ADVICE AND PLANNING SERVICES PORTFOLIO
ADVISOR ADVISORY AGREEMENT

This Agreement sets forth the terms and conditions governing participation in the TIAA Portfolio Advisor program (the “Program”). Advice and Planning Services serves as the sponsor, manager and administrator of the Program and is a division of TIAA-CREF Individual & Institutional Services LLC, (“Services LLC”) an investment adviser registered with the Securities and Exchange Commission. You (“Client”) should read the Program Disclosure Brochure prior to signing the applicable TIAA Portfolio Advisor Application. Client understands and agrees to the following:

A. Portfolio Advisor is a discretionary advisory program. The Program manages a portfolio for Client that may include both mutual funds and exchange traded funds (“ETFs”) in exchange for an asset-based fee. Advice and Planning Services may subsequently expand the type of securities it evaluates and manages for Program portfolios beyond mutual funds and ETFs. Advice and Planning Services will provide Client with 30 days written notice prior to adding additional securities types and allow Client within this timeframe to request that the additional types of securities not be considered or included within Client’s Program portfolio. Where Client does not respond to this written notice, Advice and Planning Services will include the new security type within Client’s Program portfolio where appropriate.

B. Advice and Planning Services manages a number of model portfolios ranging from conservative to aggressive in nature. Client’s responses to investor questionnaires shall serve as the basis by which the Program will manage Client’s portfolio in line with an appropriate model portfolio.

C. Client may request Advice and Planning Services to incorporate certain of Client’s pre-existing holdings (“legacy assets”) into the Program’s portfolio. Eligible legacy assets consist of certificates of deposit as well as select individual equities, mutual funds and ETFs rated the equivalent of a ‘hold’ or better by Advice and Planning Services or an independent research organization selected by Advice and Planning Services. Legacy assets are also subject to various position, sector or industry concentration limits. The inclusion of legacy assets may cause the performance of client’s Portfolio Advisor portfolio to differ from that of the recommended model portfolio. Client understands and agrees that eligible legacy assets will only be retained if client makes such request in writing prior to enrolling in a new account or prior to depositing securities within an existing account within the Program and obtains Advice and Planning Services’ agreement. Notwithstanding the quality of any legacy asset, Advice and Planning Services reserves the right to sell legacy assets at any time in its sole discretion without notice and without regard to tax consequences. Client acknowledges that such sales may cause a taxable event and understands it is Client’s responsibility to consult with Client’s tax advisor regarding potential tax consequences when deciding whether to include legacy assets. Advice and Planning Services does not provide tax advice.
D. Client authorizes Advice and Planning Services to manage Client’s Program assets on a discretionary basis in accordance with Client responses to the investment questionnaires, market conditions and any reasonable restrictions that Client may impose on the management of Client’s assets that are accepted by Advice and Planning Services.

E. Advice and Planning Services will review Client’s portfolio on a periodic basis and make adjustments where appropriate. Market conditions may cause Client assets to deviate over time from the model portfolio used to manage Client’s account. When Advice and Planning Services determines the deviation becomes materially significant, Advice and Planning Services may rebalance Client assets in line with the model portfolio.

F. Client may impose reasonable restrictions upon the management of the Portfolio Advisor portfolio by requesting Advice and Planning Services refrain from investing in certain securities or request an alternative security in place of a security initially purchased and held within the portfolio. Any restrictions are subject to acceptance by Advice and Planning Services at its discretion and may cause the performance of client’s portfolio to differ from that of the recommended model portfolio.

G. Advice and Planning Services will inquire annually whether there have been any changes in Client’s financial situation or investment objective, or whether Client wishes to impose or modify any reasonable restriction on the management of the account. In the interim, Client is responsible for contacting Advice and Planning Services whenever a material change occurs in Client’s financial situation or investment objective, as either may affect the continued appropriateness of Client’s current model portfolio.

H. Client will receive prospectuses or similar disclosure documents for securities purchased within the portfolio. Client is responsible for reviewing these materials and will be subject to all of the terms and conditions stated therein.

I. Client must open a brokerage account with Services LLC through its retail brokerage business TIAA Brokerage Services (“TBS”) and fund the account with a minimum of $50,000 (for employees of TIAA, the minimum is $25,000), unless approved for a lesser amount. Services LLC holds client assets in custody with Pershing LLC, its clearing firm. Pershing LLC is a subsidiary of BNY Mellon and is located at One Pershing Plaza, Jersey City, NJ 07399. The Program uses Services LLC to effect all transactions. Client should compare the account statements received from Pershing LLC with the quarterly reports received from Advice and Planning Services.

J. Should Client fund the account by a transfer of securities, Client directs Advice and Planning Services to sell those holdings as soon as practicable upon their receipt in the account in good order unless the client has requested in advance in writing that eligible legacy assets be retained and Advice and Planning Services has agreed to retain such assets as set forth in paragraph C, above; provided, however, that Client understands and acknowledges that market factors and the nature of the securities funding the account, including but not limited to liquidity considerations, may delay or otherwise impact the timing of the sale of the securities. Program management of the account will not begin until such securities (excluding any eligible legacy assets to be retained) have been sold. The sale of transferred securities may cause a taxable event. Client understands it is Client’s responsibility to consult with Client’s tax advisor regarding potential tax consequences. Advice and Planning Services does not provide tax advice.
K. Subsequent deposits into an account must be at least $1000 and will generally be invested into any asset classes or securities underweighted in comparison to Client’s model portfolio. Advice and Planning Services may at its discretion alter the order of how subsequent deposits are invested when required for purposes of meeting fund minimum investment requirements, tax optimization needs or other purposes consistent with client’s model portfolio. Client may establish automatic monthly or quarterly withdrawals subject to a minimum of $500. All dividends, capital gains distributions and cash balances will be reinvested.

L. Advice and Planning Services charges an asset-based fee for participation in the Program ("Program Fee") according to the fee schedules listed below.

**Schedule A – Grandfathered Fixed Income Schedule (for Existing Clients):**
This fee schedule applies to Program accounts that meet all of the following conditions: (i) were opened prior to July 3, 2017, (ii) are managed under a model portfolio that includes 80% or more of fixed income and strategically allocated cash securities prior to July 3, 2017, and (iii) are subject to Schedule A on July 2, 2017.

This fee schedule also applies to Program accounts opened following an Investment Strategy Proposal that is generated prior to July 3, 2017, which shows this Schedule A as the proposed fee schedule.

**Schedule A – Grandfathered Fixed Income Schedule**

<table>
<thead>
<tr>
<th>Aggregate Account Value</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>$50,000 - $150,000</td>
<td>0.90%</td>
</tr>
<tr>
<td>$150,001 - $300,000</td>
<td>0.75%</td>
</tr>
<tr>
<td>$300,001 - $750,000</td>
<td>0.60%</td>
</tr>
<tr>
<td>Over $750,001</td>
<td>0.55%</td>
</tr>
</tbody>
</table>

*Note: This tiered fee schedule is used to calculate your fee based on the aggregate value of your account.*

**Schedule B – Grandfathered Equity Tiered Schedule (for Existing Clients):**
This fee schedule applies to Program accounts that meet all of the following conditions: (i) were opened prior to July 3, 2017, (ii) are managed under a model portfolio consisting of less than 80% fixed income and strategically allocated cash securities prior to July 3, 2017, and (iii) are subject to this Schedule B on July 2, 2017.

This fee schedule also applies to Program accounts opened following an Investment Strategy Proposal that is generated prior to July 3, 2017, which shows this Schedule B as the proposed fee schedule.

This fee schedule will also apply to Program accounts that meet all of the following conditions: (i) are opened on or after July 3, 2017, and (ii) are held directly by a pre-existing Program account holder or for the benefit of a spouse, parent, child or anyone else residing at the same address as a pre-existing Program account holder, subject to the householding rules described below.
Schedule B – Grandfathered Equity Tiered Schedule

<table>
<thead>
<tr>
<th>Aggregate Account Value</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>$50,000 - $150,000</td>
<td>1.15%</td>
</tr>
<tr>
<td>$150,001 - $300,000</td>
<td>1.00%</td>
</tr>
<tr>
<td>$300,001 - $750,000</td>
<td>0.85%</td>
</tr>
<tr>
<td>Over $750,001</td>
<td>0.75%</td>
</tr>
</tbody>
</table>

Note: This tiered fee schedule is used to calculate your fee based on the aggregate value of your account.

Schedule C – Portfolio Advisor Blended Fee Schedule (for New Clients):
This fee schedule will apply to new Program accounts that meet all of the following conditions: (i) are opened on or after July 3, 2017, and (ii) are not held directly by a pre-existing Program account holder or for the benefit of a spouse, parent, child or anyone else residing at the same address as a pre-existing Program account holder, subject to the householding rules described below.

<table>
<thead>
<tr>
<th>Value Bracket</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>First $150,000</td>
<td>1.15%</td>
</tr>
<tr>
<td>Next $150,001 - $300,000</td>
<td>1.00%</td>
</tr>
<tr>
<td>Next $300,001 - $750,000</td>
<td>0.85%</td>
</tr>
<tr>
<td>Next $750,001 - $1,000,000</td>
<td>0.75%</td>
</tr>
<tr>
<td>Next $1,000,001 - $1,500,000</td>
<td>0.70%</td>
</tr>
<tr>
<td>Next $1,500,001 - $3,000,000</td>
<td>0.65%</td>
</tr>
<tr>
<td>Next $3,000,001 - $4,000,000</td>
<td>0.60%</td>
</tr>
<tr>
<td>Next $4,000,001 - $5,000,000</td>
<td>0.50%</td>
</tr>
<tr>
<td>Over $5,000,000</td>
<td>0.40%</td>
</tr>
</tbody>
</table>

Note: This blended fee schedule is used to calculate your fee by weighting your aggregate account value in accordance with the value brackets and weights shown.

Householding: Client may notify an Advisor if Client wishes to opt to aggregate the amounts in the Program accounts held directly by Client or for the benefit of a spouse, parent, child or anyone else residing at the same address as you for fee calculation purposes. These accounts are deemed to be in the same “Household” and the aggregation process if referred to as “householding” related Program accounts. Householding related Program accounts may collectively qualify the Program accounts for a different Program Fee breakpoint. The Program Fee breakpoints are set forth in the fee schedules above based on the account value. Householding related Program accounts will result in the receipt of a single combined quarterly performance report per household. By householding related Program accounts, Client authorizes Advice and Planning Services to share Client’s Program account performance information with other members of Client’s household while reducing paper mailings. Householding related Program accounts does not authorize others in Client’s household to conduct transactions in Client’s Program account.
What the Program Fee Covers: The Program Fee covers the fees and costs associated with managing the Program account, developing the Program’s advice, custody of Program assets, trade execution, client reporting and other administrative expenses. The Program Fee does not vary depending upon whether Client chooses investment advice developed from TIAA investment professionals or by third party advisers.

The Program Fee does not include costs associated with additional services requested by Client, including wire or electronic fund transfer fees, overnight delivery fees, duplicate statement fees, account transfer fees, and reorganization fees.

Cash Balances: The Program excludes cash balances held in Client’s Program account when calculating the Program Fee. The Program Fee does not include any fees, costs and expenses inherent in the underlying securities, including investment advisory, administrative, distribution, transfer agent, custodial, legal, audit, contingent deferred sales charges or redemption fees and other customer fees and expenses related to investments in these products which are described in the relevant prospectus or similar disclosure documents. Consequently, this means Clients will pay the fund fees and expenses as a fund shareholder, except where expressly qualified below in connection with an individual retirement account (“IRA”) enrolled in the Program.

Payment of the Program Fee: The Program Fee is payable quarterly in arrears. It is calculated by multiplying the daily market value of the Program account by the pro-rata daily Program Fee (the “daily fee calculation”) and summing the value of the daily fee calculations during the preceding quarter. The Program determines market value in reliance upon published net asset values and prices reported on national exchanges. Should neither not be available for a particular security, the Program will price the relevant security based upon fair valuation principles that estimate what the security would bring upon sale. Advice and Planning Services will deduct the Program Fee from the Program account on a quarterly basis, generally within thirty business days after each quarter’s end by charging cash balances or redeeming fund shares within the Program account. For the initial enrollment quarter, Program Fees will be deducted as described above for the remainder of that quarter.

Waivers and Discount: Advice and Planning Services may agree to waive or discount the Program Fee in connection with promotional campaigns, for clients making large deposits for TIAA employees. Advice and Planning Services may change the fee schedule upon 30 days written notice to Client and Client will be deemed to have consented if client remains enrolled in the Program subsequent to the notice period.

IRA Account Fee Credits and Reimbursements – Affiliated Fund Fee Credits: For IRAs enrolled in the Program, Advice and Planning Services will reduce the Program Fee by a fee credit for IRA assets invested in investment products manufactured by TIAA affiliates, such as the TIAA family of mutual funds and the various registered funds of Nuveen Investments, Inc., including the Nuveen Funds (“Affiliated Funds”). The fee credit will be calculated by offsetting both (i) the investment management portion of the Affiliated Fund’s expenses (“Affiliated Fund management fees”) that TIAA affiliates receive in connection with the Affiliated Funds held in the IRA, and (ii) the administrative and other fees that TIAA affiliates receive from such Affiliated Funds included in the Affiliated Fund expenses. Advice and Planning Services may exclude from the fee credit amount any reimbursable expenses paid by the Affiliated Funds to TIAA affiliates which are reasonable direct expenses of the TIAA affiliates. This includes expenses such as salaries of affiliate personnel attributable to work performed for the Affiliated Funds held in Client’s IRA and third party custodial fees and transfer agent fees associated with the Affiliated Funds held in Client’s IRA.
Advice and Planning Services also may reduce the fee credit amount to reflect fee waivers and reimbursements granted by TIAA affiliates to the Affiliated Funds as disclosed in the applicable fund prospectus. The fee credit may vary depending upon the particular Affiliated Fund employed, as fees differ from fund to fund.

**Rule 12b-1 Fee and Other Fund Fee Reimbursements:** With regard to any Funds held in Client’s Program account which levy a Rule 12b-1 fee or other fund fees for distribution, administrative, sub-transfer agency, or shareholder service (referred to as “Other Fund Fees”), Advice and Planning Services will deposit directly into Client’s Program account whatever portion of the Rule 12b-1 fee and Other Fund Fees it receives. Other service providers, such as Pershing LLC, receive Rule 12b-1 fees and Other Fund Fees in connection with the Funds held in Client’s Program account and Advice and Planning Services will not reimburse these fees that are retained by Pershing LLC.

M. Advice and Planning Services will vote proxies for the mutual funds, ETFs and other securities held in Client’s Program account unless Client directs otherwise, in which event proxies will be forwarded directly to Client for Client to vote. Advice and Planning Services will pass through for Client to vote directly any voluntary corporate action notices.

N. Client’s grant of discretionary authority to Advice and Planning Services also extends to the selection of a tax lot relief method (also called a cost accounting method) for Client’s Program account in calculating the gain or loss on the sale of a security in Client’s Program account. A tax lot relief method is a way of computing the realized gain or loss for an asset sold in a taxable transaction. It determines the lot of a security that is sold, as well as its associated cost basis, and the holding period used in computing the gain or loss on that sale. Although TIAA’s default tax lot relief method, as specified in the Brokerage Account Customer Agreement (“Brokerage Agreement”), is First In, First Out (“FIFO”), under this Program, Advice and Planning Services will select the cost basis accounting method which it deems appropriate to use in its sole discretion with respect to any transaction in Client’s Program account. By enrolling in the Program, Client is granting Advice and Planning Services the authority to use any such method as it may select in its discretion, or any such method it may implement by default, for any transaction in Client’s Program account. TIAA and its affiliates shall have no liability for any damages Client may incur as a result of (i) TIAA providing the required 1099-B Annual Information Report to the IRS, (ii) TIAA’s selection of, or change in, the method it uses to calculate Client’s cost basis, or (iii) any differences in the cost basis reported by TIAA to the IRS and Client’s actual adjusted cost basis in the relevant security in Client’s Program account.

O. Except as may be permitted by law, both Client and Advice and Planning Services shall treat all information regarding the account and the Program as confidential.

P. Client acknowledges it is solely responsible for the accuracy of any information Client provides with the Program. Client is also responsible for reviewing each account statement in a timely manner and contacting Advice and Planning Services to discuss any concerns or discrepancies identified therein.

Q. Any failure by Advice and Planning Services to insist upon strict compliance with any term or condition of this Agreement at any time shall not constitute an ongoing waiver
of the enforceability of such term or condition or any other term or condition. A
waiver of a term or condition can only be made in a writing signed by Advice and
Planning Services.

R. Client acknowledges that Advice and Planning Services or an affiliate is required by
law to obtain certain information to verify the identity of Client, and that Advice and
Planning Services or an affiliate cannot open the account if Client does not provide
sufficient identifying information. Advice and Planning Services shall not be liable
for any loss or damage Client may incur as a result of Client’s failure to provide
information sufficient to establish such account.

S. To the extent permitted by law, Advice and Planning Services’ liability for the
services provided in connection with the Program shall not exceed the fees paid by
Client hereunder. Federal and state securities laws may nonetheless impose liability
on persons who act in good faith and nothing in this Agreement shall serve to waive
or limit any rights Client may have under those laws.

T. Advice and Planning Services may amend this Agreement upon 30 days written
notice to Client and Client will be deemed to have consented to any such amendment
if still enrolled in the Program subsequent to the notice period. Any written
communications contemplated by this Agreement shall be deemed duly given when
sent to Client at the address provided or when received by Advice and Planning
Services.

U. Advice and Planning Services may not assign this Agreement within the meaning of the
Investment Advisers Act of 1940, as amended, without Client consent.

V. Client’s delegation of discretionary authority contained herein is durable and shall not be
affected by Client’s subsequent disability, incapacity or incompetence. It shall continue
in effect after a Client’s death until Advice and Planning Services receives written notice
from an executor or other Client representative terminating the authority.

W. Either party may terminate Client’s participation in the Program at any time upon notice
to the other. Advice and Planning Services specifically reserves the right to terminate
Client’s participation in the Program should Client’s balance fall below the Program’s
minimum balance of $50,000 due to client initiated withdrawals or should Advice and
Planning Services determine the Program is no longer appropriate for Client. Upon
termination, Advice and Planning Services will cease managing account assets and debit
from the account any fee incurred to date. Client agrees upon termination to transfer all
assets from the Program account within 30 days, and should Client fail to do so, directs
Advice and Planning Services to at its discretion either transfer Client assets to a
separate TBS brokerage account registered identically as the account and subject to the
TBS standard transaction fee schedule, or redeem the account holdings and mail the
proceeds to Client. Client acknowledges that redemption may result in a taxable event.

X. This Agreement shall be governed by the laws of the State of New York without giving
effect to conflict of law principles, to the extent not inconsistent with federal law.

Y. The TBS Customer Agreement contains a Predispute Arbitration Provision on Page 2,
Paragraph 13, requiring that any controversy arising between Client and Services LLC
be submitted to arbitration before the Financial Industry Regulatory Authority
(“FINRA”). Client acknowledges reviewing and agreeing to this arbitration provision.
Should FINRA decline jurisdiction, the dispute shall be submitted to the American
Arbitration Association in accordance with that entity’s commercial dispute resolution procedures. Venue shall be within the Client’s State of residence, or any other venue mutually agreed upon. Arbitration must be commenced by service upon the other party of a written demand for arbitration or a written notice of intention to arbitrate.

Z. This Agreement constitutes an amendment and supplement to the TBS Customer Agreement (the “Brokerage Agreement”), as it may previously have been amended or supplemented, which Client acknowledges having received, read, and understood. Client acknowledges that the account will be governed by the terms and conditions of the Brokerage Agreement (including the arbitration provisions contained therein), and this Agreement, which together represent the entire agreement between the parties with respect to the services described herein and therein and supersede all previous agreements and understandings between the parties with respect to the Program. Termination of this Agreement will not result in termination of the Brokerage Agreement, the terms and conditions of which will continue to remain in full force and effect. If any provision of this Agreement shall be held or made invalid by a court decision, statute, rule, or otherwise, the remainder of this Agreement shall not be affected thereby.

AA. Client acknowledges having received and read the TIAA-CREF Advice and Planning Services Portfolio Advisor Program disclosure brochure and the TIAA Privacy Policy. Client also acknowledges having received and reviewed for accuracy a copy of Client’s responses to the Program’s risk tolerance and preference questionnaire. In connection with IRA Accounts, Client acknowledges and agrees that the Program may invest Client’s IRA Account in proprietary TIAA-CREF investment products (“TIAA-CREF Funds”), subject to the fee credit offset described in Paragraph L where Client indicates a preference for TIAA-CREF Funds or Advice and Planning Services otherwise believes them appropriate given Client’s investment objectives. Each TIAA-CREF Fund prospectus describes the investment characteristics, the schedule of fees paid to TIAA affiliates by the TIAA-CREF Fund, and the schedule of fees paid to TIAA affiliates for any additional services provided by them to the TIAA-CREF Fund.

Client represents that he or she has authority to enter into this Agreement, acknowledges receipt of a copy of this Agreement and agrees to its terms and conditions. Client further acknowledges that the sale of legacy assets from the Account and/or the sale of transferred assets to fund the Account may cause a taxable event and it is his or her responsibility to consult with his or her tax advisor regarding potential tax consequences when deciding whether to include legacy assets and/or fund the Account with transferred assets. Advice and Planning Services does not provide tax advice.

This Agreement and all of its terms and conditions are hereby incorporated and made part of the Application. By signing the Application, you are agreeing to all of the terms and conditions of this Agreement.