



TIAA Brokerage Customer Account Agreement (Retail)

Brokerage accounts are provided by TIAA Brokerage, a division of TIAA-CREF Individual & Institutional Services, LLC, Member FINRA and SIPC, and are carried by Pershing LLC (“Pershing”), members FINRA, NYSE, SIPC, a subsidiary of The Bank of New York Mellon Corporation.

I. General terms and conditions

By signing the TIAA Brokerage Services Account Application (“Account Application”), you agree to be bound by the following terms and conditions as well as the terms and conditions set forth in Sections II to VII of this Agreement (collectively, with the Account Application, this “Agreement” or “agreement”):

1. “You, your, Account holder” refers to all of the individual(s) who sign the Account Application for individual and joint Accounts and refers to the corporation, limited liability company, partnership, trust or other legal entity for corporate, limited liability company, partnership, trust or other legal entity Accounts. “TIAA” refers to TIAA Brokerage, a division of TIAA-CREF Individual & Institutional Services, LLC. “Custodian” refers to the Custodian or trustee, as applicable, of your Account. “Account” or “Accounts” refers to the cash or margin account opened in your name with custody at Pershing.
2. If there is more than one Account holder, each joint Account holder’s obligations under this Agreement shall be joint and several (i.e., are the responsibility of each Account owner, both individually and jointly). Each joint Account holder has authority, acting individually and without notice to any other Account holder, to deal with TIAA as fully and completely as if the joint Account holder is the sole Account holder. TIAA is authorized, but not obligated, to follow the instructions of any joint Account holder and to deliver funds, securities or other assets to any joint Account holder. TIAA is not responsible for determining the purpose or propriety of any instruction received from a joint Account holder or for the disposition of payments or deliveries among joint Account holders. Any notice TIAA sends to one joint Account holder will be deemed notice to all joint Account holders. Any debts of a joint Account may be offset against any Accounts held individually by a joint Account holder.
3. You represent that the information you have provided on your Account Application is accurate. You will notify TIAA of any change to the information provided on your Account Application within 30 days of such change. You will promptly notify TIAA within 10 days if you become a director, 10% beneficial shareholder or an affiliate of a publicly traded company, or if you become a member firm or an employee of any securities exchange, or self-regulatory organization, or a corporation of which security exchange owns a majority of the capital stock.
4. You are responsible for determining the suitability of your Account transactions in light of your stated investment objectives and financial situation. TIAA has no responsibility for any such determination unless TIAA has otherwise specifically agreed in writing in connection with an advisory program or a TIAA representative gives advice directly to you that is clearly identified as a TIAA recommendation for you to buy, sell or hold a particular security or securities, or use a particular investment strategy, for your Account. If TIAA makes such a recommendation, TIAA believes it is suitable for you at the time of the recommendation. TIAA has no ongoing duty to ensure the recommendation continues to be suitable for you. You have an affirmative duty to monitor for profits and losses in your Account and to modify your trading decisions accordingly. Furthermore, unless TIAA has otherwise specifically agreed in writing in connection with an advisory program, you acknowledge that: (a) TIAA does not have discretionary authority over your Account or an obligation to review or make recommendations for the investment of securities or cash in your Account; (b) you will rely on multiple sources of information in making investment decisions for your Account; (c) any information TIAA may provide will not serve as the primary basis for any investment decision you make or made on your behalf; and (d) TIAA does not provide investment advice or otherwise act as

- a “fiduciary” as that term is defined in the Employee Retirement Income Security Act of 1974, as amended, or Section 4975 of the Internal Revenue Code.
5. You acknowledge that TIAA offers many different Account types and you are responsible for selecting the type most appropriate for your needs. TIAA provides no sub-accounting recordkeeping services or similar support for Accounts beneficially held by more than one owner.
 6. TIAA may provide you with market data or research relating to securities and securities markets, but does not guarantee the accuracy, completeness or timeliness of such information. Such market data or research is not personalized or in any way tailored to your personal financial circumstances or investment objectives, unless TIAA has otherwise specifically agreed in writing in connection with an advisory program. You understand that none of TIAA, Pershing and Custodian provide legal, tax or accounting advice and none of their employees are authorized to give any legal, tax or accounting advice and you will not solicit or rely upon any such advice from TIAA, Pershing or the Custodian or their employees, whether in connection with transactions in or for your Account or otherwise.
 7. Unless otherwise specified in writing in connection with an advisory program, you acknowledge that you will be charged a commission on all transactions and other Account-related fees including, but not limited to, service fees and Cash Solutions Account fees in accordance with the standard TIAA Commission and Fee Schedule, as in effect from time to time. TIAA receives remuneration in connection with the Pershing Fund Vest No Transaction Fee and Transaction Fee Programs, including 12b-1 fees and other compensation from a mutual fund’s distributor, transfer agent or investment adviser for marketing, administration and/or distribution services provided with respect to mutual funds that are either in addition to, or in lieu of, fees paid under a 12b-1 plan. Additionally, Teachers Advisors, Inc., the investment adviser to the TIAA Funds, and the advisory entities of TIAA’s wholly-owned subsidiary, Nuveen Fund Advisors, LLC, the investment adviser to the Nuveen Funds, receive fees from the Funds for investment advisory and/or fund administration services. See the respective fund’s prospectus or statement of additional information for fund payment information. TIAA generally limits the funds available for purchase through your Account to funds, or share classes of a fund, that include a minimum level of compensation to TIAA. You may be able to purchase other share classes of the funds from the funds directly or through other providers. The funds available through the Platform, including available share classes of particular funds, may change over time at TIAA’s discretion. The fees charged with respect to any fund classes that are now or in the future are made available through the Platform may also change over time at TIAA’s discretion or by the fund itself. For more information on how TIAA gets paid for its products and services, please refer to our brochure titled “Getting to know TIAA’s individual financial solutions and its financial professionals” located at the bottom of the home page of our secure website at <https://www.tiaa.org/public/pdf/GettingtoknowTIAA.pdf>
 8. TIAA may suspend or terminate your Account at any time, for any reason and without prior notice to you. You shall have 30 days from receiving notice of termination of your Account to transfer all holdings from within your Account to another broker/dealer of your choosing. Should you fail to complete this transfer within 30 days, TIAA may liquidate all holdings within your Account and mail you a check for any proceeds. This may result in a taxable event. In the event your Account is liquidated, you agree to be liable for any resulting losses and costs incurred by TIAA.
 9. You acknowledge that, at the time you place a trade, you are solely responsible for ensuring that you have sufficient funds in your Account to cover your purchase. If you have insufficient funds, your transaction will not be processed. You also acknowledge that TIAA may reject, cancel or modify any securities transactions that you have entered at any time, for any reason and without prior notice to you.
 10. You authorize TIAA to accept your oral or electronic instructions for the purchase and sale of securities. You acknowledge that such instructions must be placed through designated TIAA channels. TIAA will not accept orders or instructions sent via electronic or postal mail (including but not limited to U.S. mail or overnight delivery).
 11. You acknowledge that you will pay in full for securities you purchase by the settlement date. For transactions not paid for by settlement date, TIAA shall have the right, without notice to you, to sell securities purchased.
 12. You acknowledge TIAA will send all communications to you at the mailing address you provided on your Account Application, or at such other address, as you may subsequently provide to TIAA in writing, and that all communications so sent in writing shall be deemed delivered, whether actually received or not.
 13. **You acknowledge this Agreement contains a predispute arbitration clause. By signing an arbitration agreement, the parties agree as follows:**
 1. All parties to this Agreement are giving up the right to sue each other in court, including the right to a trial by jury, except as provided by the rules of the arbitration forum in which a claim is filed.

2. Arbitration awards are generally final and binding; a party's ability to have a court reverse or modify an arbitration award is very limited.
3. The ability of the parties to obtain documents, witness statements and other discovery is generally more limited in arbitration than in court proceedings.
4. The arbitrators do not have to explain the reason(s) for their award unless, in an eligible case, a joint request for an explained decision has been submitted by all parties to the panel at least 20 days prior to the first scheduled hearing date.
5. The panel of arbitrators may include a minority of arbitrators who were or are affiliated with the securities industry.
6. The rules of some arbitration forums may impose time limits for bringing a claim in arbitration. In some cases, a claim that is ineligible for arbitration may be brought in court.
7. The rules of the arbitration forum in which the claim is filed, and any amendments thereto, shall be incorporated into this Agreement.

ANY CONTROVERSY THAT SHALL ARISE BETWEEN THE ACCOUNT HOLDER AND TIAA, TIAA'S AFFILIATES, PERSHING AND/OR THE CUSTODIAN (INCLUDING BUT NOT LIMITED TO CONTROVERSIES CONCERNING ANY ACCOUNT, ORDER OR TRANSACTION, OR THE CONTINUATION, PERFORMANCE OR BREACH OF THIS OR ANY OTHER AGREEMENT BETWEEN THE ACCOUNT HOLDER AND TIAA, TIAA'S AFFILIATES, PERSHING AND/OR THE CUSTODIAN, WHETHER ENTERED INTO OR ARISING BEFORE, ON OR AFTER THIS ACCOUNT IS OPENED) SHALL BE SUBMITTED TO ARBITRATION BEFORE AND ONLY BEFORE THE FINANCIAL INDUSTRY REGULATORY AUTHORITY. ARBITRATION MUST BE COMMENCED BY SERVICE UPON THE OTHER PARTY OF A WRITTEN DEMAND FOR ARBITRATION OR A WRITTEN NOTICE OF INTENTION TO ARBITRATE, THEREIN INDICATING THE ARBITRATION TRIBUNAL. NO PERSON SHALL BRING PUTATIVE OR CERTIFIED CLASS ACTION TO ARBITRATION, NOR SEEK TO ENFORCE ANY PREDISPUTE ARBITRATION AGREEMENT AGAINST ANY PERSON WHO HAS INITIATED IN COURT A PUTATIVE CLASS ACTION; OR WHO IS A MEMBER OF A PUTATIVE CLASS WHO HAS NOT OPTED OUT OF THE CLASS WITH RESPECT TO ANY CLAIMS ENCOMPASSED BY THE PUTATIVE CLASS ACTION UNTIL: (i) THE CLASS CERTIFICATION IS DENIED; (ii) THE CLASS IS DECERTIFIED; OR (iii) THE CUSTOMER IS EXCLUDED FROM THE CLASS BY THE COURT. SUCH FORBEARANCE

TO ENFORCE AN AGREEMENT TO ARBITRATE SHALL NOT CONSTITUTE A WAIVER OF ANY RIGHTS UNDER THIS AGREEMENT EXCEPT TO THE EXTENT STATED HEREIN. ANY ARBITRATION AWARD SHALL BE FINAL AND BINDING, AND ANY COURT HAVING JURISDICTION MAY ENTER JUDGMENT THEREON.

14. You acknowledge that federal law requires that TIAA verify your identity by obtaining, among other information, your name, date of birth, address and government-issued identification number before opening your Account. This information is necessary to help the government fight the funding of terrorism and money laundering activities. TIAA may gather and verify this information with respect to any other person authorized to effect transactions in your Account. For certain entities, such as trusts, estates, corporations, partnerships or other organizations, TIAA may require additional identifying documentation. TIAA may restrict and/or close your Account if TIAA cannot verify this information. TIAA will not be responsible for any loss, costs and/or expenses resulting from your failure to provide this information, or from any related restriction or closing of your Account.
15. You acknowledge that any person acting as a trustee, Custodian or fiduciary for your Account is liable for all activity within the Account. TIAA will not review any action or inaction taken by a trustee, Custodian or fiduciary with respect to your Account. You agree to indemnify and hold harmless TIAA, its directors, employees, agents, affiliates and assigns from and against any and all losses, claims or financial obligations (including reasonable attorney's fees) that may arise from any act or omission it may suffer from the activity of any trustee, Custodian or fiduciary you appoint with respect to your Account.
16. You acknowledge that where you provide TIAA with written notice that an unaffiliated third-party advisor has discretionary authority over your Account, TIAA and its affiliates bear no liability or responsibility for any action taken by the third-party advisor. TIAA may rely and act upon any direction given by the third-party advisor, unless and until TIAA receives written notice from you revoking the third-party advisor's discretionary authority. You are responsible for confirming that such written revocation has been received and processed. You agree to indemnify and hold harmless TIAA, its directors, employees, agents, affiliates and assigns from and against any and all losses, claims or financial

obligations (including reasonable attorney's fees) it may suffer from the activity of any unaffiliated third-party advisor you appoint with respect to your Account.

17. When you change any instruction on a limit order, you are responsible for any open order, and any actions by you that modify or impact an open order. If you fail to do so, you understand that you will be responsible for any loss, including applicable commission charges. You are responsible for knowing the status of your pending orders and any duplication by you of a pending order will be considered authorized by you. You understand and acknowledge that all Good Till Canceled (GTC) orders entered will expire in 90 days.
18. The Internal Revenue Service ("IRS") generally requires TIAA to report annually, on Form 1099-B (the "1099-B Annual Information Report"), any gross proceeds you receive from the sale of securities, your "cost basis" for securities sold, whether any gain or loss on a security is long term or short term, and whether any reported loss is disallowed due to the application of wash sale rules.
19. In order to calculate the gain or loss on the sale of a covered security, a tax lot relief method (also called a cost accounting method) must be selected. 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 which lot of a security as well as its associated cost basis and the holding period used in computing the gain or loss. TIAA's default tax lot relief method is First In, First Out ("FIFO"). You should consult with your personal tax advisor or financial planner to determine your specific reporting requirements and which tax lot relief method makes sense for you. To make a change to TIAA's default method, you must select a different method by submitting your request in writing to TIAA. All cost basis identification methods, including specific lot selection, must be made prior to the settlement date of your transaction. TIAA and its affiliates shall have no liability for any damages you may incur as a result of (i) TIAA providing the required 1099-B Annual Information Report to the IRS, or (ii) any differences in the cost basis reported by TIAA to the IRS and your actual adjusted cost basis.
20. All of your securities and other property in any Account (margin or cash) in which you have an interest or which at any time are in your possession or under your control other than retirement Accounts, such as IRAs, shall be subject to a lien for the discharge of any and all indebtedness or any other obligations you may have to TIAA. Securities and other property held in retirement accounts, such as IRAs, are not subject to this lien, and are not used as security for the payment of your obligations or indebtedness for other Accounts (cash or margin) that you maintain with TIAA. In enforcing the lien, TIAA may, in its sole discretion, determine which securities and other property held in your Account are to be sold or which contracts are to be closed, except where prohibited by law.
21. TIAA may also transfer securities or other property from any of your Accounts, whether individual or joint, to any of your other Accounts in order to satisfy deficiencies in any of your Accounts, except where prohibited by law. You grant TIAA the right of set-off in satisfaction of any debt in your Account, except where prohibited by law. You agree to pay any costs or expenses incurred by TIAA, including reasonable attorney's fees, that result from your failure to properly settle any securities transactions or pay any debt, or otherwise satisfy your obligations under this Agreement. You acknowledge that your Account may be subject to interest on any debit balances resulting from your failure to make payment in full for securities purchased from proceeds of sales paid prior to settlement date, or for other charges that may be made to the Accounts.
22. You acknowledge that TIAA may, at its discretion, allow certain holdings and/or positions not held in custody by Pershing to be reflected on your Account brokerage statement. Where TIAA permits this, TIAA reports these held-away holdings and/or positions based solely upon information provided by a third party. TIAA is not responsible for the accuracy of any information regarding held-away holdings and/or positions, and does not verify or use a third party to verify the accuracy of such holdings and/or positions. In connection with annuities sold to you through TIAA or TIAA Insurance Agency that are reflected on your Account brokerage statement but not held in custody by Pershing, TIAA and the TIAA Insurance Agency receive remuneration from issuers of the annuities, including commissions.
23. Your Account includes a Sweep Program feature which automatically transfers available uninvested cash balances in your Account at the end of each Business Day to a money market fund or bank sweep deposit account (each a "Sweep Vehicle" and together the "Sweep Program") and facilitates the redemption of available shares of any such money market funds or the transfer of available cash balances from any such bank sweep deposit accounts to your Account to cover purchases of securities and other debits in your Account. Available Sweep Vehicles vary based on account type. Additionally, bank sweep options may vary

depending on when the Account was opened, as outlined in Paragraph 24. You direct us to use the Sweep Vehicle indicated on your Account Application as the Sweep Vehicle for your Account and, if you fail to indicate a Sweep Vehicle, you direct us to use the default Sweep Vehicle indicated therein. If your account type includes only one Sweep Vehicle, you acknowledge that the Sweep Vehicle set forth in the Account Application will serve as the sweep option in which all available uninvested cash balances in your Account will be allocated at the end of each Business Day. Different Sweep Vehicles may have different rates of return and different terms and conditions, including but not limited to, requiring minimum cash balances in your Account before such balances may be swept to a Sweep Vehicle. Money market mutual funds are securities that are registered with the U.S. Securities and Exchange Commission ("SEC") under the Investment Company Act of 1940 and the Securities Act of 1933. Although money market funds attempt to maintain a stable net asset value of \$1 per share, there is no guarantee that the fund will in fact maintain a \$1 per share stable net asset value. Money market funds are not insured by the Federal Deposit Insurance Corporation ("FDIC"). Money market funds are, however, securities subject to protection by the Securities Investor Protection Corporation ("SIPC") in the event of insolvency of Pershing, LLC as the brokerage firm holding your Account and cash or securities are owed to you. SIPC is a non-profit member corporation funded primarily by member securities brokerage firms registered with the SEC, which protects customers up to certain limits in the event of the failure of a brokerage firm where cash and securities are owed to customers. See the TIAA Brokerage Services SIPC Asset Protection Guide for more information. SIPC does not protect against loss due to market fluctuation or failure of the issuer of a money market fund. More specific information about a particular money market mutual fund, including applicable fund restrictions, fees and expenses and other important information, can be found in the fund's prospectus. Bank sweep options are deposit accounts held at one or more banks. Deposit accounts pay interest on deposits pursuant to the terms and conditions in the disclosure document for the applicable bank sweep option. Interest rates may fluctuate and may vary among banks. Deposit accounts are not subject to SIPC protection. They are subject to FDIC insurance up to applicable limits. FDIC insurance protects against loss of deposit amounts in the event the bank holding the deposits fails. More specific

information about particular bank sweep options, including applicable FDIC insurance limits, interest amounts and other important information can be found in the applicable bank sweep disclosure document. Prospectuses or similar disclosure documents for the Sweep Vehicle option(s) available for your Account are available by calling **800-927-3059**. You agree to review these disclosure documents prior to opening your Account. TIAA may change the terms and conditions of the Sweep Program and the Sweep Vehicle options available for your Account, in its sole discretion. TIAA will provide you with written notice in advance of adding, changing or deleting Sweep Vehicle options for your Account or making other changes to the Sweep Program to the extent required by applicable law. TIAA may receive 12b-1 and similar service fee payments from Sweep Vehicles. Please consult the prospectus or similar disclosure document for each Sweep Vehicle for more information concerning such fees. TIAA, FSB, a TIAA affiliate, holds deposits in connection with the TIAA Bank Brokerage Sweep Vehicle bank sweep option described in Paragraph 24 below and in connection therewith earns net income from the difference TIAA, FSB pays on the deposit accounts and the income it earns on loans, investments and other assets.

24. As set forth in Paragraph 23 above, Sweep Vehicle options vary by account type. The following paragraph applies to Account types with a bank deposit option.

The TIAA Bank Brokerage Sweep Account. The following describes your bank sweep option if your Account Application indicates that the Sweep Vehicle for your Account is the TIAA Bank Brokerage Sweep Account, if you have selected the TIAA Bank Brokerage Sweep Account as your Sweep Vehicle, you have failed to select a Sweep Vehicle on your Account Application and the TIAA Bank Brokerage Sweep Account is the default sweep vehicle for the account or if TIAA has notified you that TIAA is replacing the existing bank Sweep Vehicle for your Account with the TIAA Bank Brokerage Sweep. The TIAA Bank Brokerage Sweep comprises two separate Sweep Vehicles used in combination: (1) the TIAA Bank Brokerage Sweep Vehicle which automatically sweeps eligible cash balances in an Account up to the Maximum Deposit Amount (defined below) into interest bearing deposit accounts at TIAA, FSB (a TIAA affiliate); and (2) the Liquid Insured Deposits ("LIDs") Sweep Vehicle which is used as an overflow Sweep Vehicle to automatically sweep eligible cash balances in excess of the Maximum Deposit Amount into interest bearing deposit accounts

with participating banks unaffiliated with TIAA (“LIDs banks”). The TIAA Bank Brokerage Sweep Vehicle will serve as the primary bank Sweep Vehicle for eligible cash balances in an Account up to a maximum deposit amount set by TIAA, FSB. The Maximum Deposit Amount for an Account is currently \$248,500 and is subject to change by TIAA, FSB with notice to you, but will not exceed the then-current FDIC insurance limits for deposit amounts held at a bank in the same right and capacity. The LIDs Sweep Vehicle will be used as an overflow sweep for eligible cash deposits in an Account which exceeds the Maximum Deposit Amount (“Excess Balances”). Only Excess Balances in an Account are eligible to use the LIDs Sweep Vehicle. By way of example, if an Account holds \$300,000 in eligible cash balances, the first \$248,500 will be automatically swept into interest bearing deposit accounts with TIAA, FSB through the TIAA Bank Brokerage Sweep. The remaining \$51,500 in eligible cash balances will be automatically swept into interest bearing accounts with participating banks unaffiliated with TIAA through the LIDs Sweep Vehicle. By way of further example, if the Account instead holds \$248,500 or less in eligible cash balances, such eligible cash balances will be automatically swept into interest bearing deposit accounts with TIAA, FSB through the TIAA Bank Brokerage Sweep. Please review the separate disclosure documents for the TIAA Bank Brokerage Sweep Vehicle and LIDs carefully.

Other Bank Sweep Options. For some Accounts (typically accounts opened prior to March 16, 2015), TIAA may make the Liquid Insured Deposits Sweep Vehicle on its own (i.e., not in combination with the TIAA Bank Brokerage Sweep Vehicle described above). TIAA may change this option by replacing it with the TIAA Bank Brokerage Account Sweep Vehicle described above or otherwise adding or deleting bank sweep options. TIAA will provide prior written notice to such Account holders as set forth in Paragraph 23 above prior to making any such changes.

It is your sole responsibility to monitor the total balances you have across your accounts with TIAA, FSB and/or the LIDs banks to ensure that your deposit amounts held at any bank in the same right and capacity, directly or indirectly (with the bank or through your account) do not exceed \$250,000, which currently is the maximum amount eligible for FDIC insurance coverage for a single bank. Amounts you hold at any bank, including TIAA, FSB or a LIDs bank, in excess of \$250,000 will not receive FDIC insurance coverage. For example, if you have a deposit account and a certificate of deposit (“CD”) with the same bank, the aggregate dollar amount of the

deposit account and the CD including accrued interest in excess of \$250,000 will not be FDIC-insured. A list of participating LIDs banks can be viewed by clicking on the LIDs Terms and Conditions located on the Brokerage Services Forms page at TIAA.org/BrokerageForms. You may opt out of having funds swept to a participating LIDs bank by contacting us at 800-927-3059 weekdays, 8 a.m. to 7 p.m. (ET); a representative can take such instructions over the phone.

25. You acknowledge TIAA is obligated by federal securities laws to provide your name, address and holdings information to issuers of those securities upon request, unless you instruct TIAA in writing not to do so.
26. You acknowledge that to deter frequent trading within mutual funds, a short-term redemption fee may be assessed against any transaction that results in mutual fund shares being held for less than six months. This fee is in addition to any short-term redemption fee or restriction the underlying mutual fund may independently assess against the same transaction. Each of TIAA, Pershing and/or Custodian reserves the right to restrict access to the purchase of mutual fund shares within any account deemed at their sole discretion to engage in excessive or abusive short-term trading patterns. Additionally, in the event Pershing or Custodian, as the case may be, is instructed by the issuer of a mutual fund to restrict your access to such mutual fund’s shares, such a restriction may remain in place until Pershing or Custodian receives notice from the issuer to remove the restriction.
27. You acknowledge receipt of the TIAA Privacy Policy.
28. You understand that “penny stocks” (generally defined as any equity security priced below \$5 a share) are generally considered high-risk investments and should be purchased purely for speculation. You acknowledge that any order you place for penny stocks was not solicited by TIAA and was solely your decision.
29. You acknowledge that various federal and state laws or regulations may be applicable to transactions in your Account regarding restricted securities, as defined by applicable securities laws and regulations. It is your responsibility to notify TIAA if your Account contains restricted securities and to ensure that any transaction you effect will comply with all applicable laws and regulations. You understand that transactions in restricted securities may take longer to process than transactions involving unrestricted securities. Notwithstanding the foregoing, TIAA may, in its sole discretion, refuse to permit restricted securities within your Account.

30. You acknowledge your responsibility to review your brokerage account statements for accuracy and to notify TIAA, Pershing and/or Custodian within 30 days of receipt of any error or omission. If you fail to notify TIAA, Pershing and/or Custodian of any error or omission within this time frame, your brokerage account statement shall be presumed accurate. You acknowledge your responsibility to review all confirmation statements for accuracy and notify TIAA, Pershing and Custodian immediately of any error or omission.
31. You acknowledge that if any provision or condition of this Agreement is held invalid or unenforceable for any reason by any court, or regulatory or self-regulatory agency or body, such provision or condition shall be fully severable, and this Agreement shall be enforced and construed as if such provision or condition had never comprised a part of this Agreement.
32. You acknowledge that this Agreement cannot be modified by conduct and/or the failure of TIAA, Pershing and/or Custodian at any time to enforce its rights hereunder to the greatest extent permitted by law, and shall not be deemed to waive, modify or relax any of the rights granted to TIAA, Pershing and/or Custodian herein, including any right to deal with collateral on all loans advanced to you.
33. You acknowledge that this Agreement constitutes the full and entire understanding between the parties with respect to the provisions herein, and that there are no oral or other agreements in conflict herewith. You acknowledge that each of TIAA, Pershing and/or Custodian reserves the right to amend this Agreement, by modifying or rescinding any of its existing provisions or by adding any new provision at any time upon written notice to you on your brokerage account statement(s), trade confirmation(s), or such other written or electronic notification, including but not limited to posting notice of such amendment(s) and/or the amended Agreement on the TIAA brokerage website. The amended Agreement will be effective as of the date established by TIAA, Pershing and/or Custodian (the "Effective Date"). You agree that any future amendments made to the Agreement shall apply to your Account and to any subsequent Accounts you ask TIAA to establish for you in the future. The use of your Account after the Effective Date of the amendment(s) shall constitute your acknowledgement and agreement to be bound thereby. You are responsible for regularly checking for updates. You understand additional restrictions may apply to the brokerage services provided hereunder and additional documentation may be required by applicable law or TIAA, Pershing and/or Custodian's policies and procedures. You agree to comply with any such restrictions and promptly provide any documents or information requested.
34. You acknowledge that use of the telephone, Internet or any other electronic system, and software provided for use in accessing your Account information, is used at your sole risk and that neither TIAA, its vendors providing data, information or other services, including but not limited to any exchange (collectively, "service providers"), warrant that the service will be uninterrupted or error free and that neither TIAA nor any such service providers makes any warranty as to the results that may be obtained from any of these systems. You further acknowledge that the telephone, Internet and other electronic systems are provided on an as-is and as-available basis, without warranties of any kind, either expressed or implied, including, without limitation, those of merchantability and fitness for a particular purpose, other than those warranties which are implied by and incapable of exclusion, restriction or modification under applicable laws and regulations. None of TIAA, any service provider, Pershing or Custodian will be liable in any way to you or any other person for any inaccuracy, error or delay in, or omission of any data, information or message or the transmission or delivery of any data, information or message, or any loss or damages arising from or occasioned by: any inaccuracy, error, delay or omission, nonperformance, interruption in data due to neglect or omission by any service provider, any "force majeure" (i.e., loss caused directly or indirectly by flood, fire, war, terrorism, civil unrest, strikes, natural disaster, extraordinary weather conditions, earthquake or other acts of God, government restrictions or actions, interruptions of communications, exchanges or market rulings, suspension of trading or other conditions beyond TIAA's control, failure, or equipment or software malfunction), or any other cause beyond the reasonable control of any service provider.
35. You acknowledge that complaints regarding your Account are to be mailed to TIAA Brokerage, P.O. Box 1280, Charlotte, North Carolina 28201 or you may call **800-927-3059**.
36. The Agreement, all transactions made in your Account and all matters arising in connection with the Agreement will be governed by, and construed and enforced in accordance with, the laws of the State of

New York (regardless of the choice of law rules thereof); provided, however, that the Banking Services Agreement and the BillSuite™ Agreement set forth in Part IV will be governed by the laws of such state(s) as indicated in Part IV.

37. Some account types may permit trading in a limited range of securities (e.g., mutual funds) and you acknowledge that you must follow TIAA procedures to obtain expanded trading privileges for such accounts.
38. You agree that TIAA may assign this Agreement (in part or in full, and including assigning the role of clearing broker and custodian for the Account) to any third-party or any subsidiary, affiliate or successor of TIAA. You hereby delegate and grant to TIAA the power and authority to make these changes on your behalf. TIAA will provide you with at least 30 days prior written notice of such assignment and you will be deemed to have consented to the assignment if you conduct any transactions in your Account or keep your Account open subsequent to receiving such a notice.

II. Role of Pershing

TIAA retained Pershing to act as a clearing broker for TIAA and provide certain recordkeeping and operational services, which may include execution and settlement of securities transactions, custody of securities and cash balances, and extension of credit on margin transactions. These services are provided under a written Clearing Agreement between Pershing and TIAA. The respective roles of Pershing and TIAA, as defined within the Clearing Agreement, are outlined below.

1. In general, Pershing is only responsible for those services provided at the request or direction of TIAA as contemplated by the Clearing Agreement.
2. Pershing will create computer-based account records on the Account holder's behalf in such name(s) and with such address(es) as TIAA directs.
3. Pershing will process orders for the purchase, sale or transfer of securities for the Account as TIAA directs. Pershing is not obligated to accept orders for securities transactions directly from the Account holder and will do so only in exceptional circumstances.
4. Pershing will receive and deliver cash and securities for the Account and will record such receipts and deliveries according to information provided either by TIAA or directly, in writing, by the Account holder.
5. Pershing will hold in custody securities and cash received for the Account, and will collect and disburse dividends and interest and process reorganization and voting instructions with respect to securities held in custody. Pershing is responsible for the custody of cash and securities only after it comes into Pershing's physical possession or control.
6. Pershing will prepare and transmit to the Account holder or provide facilities to TIAA for the preparation and transmission of confirmations of trades. Pershing will prepare and transmit to the Account holder periodic account statements summarizing the transaction history.
7. If TIAA opens a Margin Account for an Account holder, Pershing will loan the Account holder money for the purpose of purchasing or holding securities subject to the terms of Pershing's written Margin Agreement as set forth in Section III below or in a separate document and Pershing margin policies and applicable margin regulations. TIAA is responsible for obtaining the initial margin as required by Regulation T. Thereafter, Pershing will calculate the amount of maintenance margin required. Pershing will advise Account holder of those requirements, usually through TIAA. Pershing will also calculate the interest charged on the debit balance, if any.
8. In connection with all of the functions that Pershing performs, Pershing maintains the books and records required by law and by business practice. Pershing will provide TIAA with written reports of all transactions processed for the Account to enable it to carry out its responsibilities under the Clearing Agreement. Pershing will assist the Account holder and TIAA with any discrepancies or errors that may occur in the processing of transactions for the Account.
9. PERSHING DOES NOT CONTROL, AUDIT OR OTHERWISE SUPERVISE THE ACTIVITIES OF TIAA OR ITS EMPLOYEES. PERSHING DOES NOT VERIFY INFORMATION PROVIDED BY TIAA REGARDING THE ACCOUNT OR TRANSACTIONS PROCESSED FOR THE ACCOUNT NOR UNDERTAKE RESPONSIBILITY FOR REVIEWING THE APPROPRIATENESS OF TRANSACTIONS ENTERED BY TIAA ON THE ACCOUNT HOLDER'S BEHALF. PERSHING SHALL NOT BE RESPONSIBLE OR LIABLE FOR ANY ACTS OR OMISSIONS OF TIAA OR ITS EMPLOYEES. YOU UNDERSTAND THAT TIAA IS NOT ACTING AS THE AGENT OF PERSHING AND YOU AGREE THAT YOU WILL IN NO WAY HOLD PERSHING, ITS OTHER DIVISIONS, AND ITS OFFICERS, DIRECTORS AND AGENTS LIABLE FOR ANY TRADING LOSSES INCURRED BY YOU.

10. The Clearing Agreement does not encompass transactions in commodities futures contracts or investments other than marketable securities, which Pershing normally processes on recognized exchanges and over-the-counter markets.
11. In furnishing its services under the Clearing Agreement, Pershing may use and rely upon the services of clearing agencies, automatic data processing vendors, proxy processing, transfer agents, securities pricing services and other similar organizations.
12. This statement addresses the basic allocation of functions regarding the handling of the Account. It is not meant as a definitive enumeration of every possible circumstance, but only as a general disclosure.

III. Margin Agreement

General margin policies

The amount of credit that may be extended by Pershing and the terms of such extension are governed by rules of the Federal Reserve Board and the Financial Industry Regulatory Authority. Within the guidelines of these rules and subject to adjustment required by changes in such rules and Pershing's business judgment, Pershing establishes certain policies with respect to Margin Accounts. If the market value of securities in a Margin Account declines, Pershing may require the deposit of additional collateral. Margin Account equity is the current market value of securities and cash deposited as security less the amount owed Pershing for credit extended at its discretion. It is Pershing's general policy to require Margin Account holders to maintain equity in their Margin Accounts of the greater of 30% of the current market value or \$3.00 per share for common stock purchased on margin. Pershing applies other standards for other types of securities. For example, securities may be ineligible for margin credit from time to time. For information with respect to general margin maintenance policy as to municipal bonds, corporate bonds, listed United States Treasury notes and bonds, mutual funds and other securities, as well as information about the eligibility of particular securities for margin credit, please contact TIAA. Notwithstanding the above general policies, Pershing reserves the right, at its discretion, to require the deposit of additional collateral and to set required margin at a higher or lower amount with respect to particular accounts or classes of accounts as it deems necessary. In making this determination, Pershing may take into account various factors including but not limited to (i) issues as to your securities such as, among others, the liquidity of a position and concentrations of securities in an Account,

(ii) considerations as to your status, including but not limited to a decline in creditworthiness, (iii) the size of the Account, (iv) the general condition of the market, (v) considerations as to the ability of Pershing to obtain financing, and (vi) regulatory interpretations or guidance. If Account holder fails to meet a margin call in a timely manner, some or all of Account holder's positions may be liquidated.

Please note that approval of margin privileges is subject to review by TIAA. To apply for margin privileges, please contact a TIAA Brokerage Services representative. The following terms and conditions shall govern all Margin Accounts:

1. You acknowledge that Margin Accounts, which allow the purchase of securities on credit, enable you to increase the buying power of your equity and thus increase the potential for profit or loss. A portion of the purchase price is deposited when buying securities on margin and Pershing extends credit for the remainder. You understand this loan appears as a debit balance on your monthly account statement. Pershing charges interest on the debit balance and requires you to maintain securities, cash or other property to secure repayment of funds advanced and interest due. You understand that interest will be charged for any credit extended to you for the purpose of buying, trading or carrying any securities, for any cash withdrawals made against the collateral of securities, or for any other extension of credit. When funds are paid in advance of settlement on the sale of securities, interest will be charged on such amount from date of payment until settlement date. In the event that any other charge is made to the Account for any reason, interest may be charged on the resulting debit balances. You authorize TIAA to transfer securities held in your cash Account to your Margin Account.
2. All margin transactions shall be subject to the constitution, rules, regulations, customs and usages of the exchange or market and its clearing house, if any, where executed by Pershing or its agents, including its subsidiaries and affiliates.
3. For purposes of this Agreement "securities and other property," as used herein, shall include, but not be limited to, money and securities of every kind and nature and all contracts and options relating thereto, whether for present or future delivery.
4. All securities and other property which Pershing may at any time be carrying for you, or which may at any time be in Pershing's possession or under Pershing's control, shall be subject to a general lien and security interest in Pershing's favor for the discharge of all your indebtedness and other obligations to Pershing, without

regard to Pershing having made any advances in connection with such securities and other property and without regard to the number of Accounts you may have with Pershing. In enforcing its lien, Pershing shall have the discretion to determine which securities and property are to be sold and which contracts are to be closed. Securities and other property held in your retirement Account(s) maintained by Pershing, which may include IRAs or qualified plans, are not subject to this general lien and such securities or other property may only be used to satisfy the undersigned's indebtedness or other obligations to TIAA and/or Pershing related to your retirement Account(s).

5. If, in its discretion, Pershing considers it necessary for protection to require additional collateral, or in the event that a petition in bankruptcy is filed, or the appointment of a receiver is filed by or against the Account holder, or an attachment is levied against the Accounts, or in the event of your death, Pershing shall have the right to sell any or all securities, commodities and other property in the Accounts, whether carried individually or jointly with others, to buy any or all securities and other property which may be short in such Accounts, to cancel any open orders and to close any or all outstanding contracts, all without demand for margin or additional margin, notice of sale or purchase, or other notice or advertisement. Any such sales or purchases may be made at Pershing's discretion on any exchange or other market where such business is usually transacted, or at public auction or private sale, and Pershing may be the purchaser for its own Account. A prior demand, or call, or prior notice of the time and place of such sale or purchase shall not be considered a waiver of Pershing's right to sell or buy without demand or notice.
6. You shall at all times be liable for the payment upon demand of any debit balance or other obligations owing in any of your Accounts, and shall be liable to Pershing for any deficiency remaining in any such Accounts in the event of the liquidation thereof, in whole or in part, by either Pershing or you; and you shall make payments of such obligations and indebtedness upon demand. The reasonable cost and expense of collection of the debit balance, recovery of securities and any unpaid deficiency in your Accounts with Pershing, including, but not limited to, attorney's fees incurred and payable or paid by Pershing shall be payable to Pershing by you.
7. All securities and other property now or hereafter held, carried or maintained by Pershing in its possession in any of your Accounts may be pledged, repledged, hypothecated or rehypothecated by Pershing from time to time, without notice to you, either separately or in common with other such securities and other property for any amount due in the Accounts, or for any greater amount, and Pershing may do so without retaining into its possession or control for delivery, a like amount of similar securities or other property.
8. You will at all times maintain such securities and other property in the Accounts for margin purposes as Pershing shall require from time to time via a margin call or other request, and the monthly debit balances or adjusted balances in the Accounts with Pershing shall be charged, in accordance with Pershing practice, with interest at a rate permitted by laws of the State of New York. The interest charge made to the Account at the close of a charge period will be added to the opening balance for the next charge period unless paid.
9. You acknowledge receipt of the Disclosure Statement that explains the conditions under which interest can be charged to the Account, the annual rate of interest, how debit balances are determined and the methods of computing interest.
10. In regard to margin calls, whether for maintenance or any other margin call, in lieu of immediate liquidations, Pershing, through TIAA, may permit you a period of time to satisfy a call. This time period shall not in any way waive or diminish Pershing's right, in its sole discretion, to shorten the time period in which you must satisfy the call, including one already outstanding, or to demand that a call be satisfied immediately. Nor does such practice waive or diminish the right of Pershing and/or TIAA to sell out positions to satisfy the call, which can be as high as the full indebtedness owed. Margin requirements may be established and changed by Pershing, in its sole discretion and judgment, without notice to you. You should contact TIAA for the latest information on margin requirements.
11. Pershing and/or TIAA may exchange credit information about you with others. Pershing and/or TIAA may request a credit report, and upon request, Pershing and/or TIAA will state the name and address of the consumer reporting agency that furnished it. If Pershing and/or TIAA extends, updates or renews your credit, Pershing and/or TIAA may request a new credit report without notice to you.
12. If this is a Margin Agreement for a trust or other similar fiduciary account, you certify that the use of a Margin Account and the borrowing and lending of securities is authorized by the trust instrument and/or applicable law.

13. You agree that TIAA is a third-party beneficiary under the terms and conditions of the Margin Agreement and that any rights that Pershing has under this Margin Agreement, including but not limited to the right to collect any debit balance or other obligations owing in any of the Accounts, may be assigned to TIAA so that TIAA may collect from the Account holder independently or jointly with Pershing or enforce any other rights granted to Pershing under this Agreement.
14. This Agreement cannot be modified by conduct and no failure on the part of Pershing at any time to enforce its rights hereunder to the greatest extent permitted shall in any way be deemed to waive, modify or relax all of the rights granted Pershing herein, including those rights vested in Pershing to deal with collateral on all loans advanced to the Account holder.
15. By signing the Account Application, you acknowledge that securities not fully paid for by you may be loaned to Pershing or loaned out to others, and as permitted by law, certain securities in your Account may be used for, among other things, settling short sales and lending the securities for short sales, and as a result Pershing and TIAA may receive compensation in connection therewith. Pershing and TIAA do not lend fully paid-for securities without your written permission. Fully paid-for securities held in a cash Account (unless otherwise agreed in a separate written agreement) and fully paid-for securities held in a Margin Account in which there is no debit balance are not loaned. In the event your securities have been loaned by Pershing on the record date of a shareholder vote involving those securities, you agree that your vote may be reduced to reflect the total amount of securities loaned by Pershing. Account owner(s) should contact TIAA with any questions.

IV. Cash Solutions Account terms

Section A—Background

1. Definitions

Unless the context otherwise requires, the following terms used in Part IV of this Agreement have the meanings set forth below whether or not such terms are capitalized:

“**Account Services**” means the respective services provided pursuant to this Agreement.

“**ACH Transaction**” means a transaction cleared through the Automated Clearing House.

“**Administrator**” refers to BNY Mellon Investment Servicing Trust Company, which is responsible for administration of the banking services provided hereunder.

“**ATM**” means automated teller machine.

“**ATM Withdrawal**” means a Card Transaction in which you receive money from an ATM.

“**Available Balance**” means the maximum amount you may withdraw from your Account using your Card or Checks (including via ACH Transactions).

“**Available Margin Loan Value**” means the amount of credit Pershing may extend to you based on the value of marginable securities held in your Margin Account.

“**Bank**” refers to PNC Bank, N.A. for all terms and issues related to the Visa debit card, and refers to The Bank of New York Mellon for all terms and issues related to Checks.

“**Banking Day**” means every day of each week for purposes of imposing security limits on the number and amount of ATM Withdrawals, Cash Advances, Purchases and Card Authorizations you can perform. For these purposes, Banking Days begin at 12 a.m. midnight Eastern Time. A Banking Day may, as applicable, exclude Bank or Pershing holidays.

“**Banking Services**” means Check-writing privileges, Card, ACH and related services.

“**Banking Services Agreement**” means the provisions contained in the following sections of this Agreement: Sections IV.A (Background) and IV.B (Banking Services Agreement). The Banking Services Agreement is made by and among you, Pershing, Bank and Administrator.

“**Biller**” is the person or entity to which you wish a bill payment to be directed or is the person or entity from which you receive electronic bills, as the case may be.

“Billing Account” is the Account from which all BillSuite Service Fees will be automatically debited.

“BillSuite” means bill payment and presentment service that enables you to view, pay and manage bills online 24 hours a day, seven days a week.

“BillSuite Agreement” means the provisions contained in the following sections of this Agreement: Sections IV.A (Background) and IV.C (BillSuite Agreement). The BillSuite Agreement is made by and among you, CheckFree and Administrator.

“BillSuite Service” means the bill payment service provided by CheckFree. The BillSuite Service is made available by Administrator or its agents through your Account with Pershing.

“BillSuite Service Provider” means CheckFree Services Corporation and/or Administrator, as applicable.

“Business Day” means Monday through Friday, excluding federal holidays (for the Banking Services Agreement), and Federal Reserve Holidays (for the BillSuite Agreement). Although Pershing’s, Administrator’s or Bank’s offices may be open on certain federal holidays, these days are not considered Business Days for purposes relating to the transfer of funds.

“Card/Cards” refers to one or more Visa® debit cards issued by the Bank on your Account.

“Card Authorization” means a Card Transaction in which you authorize others to place a hold on your Available Balance to ensure future payment.

“Card Transaction” means those transactions which you can perform with your Card as more fully described below.

“Cash Advance” means a Card Transaction in which you receive money back from a merchant or financial institution. Cash Advances do not include ATM Withdrawals.

“CheckFree” means CheckFree Services Corporation, a subsidiary of Fiserv Solutions, Inc. CheckFree provides the BillSuite Services pursuant to the terms of the BillSuite Agreement.

“Checks” mean the Checks issued on your Account and drawn on the Bank.

“Check Transaction” means those transactions which you initiate via a Check.

“Debit Balance” means the Account balance representing money owed Pershing.

“Documents” mean any disclosure documents, the Funds’ prospectus(es), the Agreement and the Account Application (which contain additional terms governing Account), and all as may be amended from time to time.

“Due Date” is the date reflected on your Biller statement on which the BillSuite payment is due; it is not the late date or grace period.

“Electronic Fund Transfer” means any transfer of funds initiated or authorized by you through an electronic payment system. Card Transactions and certain ACH Transactions are considered Electronic Fund Transfers.

“Fed Funds” refer to the funds that are immediately available and not subject to an availability or collection hold.

“Foreign Account” refers to an Account for which the primary Account holder is not a resident or not a citizen of the United States.

“Free Credit Balance” refers to the sum of any cash balance in your Account. (When a cash balance in your Margin Account is collateral for your obligations to cover short securities and/or option positions, it is not available for your use and is not included in your Free Credit Balance.)

“Fund(s)” mean any money market fund(s) or cash sweep product Pershing makes available and is selected by you.

“Good Delivery” refers to the delivery to Pershing of freely transferable securities (that is, properly registered, endorsed and fully negotiable stock certificates).

“Payment Account” is the Account from which bill payments will be debited.

“Payment Instruction” is the information provided by you to the BillSuite Service for a bill payment to be made to the Biller (such as, but not limited to, Biller name, Biller account number and Scheduled Payment Date).

“Prospectus” is an offering document describing those money market fund(s), which fund(s) are made available by Pershing in connection with your Account.

“Purchase” means a Card Transaction in which you purchase goods or services.

“Regulation E” means Regulation E (12 C.F.R. part 205) of the Consumer Financial Protection Bureau.

“Scheduled Payment” is a payment that has been scheduled through the BillSuite Service but has not begun processing.

“Scheduled Payment Date” is the day you want your Biller (via BillSuite) to receive your bill payment and is also the day your Payment Account will be debited, unless the Scheduled Payment Date falls on a non-Business Day, in which case it will be considered to be the previous Business Day.

“Short Sale” The sale of a security you don’t own, or that you have instructed Pershing not to deliver against your sale (“short against the box”).

“Transaction” means those transactions which you can perform with your Cards and Checks as more fully described in this Agreement, as well as ACH Transactions.

“Unauthorized Transaction” means a Transaction made by someone without your authorization and from which you received no benefit. An Unauthorized Transaction does not include: (a) a Card Transaction by a person to whom you furnished your Card or PIN unless you have notified us that Card Transactions by such persons are no longer authorized and we have had a reasonable opportunity to act on such notice; (b) a Transaction made or authorized by you with the intent to defraud; or (c) a Transaction which is made in error by us.

“We, us, our” means, as the context requires, TIAA, Pershing, Administrator and/or Bank (for the Banking Services Agreement); and means CheckFree Services Corporation and/or Administrator (for the BillSuite Agreement).

2. Description of Account

An Account with Cash Solutions features consists of three parts: (a) a conventional brokerage Account which is either a cash or Margin Account, or both; (b) access to funds in the Account via Cards, Checks and ACH Transaction; and (c) a choice of Funds. In connection with your Account, monies that you owe Pershing such as: (a) Debit Balances in the Account; (b) amounts owing as a result of your Card, Checks or ACH Transactions; or (c) Account deposits made for you that are later reversed may be satisfied by any of the following: (1) any credit in your Account; (2) redeeming shares from your Funds; (3) if applicable, making loans to you from your Brokerage Margin Account; or (4) the sale of any securities or other property held by Pershing for you.

SPECIAL NOTE FOR NON-U.S. ACCOUNTS

With respect to assets custodied by Pershing on your behalf, income and capital gains or distributions to you from your Account may be taxable in your home jurisdiction. Please consult your tax advisor for the appropriate tax treatment of your transactions.

3. Fund

Amounts contributed and received will be invested in the Fund of your choice subject to prior payment by you and on your behalf of any outstanding margin loan balances, Card overdrafts or other debit items arising from Card usage, Check usage or ACH Transactions. You have received and read a copy of the Prospectus of the Fund, containing a more complete description of it and its operation. Please note that some special tax-exempt Funds are only available to residents of one state.

Pershing will automatically withdraw from the Fund or, if your Fund is a money market fund, redeem sufficient shares of the Fund to pay for all securities transactions, Card, ACH and Checking Transactions. If you intend to send funds to settle securities Transactions, Pershing must receive those funds on the Business Day before the settlement date to prevent an automatic redemption. Pershing will redeem Fund shares to pay for Card and Checking Transactions on the date Pershing posts the Transaction to your Account.

You hereby represent to Pershing that you have received a copy of the Fund’s Prospectus that you selected.

4. Roles of Service Providers

Pershing

Pershing is carrying your Accounts as clearing broker pursuant to a Clearing Agreement with TIAA-CREF Individual & Institutional Services, LLC. Pershing has arranged with Administrator and Bank for the issuance of Check-writing privileges and Visa cards to TIAA customers. In addition, Pershing has arranged with the Administrator and CheckFree for the provision of BillSuite Services to TIAA customers.

Bank, Administrator and CheckFree

Bank is responsible for issuing the Cards and Checks hereunder. Administrator is responsible for administration of the Banking Services and BillSuite Services provided hereunder. Administrator makes available the BillSuite Services provided by CheckFree.

Bank, Administrator and CheckFree are not parties to Sections I to III and V to VII of this Agreement, and Bank, Administrator and CheckFree do not have any rights or responsibilities under such provisions.

5. Contact Information for Pershing LLC

You may contact Pershing at the address and telephone number set forth in Part V of this Agreement.

Section B—Banking Services Agreement

1. General Features of Banking Services

- a. **Available Balance.** Your Available Balance may fluctuate from day to day because it is dependent upon changes in the balance in your Account. Shortly after Administrator is notified of a Transaction, the Available Balance is reduced, not when a sales draft or Cash Advance draft is paid. For example, your Account may be debited (and Available Balance reduced) on the day an item is presented by electronic or other means, or at an earlier time based on notification received by us that an item drawn on your Account has been deposited for collection at another financial institution.

You promise not to make a Transaction (such as making a Card Purchase or writing a Check) that exceeds your Available Balance. If you attempt to make a Card Transaction that will exceed your Available Balance, the Card Transaction will normally be declined. In addition, a fee may be applied for returned Checks, ACH and Billsuite™ Transactions.

- b. **Payment for Transactions.** On a daily basis, Administrator will notify Pershing of the Transactions on your Account that Administrator receives. Pershing will make payments to Bank (via Administrator) on your behalf on each Business Day that Pershing receives notice of the Transactions.

You authorize Pershing to charge your Account in order to pay for Transactions. Each Transaction shall be considered to be your direction to us to charge or reduce your Available Balance. **The Available Balance comprises the following three components (and Pershing will make payments for the charges in the following order of priority): (1) any free credit balances in your Account; (2) the net asset value of the shares in the Funds; (3) the available margin loan value of securities in the Account (if your Account is established as a Margin Account).** When you use your Card, the charge or reduction to your Available Balance occurs immediately and you understand that you have no right to stop payment on any Card Transaction. See the Stop Payment—Checks section below to learn how to stop payments on Checks you have written. You understand that Card Authorizations will reduce your Available Balance by the amount of the Card Authorization even if the Card Authorization does not result in a Transaction. Note that a Card Authorization will reduce your

Available Balance until the Transaction is completed in whole or in part, or after the expiration of a time period specified by us.

If there is more than one person who is authorized to sign on the Account, you authorize us to pay Card drafts on the authority of any one or more of the signatures of the individuals identified and carried on the Account record. See below for more information about joint Accounts.

- c. **Unauthorized Use.** You promise not to let any unauthorized person make a Transaction. If you permit an unauthorized person to make a Transaction(s), even if the amount of actual use exceeds the amount you authorized, you will be responsible for the full amount of all Transaction(s) that result.
- d. **Account Statements.** Pershing will send or make available to you an Account statement every month in which a Transaction was made. In any event, you will receive an Account statement at least quarterly. Your Account statements will include the following information for Card Transactions: the amount, location, Transaction date, posting date and merchant name (when available). In addition, your Account statement will include your Check-writing and ACH activity during the period covered by the statement. Transactions from your Account may appear on the day after the Business Day the Transaction took place. Neither Bank nor Administrator will send you separate statements listing Transactions.
- e. **Your Duty to Examine Your Statement—Checks.** As used in this section, the term “problem” means any error, alteration or Unauthorized Transaction (including, but not limited to, forged or missing signatures, unauthorized wire transfers and excluding Electronic Fund Transfers) related to any Check Transaction(s) for your Account. Because you are in the best position to discover any problem, you will promptly examine your statement and report to Pershing any problem on or related to your statement. You agree that none of us will be responsible for any problem related to a Check Transaction that:
- You do not report to Pershing in writing within a reasonable time not to exceed 20 calendar days after Pershing mails the statement (or makes the statement available) to you;

- Results from a forgery, counterfeit or alteration so clever that a reasonable person cannot detect it (for example, unauthorized Checks made with your facsimile signature device or that look to an average person as if they contain an authorized signature); or
- As otherwise provided by law or regulation.

You may not start a legal action against any of us because of any problem unless: (a) you have given us the above notice and (b) the legal action begins within one year after we send or make your statement available to you. If you make a claim against any of us in connection with a problem, each of us reserves the right to conduct a reasonable investigation before crediting your Account, and you agree to cooperate in such investigation. If any of us requests, you agree to complete an affidavit of forgery or other proof of loss. If you refuse to sign such an affidavit, none of us will be liable to you for any loss arising from the problem. For problems involving an electronic banking Transaction, please refer to the “Electronic Fund Transfers” sections of this Agreement.

These time periods for you to examine your statement and report “problems” to Pershing are without regard to the level of care of any of us or the commercial reasonableness of our practices, further without regard to whether copies or images of cancelled Checks are supplied or made available to you. **Contact Pershing promptly if you do not receive your regular statement.**

f. Your Duty to Examine Your Statement—Cards.

Please see the section below entitled “Electronic Fund Transfers.”

g. Your Duty to Examine Your Statement—ACH

Transactions. Generally, ACH Transactions for consumer Accounts are considered Electronic Fund Transfers. Please see the section below entitled “Electronic Fund Transfers.” For other ACH Transactions, please see “Your Duty to Examine Your Statement—Checks” above. Also, for ACH Transactions related to electronically represented Checks from consumer accounts, please see the subsection entitled “Consumer Electronic Check Representation.”

h. Foreign Transactions. Foreign Transactions are Card Transactions completed outside the United States through your Account. All debits to your Account will be posted in U.S. dollars. Checks will generally not be accepted by banks outside of the United States. All Checks must be made payable in U.S. dollars.

i. Foreign Currency. Card Transactions made in a foreign currency are converted into U.S. dollar amounts by Visa, using its then current currency conversion procedure and rate. Currently, the currency conversion rate is generally either a wholesale market rate or a government-mandated rate in effect the day before the Card Transaction processing date. The currency conversion rate used on the processing date may differ from the rate in effect on the Card Transaction date or periodic statement posting date.

j. Foreign Transaction Fee. For each Foreign Transaction, there is a Foreign Transaction Fee, which will be charged to your Account. This charge may apply whether or not there is a currency conversion. The Foreign Transaction Fee is set forth on the Commission and Fee Schedule.

k. Documentation. We may add images of your application with respect to the Banking Services provided in connection with this Banking Services Agreement to our electronic document storage systems. After doing so, the original documents may be destroyed. Any future copy from that system will be acceptable for all purposes as if it is the original.

l. Adverse Claims. If any of us receives a claim to all or a portion of your Account (including but not limited to a dispute over who is an authorized signer or owner), we may place a hold on funds that are the subject of the claim. The hold may be placed for the time that we feel is reasonably necessary to allow a court to decide who should have the Funds. None of us will be responsible for any items that are not paid because of the hold. You agree to reimburse each of us for expenses, including attorneys’ fees and expenses, arising out of such competing claims.

2. Card Transactions

a. Conveniences. ATM Withdrawals: You can use your Card to withdraw cash from your Account at ATMs displaying the Visa® or PLUS® logos.

Cash Advances: You can use your Card to receive Cash Advances from your Account through financial institutions that honor Cards bearing the Visa logo.

Purchases/Card Authorizations: You can use your Card to purchase goods and services (Purchases) from merchants honoring Visa. You may also use your Card to authorize others to place a hold on your Available Balance to assure future payment (Card Authorizations).

- b. **Out-of-Network Surcharges.** An out-of-network surcharge may be imposed for ATM usage (including Transactions and balance inquiries) by the owner of the ATM. No out-of-network surcharges are imposed by any of us for usage of your Card at an ATM.
- c. **Cancellation of Card.** The Card may be cancelled by any of us at any time without prior notice and will remain the property of Bank. Without limiting the foregoing, your Card will be cancelled effective with the closing of your Account.
- d. **Restrictions.**

Purchasing Securities: You may not use your Card to purchase securities.

Internet Gambling: You may not use your Card for Internet gambling.

Illegal Activities: Use of your Card for illegal activities is prohibited.

3. Check-Writing Privileges

- a. **Check-Writing Application and Checks.** If you have requested Check-writing privileges for your Account, Pershing must first approve your application. Upon such approval, we will provide you with Checks.

We may refuse any withdrawal that you attempt on forms not approved by us or by any method we do not specifically permit.

Each Check must be properly completed and signed by an authorized signer (as described below).

In writing Checks, we strongly suggest that you date them with a current date. We will not have liability to you for paying Checks which are postdated, stale dated or do not bear a date. If you do not wish us to pay a Check you have issued, you should place a stop payment order with us. Please refer to the "Stop Payment—Checks" section of this Agreement.

- b. **Authorized Signers.** In this Banking Services Agreement, the words "authorized signer" mean any of the following persons:

- Any person (other than a ward, conservatee or beneficiary) listed on a signature card, application, resolution or certificate of authority as being authorized to make withdrawals by Check, or otherwise, from your Account;
- Any person who has a "power of attorney" or is an attorney-in-fact, agent, guardian, personal representative, trustee, Custodian or some other fiduciary capacity (collectively, an "agent") to act for an owner (Pershing reserves the right to request and approve any such documentation, granting such powers);
- Any person that you authorize in writing to make withdrawals by Check, or otherwise, from your Account; or
- Any person to whom you make your checkbook or your checking account number available. The words "owner" and "owners" mean all persons (other than a ward, conservative or beneficiary) listed on a signature card or application but not persons who are authorized signers only because they are acting as an agent. Each of Administrator and Bank are authorized to follow the directions of your agent regarding your Account until they receive written notice that the agency or fiduciary relationship has been terminated and has had reasonable time to act upon that notice. We will not be liable to you in any way if your agent misapplies any of the Funds from your Account. We have the right to review and retain a copy of any power of attorney, agency agreement, trust agreement, court order, or other document that has established the agency or other fiduciary relationship. For corporate, limited liability company and partnership accounts, the corporation, limited liability company or partnership is the "owner."

- c. **Multiple Required Signature Accounts.** If you (a) have specified that some or all Checks must be signed by more than one person, (b) have specified that the authorized signers for Checks in one category are different than those for another Check category, or (c) use Checks that require multiple signatures, you acknowledge that those restrictions are for your internal use only and do not bind us even if you have made us aware of them in writing or otherwise.

Pershing and TIAA reserves the right to refuse to allow persons to open Accounts with these types of restrictions.

- d. Facsimile/Mechanical Signatures.** You may wish to use a facsimile signature stamp or other mechanical signature device to sign Checks or other orders relating to your Account. If you do, we will, without contacting you, debit the Account for items bearing an imprint that looks substantially like your authorized mechanical signature, whether or not such items bear the actual facsimile signature stamp. You agree to notify us and give us a sample imprint if you plan to use such a device. If you do not give us a sample, this section still applies to your use of the device. You are responsible for the security of any mechanical signature device. We will not be responsible for payment of unauthorized items bearing an imprint from, or similar to, your authorized mechanical signature.
- e. Check Transactions.** Checks can be used for, or may result in, the following Transactions:
- Check-writing capabilities; and
 - Electronic Fund Transfers (e.g., certain Transactions via the Automated Clearing House).
- f. Copies of Cancelled Checks.** We will not return to you Checks that have been paid against your Account. At your request we shall provide you with photocopies or image copies of Checks paid against your Account or other Account documentation, if such Checks or documents are available to us under our record retention policies. If you request a copy, we may impose a processing fee.
- g. Refusing Payment on Your Checks.** If one of your Checks is presented for payment and there are not sufficient available funds available in your Account, or if the Check is not properly signed or contains some other irregularity, we may refuse payment and return the Check to the person who presented it. You acknowledge that it is difficult or impossible for us to verify whether an endorsement by a corporation or other business entity is valid. You also acknowledge that it is difficult or impossible for us to verify whether an endorsement by someone other than the person presenting a Check for payment is valid.

h. Stop Payments—Checks.

Checks. Unless otherwise provided, the provisions in this section cover stopping payment of Checks. Rules for stopping payment of other types of transfers of funds, such as consumer Electronic Fund Transfers, are mentioned elsewhere.

Oral and Written Orders. You are generally permitted to make stop-payment orders orally; telephone is the most common medium used. To request a stop payment, please call us at **800-547-7008**. When you place your stop-payment order, the service representative will tell you what information is needed to stop payment. If you provide your stop-payment order in writing, you must send it to the address set forth in Part V of this Agreement. You must provide the following information to us: Check-writing number, amount, Check number, name of party to be paid, date, and your name and address. **The stop-payment information must be correct and exact. If your information is not correct and exact, we cannot assure you that your order will be effective, and we will not be responsible for failure to stop payment.**

Who and for How Long. You may stop payment on any Check whether you sign the item or not. Your stop-payment order is generally effective for only six months. We are not obligated to notify you when a stop-payment order expires. Unless you renew the stop payment for another six months, the Check may be paid even though it is a stale Check. We will accept stop-payment orders from any person with signing authority on your Account, regardless of who wrote the Check. If you want to reverse a stop-payment request, you must contact Pershing, not Administrator or Bank. As a security measure, Administrator and Bank will accept reverse of stop-payment requests only from Pershing.

Indemnity. If you stop payment on an item and any of us incurs any damages or expenses because of the stop payment, you agree to indemnify us for those damages or expenses, including attorneys' fees. You assign to each of us all rights against the payee or any other holder of the item. You agree to cooperate with us in any legal actions that we may take against such persons. You should be aware that anyone holding the item might be entitled to enforce payment against you despite the stop-payment order.

If a Check or Transaction is inadvertently permitted despite a stop order, the following rules will apply:

- You will have to prove to Administrator and Bank that you have suffered a loss and, if so, the amount of the loss;
- Administrator and Bank will be able to enforce any rights that the original payee or any other person who held the Check had against you; and
- the Account will not be recredited until you prove your loss and we are satisfied that we are required by law to do so.

Effective Date. Stop-payment orders become effective the Business Day after we receive your notification. The law provides additional limitations on Administrator's and Bank's obligation to stop payment. (For example, you cannot stop payment on an item that has already been paid.)

Charges. Stop-payment orders are subject to our current charge for that Banking Service.

- i. **Inconsistent Amounts.** Checks are processed by computers. The Check amount in numerals is the one encoded on the Check to be read by the computer. You agree that if the Check amount in words is different from the amount in numbers, we may charge against your Account the amount in numbers instead of the amount in words.
- j. **Consumer Electronic Check Representation.** Generally, if you write a Check on a personal Account that is returned unpaid because of insufficient or uncollected funds, the depositor of the Check or the depositor's bank may resend ("represent") the Check electronically. That is, the depositor or the depositor's bank may send Bank an electronic instruction ("electronic represented Check") to charge your Account in the amount of the Check.
- k. **Handling of Electronic Represented Checks.** If Administrator receives an electronic represented Check from the depositor or the depositor's bank via Bank, Administrator will pay or return the electronic represented Check as if the original paper Check were being represented to it. The part of this Agreement titled "Electronic Fund Transfers" will not apply to any electronic represented Check.
- l. **Eligible Electronic Represented Checks.** For an electronic represented Check to be charged to your Account, all of the following must be true:
 - The electronic represented Check must relate to a paper Check on a personal Account that Bank returned unpaid because of insufficient or uncollected funds;
 - The paper Check must not have contained an unauthorized signature or an alteration and must not have been a counterfeit;
 - You must not have placed a stop payment on the paper Check after Bank returned it unpaid but before it was collected electronically;
 - The paper Check must have been less than \$2,500.00 in amount;
 - The paper Check must have been dated 180 days or less before the date on which the electronic represented Check is sent to Bank;
 - The electronic represented Check must be for the face amount of the paper Check only and may not include any collection fee charged by the depositor, the depositor's bank or a collection agency;
 - The payee of the paper Check must have given you notice that, if the paper Check was returned unpaid because of insufficient or uncollected funds, the paper Check could be collected electronically;
 - The electronic represented Check must have been sent to Bank no more than twice after the first time Bank returned the paper Check, or no more than once after the second time Bank returned the paper Check;
 - The electronic represented Check must be an "item" as defined in Revised Article 4 of the UCC (1990 Official Text);
 - The electronic represented Check must contain a preprinted serial number;
 - The electronic represented Check must indicate on the face of the document that the item was returned due to "not sufficient funds," "NSF," "uncollected funds" or comparable language; and
 - The electronic represented Check must be drawn on a consumer Account.

You may have the right to cause us to reverse any ineligible or unauthorized electronic represented Check that we charged to your Account. If you want

to reverse an electronic represented Check because you placed a stop payment on the paper Check to which the electronic represented Check relates after Bank returned the paper Check unpaid but before it was collected electronically, you must notify Pershing within 15 days after we send or make available to you the periodic statement that reflects payment of that electronic represented Check. If you want to reverse an electronic represented Check for any other reason, you must give Pershing an affidavit within 15 days after Pershing sends or makes available to you the periodic statement that reflects payment of that electronic represented Check. In your affidavit, you must declare and swear under oath that the electronic represented Check was ineligible or unauthorized. If we receive your notice or affidavit within the 15-day period, we will recredit your Account with the amount of the charge. Write to Pershing at the address set forth in Part V of this Agreement.

m. Stop Payment. If you wish to stop payment of any electronic represented Check, you must follow the procedures contained in the section for stopping payment of Checks, not the procedures contained in the section for stopping payment on Electronic Fund Transfers.

n. Insufficient Funds. If one of your Checks is presented for payment and there are not sufficient funds available in your Account, Pershing may cause Bank (via Administrator) to pay or refuse to pay any or all such items in our discretion. We may also charge your Account a service charge, regardless of whether we pay the item or return the item unpaid. You have no right to request that any certain item be paid, and none of us has any responsibility for paying or returning any item requested. If your Account is overdrawn for any reason, you agree to deposit sufficient funds to cover the overdraft and our service charge immediately.

A determination of your Account balance for purposes of making a decision to dishonor an item for insufficiency of available funds may be made at any time between the receipt of such presentment or notice and the time of payment or return of the item or debit, and no more than one such determination need be made. Pershing will determine your Account balance based on information provided from time to time by Administrator, which may not be accurate at the time a particular item is presented to

Administrator. You authorize Administrator and/or Bank to return items for insufficient funds based on information provided by Pershing.

If there are sufficient funds to cover some but not all of your Transactions, Pershing will allow those Transactions that can be paid, in any order convenient to us. If, in our sole discretion, we choose to allow Transactions for which there are not sufficient available funds, you agree to repay us immediately the amount of the funds advanced to you. We may also assess your Account a service charge. At no time shall we be required to allow you to overdraw your Account even if we had allowed such activity on one or more prior occasions.

You agree that we do not have to notify you when we refuse to pay a Check you have written, or if we pay a Check that overdraws your Account, or when we impose a fee in either case.

o. Use of Check Images and Substitute Checks. You agree that we may debit your Account for a Check image of an original Check presented for payment or collection. In this situation, we may debit your Account without receipt of, or review of, the original Check associated with the Check image. In our sole discretion, we may return to a presenting bank, returning bank or paying bank or credit to your Account, a paper copy or paper representation of an original Check (including without limitation an image replacement document or IRD, or a photocopy) drawn on or returned to your Account that does not otherwise meet the technical or legal requirements for a substitute Check.

You agree that a Check image that is received or created by Bank in the Check deposit, collection or return process shall be considered a "Check" and/or an "item" for all purposes under this Agreement and applicable law.

In addition, a Check that you write may be truncated in the Check collection process and replaced with a substitute Check. You authorize us to pay, process or return a substitute Check in the same manner as "Check" or "item" under this Agreement. Substitute Checks are governed under the Check Clearing for the 21st Century Act ("Check 21 Act") and the terms of this Agreement, to the extent not modified by the Check 21 Act. **Notwithstanding the foregoing, you understand that your Checks are drawn on an omnibus Account maintained by Administrator (on**

behalf of Pershing) with Bank, and that as a result, you are not considered a “consumer” as that term is used in the Check 21 Act.

You agree to indemnify and hold harmless us, our employees and agents from any loss, claim, damage or expense that you or any other person may incur directly or indirectly as a result of any action taken by us to process a Check image or substitute Check instead of the original Check, including the destruction of the original Check, as described above, to the extent permitted by applicable law.

- p. **Bank Branches.** Bank need not pay any Check presented at a branch office. Bank reserves the right to refuse to cash or to impose a charge on anyone who asks Bank to cash a Check that you have written. Even if your Check is otherwise properly payable, we will not be liable to you for dishonor of your Check, or otherwise, as a result of such refusal.

4. Electronic Fund Transfers

This section applies to funds transfers governed by the Electronic Fund Transfer Act and Regulation E (Subpart A), and some additional Transactions that are similar and related.

a. Types of Electronic Fund Transfers Card Transactions.

See the section above entitled Card Transactions—Conveniences for the types of Electronic Fund Transfers you can make with your Card.

Check Transactions—Electronic check conversions.

You may authorize a merchant or other payee to make a one-time electronic payment from your Account using information from your Check to:

- Pay for purchases
- Pay bills

- b. **Limits on Dollar Amount of Card Transactions.** The ATM you use may have limits on the amount of cash that can be received at that machine. These limits may include transactional and daily limits. We have a \$1,500.00 for Gold and \$3,000.00 for Platinum withdrawal amount for ATM Withdrawals per Banking Day, subject to Available Balance in your Account. Limits may be changed by us at any time and, if required by law, with advance notice. Sometimes a temporary \$500.00 limit per Banking Day may be imposed for security purposes or when the Card Transaction volume in your Account exceeds normal

conditions. There may be other limitations stated in this Agreement or in other agreement(s) between you and Pershing and you and TIAA.

Your Card may be used up to the Available Balance to withdraw from your Account. However, there are thresholds that will require additional security verification. The thresholds are as follows: \$25,000 for Gold and \$30,000 for Platinum Card Transaction limit per day. ATM Withdrawals, Cash Advances, Purchases and Card Authorizations all count against these Card Transaction limits. In addition, there is a single Cash Advance Transaction threshold and a daily Cash Advance Transaction limit of \$25,000 for Gold and \$30,000 for Platinum per Banking Day.

- c. **Limits on Frequency of Card Transactions.** In addition to the dollar amount limits, we reserve the right to impose a limit on the number of Card Transactions you can make on any Banking Day. For the purposes of maintaining security, we will not disclose that limit, except that you will be allowed to make at least five Card Transactions on any Banking Day under normal conditions.

- d. **Retention of the Card.** Your Card may be retained by any ATM, merchant or participating financial institution if:

- The PIN is wrong after three attempts (certain ATMs may limit you to fewer attempts); or
- You exceed the limits on dollar amounts and/or frequency of Transactions; or
- Your Card was reported lost or stolen; or
- Your Account has been closed; or
- Your Card expired or was replaced; or
- The machine is not operating properly; or
- There are other legitimate business reasons.

e. Preauthorized ACH Transactions

Preauthorized ACH Credits. If you have arranged to have direct deposits made to your Account at least once every 60 days from the same person or company, the person or company making the deposit should tell you every time they send us the money. You can call Pershing at **800-547-7008** to find out whether or not the deposit has been made.

Preauthorized ACH Payments—Stop Payment.

If you have told us in advance to make regular payments out of your Account, you can stop any of these payments. Here’s how:

- **General.** Call us at **800-547-7008**, or write Pershing at Pershing LLC, One Pershing Plaza, Asset Management Account Department, Jersey City, New Jersey 07399, in time for us to receive your request three Business Days or more before the payment is scheduled to be made. If you call, we may also require you to put your request in writing and get it to us within 14 days after you call. (We may charge you a fee for each stop-payment order you give.)
- **Notice of varying amounts.** If these regular payments may vary in amount, the person you are going to pay should tell you, 10 days before each payment, when it will be made and how much it will be.
- **Liability for failure to stop payment of preauthorized transfer.** If you order us to stop one of these payments three Business Days or more before the transfer is scheduled, and we do not do so, we will be liable for your losses or damages.

f. Lost or Stolen Cards or Unauthorized Transactions

For Your Protection—Notify Us Promptly. You must tell us AT ONCE if you believe your Card has been lost or stolen or if you believe that an Electronic Fund Transfer has been made without your permission using information from your Check. Telephoning is the best way of keeping your possible losses down. The loss, theft, or unauthorized use of your Card could cause you to lose all of the cash assets (your free credit balance and fund shares) in your Account, plus any amount up to the Available Margin Loan Value of your marginable securities. You will not be liable for unauthorized use of your Card that occurs after you tell us about the loss, theft or unauthorized use of your Card.

You will have zero liability for unauthorized use of your Card if the conditions set forth below have been met. Zero liability will apply only if:

- You report the loss or theft of your Card within 24 hours of discovering it lost or stolen; and
- You can demonstrate that you have exercised reasonable care in safeguarding your Card from risk of loss or theft; and
- You have not reported two or more incidents of unauthorized use to us within the preceding 12 months; and
- Your Account is in good standing.

If the above conditions have not been met, and you tell us within two Business Days after you learn of the loss or theft of a Card or PIN, you can lose no more than \$50 if someone used your Card or PIN without your permission.

TO PROTECT YOUR ACCOUNT AND LIMIT YOUR LIABILITY, WE RECOMMEND THAT YOU:

- DO NOT PROVIDE ANYONE WITH YOUR PIN;
- DO NOT WRITE YOUR PIN ON THE CARD;
- DO NOT CARRY YOUR PIN IN YOUR WALLET WITH THE CARD;
- DO NOT TELL ANYONE YOUR PIN, NOT EVEN SOMEONE FROM ADMINISTRATOR, BANK OR PERSHING.

If you do NOT tell us within two Business Days after you learn of the loss or theft of your Card or PIN, and we can prove we could have stopped someone from using your Card or PIN without your permission if you had told us, you could lose as much as \$500.00. With respect to ACH Transactions, you will generally not be liable for Unauthorized Transactions unless you fail to notify us within the time period as described in the next paragraph.

If you do not tell us within 60 days after the statement was FIRST mailed or made available to you, you may not get any money you lost after the 60 days if we can prove that we could have stopped someone from taking the money if you had told us in time.

g. Errors and Questions

In Case of Errors or Questions About Your Electronic Transfers. Please contact us at the address and phone number set forth in Part V of this Agreement immediately, if you think your statement or receipt is wrong or if you need more information about a transfer listed on the statement or receipt. We must hear from you no later than 60 days after we sent or made available the FIRST statement on which the problem or error appeared.

Information to Provide. If you tell us orally, we may require you to send Administrator your complaint or question in writing within 10 Business Days. We will need the following information:

- Your name, your Account number, your address and the date of the Transaction;

- A description of the error or Transaction in question, explaining as clearly as possible why you believe it is an error or why you need more information;
- The dollar amount of the Transaction and, if different, the amount of the suspected error.

Timing of Error Resolution Process. Except as otherwise stated in this Agreement, we will determine whether an error occurred within 10 Business Days after we hear from you and will correct any error promptly. If we need more time, however, we may take up to 45 calendar days to investigate your complaint or question. In this event, we will generally re-credit your Account within 10 Business Days for the amount you think is in error so that you will have use of the money during the time it takes us to complete our investigation. If we ask you to put your complaint or question in writing and we do not receive it within 10 Business Days, we need not re-credit your Account or we may reverse any credit previously made to your Account. Margin Accounts need not be re-credited during our investigation.

Foreign Transactions. For Card Transactions initiated outside the United States, the applicable time period for investigations shall be 90 calendar days in place of 45 calendar days.

Purchases. For point-of-sale Transactions (that is, Purchases and Cash Advances), the applicable time period for investigations shall be 90 calendar days in place of 45 calendar days.

New Accounts. For Accounts that have been open for 30 calendar days or less, the applicable time period for investigations shall be 90 calendar days in place of 45 calendar days and we may take up to 20 Business Days to credit your Account while investigating.

Informing You of the Results. In any case, we will tell you the results within three Business Days after we complete our investigation. If we decide that there was no error, we will reverse the applicable credit and send you a written explanation. You may ask us for copies of the documents that we used in our investigation.

- h. Our Liability for Failure to Complete Electronic Fund Transfers.** If we do not complete an Electronic Fund Transfer to or from your Account on time or in the correct amount according to this Agreement, we will

be liable for your losses or damages. However, there are some exceptions. We will not be liable, for instance if:

- Through no fault of ours, you do not have a sufficient Available Balance to make the Transaction; or
- Any ATM, other device, Card or computer system was not working properly and you knew about the breakdown when you started the Transaction; or
- The ATM or other device you are using for the Transaction does not have enough cash; or
- The ATM or other device you are using for the Transaction was unable to process the Transaction; or
- Your Account is frozen (for example, because of a court order or other similar reason) and we are not permitted to make the Transaction; or
- Circumstances beyond our control (such as fire or flood) prevent the Transaction, despite the reasonable precautions that we have taken; or
- You have failed to enter your correct PIN after the maximum number of attempts permitted; or
- You failed to use the ATM, other device, Card or computer system in accordance with instructions; or
- We have limited or refused to complete Transactions for security reasons; or
- We have reason to believe that the requested Transaction is unauthorized.

There may be additional exceptions stated elsewhere in this Agreement or otherwise notified to you by us or in your other agreements with Pershing. None of us will be responsible for any person's actions in refusing to honor or accept your Card or Checks or in taking possession of your Card. In any case, we will be liable only for actual proven damages if the failure to make the Transaction resulted from a bona fide error by us despite our procedures to avoid such errors.

- i. Card Transaction Receipts.** You can get a receipt at the time you make Card Transactions, except for Card Transactions you make by telephone, mail or via the Internet. Receipts may not be provided for Purchases of \$15 or less, or for Card Transactions performed outside the United States. Card Transactions will also be reflected on your Account statement.

Merchants generally maintain receipts of Card Transactions for 12 months, which merchants are not required to provide unless requested in connection with fraud investigation or legal purposes. If you call Pershing, we will attempt to obtain copies of drafts. If you request a copy of a sales draft, your Account may be charged a fee, plus the amount of any third-party fees to obtain the sales draft.

5. Confidentiality

You give us permission to share information with Pershing, Administrator, TIAA and Bank. Under normal circumstances, we will not reveal any information about your Accounts to third parties. We will not reveal any information to third parties about your Account and your Transactions EXCEPT: (1) You hereby authorize us to share information concerning your Transactions with Pershing, Administrator, TIAA and Bank; or (2) where it is necessary for completing your Transactions or providing any related Card and/or Check benefits to you; or (3) in order to verify the existence and condition of your Account for a third party, such as a credit bureau or merchant; or (4) in order to comply with laws or with orders of subpoenas of government agencies or courts; or (5) if you give us written permission; or (6) to other persons and entities in order to resolve disputes arising from Transactions; or (7) in the circumstances contemplated by Pershing's Privacy Policy, as furnished to you separately and updated or amended from time to time by Pershing.

6. Disputes Involving Your Account

To the fullest extent permitted by law, you agree to be liable to us for any loss, costs or expenses, including reasonable attorney's fees, which we may incur as a result of any dispute involving your Account. To the fullest extent permitted by law, you authorize us to deduct any such loss, costs or expenses from your Account without prior notice to you. This obligation includes disputes between you and us involving the Account and situations where we become involved in disputes between you and an authorized signor, another joint owner or a third party claiming an interest in the Account. Also, it includes those situations where you, an authorized signor, another joint owner, or a third party take some action with respect to the Account which causes us to seek the advice of counsel, even though we do not actually become involved in the dispute.

7. Our Duty of Care

The duty of care of Pershing, Administrator and Bank to you is satisfied if reasonable banking procedures are

followed. Unless we have specifically agreed with you in writing, our duties will not include monitoring nonstandard instructions or other legends appearing on Checks. We shall be deemed to have exercised ordinary care as to your signature if we process your Check by automated means only (so as to clear the largest number of Checks at the lowest cost to customers) or if any unauthorized signature or alteration is so skillfully made that a reasonably careful person would not readily detect it. A clerical error or mistake in judgment is not to be considered a failure to meet our duty of care of Pershing, Administrator or Bank.

The obligations of Pershing, Administrator and Bank are set forth in this Agreement. None of Pershing, Administrator or Bank is liable for the obligations of the others.

8. Extraordinary Events

Pershing shall not be liable for loss caused directly or indirectly by government restrictions, exchange or market rulings, suspension of trading, war, strikes or other conditions beyond our control.

9. Terminating Your Banking Services

Pershing, Administrator, Bank or you may terminate this Banking Services Agreement, including the use of Check-writing services, Cards or other Banking Services, if applicable, at any time, without closing your Account. Without limiting the foregoing, your Card will be cancelled and your Check-writing services, Cards or other Banking Services, as applicable, terminated effective with the closing of your Account. You shall remain responsible for authorized charges that arise before or after such cancellation or termination. In the event of cancellation or termination for whatever reason, you shall promptly destroy all Checks and Cards. Failure to do so may result in a delay in our complying with your instructions regarding the disposition of assets.

10. Lawful Use

You agree to use your Account, Card and Checks only for lawful purposes. By entering into this Agreement, you represent to us that you are not now aware of any pending or threatened criminal proceedings that could result in losing any money in your Account.

11. Accounts That Are Not Consumer Accounts

Non-Personal Accounts

If you are not a "consumer" as defined in Regulation E, none of us are required to respond to your questions about Transactions within the time periods specified in the section titled Electronic Fund Transfers and the

limitations on your liability for Unauthorized Transactions described above do not apply. Similarly, the parameters surrounding liability, confidentiality and Documentation requirements with respect to Electronic Fund Transfers outlined above apply only with respect to Accounts established primarily for personal, family or household purposes.

12. Governing Law

Except where specified, this Banking Services Agreement with respect to PNC Bank, N.A. shall be governed by the laws of the Commonwealth of Pennsylvania and the United States of America, as amended, and with respect to The Bank of New York Mellon shall be governed by the laws of the State of New York and the United States of America, as amended.

13. Priority of Agreements

In the event of any conflict between this Banking Services Agreement and any other agreement you have with Pershing and/or TIAA, this Banking Services Agreement will control with respect to your Checks, Cards, ACH and any Transactions described herein.

14. Representations and Amendments

You agree that we shall have the right to amend this Banking Services Agreement at any time by sending notice of the amendment to you. An amendment shall be effective as of the date we establish. If we make any changes to this Banking Services Agreement that will affect you adversely (by increasing costs or liability to you, or limiting access to your Account), we will notify you prior to the change as required by law. The change will automatically become effective unless, prior to the Effective Date, you notify us of your intention to terminate your Check-writing privileges, Card or other Banking Services, as applicable. We reserve the right to make emergency changes for security reasons, without prior written notice to you.

Section C—BillSuite Agreement

1. Payment Scheduling

The earliest possible Scheduled Payment Date for each Biller (typically four (4) or fewer Business Days from the current date) will be designated within the BillSuite Service when you are scheduling the payment. Therefore, the BillSuite Service will not permit you to select a Scheduled Payment Date prior to the earliest possible Scheduled Payment Date designated for each Biller. When scheduling payments you must select a Scheduled Payment Date that is no later than the actual Due Date reflected on your Biller statement unless the Due Date

falls on a non-Business Day. If the actual Due Date falls on a non-Business Day, you must select a Scheduled Payment Date that is at least one (1) Business Day before the actual Due Date. Scheduled Payment Dates must be prior to any late date or grace period.

2. The BillSuite Service Guarantee

Due to circumstances beyond the control of the BillSuite Service Provider, particularly delays in handling and posting payments by Billers or financial institutions, some Transactions may take longer to be credited to your Account. The BillSuite Service Provider will bear responsibility for any late payment related charges up to \$50.00 should a payment post after its Due Date as long as the payment was scheduled in accordance with the guidelines described under “Payment Scheduling” in this BillSuite Agreement.

3. Payment Authorization and Payment Remittance

By providing the BillSuite Service Provider with names and Account information of Billers to whom you wish to direct payments, you authorize the BillSuite Service Provider to follow the Payment Instructions that it receives through the payment system. In order to process payments more efficiently and effectively, the BillSuite Service Provider may edit or alter payment data or data formats in accordance with Biller directives.

When the BillSuite Service Provider receives a Payment Instruction, you authorize the BillSuite Service Provider (through your financial institution) to debit your Payment Account and remit funds on your behalf so that the funds arrive as close as reasonably possible to the Scheduled Payment Date designated by you. You also authorize the BillSuite Service Provider (through your financial institution) to credit your Payment Account for payments returned to the BillSuite Service Provider by the United States Postal Service or Biller, or payments remitted to you on behalf of another authorized user of the BillSuite Service.

The BillSuite Service Provider will use its best efforts to make all your payments properly. However, the BillSuite Service Provider shall incur no liability and any BillSuite Service Guarantee shall be void if the BillSuite Service Provider is unable to complete any payments initiated by you because of the existence of any one or more of the following circumstances:

- If, through no fault of the BillSuite Service Provider, your Payment Account does not contain sufficient funds to complete the Transaction or the Transaction would exceed any credit limit extended to you in your Margin Account;

- The payment processing center is not working properly and you know or have been advised by the Billsuite Service Provider about the malfunction before you execute the Transaction;
- You have not provided the Billsuite Service Provider with the correct Payment Account information, or the correct name, address, phone number or Account information for the Biller; and/or
- Circumstances beyond control of the Billsuite Service Provider (such as, but not limited to, fire, flood or interference from an outside force) prevent the proper execution of the Transaction and the Billsuite Service Provider has taken reasonable precautions to avoid those circumstances.

Provided none of the foregoing exceptions are applicable, if the Billsuite Service Provider causes an incorrect amount of funds to be removed from your Payment Account or causes funds from your Payment Account to be directed to a Biller which does not comply with your Payment Instructions, the Billsuite Service Provider shall be responsible for returning the improperly transferred funds to your Payment Account, and for directing to the proper Biller any previously misdirected Transactions, and, if applicable, for your losses and damages.

4. Payment Methods

The Billsuite Service Provider reserves the right to select the method by which to remit funds on your behalf to your Biller. These payment methods may include, but may not be limited to, an electronic payment, an electronic-to-check payment or a laser draft (funds remitted to the Biller are deducted from your Payment Account when the laser draft is presented to your financial institution for payment).

5. Payment Cancellation Requests

You may cancel or edit any Scheduled Payment (including recurring payments) by following the directions within the Billsuite Service. There is no charge for canceling or editing a Scheduled Payment. Once the Billsuite Service has begun processing a payment it cannot be cancelled or edited, therefore a stop-payment request must be submitted.

6. Stop-Payment Requests

The Billsuite Service Provider's ability to process a stop-payment request will depend on the payment method and whether a Check has cleared. The Billsuite Service Provider may also not have a reasonable opportunity to act on any stop-payment request after a payment has been processed. If you desire to stop any payment that has already been processed, you must contact Customer Billsuite Service. Although the Billsuite Service Provider will make every effort to accommodate

your request, the Billsuite Service Provider will have no liability for failing to do so. The Billsuite Service Provider may also require you to present your request in writing within fourteen (14) days. The charge for each stop-payment request will be the current charge for such service as set out in the applicable fee schedule.

7. Prohibited Payments

Payments to Billers outside of the United States or its territories are prohibited through the Billsuite Service.

8. Exception Payments

Tax payments and court-ordered payments may be scheduled through the Billsuite Service, however, such payments are discouraged and must be scheduled at your own risk. In no event shall the Billsuite Service Provider be liable for any claims or damages resulting from your scheduling of these types of payments. The Billsuite Service Guarantee, as it applies to any late-payment-related charges, is void when these types of payments are scheduled and/or processed by the Billsuite Service. The Billsuite Service Provider has no obligation to research or resolve any claim resulting from an exception payment. All research and resolution for any misapplied, misposted or misdirected payments will be the sole responsibility of you and not of the Billsuite Service Provider.

9. Bill Delivery and Presentment

This feature is for the presentment of electronic bills only and it is your sole responsibility to contact your Billers directly if you do not receive your bill or statements. In addition, if you elect to activate one of the Billsuite Service's electronic bill options, you also agree to the following:

- Information provided to the Biller—The Billsuite Service is unable to update or change your personal information such as, but not limited to, name, address, phone numbers and email addresses with the electronic Biller. Any changes will need to be made by your contacting the Biller directly. Additionally, it is your responsibility to maintain all user names and passwords for all electronic Biller sites. You also agree not to use someone else's information to gain unauthorized access to another person's bill. The Billsuite Service may, at the request of the Biller, provide to the Biller your email address, service address or other data specifically requested by the Biller at the time of activating the electronic bill for that Biller, for purposes of the Biller informing you about service and/or bill information.
- Activation—Upon activation of the electronic bill feature the Billsuite Service may notify the Biller of your request to receive electronic billing information.

The presentment of your first electronic bill may vary from Biller to Biller and may take up to sixty (60) days, depending on the billing cycle of each Biller. Additionally, the ability to receive a paper copy of your statement(s) is at the sole discretion of the Biller. While your electronic bill feature is being activated it is your responsibility to keep your Accounts current. Each electronic Biller reserves the right to accept or deny your request to receive electronic bills.

- Authorization to obtain bill data—Your activation of the electronic bill feature for a Biller shall be deemed by us to be your authorization for us to obtain bill data from the Biller on your behalf. For some Billers, you will be asked to provide us with your user name and password for that Biller. By providing us with such information, you authorize us to use the information to obtain your bill data.
- Notification—The Billsuite Service will use its best efforts to present all of your electronic bills promptly. In addition to notification within the Billsuite Service, the Billsuite Service may send an email notification to the email address, if any, you provided to the Billsuite Service. It is your sole responsibility to ensure that this information is accurate. In the event you do not receive notification, it is your responsibility to periodically log on to the Billsuite Service and check on the delivery of new electronic bills. The time for notification may vary from Biller to Biller. You are responsible for ensuring timely payment of all bills.
- Cancellation of electronic bill notification—The electronic Biller reserves the right to cancel the presentment of electronic bills at any time. You may cancel electronic bill presentment at any time. The time frame for cancellation of your electronic bill presentment may vary from Biller to Biller. It may take up to sixty (60) days, depending on the billing cycle of each Biller. The Billsuite Service will notify your electronic Biller(s) as to the change in status of your Account, but it is your sole responsibility to make arrangements for an alternative form of bill delivery. The Billsuite Service will not be responsible for presenting any electronic bills that are already in process at the time of cancellation.
- Non-Delivery of electronic bill(s)—You agree to hold the Billsuite Service harmless should the Biller fail to deliver your bill(s) or statement(s). You are responsible for ensuring timely payment of all bills. Copies of previously delivered bills must be requested from the Biller directly.
- Accuracy and dispute of electronic bill—The Billsuite Service is not responsible for the accuracy of your electronic bill(s). The Billsuite Service is only responsible for presenting the information we receive from the Biller. Any discrepancies or disputes regarding the accuracy of your electronic bill summary or detail must be addressed with the Biller directly.
- This Billsuite Agreement does not alter your liability or obligations that currently exist between you and your Billers.

10. Exclusions of Warranties

THE BILLSUITE SERVICE AND RELATED DOCUMENTATION ARE PROVIDED “AS IS” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

11. Password and Security

You agree not to give or make available your password or other means to access your Account to any unauthorized individuals. You are responsible for all payments you authorize using the Billsuite Service. If you permit other persons to use the Billsuite Service or your password or other means to access your Payment Account, you are responsible for any Transactions they authorize. If you believe that your password or other means to access your Payment Account has been lost or stolen or that someone may attempt to use the Billsuite Service without your consent or has transferred money without your permission, you must notify your financial institution at once.

12. Your Liability for Unauthorized Transfers

If you tell us within two (2) Business Days after you discover your password or other means to access your Account through the Billsuite Service has been lost or stolen, your liability is no more than \$50.00 should someone access your Account through the Billsuite Service without your permission. If you do not tell us within two (2) Business Days after you learn of such loss or theft, and we can prove that we could have prevented the unauthorized use of your password or other means to access your Account through the Billsuite Service if you had told us, you could be liable for as much as \$500.00. If your monthly financial institution statement contains transfers that you did not authorize, you must tell us at once. If you do not tell us within sixty (60) days after the statement was sent to you, you may lose any amount transferred without your authorization after the sixty (60) days if we can prove that we could have stopped someone from taking the

money had you told us in time. If a good reason (such as a long trip or a hospital stay) prevented you from telling us, we will extend the period.

13. Errors and Questions

In case of errors or questions about your Transactions, you should as soon as possible notify Administrator via one of the following:

- Telephone us at **800-547-7008** during customer service hours; and/or,
- Write us at:
BNY Mellon Investment Servicing Trust Company
BTS Operations
701 Market Street
3rd Floor AIM 199-3517
Philadelphia, PA 19106

If you think your Account statement is incorrect or you need more information about a Billsuite Service Transaction listed on the statement, we must hear from you no later than sixty (60) days after the FIRST statement was sent to you on which the problem or error appears. You must:

- Tell us your name and Account number;
- Describe the error or the Transaction in question, and explain as clearly as possible why you believe it is an error or why you need more information; and
- Tell us the dollar amount of the suspected error.

If you tell us verbally, we may require that you send your complaint in writing within ten (10) Business Days after your verbal notification. We will tell you the results of our investigation within ten (10) Business Days after we hear from you, and will correct any error promptly. However, if we require more time to confirm the nature of your complaint or question, we reserve the right to take up to forty-five (45) days to complete our investigation. If we decide to do this, we will provisionally credit your Payment Account within ten (10) Business Days for the amount you think is in error. If we ask you to submit your complaint or question in writing and we do not receive it within ten (10) Business Days, we may not provisionally credit your Payment Account. We will tell you the results within three (3) Business Days after completing our investigation. If we decide that there was no error, we will send you a written explanation. You may ask for copies of documents used in our investigation. The Billsuite Service Provider may revoke any provisional credit provided to you if we find an error did not occur.

14. Disclosure of Account Information to Third Parties

It is Billsuite Service Provider's general policy to treat your Account information as confidential. However, the

Billsuite Service Provider will disclose information to third parties about your Account or the Transactions you make ONLY in the following situations:

- Where it is necessary for completing Transactions;
- Where it is necessary for activating additional services;
- To verify the existence and condition of your Account to a third party, such as a credit bureau or Biller;
- For product improvement purposes using aggregated information;
- To a consumer reporting agency for research purposes only;
- In order to comply with a governmental agency or court orders;
- If you give us your written permission.

15. Service Fees and Additional Charges

Any applicable fees will be charged regardless of whether the Billsuite Service was used during the billing cycle. There may be a charge for additional Transactions and other optional services. You agree to pay such charges and authorize the Billsuite Service Provider through your financial institution to deduct the calculated amount from your designated Billing Account for these amounts and any additional charges that may be incurred by you. Any financial fees associated with your standard deposit Accounts will continue to apply. You are responsible for any and all telephone access fees and/or Internet service fees that may be assessed by your telephone and/or Internet service provider.

16. Failed or Returned Transactions

In using the Billsuite Service, you are requesting the Billsuite Service Provider to make payments for you from your Payment Account. If we are unable to complete the transaction for any reason associated with your Payment Account (for example, there are insufficient funds in your Payment Account to cover the transaction), the transaction may not be completed. In some instances, you will receive a return notice from the Billsuite Service Provider. In each such case, you agree that:

- You will reimburse the Billsuite Service Provider immediately upon demand the Transaction amount that has been returned to the Billsuite Service Provider;
- For any amount not reimbursed to the Billsuite Service Provider within fifteen (15) days of the initial notification, a late charge equal to 1.5% monthly interest or the legal maximum, whichever rate is lower, for any unpaid amounts may be imposed;

- You will reimburse the BillSuite Service Provider for any fees imposed by your financial institution as a result of the return;
- You will reimburse the BillSuite Service Provider for any fees it incurs in attempting to collect the amount of the return from you;
- The BillSuite Service Provider is authorized to report the facts concerning the return to any credit reporting agency.

17. Alterations and Amendments

This BillSuite Agreement, applicable fees and service charges may be altered or amended by the BillSuite Service Provider from time to time. In such event, the BillSuite Service Provider shall provide notice to you. Any use of the BillSuite Service after the BillSuite Service Provider provides you with a notice of change will constitute your Agreement to such change(s). Further, the BillSuite Service Provider may, from time to time, revise or update the BillSuite Service's applications, services and/or related material, which may render all such prior versions obsolete. Consequently, the BillSuite Service Provider reserves the right to terminate this BillSuite Agreement as to all such prior versions of the BillSuite Service's applications, services and/or related material and limit access to only the BillSuite Service's more recent revisions and updates.

18. Address or Account Changes

It is your sole responsibility to ensure that the contact information in your user profile is current and accurate. This includes, but is not limited to, name, address, phone numbers and email addresses. Any changes in your Payment Account should be made in accordance with the procedures outlined within the BillSuite Service's Help Files. All changes made are effective immediately for scheduled and future payments paid from the updated Payment Account information. The BillSuite Service Provider is not responsible for any payment processing errors or fees incurred if you do not provide accurate Payment Account or contact information.

19. Service Termination, Cancellation, or Suspension

In the event you wish to cancel the BillSuite Service, please contact TIAA directly, or you may contact customer service via one of the following:

- Telephone us at **800-547-7008** during customer service hours; and/or
- Write us at:
BNY Mellon Investment Servicing Trust Company
BTS Operations
701 Market Street
3rd Floor AIM 199-3517
Philadelphia, PA 19106

Any payment(s) the BillSuite Service has already processed before the requested cancellation date will be completed by the BillSuite Service. All Scheduled Payments including recurring payments will not be processed once the BillSuite Service is cancelled. The BillSuite Service Provider may terminate or suspend BillSuite Service to you at any time. Neither termination nor suspension shall affect your liability or obligations under this BillSuite Agreement.

20. Biller Limitation

The BillSuite Service Provider reserves the right to refuse to pay any Biller to whom you may direct a payment. The BillSuite Service Provider will notify you promptly if it decides to refuse to pay a Biller designated by you. This notification is not required if you attempt to make a prohibited payment or an exception payment under this BillSuite Agreement.

21. Returned Payments

In using the BillSuite Service, you understand that Billers and/or the United States Postal Service may return payments to the BillSuite Service Provider for various reasons such as, but not limited to, Biller's forwarding address expired; Biller Account number is not valid; Biller is unable to locate Account; or Biller Account is paid in full. The BillSuite Service Provider will use its best efforts to research and correct the returned payment and return it to your Biller, or void the payment and credit your Payment Account. You may receive notification from the BillSuite Service Provider.

22. Information Authorization

Your enrollment in the BillSuite Service may not be fulfilled if the BillSuite Service Provider cannot verify your identity or other necessary information. Through your enrollment in the BillSuite Service, you agree that the BillSuite Service Provider reserves the right to request a review of your credit rating at its own expense through an authorized bureau. In addition, you agree that the BillSuite Service Provider reserves the right to obtain financial information regarding your Account from a Biller or your financial institution (for example, to resolve payment posting problems or for verification).

23. Disputes

In the event of a dispute regarding the BillSuite Service, you and the BillSuite Service Provider agree to resolve the dispute by looking to this BillSuite Agreement. You agree that this BillSuite Agreement is the complete and exclusive statement of the Agreement between you and the BillSuite Service Provider which supersedes any proposal or prior agreement, oral or written, and any other communications between you and the BillSuite Service Provider relating to the subject matter of this BillSuite Agreement. If there is a conflict between what

an employee of the BillSuite Service Provider or Customer BillSuite Service Department says and the terms of this BillSuite Agreement, the terms of this BillSuite Agreement will prevail.

24. Assignment

You may not assign this BillSuite Agreement to any other party. The BillSuite Service Provider may assign this BillSuite Agreement to any future, directly or indirectly, affiliated company. The BillSuite Service Provider may also assign or delegate certain of its rights and responsibilities under this BillSuite Agreement to independent contractors or other third parties.

25. No Waiver

The BillSuite Service Provider shall not be deemed to have waived any of its rights or remedies hereunder unless such waiver is in writing and signed by the BillSuite Service Provider. No delay or omission on the part of the BillSuite Service Provider in exercising any rights or remedies shall operate as a waiver of such rights or remedies or any other rights or remedies. A waiver on any one occasion shall not be construed as a bar or waiver of any rights or remedies on future occasions.

26. Governing Law

This BillSuite Agreement shall be governed by and construed in accordance with the laws of the State of Georgia, without regard to its conflicts of laws provisions. To the extent that the terms of this BillSuite Agreement conflict with applicable state or federal law, such state or federal law shall replace such conflicting terms only to the extent required by law. Unless expressly stated otherwise, all other terms of this BillSuite Agreement shall remain in full force and effect.

27. Limitation of Liability

THE FOREGOING SHALL CONSTITUTE THE BILLSUITE SERVICE PROVIDER'S ENTIRE LIABILITY AND YOUR EXCLUSIVE REMEDY. IN NO EVENT SHALL THE SERVICE PROVIDER BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES, INCLUDING LOST PROFITS (EVEN IF ADVISED OF THE POSSIBILITY THEREOF) ARISING IN ANY WAY OUT OF THE INSTALLATION, USE OR MAINTENANCE OF THE EQUIPMENT, SOFTWARE AND/OR THE BILLSUITE SERVICE.

V. Miscellaneous

1. Charges/Service Charges/Expenses

TIAA, Pershing and/or Custodian may charge certain fees, including an annual fee, to your Account for the financial services provided to you under this Agreement. Your Account may also incur service charges based upon Account activity, items returned unpaid, stop-payment orders, garnishments, levies, copies or images of cancelled Checks or for other Account services related to your Account. The fees and charges are set forth in the Commission and Fee Schedule at the end of this Agreement, and they are subject to change with notice or advance notice provided to you only if required by applicable law.

You agree to repay TIAA, Pershing and/or Custodian all of their respective expenses, including attorneys' fees and legal expenses, to collect money you owe to Pershing, Custodian, Administrator, Bank, CheckFree and/or TIAA because of your Account or for any dispute relating to your Account.

2. Contact Information for Pershing

Pershing LLC may be contacted at the following address: One Pershing Plaza, Asset Management Account Department, Jersey City, New Jersey 07399.

Or, by telephone, at **800-547-7008**.

3. Credit Investigation, Negative Credit Report

You authorize us to exchange credit information about you and your Account with others. As required by law, you are notified that any negative credit report reflecting on your credit record may be submitted to a credit reporting agency if you fail to fulfill the terms of your credit obligations. We may request a credit report on you and upon request, we will state the name and address of the consumer reporting agency that furnished it. If we extend, update, review or renew your credit, we may request a new credit report without notifying you.

4. Recording Conversations and Monitoring Electronic Communications

For the parties' mutual protection, you understand, agree and expressly consent to our electronic recordation of any of your telephone conversations with us and to our monitoring of your electronic communications with us, including but not limited to email and facsimile transmission.

5. Options Contracts

If at any time you shall enter into any Transaction for the purchase or resale of an option contract, you hereby agree to abide by the rules of any national securities association, registered securities exchange or clearing organization applicable to the trading of option contracts and, acting alone or in concert, will not violate the position or exercise limitation rules of any such association or exchange or of the Options Clearing Corporation or other clearing organization.

6. Callable Securities

Securities which are held for your Account and which are in "street name," or are being held by a securities depository, are commingled with the same securities being held for other customers of TIAA and for Pershing's own customers. Your ownership of these securities is reflected in Pershing's records. You have the right at any time to require delivery to you of any such securities that are fully paid for or are in excess of margin requirements. The terms of many bonds allow the issuer to partially redeem or "call" the issue prior to maturity date. Certain preferred stocks are also subject to being called by the issuer. Whenever any such security being held by Pershing is partially "called," Pershing will determine through a random selection procedure as prescribed by the New York Stock Exchange rules, the ownership of the securities to be submitted for redemption. In the event that such securities owned by you are selected and redeemed, your Account will be credited with the proceeds. Should you not wish to be subject to this random selection process, you must instruct TIAA to have Pershing deliver your securities to you. Delivery will be effected provided, of course, that your position is unencumbered or had not already been called by the issuer as described, prior to receipt by Pershing of your instructions. The probability of one of your securities being called is the same whether they are held by you or by Pershing for you.

7. Options Exercise Assignments

Exercise assignment notices for options contracts are allocated among short positions pursuant to a procedure that randomly selects from all short options positions, including positions established on the day of the assignment, those contracts that are subject to exercise. A more detailed description of this random allocation procedure is available on request. All short options positions are liable for assignment at any time.

8. Lost Securities

If your periodic customer statement indicates that securities were forwarded to you and you have not received them, you should notify TIAA or Pershing immediately. If notification is received within 120 days after the mailing date, as reflected on your periodic statement, replacement will be made free of charge. Thereafter, a fee for replacement may apply.

9. Shareholder Vote of Loaned Securities

In the event your securities have been loaned by Pershing on the record date of a shareholder vote involving those securities, you agree that your vote may be reduced to reflect the total amount of your securities loaned by Pershing.

10. Headings Are Descriptive

The heading of each provision of this Agreement is for descriptive purposes only and shall not be deemed to modify or qualify any of the rights or obligations set forth in each such provision.

11. Scope and Transferability

This Agreement or any subsequently modified agreement shall cover all aspects of the Account(s) you may open or reopen with Pershing through TIAA, including but not limited to Account(s) with brokerage, Check-writing privileges, Card services and associated ACH Transactions and Billsuite Services and shall inure to the benefit of each of our successors whether by merger, consolidation or otherwise, and assigns, and each of us may transfer your Account to our respective successors and assigns, and this Agreement shall be binding upon your heirs, executors, Administrators, successors and assigns.

VI. Interest Rate Disclosure Pursuant to Section 10b-16 of the Securities and Exchange Act of 1934

The following information applies to charges in connection with any credit that we may extend to you.

For Margin Accounts, interest will be charged on any credit extended to you for the purpose of purchasing, carrying or trading in securities. The annualized rate of interest will be based on the amount of the debit balance during the interest calculation period. The rates are subject to revision without notice, in accordance with any changes in the Pershing Base Lending Rate. Interest rates charged on any debit balances in cash accounts or credit extended in Margin Accounts may be up to 3.00 percentage points above the Pershing Base Lending Rate. The Pershing Base Lending Rate will be set with reference to commercially recognized interest rates, industry conditions relating to the extension of credit and general credit market conditions. The Pershing Base Lending Rate will change without prior notice. When the Pershing Base Lending Rate changes during an interest period, interest will be calculated according to the number of days each rate is in effect during that period. If the rate of interest charged to you is changed for any other reason, you will be notified at least 30 days in advance. Interest period begins on the 20th of each month and ends on the 19th of the following month. Accordingly, the interest charges for the period as shown on your monthly statement are based only on the daily net debit and credit balances for the interest period.

The method of interest computation is calculated at the close of each interest period during which credit was extended to you. An interest charge is computed by multiplying the average daily debit balance by the applicable schedule rate and by the number of days during which a debit balance was outstanding and then dividing by 360. If there has been a change in the Pershing Base Lending Rate, separate computations will be made with respect to each rate of charge for the appropriate number of days at each rate during the interest period. The interest charge for credit made to your Account at the close of the interest period is added to the opening debit balance for the next interest period unless paid.

With the exception of credit balances in your short Account, all other credit and debit balances in all of your Accounts will be combined daily and interest will be charged on the resulting average daily net debit balances for the interest period. If there is a debit in the cash Account (type 1) and there is a Margin Account (type 2), interest will be calculated on the combined debit balance and charged to the Margin Account. Any credit balance in the short Account is disregarded because such credit collateralizes the stock borrowed for delivery against the short sale.

Such credit is disregarded even if you should be long the same position in your Margin Account (i.e., short against the box). If the security that you sold short (or sold short against the box) appreciates in market price over the selling price, interest will be charged on the appreciation in value. Correspondingly, if the security that you sold short depreciates in market price, the interest charged will be reduced since your average debit balance will decline. This practice is known as “**marking-to-market.**” The daily closing price is used to determine any appreciation or depreciation of the security sold short.

If your Account is short shares of stock on the record date of a dividend or other distribution, however such short position occurs, your Account will be charged the amount of dividend or other distribution on the following Business Day.

Interest rate table

Average Debit Balance	Interest Rate Above Pershing Base Lending Rate
\$0 - \$ 9,999	1.25%
\$10,000 - \$29,999	0.75%
\$30,000 - \$49,999	0.50%
\$50,000 +	0.25%

VII. Commission and Fee Schedule

	Online TIAA.org/brokerage	Automated Telephone System (ATS) 800-842-2252	Client Service Assistance 800-927-3059
Equities & Exchange-Traded Funds (ETFs)			
Equity and Transaction-Fee ETFs	<ul style="list-style-type: none"> ▪ \$7.95 per trade ▪ \$5.95 per trade for customers that receive a financial planning solution from their Wealth Management advisor 	\$35	\$55
No-Transaction Fee (NTF) ETFs	<ul style="list-style-type: none"> ▪ NTF eligible ETFs will have a \$0.00 commission, regardless of order size or holding period. ▪ Any ETF shares purchased prior to January 26, 2018, and are now identified as a No Transaction Fee ETF, will still be charged a commission when the shares are sold. ▪ NTF eligible ETFs should not be purchased on margin. If purchased on margin, the ETF is no longer NTF eligible. ▪ NTF eligible ETFs are able to be moved to margin after 30 days. 		
Equity Notes	<ul style="list-style-type: none"> ▪ Fees shown reflect stock prices greater than \$1 per share. Orders to buy shares priced under \$1, restricted shares, foreign securities, privately held securities, shares without a market price or no bid/ask will not be accepted. ▪ Orders to sell shares priced under \$1 are handled via Client Service Assistance at the online commission rate, above, based on eligibility. 		
Financial Transaction Tax (FTT) Ordinary and ADR	<ul style="list-style-type: none"> ▪ All opening transactions in FTT-eligible French companies will be subject to the French FTT at a rate of 0.30% of the total transaction cost. ▪ All opening transactions in FTT-eligible Italian companies will be subject to the Italian FTT at a rate between 0.10% - 0.20% of the total transaction cost. 		
ADR Agent Servicing Fee	<ul style="list-style-type: none"> ▪ Fee will generally range from \$0.01 - \$0.03 per share. Amounts will differ by ADR. Please refer to the ADR prospectus for specific fee and other information. 		

Fixed Income	
	Bonds and CDs are available for purchase online or for assistance call 800-927-3059.
U.S. Treasury securities	
New Issues (primary, at auction)	\$50 per transaction
Existing Issues (secondary, already trading)	\$1 per \$1,000 face amount, (\$50 minimum)
Other Fixed Income	
Municipal Bonds, Government Agency Bonds, Unlisted (Over-the-counter, or OTC) Corporate Bonds, and Mortgage-backed Securities ¹	\$50 + \$2 per bond
Certificates of Deposit - New Issues	Purchase minimums of \$5,000, no commission (interest rate reflects issuing bank's fee)

1. TIAA may execute certain fixed-income transactions for your Account on either an agency or principal basis. If we execute on an agency basis, the commissions listed above will apply. If we execute on a principal basis, we will sell a fixed-income product to you (or buy it from you), which we contemporaneously purchase (or sell) to a dealer. If so, the net compensation earned by TIAA will include a mark-up. If we sell a fixed-income product to you, the mark-up is the difference between the sales price to you and the price we pay to purchase the product from a dealer. If we buy a fixed-income product from you, the mark-up is the difference between the sales price to the dealer and the price we pay to purchase the security from you.

VII. Commission and Fee Schedule (continued)

	Online TIAA.org/brokerage	Automated Telephone System (ATS) 800-842-2252	Client Service Assistance 800-927-3059
Options			
Commissions and Fees	<ul style="list-style-type: none"> ▪ \$7.95 + \$2.00 per contract ▪ \$5.95 + \$1.00 per contract for customers that receive a financial planning solution from their Wealth Management advisor 	\$35 + \$2.00 per contract	\$55 + \$2.50 per contract
Options Exercise/Assignment	\$25	\$25	\$25

Mutual Funds	
No-Transaction-Fee (NTF) Funds	<ul style="list-style-type: none"> ▪ Minimum initial investment for mutual funds: The greater of either the listed amount in the fund's prospectus or \$500. Additional investments typically based on amount listed in the fund's prospectus, generally \$100. Purchases placed below the stated minimum amount will be charged the appropriate transaction fee. Different minimums may apply for managed accounts. ▪ Short-term redemption fee: \$50 minimum for shares held less than six months (waived for shares transferred from another brokerage firm or financial institution). Additional redemption fees may apply as set forth in each fund's prospectus. ▪ Dollar cost averaging transactions, no fee; minimum transaction \$100.
Transaction-Fee (TF) Funds	<ul style="list-style-type: none"> ▪ Transaction fee, regardless of order size: <ul style="list-style-type: none"> – \$50 per trade – \$35 per trade for customers that receive a financial planning solution from their Wealth Management advisor. ▪ Minimum initial investment for mutual funds: The greater of either the listed amount in the fund's prospectus or \$500. Additional investments typically based on amount listed in the fund's prospectus, generally \$100. Purchases placed below the stated minimum amount will be charged the appropriate transaction fee. Different minimums may apply for managed accounts. ▪ Dollar cost averaging transactions, no fee; minimum transaction \$100. ▪ Exchanges: \$8 per trade regardless of order size.

Account maintenance fees	
Account Research	\$20 per hour
ACH Return Fee	\$25
Alternate Investment Transaction/Processing Fee	\$50
Direct Registration System (DRS) Outgoing Transfer Fee—Shares sent directly back to the transfer agent*	\$30 per security, per account
Foreign Securities	\$75 for each order (not applicable to American Depositary Receipts) + commission
Foreign Security Receive and Deliver Fee	\$75
International Overnight Check Delivery Fee	\$28
IRA Termination Fee	\$130
Margin Extensions	\$15
NSF/Return Check Deposit Fee	\$25

VII. Commission and Fee Schedule (continued)

Outgoing Wired Funds fee	\$25
Overnight Check Delivery Fee	\$12
Post-Effective Reorganizations—Voluntary	\$75
Preferred Stock Administrative Fee	\$50
Reorganizations—Voluntary	\$25
Safekeeping Fee for Physical Securities	\$2 per account, per position, per month
Saturday Delivery—Overnight Check Delivery Fee	\$18
Special Product Fee—Registered REITs	\$35 per position, charged at transfer and then annually
Special Product Fee—Unregistered REITs	\$125 per position, charged at transfer and then annually
Stop-Payment Order Fee	\$15
Transfers of Gifted Securities or checks mailed regular delivery*	No charge
Transfers—Accommodation*	\$80 per transfer
Transfers—GNMA, Restricted, Legal*	\$65 per transfer
Transfers—Outgoing full Account*	\$50 per transfer, no charge for partial transfers
Transfers—Register, Transfer and Ship*	\$80 per transfer, plus any third-party charges, including a DTCC charge of \$500

* Checks in the amount of \$250,000 or more for transfers or payments will be sent via overnight delivery and a delivery fee of \$12 will be charged to the account.

Note: Termination fee does not apply to the IS IRA self-directed brokerage account, or if the assets from a TIAA IRA account are transferred to a new or existing TIAA IRA account.

Retail Brokerage IRA Resource Checking	
Copy of Cancelled Check	\$2.50 per copy
NFS/Return Check Fee	\$20.00
Stop Payment Fee	\$10.00

Cash Solutions Account (CSA)			
Fees	Silver Tier	Gold Tier	Platinum Tier
Annual Fees	\$25	\$65	\$110
Initial Check Order (includes checkbook cover, check register, deposit tickets and 40 checks)	Free	Free	Free
Check Reorder	\$15	\$10	Free
Business Style Checks—Initial Order, Includes Binder	\$60	\$60	\$60
Business Style Check Reorder	\$50	\$50	\$50
Stop Payments (on checks)	\$25	\$25	Free
Lost or Stolen Checkbook Replacement	\$25	\$25	\$25
Returned Check or Automated Clearing House (ACH) Transaction (for any reason)	\$25	\$25	\$25

Note: Silver Tier annual fee is waived for accounts that have \$25,000 or more in average month-end closing cash sweep balances.

VII. Commission and Fee Schedule (continued)

Cash Solutions Account (CSA)			
Fees	Silver Tier	Gold Tier	Platinum Tier
Copy of Cancelled Check or Visa Draft	\$2.50 per copy	\$2.50 per copy	\$2.50 per copy
CSA Checks and Debit Card—Overnight Delivery	\$20	\$20	\$20
Cash Advance Fee (Non-ATM)	N/A	.25% of transaction (\$2.50 minimum)	.25% of transaction (\$2.50 minimum)
Bill Payment Through BillSuite	Free	Free	Free
Foreign Transaction Fee	N/A	1% of transaction	1% of transaction

