, property taxes and interest rates. Further, REITs are dependent upon specialized management skills and cash flows, and may have their investments in relatively few properties, or in a small geographic area or a single property type. Failure of a company to qualify as a REIT under federal tax law, or changes to federal tax law or regulations governing REITs, may have adverse consequences to an account. In addition, REITs have their own expenses, and the

Fund will bear a proportionate share of those expenses. Many REITs utilize leverage (and some may be highly leveraged), which increases investment risk and could potentially magnify an account's losses.

- **Risk of Investment in a Fund's Wholly Owned Subsidiary** – A Subsidiary is not registered under the Investment Company Act and is not subject to its investor protections (except as otherwise noted in the Prospectus). As an investor in the Subsidiary, the fund does not have all of the protections offered to investors by the Investment Company Act. However, the Subsidiary is wholly owned and controlled by the fund and managed by Advisors. Therefore, the fund's ownership and control of the Subsidiary make it unlikely that the Subsidiary would take actions contrary to the interests of the fund or its shareholders.
- **Senior Loan Risk** – Many senior loans are rated lower than investment grade, or considered to be of comparable credit risk, so they present credit risk comparable to high-yield securities. While backed by collateral, the value of the collateral may not equal a Fund's investment and may be hard to sell, so the liquidation of the collateral may not satisfy the borrower's obligation to the fund in the event of non-payment of scheduled interest or principal. Senior loans also expose a Fund to call risk and illiquid investments risk. There is no organized exchange or board of trade on which loans are traded; rather, they trade in an unregulated inter-dealer or inter-bank resale market, so the secondary market for senior loans can be limited. Trades can be infrequent and the values for senior loans may experience volatility. In some cases, negotiations for the sale or settlement of senior loans may require weeks to complete, which may impair a fund's ability to raise cash to satisfy redemptions, pay dividends, pay expenses or take advantage of other investment opportunities in a timely manner. If an issuer of a senior loan prepays or redeems the loan prior to maturity, a fund will have to reinvest the proceeds in other senior loans or instruments that may pay lower interest rates.
- **Service Provider Operational Risk** – A fund's service providers, such as the administrator, custodian or transfer agent, may experience disruptions or operating errors that could negatively impact a fund. Although service providers are required to have appropriate operational risk management policies and procedures, and to take appropriate precautions to avoid and mitigate risks that could lead to disruptions and operating errors, it may not be possible to identify all of the operational risks that may affect a fund or to develop processes and controls to completely eliminate or mitigate their occurrence or effects.
- **Small-Cap Risk** – The risk that the stocks of small-capitalization companies often experience greater price volatility than large- or mid-sized companies because small-cap companies are often newer or less established than larger companies and are likely to have more limited resources, products and markets. Securities of small-cap companies often have lower overall liquidity than securities of larger companies as a result of there being

a smaller market for their securities, which can have an adverse effect on the pricing of these securities and on the ability to sell these securities when a Fund's investment advisor or sub-adviser deems it appropriate.

- **Sovereign Debt Risk** – The risk that the issuer of non-U.S. sovereign debt or the governmental authorities that control the repayment of such debt may be unable or unwilling to repay principal or interest when due. This may result from political or social factors, the general economic environment of a country, levels of foreign debt or foreign currency exchange rates, among other possible reasons. To the extent the issuer or controlling governmental authority is unable or unwilling to repay principal or interest when due, a Fund may have limited recourse to compel payment in the event of default.
- **Special Risks for Inflation-Indexed Bonds** – The risk that market values of inflation-indexed investments held by a fund may be adversely affected by a number of factors, including changes in the market's inflation expectations, changes in real rates of interest or declines in inflation (or deflation). There is a risk that interest payments in inflation-indexed investments may fall because of a decline in inflation (or deflation). In addition, the Consumer Price Index for All Urban Consumers ("CPI-U") may not accurately reflect the true rate of inflation. If the market perceives that any of these events have occurred, then the market value of those investments could be adversely affected.
- **Special Purpose Acquisition Companies Risk** – TAL may invest in stocks of, warrants to purchase stocks of, and other interests (e.g., warrants and rights) in special purpose acquisition companies or similar special purpose entities that pool funds to seek potential acquisition opportunities (collectively, "SPACs"). Because SPACs and similar entities have no operating history or ongoing business other than seeking acquisition opportunities, the value of their securities is particularly dependent on the ability of the entity's management to identify and complete a profitable acquisition. Some SPACs may pursue acquisitions only within certain industries or regions, which may increase the volatility of their prices. An investment in a SPAC is subject to a variety of risks, including that (i) a significant portion of the monies raised by the SPAC for the purpose of identifying and effecting an acquisition or merger may be expended during the search for a target transaction; (ii) an attractive acquisition or merger target may not be identified at all and the SPAC will be required to return any remaining monies to shareholders; (iii) any proposed merger or acquisition may be unable to obtain the requisite approval, if any, of SPAC shareholders; (iv) an acquisition or merger once effected may prove unsuccessful and an investment in the SPAC may lose value; (v) the warrants or other rights with respect to the SPAC may expire worthless or may be replaced or retired by the SPAC at an unfavorable price; (vi) an account will be delayed in receiving any redemption or liquidation proceeds from the SPAC to which it is entitled; (vii) an investment in a SPAC may be diluted by additional later offerings of interests in the SPAC or by other investors exercising existing rights to purchase shares of the SPAC; and (viii) the values of investments in SPACs may be highly volatile and may depreciate significantly over time.

- **Special Situation Risk** – Stocks of companies involved in acquisitions, consolidations, tender offers or exchanges, takeovers, reorganizations, mergers and other special situations can involve more risk than ordinary securities due to the high degree of uncertainty associated with such events. If the anticipated benefits of such developments do not ultimately materialize, the value of a special situation company may decline. As a result, the prices of securities of these companies can be more volatile than the prices of securities of similar companies, resulting in permanent loss of capital. Also, transactions may take longer than originally anticipated, resulting in lower annualized returns than contemplated at the time of investment. The following types of companies, for example, are more likely to experience special situations: smaller companies, emerging growth companies, and early development stage companies. Also, companies with any of the following characteristics are more likely to experience special situations: participating in an initial public offering, operating at a loss, or having little or no revenue history.

- **State and Municipal Investment Risk** – Events affecting states and municipalities may adversely affect the fund’s investments and its performance. These events may include severe financial difficulties and continued budget deficits, economic or political policy changes, tax base erosion, state constitutional limits on tax increases, and changes in the credit ratings assigned to state and municipal issuers of debt instruments. Since 2008, many states and municipalities have experienced—and continue to experience—severe financial difficulties. As a result, the economies and fiscal condition of these states and municipalities have deteriorated significantly as a result of a number of economic and other factors, including continued state and local housing crises, high unemployment levels, a drop in tax revenue and the larger national economic slowdown. The continued deterioration of state and municipal economies has resulted in large state and municipal budget deficits and it is unclear at this time when and how states and municipalities will close their budget gaps or how those solutions might affect state or municipal governments. A negative change in any one of these or other areas could affect the ability of state or municipal issuers to meet their debt obligations and result in losses to the fund.

- **Style Risk** – The risk that use of a particular investing style (such as growth or value investing) may fall out of favor in the marketplace for various periods of time and result in underperformance relative to the broader market sector or significant declines in the value of a fund’s portfolio investments
 - Risks of Growth Investing – Due to their relatively high valuations, growth stocks are typically more volatile than value stocks and may experience a larger decline on a forecast of lower earnings, or a negative event or market development, than would a value stock.
 - Risks of Value Investing –Securities believed to be undervalued are subject to the risks that: (1) the issuer’s potential business prospects are not realized; (2) their potential values are never recognized by the market; and (3) due to unanticipated or unforeseen problems associated with the issuer or industry, they were appropriately priced when acquired and

therefore do not perform as anticipated. Value investing has gone in and out of favor during past market cycles and, when value investing is out of favor, the securities of value companies may underperform the securities of other companies.

- **Tax Risk** – Income from tax-exempt municipal obligations could be declared taxable because of unfavorable changes in tax laws, adverse interpretations of the Internal Revenue Service or the non-compliant conduct of a bond issuer.
- **Underlying Funds Risks, Direct Real Estate** – The risks of investing in direct real estate underlying funds include risks specific to their investment strategies, as well as risks related to investing in real estate in general, such as:
 - Real estate-related investment risk—The risks associated with exposure to direct real estate through investing in investment vehicles managed by Advisors that will primarily invest directly in real estate, which can include declines in real estate values or revenues, uninsured losses at properties, the absence of regulatory oversight of and a secondary market for interests in direct real estate Underlying Funds, a scarcity of interests issued by direct real estate Underlying Funds, making it difficult for the Fund to achieve its target allocation, and illiquidity of interests in direct real estate Underlying Funds (which exposes the fund to illiquid investments risk).
- **Underlying Funds Risk, Emerging Markets** – The risk of foreign investment often increases in countries with emerging markets. For example, these countries may have more unstable governments than developed countries, and their economies may be based on only a few industries. Because their financial markets may be very small, share prices of financial instruments in emerging market countries may be volatile and difficult to determine. Financial instruments of issuers in these countries may have lower overall liquidity than those of issuers in more developed countries. In addition, foreign investors such as a Fund are subject to a variety of special restrictions in many emerging market countries.
- **Underlying Funds Risk, Illiquid Investments** – The risk that illiquid investments may be difficult to sell for the value at which they are carried, if at all, or at any price within the desired time frame.
- **U.S. Government Securities Risk** – U.S. Treasury obligations and some obligations of U.S. Government agencies and instrumentalities are supported by the full faith and credit of the U.S. Government. Other U.S. Government agencies or instrumentalities are backed by the right of the issuer to borrow from the U.S. Treasury. Still others are supported only by the credit of the issuer. No assurance can be given that the U.S. Government would provide financial support to its agencies or instrumentalities if not required to do so by law, and such agencies or instrumentalities may not have the funds to meet their payment obligations in the future. Therefore, securities issued by U.S. Government agencies or instrumentalities that are not backed by the full faith and credit of the U.S. Government may involve increased risk of loss of principal and interest. In addition, the value of U.S. Government securities may be affected by changes in the credit rating of the U.S.

Government. To the extent a Fund invests significantly in securities issued or guaranteed by the U.S. Government or its agencies or instrumentalities, any market movements, regulatory changes or changes in political or economic conditions that affect the securities of the U.S. Government or its agencies or instrumentalities in which the Fund invests may have a significant impact on the Fund's performance. Events that would adversely affect the market prices of securities issued or guaranteed by one U.S. Government agency or instrumentality may adversely affect the market prices of securities issued or guaranteed by other agencies or instrumentalities.

- **Valuation Risk** – The debt securities in which a fund invests typically are valued by a pricing service utilizing a range of market-based inputs and assumptions, including readily available market quotations obtained from broker-dealers making markets in such instruments, cash flows and transactions for comparable instruments. Pricing services generally price debt securities assuming orderly transactions of an institutional “round lot” size, but some trades may occur in smaller, “odd lot” sizes, often at lower prices than institutional round lot trades.

Multi-Asset Class Investment Risks

For Multi-Asset Class Investments strategies, the following risks are in addition to those described above, as applicable.

- **Call Option Risk** – The value of call options that an account sells (writes) will fluctuate. The account may not participate in any appreciation of its equity portfolio as fully as it would if the account did not sell call options. In addition, the account will continue to bear the risk of declines in the value of its equity securities.
- **ETF Risk** – An ETF is subject to the risks of the underlying securities that it holds. In addition, as noted above, for index-based ETFs, the performance of an ETF may diverge from the performance of the index (tracking error). ETFs pay fees and expenses (like management fees and operating expenses) that do not apply to an index, and the portfolio will indirectly bear its proportionate share of the ETF's fees and expenses. Moreover, ETF shares may trade at a premium or discount to their net asset value. As ETFs trade on an exchange, they are subject to the risks of any exchange-traded instrument, including: (i) an active trading market for its shares may not develop or be maintained, (ii) market makers or authorized participants may decide to reduce their role or step away from these activities in times of market stress, (iii) the exchange may halt trading of its shares, and (iv) its shares may be delisted from the exchange.
- **ETN Risk** – Like other index-tracking instruments, ETNs are subject to the risk that the value of the index may decline, at times sharply and unpredictably. In addition, ETNs, which are debt instruments, are subject to risk of default by the issuer.
- **Fund Risk** – Investing in funds, particularly in an asset allocation portfolio, causes a portfolio to indirectly bear its proportionate share of the fund's fees and expenses, in

addition to portfolio expenses. Investing in funds also subjects a portfolio to the same risks associated with directly investing in securities held by the fund. Additionally, for index-based funds (including ETFs), the performance of the fund may diverge from the performance of the index (commonly known as tracking error).

- **Futures and Swaps Risk** – The use of futures contracts and swaps to manage the portfolio’s volatility may expose the portfolio to losses (some of which may be sudden) to which it would not otherwise have been exposed if the portfolio held only direct investments in equity securities. For example, if the portfolio holds long positions in futures contracts or total return swaps and there is a decline in the value of the underlying equity index, the value of the futures contract or total return swaps will decline at the same time as the portfolio’s direct investments in equity securities, leaving the portfolio in a worse position than if it had held only direct investments in equity securities. Conversely, if the portfolio holds short positions in futures contracts or total return swaps and there is an increase in the value of the underlying equity index, the value of the portfolio’s positions will decline and offset any appreciation of the portfolio’s direct investments in equity securities. Losses on short positions are theoretically unlimited since there is no limit as to how high the underlying equity index can appreciate in value. In addition, investments in futures contracts and swaps may entail investment exposures that are greater than their cost would suggest. As a result, a small investment in futures contracts or swaps could have a large impact on performance. While the futures contracts utilized by the portfolio are standardized and traded on an exchange, total return swap agreements are privately negotiated and entered into in the over-the-counter market with a single counterparty. When the portfolio enters into such swap agreements it bears the risk that its counterparty will default on its obligations.
- **Index Call Option Risk** – Because index options are settled in cash, sellers of index call options cannot provide in advance for its potential settlement obligations by acquiring and holding the underlying securities.
- **Index Methodology Risk** – There can be no assurance that the U.S. or any foreign inflation index will accurately measure the real rate of inflation in the prices of goods and services.
- **Managed Volatility Strategy Risk** – There can be no assurance that the quantitative models used to manage the portfolio’s volatility will accurately forecast realized volatility levels or enable the portfolio to maintain its targeted volatility range; the actual volatility that the portfolio experiences may be significantly higher than its target. In addition, during periods of strong positive equity market performance, the volatility management strategy can be expected to limit the portfolio’s gains when compared to similar strategies that do not attempt to manage volatility.
- **Multi-Manager Risk** – When allocating assets to underlying managers, the interplay of the various strategies employed by the underlying managers may result in an account

holding a significant amount of certain types of securities. This may be beneficial or detrimental to an account's performance depending upon the performance of those securities and the overall economic environment. The managers may make investment decisions that conflict with each other; for example, at any particular time, one manager may be purchasing shares of an issuer whose shares are being sold by another manager. Consequently, the account could indirectly incur transaction costs without accomplishing any net investment result. In addition, the multi-manager approach could increase an account's turnover rate, which may result in higher transaction costs and higher taxes.

- **Statistical Method Risk** – Certain allocation strategies attempt to keep their volatility within a specified range using a proprietary statistical method. There can be no assurance that this method will perform as anticipated or enable a strategy to achieve its objective.

Also consider the following additional risks:

- **Additional Regulatory Risk** – If financial markets become unstable, as happened in 2008-2009, federal, state, and other governments, their regulatory agencies, or self-regulatory organizations could take actions that affect the regulation of the instruments in which an account invests, or the issuers of such instruments, in ways that are unforeseeable. Volatile financial markets can expose accounts to greater market and liquidity risk and potential difficulty in valuing portfolio instruments held by accounts. The value of an account's holdings is also generally subject to the risk of future local, national, or global economic disturbances based on unknown weaknesses in the markets in which an account invests. In the event of such a disturbance, issuers of securities held by a portfolio may experience significant declines in the value of their assets and even cease operations, or may receive government assistance accompanied by increased restrictions on their business operations or other government intervention. In addition, it is not certain that the U.S. government will intervene in response to a future market disturbance and the effect of any such future intervention cannot be predicted. It is difficult for issuers to prepare for the impact of future financial downturns, although companies can seek to identify and manage future uncertainties through risk management programs.
- **Global Economic Risk** – National and regional economies and financial markets are becoming increasingly interconnected, which increases the possibilities that conditions in one country, region or market might adversely impact issuers in a different country, region or market. Changes in legal, political, regulatory, tax and economic conditions may cause fluctuations in markets and securities prices around the world, which could negatively impact the value of a fund's investments. Major economic or political disruptions, particularly in large economies, may have global negative economic and market repercussions. Additionally, events such as war, armed conflict, terrorism, the imposition of economic sanctions, natural and environmental disasters and the spread of infectious illnesses or other public health emergencies may adversely affect the global economy and

the markets and issuers in which an Underlying Fund invests. These events could reduce consumer demand or economic output, result in market closure, travel restrictions or quarantines, and generally have a significant impact on the economy. These events could also impair the information technology and other operational systems upon which a Fund's or an Underlying Fund's service providers, including the investment adviser, Advisors, rely, and could otherwise disrupt the ability of employees of a Fund's or an Underlying Fund's service providers to perform essential tasks on behalf of a Fund or an Underlying Fund. In addition, sanctions and other measures could limit or prevent a Fund or an Underlying Fund from buying and selling securities (in sanctioned country and other markets), significantly delay or prevent the settlement of securities transactions, and significantly impact liquidity and performance.

Governmental and quasi-governmental authorities and regulators throughout the world have in the past responded to major economic disruptions with a variety of significant fiscal and monetary policy changes, including but not limited to, direct capital infusions into companies, new monetary programs and dramatically lower interest rates. An unexpected or quick reversal of these policies, or the ineffectiveness of these policies, could increase volatility in securities markets, which could adversely affect a Fund's or an Underlying Fund's investments.

- **Additional Market Disruption Risk** – In late February 2022, Russia launched a large scale military attack on Ukraine, which significantly amplified already existing geopolitical tensions among Russia, Ukraine, Europe, NATO and the West, including the U.S. In response, various countries, including the U.S., the United Kingdom, and the European Union issued broad-ranging economic sanctions against Russia, and additional sanctions may be imposed in the future. Sanctions and other actions against Russia may adversely impact, among other things, the Russian economy and various sectors of the economy, including but not limited to, financials, energy, metals and mining, engineering and defense and defense-related materials sectors; result in a decline in the value and liquidity of Russian securities; result in boycotts, tariffs, and purchasing and financing restrictions on Russia's government, companies and certain individuals; weaken the value of the ruble; downgrade the country's credit rating; freeze Russian securities and/or funds invested in prohibited assets and impair the ability to trade in Russian securities and/or other assets; and have other adverse consequences on the Russian government, economy, companies and region. Further, several large corporations and U.S. states have announced plans to divest interests or otherwise curtail business dealings with certain Russian businesses.

The ramifications of the hostilities and sanctions, however, may not be limited to Russia and Russian companies and may negatively impact other regional and global economic markets (including Europe and the United States), companies in other countries (particularly those that have done business with Russia) and on various sectors, industries and markets for securities and commodities globally, such as oil and natural gas.

Accordingly, the actions discussed above and the potential for a wider conflict could increase financial market volatility, cause severe negative effects on regional and global economic markets, industries, and companies and have a negative effect on investments and performance beyond any direct exposure to Russian issuers or those of adjoining geographic regions. In addition, Russia may take retaliatory actions and other countermeasures, including cyberattacks and espionage against other countries and companies around the world, which may negatively impact such countries and the companies in which your account invests. The extent and duration of the military action or future escalation of such hostilities, the extent and impact of existing and future sanctions, market disruptions and volatility, and the result of any diplomatic negotiations cannot be predicted. These and any related events could have a significant impact on the value of investments and on investment performance, particularly with respect to Russian exposure.

Please note that investing in securities involves a risk of loss that clients should be prepared to bear. Also, some of the strategies may involve frequent trading which may increase the brokerage and other transaction costs and taxes associated with such a strategy. These increased costs and taxes may negatively affect the performance associated with such strategies.

Item 9 Disciplinary Information

There are no legal or disciplinary events that are material to a client's or prospective client's evaluation of, or the integrity of, TAL or its management persons.

Item 10 Other Financial Industry Activities and Affiliations

TAL has arrangements that are material to its advisory business or its clients with related persons. Also, certain supervised persons of TAL are registered representatives of one or more affiliated broker-dealers.

As discussed above, TAL is a subsidiary of Nuveen Finance, LLC, which is an indirect subsidiary of Nuveen. Nuveen is a subsidiary and represents the Asset Management division, of TIAA, a leading financial services provider. TIAA constitutes the ultimate principal owner of TAL. For additional information on the ownership structure, please see Form ADV Part 1, Schedules A and B.

TIAA's subsidiaries include various financial industry entities, including broker-dealers, other investment advisers, commodity pool operators and/or commodity trading advisors, banking or thrift institutions, insurance companies or agencies, pension consultants, sponsors or syndicators of limited partnerships, and sponsors, general partners, or managing members of pooled investment vehicles, among other entities. For further information on these subsidiaries, please see Exhibit A.

TIAA is considered a control person of TAL and TIAA's other financial industry entities maybe considered affiliates of TAL under various other regulatory regimes, including as applicable the Investment Advisers Act of 1940, as amended (the "Advisers Act"), the Investment Company Act and the Employee Retirement Income Security Act of 1974 ("ERISA").

TAL is committed to putting the interests of its clients first and seeks to act in a manner consistent with its fiduciary and contractual obligations to its clients and applicable law. At times, TAL may determine, in an exercise of its discretion, to limit or refrain from entering into certain transactions, for some or all clients, in order to seek to avoid a potential conflict of interest, or where the legal, regulatory, administrative or other costs associated with entering into the transaction are deemed by TAL to outweigh the expected benefits. Further, certain regulatory and legal restrictions or limitations and internal policies (including those relating to the aggregation of different account holdings by TAL and its affiliates) may restrict certain investment or voting activities of TAL on behalf of its clients. For example, TAL's investment and proxy voting activities with respect to certain securities, issuers, regulated industries and non-U.S. markets may be restricted where applicable laws or regulations impose limits or burdens with respect to exceeding certain investment thresholds when aggregated with its affiliates.

To the extent permitted by the Advisers Act, the Investment Company Act, ERISA, and other law, as applicable, TAL may give advice, take action or refrain from acting in the performance of its duties for certain client accounts that may differ from such advice or action, or the timing or nature of such advice or action, for other client accounts including, for example, for clients subject to one or more regulatory frameworks.

From a business perspective within Nuveen, TAL's business is part of a functional group (known internally as Nuveen Equities and Fixed Income), which seeks to provide alignment and collaboration among certain Nuveen affiliates managing public equity and fixed income asset classes. These affiliates include TIAA-CREF Investment Management, LLC ("TCIM"), Nuveen Asset Management, LLC ("NAM"), Winslow Capital Management, LLC, and others.

From an investment perspective within Nuveen, TAL's municipal fixed income, taxable fixed income, and equities investment services are part of a broader Nuveen organizational framework that seeks to promote greater collaboration among and provide leadership to the respective investment teams. TAL's municipal bond, taxable fixed income, and equity investment teams comprise investment and trading personnel who are "consolidated" as employees ("Consolidated Personnel") across TAL and/or other affiliates. These teams coordinate and share investment and certain trading processes for client accounts in municipal bond, taxable fixed income, and equity (excluding public real assets) strategies. These integrated teams are sometimes referred to as Nuveen Municipals, Nuveen Fixed Income, and Nuveen Equities, respectively.

Consolidated Personnel face conflicts in providing services for various clients of multiple affiliates, such as in the areas of trade sequencing and allocating opportunities. These conflicts are similar to the conflicts they face in providing services to various clients (including affiliated and proprietary accounts) of a single investment adviser. Through its policies, procedures and practices, TAL seeks to provide for the fair and equitable treatment of its clients. See Item 12.

TIAA affiliates market, distribute, make referrals of, use and/or recommend investment products and services (including Funds and investment advisory services) of other affiliates (including TAL), and such affiliates may pay and receive fees and compensation in connection thereto. As a result of the potential additional economic benefit to TAL and/or its affiliates resulting from such activities, there is a potential conflict of interest for TAL, which TAL seeks to mitigate in a variety of ways, depending on the nature of the conflict, such as through oversight of these activities and/or by disclosure in this Brochure. Affiliated broker-dealers and their personnel act as distributors with respect to and/or promote and provide marketing support to Affiliated Funds and broker-dealer personnel are internally compensated for those activities. Such distribution activities are subject to the broker-dealer's own procedures.

For certain strategies or accounts, TAL may invest in or recommend Affiliated Funds. Depending on legal requirements, TAL may waive investment advisory fees on the client assets invested in such Fund, credit the client account for the fees paid by the Fund to TAL or TAL's affiliates, avoid or limit the payment of duplicative fees to TAL and its affiliates through other means, or charge fees both at the Fund level and client account level.

TAL generally provides advisory services to institutional asset management account clients that contemplate, with respect to all or a material portion of an account, an allocation to Affiliated Funds, affiliated products and/or affiliated advisers, including TAL. This structure results in more aggregate revenue to TAL and its affiliates than would result from an allocation to unaffiliated Funds, products and/or advisers.

TAL offers a broad range of strategic and tactical allocation and related investment management and administrative services, which can vary widely depending on the particular arrangement. TAL will propose, select and/or invest in or through other Funds and/or sub-advisers, on a discretionary, non-discretionary and/or model portfolio basis. Allocations are generally to Funds, including Funds advised by advisers under common control with TAL ((i.e., Affiliated Funds), and/or through separate accounts advised by sub-advisers, including sub-advisers under common control with TAL (i.e., Affiliated sub-advisers). TAL also may use unaffiliated strategies, including both Funds and separate accounts and/or sub-advisers and other securities and investments, depending on the arrangement. TAL generally provides advisory services to multi-asset class account strategies that contemplate, with respect to all or a material portion of an account, an allocation to Affiliated Funds, affiliated products and/or affiliated advisers, including TAL. This structure results in more aggregate revenue to TAL and its affiliates than would result from an allocation to unaffiliated Funds, products and/or advisers. Certain allocation strategies also include the use of derivatives. Some allocation strategies are diversified across numerous asset classes whereas others are concentrated in particular asset classes or market segments. In certain designated strategies, TAL may consider the impact of taxation and seek to create tax efficiencies. Allocation services can reflect a wide range of approaches, including, without limitation: an active (or tactical) approach with changes to allocations and portfolio composition in response to the views of TAL and factors such as changing market and economic conditions and sentiments; a less active (or strategic) approach with rebalancing to a fixed target allocation on a periodic basis or within bands of tolerance; or more limited services that may or may not include subsequent portfolio changes or rebalancing. Some services are more administrative in nature and do not reflect the exercise of investment discretion.

TAL serves as sub-adviser to several affiliated products including UCITS, ETFs, Closed-end Funds and Retail SMAs. Nuveen Fund Advisors, LLC is the adviser for the UCITS, ETF and Closed-end Fund platforms. TAL acts as the adviser for the Retail SMAs.

For certain strategies, it is expected that, with respect to all or a material portion of an account, TAL will allocate to or recommend itself, Affiliated Funds, affiliated products and/or affiliated advisers, and as a result in such case, TAL and its affiliates will retain more fees than if TAL had allocated to or recommended an unaffiliated fund, product or adviser. Clients should be aware of this potential conflict when engaging TAL for multiple services and should consult their own independent professional advisor(s) to determine whether the arrangement is appropriate and in their continuing best interests.

TAL also provides services from time to time to various accounts affiliated with TIAA, including TIAA annuity accounts and TIAA general accounts. See Item 11 and 12.

As described herein, TAL provides services to multiple proprietary or Affiliated Funds or accounts of various sizes and strategies. It is the general policy of TAL that proprietary or Affiliated Funds or accounts should receive neither special advantages nor disadvantages. TAL addresses the conflict associated with providing services to both affiliated and unaffiliated Funds/accounts by seeking to act in a manner consistent with its policies and procedures and its fiduciary duty to all clients.

TAL's affiliates or shared services units provide it with supplemental account administration, trading, operations, client service, sales and marketing, product development and management, risk management, information technology, legal and compliance, human resources, and other corporate, finance or administrative services. TAL may likewise provide services for its affiliates. Consolidated Personnel may perform services for both TAL and one or more TAL affiliates. The scope of certain such services and arrangements varies depending on the particular strategy, distribution channel, program, and client size and type.

In providing investment advisory services to accounts in certain strategies, TAL may use portfolio management, research, trading and other resources of one or more non-US affiliates, including Nuveen Hong Kong Limited, Nuveen Singapore Private Limited, Nuveen Investment Management International Limited and/or others, that are not registered with the SEC. Certain of such services are provided through a "participating affiliate" arrangement, as that term is used in relief granted by the SEC staff allowing U.S. registered investment advisers such as TAL to use portfolio management resources of advisory affiliates subject to the regulatory supervision of the registered investment adviser.

Item 11 Code of Ethics, Participation or Interest in Client Transactions and Personal Trading

Code of Ethics

TAL adheres to Nuveen's Code of Ethics (and TAL's Code of Ethics Supplement) (together, the "Code of Ethics"). TAL has adopted policies and procedures designed to detect and prevent conflicts of interest relating to personal trading by its employees, and to ensure that TAL effects transactions for clients in a manner that is consistent with its fiduciary duty to its clients and in accordance with applicable law.

TAL's employees who wish to purchase or sell most types of securities in their personal accounts may do so only in compliance with certain procedures outlined in the Code of Ethics, such as pre-approval of non-exempted securities by compliance personnel and periodic holdings reporting. Additionally, TAL employees are prohibited from effecting transactions in individual municipal securities. Furthermore, employees are required, with limited exceptions, to maintain brokerage accounts with select broker-dealers who provide automated, electronic reporting of transactions and account information to assist the Nuveen Ethics Office in the monitoring of employee transactions. The Code of Ethics also prohibits the misuse of material nonpublic information and confidential information. A copy of the Code of Ethics will be provided upon request of any client or prospective client. Please see the cover page to this Brochure for contact information.

TAL and its related persons may invest in securities for their personal accounts that are also recommended to TAL clients. Potential conflicts arise in this situation because TAL or its related persons may have a material interest in or relationship with the issuer of a security or may use knowledge about pending or currently considered securities transactions for clients to profit personally. To address these potential conflicts, employees are required to review and certify securities trading activity quarterly and to provide securities holding reports upon commencement of employment and to review and certify securities holdings thereafter on an annual basis. In addition, employee transactions are subject to limitations regarding the type and timing of transactions, including certain trading prohibitions, and pre-approval and monitoring by compliance professionals and/or certain related persons.

TAL, its employees, and its affiliates may give advice and take action in the performance of their duties for some clients that may differ from advice given, or the timing or nature of actions taken, for other clients or for their proprietary or personal accounts. TAL employees, household members, and others affiliated with the firm (collectively "employees") can be clients of TAL. TAL has a potential conflict of interest because it could seek to favor its employees over its other clients in the management of employee accounts. Additionally, TAL can provide special services and/or provide services at no or reduced fees for employees. TAL manages employee accounts in a manner consistent with TAL's fiduciary duty to its other

clients. TAL employee accounts shall not receive special trading advantages or disadvantages, and employee accounts are subject to the firm's trading policies.

Subject to the restrictions described above, TAL and its employees may at any time hold, acquire, increase, decrease, dispose of or otherwise deal with positions in investments in which a client account may have an interest from time to time. TAL has no obligation to acquire for a client account a position in any investment which it, acting on behalf of another client, or an employee, may acquire, and the client accounts shall not have first refusal, co-investment or other rights in respect of any such investment.

The following restrictions apply to related persons of TAL who (i) in connection with their regular functions or duties make or participate in making recommendations or decisions concerning the purchase or sale of securities for a client account, or (ii) are natural persons in a control relationship with TAL or its affiliates and obtain information concerning recommendations made to a client account, portfolio managers, portfolio assistants, securities analysts, traders, or any other persons designated as such by TAL or any affiliated entity (each such person is an "Investment Person"). Investment Persons are subject to a personal trading prohibition during the period starting seven (7) calendar days before and ending seven (7) calendar days after any trade in the same (or related, or equivalent) security on behalf of a client for which he/she has portfolio management responsibility. In some cases, the Investment Person may be required to reverse a trade and/or forfeit an appropriate portion of any profits associated with his or her transaction. These consequences can apply whether or not the trade was pre-approved.

With respect to other related persons that are not Investment Persons, TAL and its advisory affiliates maintain procedures (including certain information barriers) designed generally to provide for independent exercise of investment and voting power.

To the extent the Nuveen Ethics Office determines that there is no material conflict of interest, certain officers and employees of TAL from time to time may engage in outside business activities, including serving on boards of unaffiliated entities.

Employees may be offered or receive business gifts, meals, and entertainment from parties with whom TAL conducts business. Receipt of business gifts, meals, and entertainment from clients, consultants or broker-dealers may inappropriately influence investment or trading decisions. Similarly, the giving of business gifts, meals, and entertainment could inappropriately influence a prospect, client, consultant or broker-dealer in an effort to gain an unfair advantage in acquiring or retaining clients. Employees are subject to certain limitations and reporting obligations regarding the receipt/giving of business gifts, meals, and other benefits in the form of entertainment from parties with whom TAL conducts business. For a discussion of conflicts related to gifts and entertainment, please refer to Item 14.

Similarly, employees may from time to time make political contributions. The inappropriate influencing of a prospect or client in an effort to gain an unfair advantage in acquiring or

retaining clients creates a conflict of interest. TAL has established procedures that it believes are designed to comply, at a minimum, with federal law. In addition, all applicable contributions require preclearance and employees are required to certify on a quarterly basis that they have reported all applicable monetary or in-kind political contributions.

Participation or Interest in Client Transactions

Proprietary Accounts

TAL, its employees, and its affiliates (including TIAA) invest in Affiliated Funds or separate accounts managed by TAL or its affiliates from time to time. Generally, to the extent that TAL or TAL affiliates have funded a separate account or have made a significant investment in an Affiliated Fund (e.g., generally greater than 25% of the Affiliated Fund's assets), such separate account or Affiliated Fund will be considered a proprietary account for certain regulatory purposes. This creates a conflict if TAL were to favor such accounts such as in the allocation of investment opportunities. TAL seeks to manage such accounts in a manner consistent with TAL's fiduciary duty to its other clients to address the potential conflicts of interest resulting from TAL or a TAL affiliate's economic interest in a proprietary account. TAL's general policy provides that proprietary accounts (separate accounts and Affiliated Funds) should receive neither special advantages nor disadvantages relative to other client accounts and TAL addresses this conflict by periodically reviewing allocations of investment opportunities across client accounts.

Cross Trades

A cross trade occurs when an adviser effects a trade between two or more of its advisory clients' accounts and does not charge a fee for effecting the transaction. Given the fiduciary duty owed to both accounts when effecting such trade, the use of cross trades raises potential conflicts of interest.

TAL believes that cross trading can be beneficial for advisory accounts managed by TAL.

Subject to applicable law, TAL causes a client account to enter into a cross trade only in cases where it believes that the cross trade would be in the best interests of both selling and buying accounts. Under TAL's cross transaction policy, the price of a cross trade is set according to one of the following methodologies, the goal of which is seek a fair price for both sides of the cross trade.

TAL also effects cross trades between a CLO fund that it advises and other accounts, including other CLO funds. Certain CLO funds are considered proprietary accounts as a result of an investment (e.g., equity investment) by TAL affiliates (including TAL, TCIM, and NAM). Where TAL causes a client account to enter into a cross transaction with a CLO that is a proprietary account, the transaction would be considered a principal transaction subject to certain legal requirements under the Advisers Act. Cross and principal transactions for CLOs are used primarily to rebalance the various CLO portfolios advised by TAL and its affiliated investment advisers in connection with the liquidation of the assets of a CLO transaction, to contribute assets to a CLO

from time to time (including as may be structured for purposes of applicable risk retention rules or similar requirements) or to take advantage of other opportunities. Under TAL's policy, any principal or cross transaction for a CLO must be fair and equitable to both parties, executed in accordance with the legal requirements under applicable law and result in a sale price and purchase price equal to the market value of the securities.

Any cross trades involving U.S. registered open-end and closed-end investment companies are carried out in accordance with the Investment Company Act, including Rule 17a-7, and applicable policies and procedures.

Cross trades involving accounts subject to ERISA are generally prohibited.

Cases may arise where trading or investment personnel do not know or have reason to know the identity of the other side of a trade prior to execution, which may result in TAL-advised accounts selling to other TAL-advised accounts. For example, in seeking best execution, TAL trading and investment personnel at times find it advantageous to use electronic trading platforms (e.g., Bloomberg Tradebook, MarketAxess, etc.), which generally seek to provide the best price under the circumstances. These platforms typically match buyers and sellers among a large universe of market participants based on price. TAL users of such platforms generally do not know or have reason to know the identity of the other side of the trade prior to execution. Additionally, trading or investment personnel may operate independently within different teams and/or for different accounts, asset classes or strategies in which such personnel generally do not know or have reason to know the identity of the other side of the trade prior to execution. TAL considers the foregoing facts and circumstances, and factors such as the liquidity of the securities, uncoordinated timing of sell/buy transactions and no linkage in transaction fees for sell/buy transactions in determining its treatment of such trades under various regulatory regimes.

Material Non-Public Information

From time to time, TAL receives material non-public information ("MNPI") and becomes subject to limitations on its investment activities relating to the possession of MNPI. Under applicable law, TAL and its personnel are prohibited from improperly disclosing or using MNPI for its own benefit or the benefit of its clients. Possession of MNPI could limit TAL's ability to transact in affected investments, which could be detrimental to client accounts. TAL may in its discretion seek to employ the use of certain approaches or procedures to seek to minimize such limitations, but there is no assurance that TAL will employ such procedures or that such procedures will be effective in alleviating the limitations associated with possessing MNPI.

Capital Structure

Conflicts will also arise in cases where different Funds or clients of TAL or affiliates of TAL invest in different parts of an issuer's capital structure, including circumstances in which one or more clients or Funds may own private securities or obligations of an issuer and other clients or Funds may own public securities of the same issuer. For example, a Fund may acquire a loan,

loan participation or a loan assignment of a particular borrower in which one or more other Funds have an equity investment. In addition, different clients or Funds may invest in securities of an issuer that have different voting rights, dividend or repayment priorities or other features that may be in conflict with one another. In negotiating the terms and conditions of any such investments, or any subsequent amendments or waivers, TAL or its affiliates may find that their own interests, the interests of clients or Funds could conflict. For example, a debt holder may be better served by a liquidation of the issuer in which it may be paid in full, whereas an equity holder might prefer a reorganization that holds the potential to create value for the equity holders. Any of the foregoing conflicts of interest will be discussed and resolved on a case-by-case basis. Any such discussions will take into consideration the interests of the relevant clients and Funds, the circumstances giving rise to the conflict and applicable laws.

Item 12 Brokerage Practices

Selecting Broker-Dealers

TAL is responsible for decisions to buy and sell securities for its equity accounts as well as for selecting broker-dealers and, where applicable, negotiating the amount of the commission rate paid. It is the intention of TAL to place brokerage orders with the objective of obtaining the best execution. In evaluating best execution for equity transactions, TAL considers a number of factors, including, without limitation, the following: best price; the nature of the security being traded; the nature and character of the markets for the security to be purchased or sold; the likely market impact of the transaction based on the nature of the transaction; the skill of the executing broker-dealer; the liquidity being provided by the broker-dealer; the broker-dealer's settlement and clearance capability; the reputation and financial condition of the broker-dealer; the costs of processing information; the nature of price discovery in different markets; and the laws and regulations governing investment advisers. Client referrals do not play a role in TAL's broker-dealer selection process. When purchasing or selling securities traded on the over-the-counter market, TAL generally will execute the transactions with a broker-dealer engaged in making a market for such securities. When TAL deems the purchase or sale of a security to be in the best interests of one or more accounts, it may, consistent with its fiduciary obligations, decide either to buy or to sell a particular security for the accounts at the same time as for other clients that it may be managing, or that may be managed by its affiliates, TCIM and NAM. In that event, allocation of the securities purchased or sold, as well as the expenses incurred in the transaction, will be made in an equitable manner. Transactions on equity exchanges and other agency transactions involve the payment of negotiated brokerage commissions. Such commissions vary among different broker-dealers. Trades are regularly monitored for best execution purposes by the equity trading desk.

TAL's fixed income traders select broker-dealers with whom they do business independent of any research, strategy pieces or trade recommendations provided to TAL. The research, credit opinions and relative value trade recommendations provided by broker-dealers are evaluated, but there is no direct linkage between that evaluation and TCIM's selection of a particular broker-dealer for trade execution. The vast majority of institutional fixed income trading is conducted over-the-counter rather than on exchanges, with set prices. Fixed income trading is based on the risk-taking practice of market making by broker-dealers, which attempt to capture the bid/ask spread on trades where capital is committed (principal model) or on a pre-negotiated spread concession for riskless principal trades (agency model). The directive to TAL's fixed-income traders, and the conventional trading construct within the fixed income market, is based on the practice of fiduciary efforts to achieve best execution. Client referrals do not play a role in TAL's broker-dealer selection process. When selecting a broker-dealer, the traders follow established trading protocols for data aggregation, price discovery, inventory mining and information protection and conduct an assessment of counterparty performance. The protocol incorporates TAL's knowledge of and experience with select broker-dealers with respect to providing liquidity, namely the highest bid price or lowest offer price for a particular security.

Centralized Trading Desks

TAL and certain affiliates utilize one or more shared centralized trading desks for trading municipal, fixed income, and equity strategies for Funds and Institutional Separate Accounts, depending on the specific strategy, dollar amount, operational connectivity, and other factors. TAL utilizes a separate shared centralized trading desk for placing equity and fixed income trades for Retail SMAs.

Best Execution Committee

Every broker-dealer is reviewed by the Equity or Fixed income Best Execution Committee, as appropriate, which is comprised of representatives from trading, portfolio management, compliance and law. Risk management also reviews the creditworthiness of all broker-dealers.

Affiliated Broker Dealers

TAL does not use affiliated broker-dealers to execute any trades on its behalf.

Prohibition on Directed Brokerage Arrangements for Registered Investment Company Clients

TAL has adopted policies and procedures relating to its registered investment company clients to prohibit directed brokerage arrangements prohibited by Rule 12b-1(h) under the Investment Company Act. This rule prohibits investment companies from using brokerage commissions to compensate any broker-dealer for the promotion or sale of investment company shares. TAL's policies and procedures prohibit it from using select broker-dealers to execute Fund portfolio securities transactions or directing commissions to broker-dealers in consideration of promotional or sales efforts with respect to the Funds. In addition, the affiliated investment companies, the TIAA-CREF Funds, the TIAA-CREF Life Funds, and the TIAA Separate Account VA-1, their respective investment advisers, and any principal underwriter of the Funds may not enter into any agreement (whether oral or written) or other understanding under which a Fund directs, or is expected to direct, Fund portfolio securities transactions, or any remuneration (including but not limited to any commission, mark-up, mark-down, or other fee or portion thereof received or to be received from the Fund's portfolio transactions effected through any other broker-dealer), to a broker-dealer in consideration for the promotion or sale of Fund shares. In particular, commissions may not be allocated to a broker-dealer in return for sale of the Funds, for "shelf space" for the Funds, for exposure of Funds to the broker-dealer's sales force or clients, or for any other arrangement that is designed to support or promote the broker-dealer's sales of the Funds' shares.

Client-Directed Brokerage Transactions

TAL does not generally recommend or request that a client direct TAL to execute transactions through a specified broker-dealer. Clients, including certain Retail SMAs, may direct TAL to use a particular broker-dealer, or broker-dealers, to execute portfolio transactions for its

account. Where a client directs the use of a particular broker-dealer, or broker-dealers, TAL may not be in a position where it can freely negotiate commission rates or best price, or select broker-dealers on the basis of best price and execution. Additionally, transactions for a client that directs brokerage may not be combined or “blocked” for execution purpose with orders for the same securities or other Funds or account managed by TAL. As a result, client-directed brokerage transactions may result in higher commissions or less favorable net prices than would be the case if TAL were empowered to select broker-dealers to execute transactions for the client’s account. In the event of a sale or purchase executed for all or most of TAL’s clients, it is the policy of TAL to first execute transactions where TAL is authorized to select the broker-dealer followed by client-directed brokerage arrangements.

A client may direct TAL to direct portfolio transactions to broker-dealers that agree to pay custodial, transfer agent or other expenses which would otherwise be paid by clients of TAL or clients of TAL’s affiliates. In such circumstances, each client’s commissions are used to defray that client’s expenses only and are not used for the benefit of any other client. Broker-dealer participation in these arrangements typically also provides TAL with research and brokerage services.

Transactions for Initial Purchase of Equity or Debt Instruments

Transactions involving the initial purchase of equity or debt instruments generally involve an investment banker that charges a fee to the issuer of the equity or debt securities. TAL does not directly pay a fee or negotiate the fee.

Research and Services Provided by Broker-Dealers

With respect to equity securities, TAL has adopted a policy embodying the concepts of Section 28(e) under the Securities Exchange Act of 1934, which provides a safe harbor allowing an investment adviser to cause a client to pay a higher commission to a broker-dealer that also provides research services than the commission another broker-dealer would charge (generally referred to as the use of “soft dollars”). To utilize soft dollars, the adviser must determine in good faith that the commission paid is reasonable in relation to the value of the brokerage and research services provided and that, over time, each client paying soft dollars receives some benefit from the research obtained through the use of soft dollars. An adviser may make such a determination based upon either the particular transaction involved or the overall responsibilities of the adviser with respect to the accounts over which it exercises investment discretion. Therefore, specific research may not necessarily benefit all accounts paying commissions to such broker-dealer. Research obtained through soft dollars may be developed by the broker-dealer or a third party, where the obligation to pay is between the broker-dealer and the third party. In such cases the research will be paid for through a Commission Sharing Arrangement (CSA) or similar arrangement. When TAL uses soft dollars to obtain research services, TAL receives a benefit because it does not have to produce or pay for the research services. TAL may cause investors to pay commissions higher than those charged by other broker-dealers in return for soft-dollar benefits.

Fixed income trades on behalf of TAL's clients in which the broker-dealer is acting as principal may not be allocated in order to generate soft dollar credits, but at times, a broker-dealer may send TAL unsolicited proprietary research that was based on their assessment of the fixed income trading volume executed with that broker-dealer. Similarly, trades on behalf of TAL's clients that follow an index or quantitative strategy, or execution-only trades, will not generate soft dollars, but at times a broker-dealer may send TAL unsolicited proprietary research that is based in part on such trading volumes.

Research or services obtained for one client is used by TAL in managing other TAL clients. Research or services obtained by TAL is used by TAL's affiliates for the benefit of their respective clients, and vice versa. Additionally, some clients (e.g., TIAA-CREF Funds) may limit TAL's use of soft dollars and/or negotiate for lower advisory fees or reimbursements when TAL uses their equity commissions for research services.

As part of Nuveen Equities (the integrated equity investment teams of affiliates TCIM, TAL and NAM), CSA credits generated by TAL are kept in a separate account with Instinet who aggregates all TCIM, TAL and NAM CSA funds. Payments to research providers are made from both TAL/TCIM and NAM CSA accounts. Research is allocated among the respective Nuveen Equities investment teams based on factors such as asset size of the team's equity strategy and the strategy's geographic considerations (e.g., U.S. vs non-U.S.; developed markets vs emerging markets). The research obtained through the use of soft dollars generally consists of products and services including some or all of the following: economic analysis and forecasts, financial market analysis and forecasts, industry and company specific analysis, interest rate forecasts, arbitrage relative valuation analysis of various debt securities, analytical tools for investment research and related consulting services, , meetings arranged by broker-dealers with corporate management teams and spokespersons, as well as industry spokespersons, access to broker-dealer conferences, and other reports, meetings and services that assist in the investment decision-making process. The receipt of soft dollar benefits generally creates an incentive for TAL to direct brokerage based on its interest in receiving such soft dollar benefits rather than on its clients' interest in receiving most favorable execution. To address conflicts of interests, TAL has adopted policies and procedures for the use of soft dollars. Additionally, TAL may develop specialized policies and procedures for the use of and payment for soft dollars with respect to particular clients.

Transaction Error Policy

TAL's policy is to review, report, and correct transaction-related errors that occur in connection with client public market securities transactions as soon as possible, so that clients are not disadvantaged as a result of an error. Transaction exceptions are escalated for review to the Transaction Error Review Committee, a group comprised of senior-level control partners including representatives from Law, Compliance, Risk Management, Finance and Operations. The Committee is responsible for overseeing the reimbursement of transaction errors in client accounts managed by the TAL. The Committee reviews the facts and circumstances of each error presented and has the authority to act on behalf of TAL to determine the appropriate reimbursement of client accounts. The Committee also analyzes the root cause of exceptions

and evaluates the remediation of control gaps. All exceptions, reimbursements and corrective actions taken to remediate process gaps are reviewed and approved by the Committee.

For trade errors that occur in Retail SMAs, TAL generally does not have the ability to control the ultimate resolution of the trade error. In these instances, the trade error and resolution thereof will be governed by the Sponsor's policies and procedures or directions. Certain Sponsors establish trade error accounts for their programs whereby gains for certain errors in client accounts managed by TAL are offset by losses in other client accounts managed by TAL in the same program(s) over varying time periods. This offsetting of gains with losses could result in a benefit or detriment to TAL.

Policies Regarding Aggregation and Allocation of Orders

Equity Securities Policy

TAL has adopted aggregation and allocation of orders procedures designed to treat each account fairly and equitably over time in the allocation of investment opportunities and the aggregation and allocation of trades. The procedures also impose restrictions on potentially inconsistent trading and provide guidelines for trading priority. Moreover, TAL's trading activities are subject to supervisory review and compliance monitoring to help address and mitigate conflicts of interest and ensure that accounts are being treated fairly and equitably over time. In determining whether an account's participation in an order is appropriate, TAL considers the account's investment objectives, investment restrictions, cash position, need for liquidity, sector concentration, brokerage considerations relating to the account and other criteria.

TAL may aggregate various client account orders and client account orders of TAL's affiliates, consistent with TAL's policy to seek best execution for its orders.

In summary, subject to best execution considerations, open orders for the same single security are generally aggregated with other orders for the same single security with the same trading priority guidelines received at the same time as well as with open or unfilled portions of earlier orders of the same single security with the same trading priority. If aggregated orders are fully executed, each participating account is allocated its share pro rata based on order size on an average execution price and trading cost basis. In the event the order is only partially filled, each participating account receives a pro-rata share of the securities purchased (or a pro-rata share of the proceeds of securities sold) based on the size of its order relative to the aggregated order.

However, basket trades are generally not aggregated with orders for the same security in other baskets or with single security orders for the same name, because they are used to pursue quantitative strategies and rely on an automated process to implement trades on an as needed basis (as indicated by the relevant index or model). Also, because of their size, execution of the basket trades occur in stages and TAL must be able to monitor characteristics (e.g., cash, region, sector, beta, neutrality) of the baskets in the aggregate in order to be able to make

changes to the baskets as necessary. In certain instances, (e.g., portfolio transitions), single name aggregation may occur if a trader determines that, based on basket characteristics as well as total volume to be traded and the illiquid nature of a particular security, one or more large single orders within a basket should be removed from the basket and aggregated with other orders (whether single security trades or other basket trades) to achieve best execution.

The procedures also impose restrictions on potentially inconsistent trading of single securities. For example, a portfolio manager of TAL may not sell a single security short for an account if the same portfolio manager either is long in the security or is neutral or overweight the long position against the benchmark of the account holding the securities long. Similarly, a portfolio manager may not buy a security long if the same portfolio manager has a short position in the same security. This limitation does not apply to a portfolio manager buying a security to close or reduce a short position or underweight long position against the benchmark of an account. This limitation also does not apply to securities, futures, or derivative instruments representing broad-based indices or baskets of underlying securities (e.g., certain exchange traded funds that track index of broad-based securities) or trades for model-driven quantitative strategies. Basket trades do not have the same types of restrictions on potentially inconsistent trading because they are tailored to a particular index or model portfolio based on the risk profile of a particular account pursuing a particular quantitative strategy.

In addition, the procedures set forth guidelines for long and short trades. Both long and short trades generally are routed by portfolio managers to the same trading desk except with the exception of Retail SMAs. Single security trades (both long and short) are time- recorded and prioritized for execution based on when they are received by the trading desk.

Exceptions to TAL's aggregation and allocation of orders procedures must be approved in accordance with the procedures.

Fixed Income Securities Policy

The mandate of the Fixed income Trading Desk is to operate in a fiduciary capacity on behalf of all clients and to act in their best interest when trading securities. The Fixed Income Desk continually seeks to obtain the overall best trade execution given prevailing market conditions while utilizing approved broker-dealers as authorized by the Best Execution Committee.

Fixed income trades are typically executed on a net yield basis – the dealers through whom we execute client trades do not charge explicit commissions, commission equivalent (e.g., separately identifiable mark-ups and mark-downs in such transactions) or spreads. Fixed income orders entered into the fixed income trading systems are aggregated to assist in the best execution of trade orders.

Most multiple account orders that are not completely filled after the initial trade execution are then allocated pro-rata automatically by OMS platforms and incorporates the firm-wide de minimis and rounding requirements. The allocation for these orders are made pro-rata by account, based upon the original trade order each account's portfolio manager entered into the applicable trading system or communicated to the trading desk using pre-established rules.

Post-trade allocation, should a portfolio manager notify the trading desk that they wish to transfer a portion of or an entire allocation from one account to another account, a written exception request must be submitted to trading management for review and approval. In cases where a portfolio manager opts to withdraw their entire allocation, either the balance will be offered to the remaining accounts on a pro-rata basis or the withdrawn balance will be sold in the secondary market, with performance attribution being assigned to the original portfolio account.

With respect to investment and trading, personnel of TAL that concurrently perform services as Consolidated Personnel of TAL, TCIM and NAM, such personnel face conflicts relating to providing services for various clients of multiple different affiliates, such as in the areas of trade sequencing and allocating investment opportunities. These conflicts are similar to the conflicts faced by such personnel in providing services for various clients (including affiliated and proprietary accounts) of a single investment adviser. Through its policies, procedures and practices, TAL seeks to provide for the fair and equitable treatment of such clients. See Item 10.

TAL's policy on the use of soft dollars prohibits generating soft dollars through fixed income transactions. Therefore, fixed income research provided by broker-dealers is not a criterion considered when executing trades. Fixed income research and related services are provided by our counterparts with a view that they are a cost of doing business and an important means of sustaining long-term relationships.

Municipal Securities

Generally, secondary market trades are not managed by a centralized trading desk. Accordingly, while individual portfolio managers may aggregate trades for multiple accounts they manage, in most cases, such trades are not aggregated with trades initiated by other portfolio managers. In circumstances where a portfolio manager has reason to believe that other accounts managed by other portfolio managers may be in the market at the same time selling the same security, a central trading desk will coordinate the selling activity by coordinating and aggregating such sell orders.

IPO Allocation Policy

TAL has adopted written procedures with respect to allocation of initial public offerings ("IPOs"). Allocations of IPOs by TAL will be made in a fair and equitable manner consistent with its fiduciary obligations. Portfolio managers wishing to participate in a particular IPO or Secondary Offering must communicate their indications to the trading desk either in writing, through a secure computer system, or by calling the trading desk. The trading desk documents the indications. In situations where IPO or Secondary Offering shares allocated to the firm are less than the total amount of shares TAL indicated for all portfolio managers, default allocations among portfolio managers who have indicated for the IPO or Secondary Offering will be done pro-rata, based on the amount of assets of the portfolio manager manages for

each portfolio participating, subject to a ceiling based on the maximum amount indicated for each portfolio to ensure that the portfolio does not receive more shares than it had indicated for.

When indications are made on behalf of certain concentrated Funds (“Specialty Funds”), TAL uses a modified allocation process to help ensure that Specialty Funds receive a fair allocation of IPO and Secondary Offerings that fall within their areas of industry or market sector concentration. For the purposes of this IPO and Secondary Offering Allocation Policy, Specialty Funds are funds, institutional separately managed accounts or other pooled products managed by the Advisers that, as a fundamental investment policy (or principal investment strategy, for institutional separately managed accounts or other pooled products) concentrate more than 25% of total assets in any one industry or market sector. TAL has procedures to address situations where allocations are to be changed after the order is placed, provided the reason for the change is in writing and signed off by appropriate senior management of TAL.

Allocations Relating to Retail SMAs

TAL endeavors to treat clients fairly and equitably over time with respect to trading sequencing and allocation. Where there are constraints on the use of aggregate orders, such as in the case of Retail SMA managed account programs, TAL employs, where appropriate, procedures that may include (i) employing the use of one or more execution or order delivery rotations among clients; (ii) executing orders or delivering model recommendations for different clients at approximately the same time; or (iii) other methods as may be developed from time to time. While these procedures are designed to treat clients in a fair and equitable manner over time, on any given order, some accounts may trade before other accounts, and some accounts may receive more favorable pricing than other accounts for the same security.

Allocations Relating to Municipal Securities

New issues of municipal securities are allocated through a municipal bond centralized trading desk pursuant to procedures that are designed to treat all accounts fairly and equitably overtime. Generally, if an allotment of a new municipal issue is for less than the total bonds for which TAL placed orders, the total allotment received generally will be allocated pro rata among Funds and Institutional Separate Accounts, on the one hand, and Retail SMAs on the other, based on the number of bonds requested by such accounts, to the extent practicable. The allocation among Retail SMAs will then be made based on several factors, including available cash, maturity and duration of the account relative to portfolio target, national, state specific or state preference characteristics and other considerations with the objective of treating all Retail SMAs fairly over time. The allocation among Funds and Institutional Accounts will generally be made pro rata, based on each account’s order size, subject to exceptions. Non pro-rata allocations are generally based on specialty mandates that require preferable allocations of certain issues (such as state specific, high yield, ESG or insured bonds) because of the more limited supply of

investment opportunities for such mandates, rounding lot sizes, the relative availability of cash (or expected cash), and other factors.

Item 13 Review of Accounts

Portfolio managers or their designees review on a coordinated basis TAL's client accounts for which they are responsible. When client accounts are reviewed, the portfolio manager considers various matters, including any changes in firm policy or the objectives and needs of the client; changes in market conditions or changes of security positions; the current structure of the portfolio; if appropriate, the tax consequences of any transactions; and the effect on the portfolio of any known additions or withdrawals from the account in the future.

The TIAA Public Investments Oversight Committee is an internal management committee established as a sub-committee of Nuveen Risk Management Committee (the "Nuveen RMC") to oversee the investment risk, and compliance risk profiles, the design and implementation of risk management and compliance frameworks, and to report up to Nuveen RMC in fulfilling its risk and compliance oversight responsibilities for TIAA Public Investments. The Committee includes representatives from Risk Management, Compliance, Valuations, Law, Product, Client Portfolio Management, Fund Administration, Operations/IT and Investment Oversight.

With respect to its registered investment company clients, TAL monitors portfolios daily as well as reports on the investment performance of the investment companies to their respective Boards of Trustees at regularly scheduled meetings. With respect to unregistered private funds, TAL reviews transactions to ensure that the amounts committed to the market in general, and the investments selected in particular, are consistent with each client's objective, and purchases and sales in any account are not excessive in size and frequency relative to the financial resources of the client. With respect to separate accounts, TAL may undertake reviews as a result of clients' requests. Such reviews may address performance of accounts, investment objectives, securities positions and other investment opportunities.

For its CLO business, TAL considers ongoing account review and credit surveillance to be as important as the initial investment decisions and actively monitors its clients' portfolios. TAL's analysts specialize by asset class and each is responsible for ongoing monitoring and analysis of a portion of the CLO portfolios. The surveillance process includes regular reviews of underlying collateral performance. These reviews may be conducted in various formats and may utilize both internal and 3rd party models. Analysts also maintain as needed communications with rating agencies, broker-dealers and other market participants.

In general, TAL provides monthly or quarterly client reports pursuant to its investment management agreements or other types of documents governing its advisory accounts.

For Retail SMAs, clients generally receive reports regarding holdings, transactions and performance from the Sponsor.

Item 14 Client Referrals and Other Compensation

In the ordinary course of business, TAL or a related person provides corporate gifts, meals and entertainment such as golfing and tickets to cultural and sporting events to personnel of firms that do business with TAL or its affiliates. Such gifts, meals and entertainment provided by TAL, or a related person, generate a conflict of interest to the extent that they create an incentive for the recipient or beneficiary to use, recommend, offer or include products or services of TAL in a particular program, include TAL in a preferred list of advisers, or refer clients to TAL. In the ordinary course of business TAL employees also are the recipients of corporate gifts, meals and entertainment. TAL's receipt of gifts, meals and entertainment generates a conflict of interest to the extent that they create an incentive for the recipient or beneficiary to use the services of the provider (e.g., in the case of a broker-dealer, brokerage services) of the gifts, meals and entertainment. The giving and receipt of gifts and other benefits are subject to limitations under internal policies and procedures.

TAL pays fees to consultants for their advice and services, industry information or data, or conference attendance. If a particular payment constitutes, in TAL's judgment, an arrangement subject to the requirements under the Advisers Act, TAL will seek to comply with requirements. The payment of fees to consultants generates a conflict to the extent that such payment creates an incentive for the recipient or beneficiary to use, recommend, offer or include products or services of TAL in a particular program, include TAL in a preferred list of advisers, or refer clients to TAL.

TAL, and/or its affiliates, provides free general educational services to financial intermediaries who typically offer or use products or services of TAL and/or its advisory affiliates. TAL, and/or its affiliates, may make available various financial and educational tools, reports, materials and presentations on current industry topics relevant to a financial advisor. Certain financial tools and illustrations may use data provided by a financial advisor. Materials and services provided by the TAL, and/or its affiliates, are not intended to constitute financial planning, tax, legal, or investment advice and are for educational purposes only. The provision of such services and materials generates a conflict of interest to the extent that such provision creates an incentive for the recipient or beneficiary to use, recommend, offer or include products or services of TAL in a particular program, include TAL in a preferred list of advisers, or refer clients to TAL.

In appropriate instances, TAL and its related persons refer business to each other with respect to each other's products and services. Prospects and clients to whom such referrals have been made should be aware of the conflict inherent in such referral as a result of the common control of such parties. See Item 10.

In the ordinary course of business, TAL (or an affiliate) may make payments to firms or persons that use, recommend, offer or include products or services of TAL (and its affiliates) in a particular program, include TAL (and its affiliates) in a preferred list of advisers, or refer clients

to TAL (or its affiliates). The types of payments include, without limitation, conference, program or event attendance, participation or exhibition sponsorship fees; educational and training fees; license, data access, operational or administrative fees; or fees linked to program participation or specific marketing initiatives within an existing program or new program. The amounts of such payments, which are generally made on an enterprise-wide basis, can be significant for certain SMA Sponsor recipients (e.g., up to or in excess of \$1 million annually). TAL (or an affiliate on TAL's behalf) sometimes pays travel, meal and entertainment expenses for a firm's representatives and others who visit TAL's offices or other locations (including hotels and conference centers) to learn about its products and services. The foregoing payments generate a conflict to the extent that they create an incentive for the recipient or beneficiary of the payment to use, recommend, offer or include products or services of TAL in a particular program, include TAL in a preferred list of advisers, or refer clients to TAL.

TAL also makes charitable contributions or underwrites or sponsors charitable events at the request of others. Payments described above vary significantly from firm to firm depending on the nature of TAL's and its affiliated investment advisers' separate account activities with the firm and the amount of the firm's separate account client assets under TAL's and its affiliated investment advisers' management. Such contributions generate a conflict to the extent that they create an incentive for the recipient or beneficiary of the payment to use, recommend, offer or include products or services of TAL in a particular program, include TAL in a preferred list of advisers, or refer clients to TAL. Payments are subject to TAL or a related person's internal review and approval procedures.

Retail SMA clients are encouraged to request and review materials from Sponsors (such as a Sponsor's program brochure) describing business and financial terms and arrangements between program sponsors and investment advisers. Clients are encouraged to make relevant inquiries of their Sponsor(s) regarding the arrangements and practices described above.

In addition to the foregoing, with respect to Funds, TAL or an affiliate makes payments to firms or individuals that use, offer or sell shares of the Funds advised by TAL, or place the Funds on a recommended or preferred list. Such Fund-related payments generate a conflict to the extent that they create an incentive for the recipient or beneficiary of the payment to use, offer or sell shares of the Funds advised by TAL, or place the Funds on a recommended or preferred list. Fund investors should review a Fund's prospectus and statement of additional information for important information about such Fund-related payments.

Item 15 Custody

Clients should receive at least quarterly, statements from the broker-dealer, bank or other financial services firm that serves as qualified custodian to their accounts. TAL urges clients to carefully review such account statements and compare such official custodial records to the account statements that TAL provides to its clients. Clients who do not receive such account statements are encouraged to follow up directly with their qualified custodian and request such statements. TAL's statements may vary from custodial statements based on accounting procedures, reporting dates, valuation methodologies and other factors. TAL's statements are not intended to be a substitute for account statements provided by a qualified custodian and should not be used for official purposes.

In the event of an inadvertent receipt of a check or other financial instrument payable to a client, TAL reserves the right to send the check or instrument to the client or its custodian rather than back to the original sender when it believes that such procedure provides the best overall protection for the underlying assets.

For Retail SMAs, individual clients who seek to direct transfers or payments from their advisory account to third parties (e.g., to pay bills or transfer funds) should directly contact and instruct the account's qualified custodian and/or primary financial advisor. It is generally outside the scope of TAL's authority and services to process or intermediate such instructions.

Item 16 Investment Discretion

TAL is generally granted discretionary authority to manage securities accounts on behalf of clients. For Institutional Separate Accounts and Retail SMAs through investment advisory managed account programs, TAL generally obtains a client's written consent to its discretionary authority with respect to the client's assets in the form of an executed investment management agreement or other comparable services agreement prior to providing discretionary advisory services.

For Retail SMAs through investment advisory managed account programs, TAL is appointed to act as an investment adviser through a process generally documented and administered by the Sponsor. Clients participating in a program, generally with assistance from the Sponsor, may select TAL to provide investment advisory services for their account (or a portion thereof) in a particular strategy. TAL provides investment advisory services based upon the particular needs of the client as reflected in information provided to TAL by the Sponsor and will generally make itself available for direct consultations as reasonably requested by clients and/or Sponsor. Clients are encouraged to consult their own financial advisors and legal and tax professionals on an initial and continuous basis in connection with selecting and engaging the services of an investment manager in a particular strategy and participating in a wrap or other program. In the course of providing services to managed account program clients who have Sponsors, TAL generally relies on information or directions communicated by the Sponsor acting with apparent authority on behalf of its client.

TAL's discretionary authority over an account is generally subject to directions, guidelines and limitations imposed by the client and, in the case of a investment advisory managed account program client, the Sponsor. TAL will endeavor to follow reasonable directions, investment guidelines and limitations. Although TAL seeks to provide individualized investment advice to its discretionary client accounts, TAL will not be able to accommodate investment restrictions that are unduly burdensome or materially incompatible with TAL's investment approach (including restrictions affecting more than a stated percentage of the account), and reserves the right to decline to accept, or terminate, client accounts with such restrictions. With respect to TAL's registered investment company clients, such investment limitations are set forth in the client's registration statement filed with the SEC. Also, TAL's authority to trade securities for its registered investment company clients may also be limited by certain federal securities and tax laws. See Item 4.

In addition to the foregoing, TAL provides its services on a non-discretionary basis.

See also Item 4.

Item 17 Voting Client Securities

Except as otherwise directed by a client, or its representative, TAL is generally authorized to vote proxies for its clients, which includes registered investment company clients, as part of its duties as a discretionary investment adviser. TAL does not vote proxies where a client withholds proxy voting authority or in certain other circumstances summarized below. TAL votes proxies in accordance with its policies and procedures in effect from time to time.

Nuveen's Proxy Voting Committee ("PVC") provides an administrative framework to facilitate and monitor TAL's exercise of proxy voting and to fulfill obligations of reporting and recordkeeping under federal securities laws.

TAL has adopted proxy voting guidelines which are reasonably designed to ensure TAL votes proxies in the best interests of its clients.

TAL leverages the expertise and services of an internal group, the Nuveen Stewardship Group, a sub-team of the Nuveen Responsible Investing Team, to provide proxy voting recommendations and administer TAL's proxy voting activities. Depending on the issue, the Nuveen Stewardship Group considers the research and recommendations of one or more proxy advisors to help formulate its substantive positions on recurring proxy issues and criteria for addressing non-recurring issues. TAL maintains the fiduciary responsibility for all of its proxy voting decisions. From time to time, a TAL portfolio manager or research analyst may initiate action to override the Nuveen Stewardship Group's recommendation for a particular vote. Any such override will be reviewed for material conflicts.

TAL's policy permits it to refrain from voting in certain circumstances, including where it determines that it would be in the client's overall best interest not to vote (e.g., where proxy voting would result in a financial, legal, regulatory, or operational encumbrance or burden that outweighs the potential benefit to the client of voting); with respect to securities on loan through a securities lending program; and with respect to legacy securities and securities in accounts where TAL's advisory services have been terminated.

In special circumstances, TAL may vote a proxy based on instructions of the client or its representative. TAL's ability to vote proxies is subject to timely receipt of the proxy from the client's custodian or other party, and, in the case of proxies relating to certain non-U.S. securities, subject to the establishment by applicable parties of any necessary local documentation (e.g., power of attorney).

Equity Securities - With respect to equity securities, TAL will vote equity securities in accordance with its policies and procedures discussed above.

Fixed Income Securities - A client may indirectly acquire equity securities that issue proxies. For example, a client may acquire, directly or through a special purpose vehicle, equity securities of a bond obligor whose bonds are already held in a client's account when such bonds have deteriorated or are expected shortly to deteriorate significantly in credit quality. The purpose of acquiring equity securities generally will be to seek to prevent the credit deterioration or facilitate the liquidation or other workout of the distressed issuer's credit problem. In the course of exercising control of a distressed issuer, TAL may pursue the client's interests in a variety of ways, which may entail negotiating and executing consents, agreements and other arrangements and/or otherwise influencing the management of the issuer. TAL does not consider such activities proxy voting for purposes of Rule 206(4)-6 under the Advisers Act, but nevertheless provides reports to the relevant parties on its control activities on a quarterly basis. In the rare event that a fixed income issuer were to issue a proxy, TAL would generally vote in accordance with its policies and procedures.

TAL recognizes that there are circumstances where it has a perceived or real material conflict of interest in voting the proxies of issuers. TAL will vote proxies in the best interest of its clients regardless of such real or perceived conflicts of interest. TAL attempts to minimize the risk of conflicts by establishing reasonable procedures to identify and monitor real or perceived material conflicts of interest. If it is concluded that a material conflict does exist, the Nuveen Stewardship Group will normally vote the proxy in accordance with a proxy advisory firm's benchmark recommendation. To the extent the Nuveen Stewardship Group believes there is a justification to vote contrary to the proxy advisory firm's benchmark recommendation, such requests are escalated to the PVC for evaluation and mitigation.

TAL's clients may contact their relationship manager for a copy of TAL's Proxy Voting Policies and Procedures or more information about the proxy voting record for their account.

Legal Proceedings

TAL is under no obligation to advise or act for clients in legal proceedings including bankruptcies and class actions involving securities purchased or held in client accounts. TAL generally notifies or transmits copies of legal materials it receives to the client, program sponsor, client custodian or other client representative.

Clients that have Retail SMAs managed by TAL through an investment advisory managed account program will have claims attributable to their accounts processed in accordance with the policies and practices of the program or referring Sponsor elected by the client. In addition, claims on behalf of the Funds will be processed in accordance with the policies of the relevant Fund.

In special situations primarily relating to distressed or defaulted bonds held by certain institutional or Fund accounts, TAL may engage in reorganization and workout arrangements and other legal matters in order to maximize the value of the particular portfolio holding.

Item 18 Financial Information

TAL does not require or solicit prepayment of investment advisory fees. TAL has no financial commitment that impairs its ability to meet contractual and fiduciary commitments to clients.

Additional Information

EXHIBIT A

Primary Financial Industry Subsidiaries under Nuveen, LLC, the asset management division of TIAA

Entity Name	Primary Financial Industry or Related Affiliation*
AGR Partners, LLC	Registered Investment Adviser
Churchill Asset Management LLC	Registered Investment Adviser
Gresham Investment Management LLC	Registered Investment Adviser CFTC Registered Commodity Pool Operator CFTC Registered Commodity Trading Adviser
Nuveen Alternatives Advisors, LLC	Registered Investment Adviser
Nuveen Asset Management, LLC	Registered Investment Adviser CFTC Registered Commodity Trading Adviser
Nuveen Churchill Advisors LLC	Registered Investment Adviser
Nuveen Fund Advisors, LLC	Registered Investment Adviser
Teachers Advisors, LLC	Registered Investment Adviser
TIAA-CREF Investment Management, LLC	Registered Investment Adviser
Winslow Capital Management, LLC	Registered Investment Adviser
Greenworks Lending LLC	Commercial Property Lending
Nuveen Securities, LLC	Registered Broker Dealer
Nuveen Services, LLC	Shared Services Entity
Symphony Alternative Asset Management LLC	Relying Adviser
Nuveen Natural Capital, LLC	Forestry, Farmland, Real Estate Management
Greenwood Resources Capital Management LLC	Forestry Management
Westchester Group Investment Management, Inc.	Farmland Management
Westchester Group Real Estate, Inc.	Real Estate Broker or Dealer
Nuveen Australia Limited	Australian ASIC Registered Entity
Nuveen Canada Company	Canadian Exempt Market Dealer
Nuveen Hong Kong Limited	HK SC Registered Entity
Nuveen Japan Co. Ltd	Japan FSA Registered Entity
Nuveen Alternatives Europe SARL	Luxembourg CSSF Registered Entity
Nuveen Asset Management Europe SARL	Luxembourg CSSF Registered Entity
Nuveen Singapore Private Ltd	Singapore MAS Registered Entity
Arcmont Asset Management Limited	UK FCA Registered Entity
Clean Energy Partners LLP	UK FCA Registered Entity
Glennmont Asset Management Limited	UK FCA Registered Entity
Glennmont Partners I Limited	UK FCA Registered Entity
Nuveen Investment Management International Limited	UK FCA Registered Entity
Nuveen Management AIFM Limited	UK FCA Registered Entity

Other Primary Financial Industry Subsidiaries of TIAA

TIAA-CREF Individual & Institutional Services, LLC (aka TIAA-CREF Advice and Planning Services)	Registered Investment Adviser Registered Broker Dealer
TIAA-CREF Tuition Financing, Inc.	Registered Investment Adviser Registered Municipal Advisor
TIAA Kaspick, LLC	Registered Investment Adviser
Teachers Insurance and Annuity Association of America	Insurance Company or Agency
TIAA-CREF Life Insurance Company	Insurance Company or Agency
TIAA-CREF Insurance Agency, LLC	Insurance Company or Agency
TIAA, FSB	Banking or thrift institution

*The list above refers to TIAA subsidiaries in financial industry affiliation categories referenced in Form ADV, Part 2A, Item 10.C, excluding numerous entities organized primarily to serve as sponsor, general partner, managing

member (or equivalent) or syndicator of one or more pooled investment vehicles or limited partnerships (or equivalent). For a list of such entities that have material arrangements with the registrant, please see the registrant's Form ADV, Part 1, Section 7.A. of Schedule D. The list above refers to the primary financial industry affiliation category and certain TIAA subsidiaries listed above may have additional financial industry affiliations, as further described in its respective disclosure documents (Form ADV, in the case of a registered investment adviser).

Privacy Statement

Teachers Advisors, LLC, a subsidiary of Nuveen, considers your privacy our utmost concern. In order to provide you with individualized service, we collect certain nonpublic personal information about you from information you provide on applications or other forms (such as your address and social security number), and information about your account transactions with us (such as purchases, sales and account balances). We may also collect such information through your account inquiries by mail, email, telephone, or web site.

We do not disclose any nonpublic personal information about you to anyone, except as permitted by law. So that we may continue to offer you applicable products and services that best meet your investing needs, and to effect transactions that you request or authorize, we may disclose the information we collect, as described above, to companies that perform administrative or marketing services on our behalf, such as transfer agents, or printers and mailers that assist us in the distribution of investor materials. These companies will use this information only for the services for which we hired them and are not permitted to use or share this information for any other purpose.

If you decide at some point either to close your account(s) or to become an inactive customer, we will continue to adhere to the privacy policies and practices described in this notice.

With regard to our internal security procedures, we restrict access to your personal and account information to those employees who need to know that information to service your account. We maintain physical, electronic and procedural safeguards to protect your nonpublic personal information.

A copy of our privacy notice is posted at www.nuveen.com/privacy. If you have any questions about our policy or would like additional copies of this notice, please call us toll free at (800) 257-8787 or send us an e-mail through our website www.nuveen.com or write to us at Nuveen at 333 West Wacker Drive, Chicago, IL 60606.

For California residents, please visit the following link for more information:

<https://www.nuveen.com/privacy-ccpa>

For EU/UK residents, please visit the following link for more information:

<https://www.nuveen.com/en-us/resources/nuveen-european-union-united-kingdom-privacy-notice>

For individuals located in Brazil, please visit the following link for more information:

<https://www.nuveen.com/en-us/resources/Brazil-privacy-notice>

For information on our use of personal data in accordance with the Data Protection Law of the Cayman Islands, please visit the following link:

<https://www.nuveen.com/en-us/resources/cayman-islands-privacy-notice>