

GLOBAL CUSTODY AGREEMENT

This Amended and Restated Agreement, dated June 25, 2001, is between THE CHASE MANHATTAN BANK ("Bank"), a New York banking corporation with a place of business at 4 MetroTech Center, Brooklyn, New York 11245; and each of the open-end management investment companies listed on Exhibit 1 of this Agreement, registered with the U.S. Securities and Exchange Commission under the Investment Company Act of 1940, organized as Delaware business trusts (each a "Trust"), severally and for and on behalf of certain of their respective portfolios listed on Exhibit 1 (each a "Fund"), each Trust and their respective Funds with a place of business at P.O. Box 2600, Valley Forge, PA 19482. Each Trust for which Bank serves as custodian under this Agreement, shall individually be referred to as "Customer".

1. INTENTION OF THE PARTIES; DEFINITIONS

1.1 INTENTION OF THE PARTIES.

(a) This Agreement sets out the terms governing custodial, settlement and certain other associated services offered by Bank to Customer. Bank shall be responsible for the performance of only those duties that are set forth in this Agreement or expressly contained in Instructions that are consistent with the provisions of this Agreement and with Bank's operations and procedures. Customer acknowledges that Bank is not providing any legal, tax or investment advice in providing the services hereunder.

(b) Investing in foreign markets may be a risky enterprise. The holding of Global Assets and cash in foreign jurisdictions may involve risks of loss or other special features. Bank shall not be liable for any loss that results from the general risks of investing or Country Risk.

1.2 DEFINITIONS.

(a) As used herein, the following terms have the meaning hereinafter stated.

"ACCOUNT" has the meaning set forth in Section 2.1 of this Agreement.

"AFFILIATE" means an entity controlling, controlled by, or under common control with, Bank.

"AFFILIATED SUBCUSTODIAN" means a Subcustodian that is an Affiliate.

"APPLICABLE LAW" means any statute, whether national, state or local, applicable in the United States or any other country, the rules of the treaty establishing the European Community, other applicable treaties, any other law, rule, regulation or

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interpretation of any governmental entity, any applicable common law, and any decree, injunction, judgment, order, ruling, or writ of any governmental entity.

"AUTHORIZED PERSON" means any person (including an investment manager or other agent) who has been designated by written notice from Customer or its designated agent to act on behalf of Customer hereunder. Such persons shall continue to be Authorized Persons until such time as Bank receives

Instructions from Customer or its designated agent that any such person is no longer an Authorized Person.

"BANK INDEMNITEES" means Bank, its Subcustodians, and their respective nominees, directors, officers, employees and agents.

"BANK'S LONDON BRANCH" means the London branch office of The Chase Manhattan Bank.

"CASH ACCOUNT" has the meaning set forth in Section 2.1(a)(ii).

"CORPORATE ACTION" means any subscription right, bonus issue, stock repurchase plan, redemption, exchange, tender offer, or similar matter with respect to a Financial Asset in the Securities Account that requires discretionary action by the holder, but does not include proxy voting.

"COUNTRY RISK" means the risk of investing or holding assets in a particular country or market, including, but not limited to, risks arising from: nationalization, expropriation or other governmental actions; the country's financial infrastructure, including prevailing custody and settlement practices; laws applicable to the safekeeping and recovery of Financial Assets and cash held in custody; the regulation of the banking and securities industries, including changes in market rules; currency restrictions, devaluations or fluctuations; and market conditions affecting the orderly execution of securities transactions or the value of assets.

"CUSTOMER" means individually each Trust and their respective Funds as listed on Exhibit 1 hereto.

"ENTITLEMENT HOLDER" means the person named on the records of a Securities Intermediary as the person having a Securities Entitlement against the Securities Intermediary.

"FINANCIAL ASSET" means, as the context requires, either the asset itself or the means by which a person's claim to it is evidenced, including a Security, a security certificate, or a Securities Entitlement. "Financial Asset" includes any Global Assets but does not include cash.

"FUND" means each portfolio of each Trust and listed on Exhibit 1 hereto.

2

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"GLOBAL ASSET" means any "Financial Asset" (a) for which the principal trading market is located outside of the United States; (b) for which presentment for payment is to be made outside of the United States; or (c) which is acquired outside of the United States.

"INSTRUCTIONS" has the meaning set forth in Section 3.1 of this Agreement.

"LIABILITIES" means any liabilities, losses, claims, costs, damages, penalties, fines, obligations, or expenses of any kind whatsoever (including, without limitation, reasonable attorneys', accountants', consultants' or experts' fees and disbursements).

"SECURITIES" means stocks, bonds, rights, warrants and other negotiable and non-negotiable instruments, whether issued in certificated or uncertificated form, that are commonly traded or dealt in on securities exchanges or financial markets. "Securities" also means other obligations of an issuer, or shares, participations and interests in an issuer recognized in the country in which it is issued or dealt in as a medium for

investment and any other property as may be acceptable to Bank for the Securities Account.

"SECURITIES ACCOUNT" means each Securities custody account on Bank's records to which Financial Assets are or may be credited pursuant hereto.

"SECURITIES DEPOSITORY" has the meaning set forth in Section 5.1 of this Agreement.

"SECURITIES ENTITLEMENT" means the rights and property interest of an Entitlement Holder with respect to a Financial Asset as set forth in Part 5 of Article 8 of the Uniform Commercial Code of the State of New York, as the same may be amended from time to time.

"SECURITIES INTERMEDIARY" means Bank, a Subcustodian, a Securities Depository, and any other financial institution which in the ordinary course of business maintains custody accounts for others and acts in that capacity.

"SUBCUSTODIAN" has the meaning set forth in Section 5.1 and includes Affiliated Subcustodians.

"TRUST" means each open-end investment company organized as a Delaware business trust and listed on Exhibit 1 hereto.

(b) All terms in the singular shall have the same meaning in the plural unless the context otherwise provides and visa versa.

3

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2. WHAT BANK IS REQUIRED TO DO

2.1 Set Up Accounts. ---

- (a) Bank shall establish and maintain the following accounts ("Accounts"):
- (i) a Securities Account in the name of Customer on behalf of each Fund for Financial Assets, which may be received by Bank or its Subcustodian for the account of Customer, including as an Entitlement Holder; and
 - (ii) an account in the name of Customer ("Cash Account") for any and all cash in any currency received by Bank or its Subcustodian for the account of Customer.

Notwithstanding paragraph (ii), cash held in respect of those markets where Customer is required to have a cash account in its own name held directly with the relevant Subcustodian shall be held in that manner and shall not be part of the Cash Account. Bank shall notify Customer prior to the establishment of such an account.

(b) At the request of Customer, additional Accounts may be opened in the future, which shall be subject to the terms of this Agreement.

2.2 Cash Account. ---

Except as otherwise provided in Instructions acceptable to Bank, all cash

Page 3

held in the Cash Account shall be deposited during the period it is credited to the Account in one or more deposit accounts at Bank or at Bank's London Branch. Any cash so deposited with Bank's London Branch shall be payable exclusively by Bank's London Branch in the applicable currency, subject to compliance with any Applicable Law, including, without limitation, any restrictions on transactions in the applicable currency imposed by the country of the applicable currency.

2.3 Segregation of Assets; Nominee Name.

(a) Bank shall identify in its records that Financial Assets credited to Customer's Securities Account belong to Customer on behalf of the relevant Fund (except as otherwise may be agreed by Bank and Customer).

(b) To the extent permitted by Applicable Law or market practice, Bank shall require each Subcustodian to identify in its own records that Financial Assets credited to Customer's Securities Account belong to customers of Bank, such that it is readily apparent that the Financial Assets do not belong to Bank or the Subcustodian.

(c) Bank is authorized, in its discretion, to hold in bearer form, such Financial

4

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Assets as are customarily held in bearer form or are delivered to Bank or its Subcustodian in bearer form; and to register in the name of the Customer, Bank, a Subcustodian, a Securities Depository, or their respective nominees, such Financial Assets as are customarily held in registered form. Customer authorizes Bank or its Subcustodian to hold Financial Assets in omnibus accounts and shall accept delivery of Financial Assets of the same class and denomination as those deposited with Bank or its Subcustodian.

2.4 Settlement of Trades.

When Bank receives an Instruction directing settlement of a trade in Financial Assets that includes all information required by Bank, Bank shall use reasonable care to effect such settlement as instructed. Settlement of purchases and sales of Financial Assets shall be conducted in accordance with prevailing standards of the market in which the transaction occurs. The risk of loss shall be Customer's whenever Bank delivers Financial Assets or payment in accordance with applicable market practice in advance of receipt or settlement of the expected consideration. In the case of the failure of Customer's counterparty to deliver the expected consideration as agreed, Bank shall contact the counterparty to seek settlement and, if the settlement is not received, notify Customer, but Bank shall not be obligated to institute legal proceedings, file proof of claim in any insolvency proceeding, or take any similar action.

2.5 Contractual Settlement Date Accounting.

(a) Bank shall effect book entries on a "contractual settlement date accounting" basis as described below with respect to the settlement of trades in those markets where Bank generally offers contractual settlement day accounting and shall notify Customer of these markets from time to time.

- (i) Sales: On the settlement date for a sale, Bank shall credit the Cash Account with the sale proceeds of the sale and transfer the relevant Financial Assets to an account pending settlement of the trade if not already delivered.

- (ii) Purchases: On the settlement date for the purchase (or earlier, if market practice requires delivery of the purchase price before the settlement date), Bank shall debit the Cash Account with the settlement monies and credit a separate account. Bank then shall post the Securities Account as awaiting receipt of the expected Financial Assets. Customer shall not be entitled to the delivery of Financial Assets that are awaiting receipt until Bank or a Subcustodian actually receives them.

Bank reserves the right to restrict in good faith the availability of contractual day settlement accounting for credit reasons. Bank, whenever reasonably possible, will notify Customer prior to imposing such restrictions.

5

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(b) Bank may (in its discretion) upon at least 48 hours prior oral or written notification to Customer, reverse any debit or credit made pursuant to Section 2.5(a) prior to a transaction's actual settlement, and Customer shall be responsible for any costs or liabilities resulting from such reversal. Customer acknowledges that the procedures described in this sub-section are of an administrative nature, and Bank does not undertake to make loans and/or Financial Assets available to Customer.

2.6 Actual Settlement Date Accounting.

With respect to any sale or purchase transaction that is not posted to the Account on the contractual settlement date as referred to in Section 2.5, Bank shall post the transaction on the date on which the cash or Financial Assets received as consideration for the transaction is actually received by Bank.

2.7 Income Collection; Autocredit.

(a) Bank shall credit the Cash Account with income and redemption proceeds on Financial Assets in accordance with the times notified by Bank from time to time on or after the anticipated payment date, net of any taxes that are withheld by Bank or any third party. Where no time is specified for a particular market, income and redemption proceeds from Financial Assets shall be credited only after actual receipt and reconciliation. Bank may reverse such credits upon at least 48 hours prior oral or written notification to Customer when Bank believes that the corresponding payment shall not be received by Bank within a reasonable period or such credit was incorrect.

(b) Bank shall make reasonable endeavors in its discretion to contact appropriate parties to collect unpaid interest, dividends or redemption proceeds, but neither Bank nor its Subcustodians shall be obliged to file any formal notice of default, institute legal proceedings, file proof of claim in any insolvency proceeding, or take any similar action.

2.8 Fractions/ Redemptions by Lot.

Bank may sell fractional interests in Financial Assets and credit the Cash Account with the proceeds of the sale. If some, but not all, of an outstanding class of Financial Asset is called for redemption, Bank may allot the amount redeemed among the respective beneficial holders of such class of Financial Asset in any manner Bank deems to be fair and equitable.

2.9 Presentation of Coupons; Certain Other Ministerial Acts.

Until Bank receives Instructions to the contrary, Bank shall:

- (a) present all Financial Assets for which Bank has received notice of a call for redemption or that have otherwise matured, and all income and interest coupons and other income items that call for payment upon

6

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presentation;

- (b) execute in the name of Customer such certificates as may be required to obtain payment in respect of Financial Assets; and
- (c) exchange interim or temporary documents of title held in the Securities Account for definitive documents of title.

2.10 Corporate Actions.

(a) Bank shall follow Corporate Actions and advise Customer of those Corporate Actions of which Bank's central corporate actions department receives notice from the issuer or from the Securities Depository in which such Financial Assets are maintained or notice published in publications and reported in reporting services routinely used by Bank for this purpose.

(b) If an Authorized Person fails to provide Bank with timely Instructions with respect to any Corporate Action, neither Bank nor its Subcustodians or their respective nominees shall take any action in relation to that Corporate Action, except as otherwise agreed in writing by Bank and Customer or as may be set forth by Bank as a default action in the advice it provides under Section 2.10 (a) with respect to that Corporate Action.

2.11 Proxy Voting.

(a) Subject to and upon the terms of this sub-section, Bank shall provide Customer with information which it receives on matters to be voted upon at meetings of holders of Financial Assets ("Notifications"), and Bank shall act in accordance with Customer's Instructions in relation to such Notifications ("the active proxy voting service").

(b) The following provisions relate to proxy voting services with respect to Global Assets:

- (i) If information is received by Bank at its proxy voting department too late to permit timely voting by Customer, Bank's only obligation shall be to provide to Customer, so far as reasonably practicable, a Notification (or summary information concerning a Notification) on an "information only" basis.

- (ii) The active proxy voting service is available only in certain
- Page 6

markets, details of which are available from Bank on request. Provision of the active proxy voting service is conditional upon receipt by Bank of a duly completed enrollment form as well as additional documentation that may be required for certain markets.

- (iii) Bank reserves the right to provide Notifications or parts thereof in the language received. Bank shall attempt in good faith to provide accurate and complete

7

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Notifications, whether or not translated.

- (iv) Customer acknowledges that Notifications and other information furnished pursuant to the active proxy voting service ("information") are proprietary to Bank and that Bank owns all intellectual property rights, including copyrights and patents, embodied therein. Accordingly, Customer shall not make any use of such information except in connection with the active proxy voting service.
- (v) In markets where the active proxy voting service is not available or where Bank has not received a duly completed enrollment form or other relevant documentation, Bank shall not provide Notifications to Customer but shall endeavor to act upon Instructions to vote on matters before meetings of holders of Financial Assets where it is reasonably practicable for Bank (or its Subcustodians or nominees as the case may be) to do so and where such Instructions are received in time for Bank to take timely action (the "passive proxy voting service").

(c) Bank shall act upon Instructions to vote on matters referred to in a Notification, provided Instructions are received by Bank at its proxy voting department by the deadline referred to in the relevant Notification. If Instructions are not received in a timely manner, Bank shall not be obligated to vote on the matter, but shall notify Customer accordingly.

(d) Customer acknowledges that the provision of proxy voting services (whether active or passive) may be precluded or restricted under a variety of circumstances. These circumstances include, but are not limited to: (i) the Financial Assets being on loan or out for registration, (ii) the pendency of conversion or another corporate action, or (iii) Financial Assets being held at Customer's request in a name not subject to the control of Bank or its Subcustodian, in a margin or collateral account at Bank or another bank or broker, or otherwise in a manner which affects voting, local market regulations or practices, or restrictions by the issuer. Additionally, in some cases Bank may be required to vote all shares held for a particular issue for all of Bank's customers in the same way. Where this is the case Bank, in the Notification, shall inform Customer.

(e) Notwithstanding the fact that Bank may act in a fiduciary capacity with respect to Customer under other agreements or otherwise hereunder, in performing active or passive voting proxy services Bank shall be acting solely as the agent of Customer, and shall not exercise any discretion with regard to such proxy services or vote any proxy except when directed by an Authorized Person.

2.12 Statements and Information Available On-Line.

(a) Bank will send, or make available on-line, to Customer, at times mutually agreed, a statement of account in Bank's standard format for each Account maintained by Customer with Bank, identifying the Financial Assets and cash held in each Account. Bank also will provide to Customer, upon request, the capability to reformat the information contained in each statement of account. In addition, Bank will send, or make available on-line, to Customer an advice or notification of any transfers of cash or

8

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Financial Assets with respect to each Account. Bank will not be liable with respect to any matter set forth in those portions of any such statement of account or advice (or reasonably implied therefrom) to which Customer has not given Bank a written exception or objection within sixty (60) days of receipt of such statement, provided such matter is not the result of Bank's willful misconduct or bad faith.

(b) Prices and other information obtained from third parties which may be contained in any statement sent to Customer have been obtained from sources Bank believes to be reliable. Bank does not, however, make any representation as to the accuracy of such information or that the prices specified necessarily reflect the proceeds that would be received on a disposal of the relevant Financial Assets.

(c) Customer understands that records and reports, other than statements of account, that are available to it on-line on a real-time basis may not be accurate due to mis-postings, delays in updating Account records, and other causes. Bank will not be liable for any loss or damage arising out of the inaccuracy of any such records or reports that are accessed on-line on a real-time basis.

2.13 Access to Bank's Records.

(a) Bank shall allow Customer and Customer's independent public accountants such reasonable access to the records of Bank relating to Financial Assets as is required in connection with their examination of books and records pertaining to Customer's affairs. Subject to restrictions under Applicable Law, Bank also shall obtain an undertaking to permit Customer's independent public accountants reasonable access to the records of any Subcustodian of Securities held in the Securities Account as may be required in connection with such examination.

(b) Upon reasonable request of Customer, Bank shall provide Customer with a copy of Bank's report prepared in compliance with the requirements of Statement of Auditing Standards No. 70 issued by the American Institute of Certified Public Accountants, as it may be amended from time to time.

2.14 Maintenance of Financial Assets at Bank and at Subcustodian Locations.

(a) Unless Instructions require another location acceptable to Bank, Global Assets shall be held in the country or jurisdiction in which their principal trading market is located, where such Global Assets may be presented for payment, where such Financial Assets were acquired, or where such Financial Assets are held. Bank reserves the right to refuse to accept delivery of Global Assets or cash in countries and jurisdictions other than those referred to in Schedule 1 to this Agreement, as in effect from time to time.

(b) Bank shall not be obliged to follow an Instruction to hold Financial Assets with, or have them registered or recorded in the name of, any person not chosen by Bank.

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However, if Customer does instruct Bank to hold Securities with or register or record Securities in the name of a person not chosen by Bank, the consequences of doing so are at Customer's own risk and Bank shall not be liable therefor.

2.15 Tax Reclaims. -----

Bank shall provide tax reclamation services as provided in Section 8.2.

2.16 Foreign Exchange Transactions. -----

To facilitate the administration of Customer's trading and investment activity, Bank may, but shall not be obliged to, enter into spot or forward foreign exchange contracts with Customer, or an Authorized Person, and may also provide foreign exchange contracts and facilities through its Affiliates or Subcustodians. Instructions, including standing instructions, may be issued with respect to such contracts, but Bank may establish rules or limitations concerning any foreign exchange facility made available. In all cases where Bank, its Affiliates or Subcustodians enter into a master foreign exchange contract that covers foreign exchange transactions for the Accounts, the terms and conditions of that foreign exchange contract and, to the extent not inconsistent, this Agreement, shall apply to such transactions.

3. INSTRUCTIONS

3.1 Acting on Instructions; Unclear Instructions. -----

(a) Bank is authorized to act under this Agreement (or to refrain from taking action) in accordance with the instructions received by Bank, via telephone, telex, facsimile transmission, or other teleprocess or electronic instruction or trade information system acceptable to Bank ("Instructions"). Bank shall have no responsibility for the authenticity or propriety of any Instructions that Bank believes in good faith to have been given by Authorized Persons or which are transmitted with proper testing or authentication pursuant to terms and conditions that Bank may specify. Customer authorizes Bank to accept and act upon any Instructions received by it without inquiry. Customer shall indemnify the Bank Indemnitees against, and hold each of them harmless from, any Liabilities that may be imposed on, incurred by, or asserted against the Bank Indemnitees as a result of any action or omission taken in accordance with any Instructions or other directions upon which Bank is authorized to rely under the terms of this Agreement.

(b) Unless otherwise expressly provided, all Instructions shall continue in full force and effect until canceled or superseded.

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(c) Bank may (in its sole discretion and without affecting any part of this Section 3.1) seek clarification or confirmation of an Instruction from an Authorized Person and may decline to act upon an Instruction if it does not receive clarification or confirmation satisfactory to it. Bank shall not be liable for any loss arising from any delay while it seeks such clarification or

confirmation.

(d) In executing or paying a payment order Bank may rely upon the identifying number (e.g. Fedwire routing number or account) of any party as instructed in the payment order. Customer assumes full responsibility for any inconsistency within an Instruction between the name and identifying number of any party in payment orders issued to Bank in Customer's name.

3.2 Confirmation of Oral Instructions/ Security Devices.

Any Instructions delivered to Bank by telephone shall promptly thereafter be confirmed in writing by an Authorized Person. Each confirmation is to be clearly marked "Confirmation." Bank shall not be liable for having followed such Instructions notwithstanding the failure of an Authorized Person to send such confirmation in writing or the failure of such confirmation to conform to the telephone Instructions received. Bank shall notify Customer as soon as reasonably practicable if Bank does not receive a written confirmation or if such written confirmation fails to conform to the telephone Instructions received. Either party may record any of their telephonic communications. Customer shall comply with any security procedures reasonably required by Bank from time to time with respect to verification of Instructions. Customer shall be responsible for safeguarding any test keys, identification codes or other security devices that Bank shall make available to Customer or any Authorized Person.

3.3 Instructions; Contrary to Law/Market Practice.

Bank need not act upon Instructions which it reasonably believes to be contrary to law, regulation or market practice but shall be under no duty to investigate whether any Instructions comply with Applicable Law or market practice. Bank shall notify Customer as soon as reasonably practicable if it does not act upon Instructions under this Section.

3.4 Cut-off Times.

Bank has established cut-off times for receipt of some categories of Instruction, which shall be made available to Customer. If Bank receives an Instruction after its established cut-off time, it shall attempt to act upon the Instruction on the day requested if Bank deems it practicable to do so or otherwise as soon as practicable on the next business day.

4. FEES, EXPENSES AND OTHER AMOUNTS OWING TO BANK

4.1 Fees and Expenses.

11

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Customer shall pay Bank for its services hereunder the fees set forth in Schedule 2 hereto or such other amounts as may be agreed upon in writing from time to time.

4.2 Overdrafts.

If a debit to any currency in the Cash Account results in a debit balance in that currency then Bank may, in its discretion, advance an amount equal to the overdraft and such an advance shall be deemed a loan to Customer, payable on demand, bearing interest at the rate agreed by Customer and Bank for the

Accounts from time to time, or, in the absence of such an agreement, at the rate charged by Bank from time to time, for overdrafts incurred by customers similar to Customer, from the date of such advance to the date of payment (both after as well as before judgment) and otherwise on the terms on which Bank makes similar advances available from time to time. Bank shall promptly notify Customer of such an advance. No prior action or course of dealing on Bank's part with respect to the settlement of transactions on Customer's behalf shall be asserted by Customer against Bank for Bank's refusal to make advances to the Cash Account or to settle any transaction for which Customer does not have sufficient available funds in the applicable currency in the Account.

4.3 Bank's Right Over Securities; Set-off.

(a) Customer grants Bank a security interest in and a lien on the Financial Assets held in the Securities Account of a particular Fund as shall have a fair market value equal to the aggregate amount of all overdrafts of such Fund, together with accrued interest, as security for any and all amounts which are now or become owing to Bank with respect to that Fund under any provision of this Agreement, whether or not matured or contingent ("Indebtedness"). Such lien and security interest shall be effective only so long as such advance, overdraft, or accrued interest thereon remains outstanding and Bank shall have all the rights and remedies of a secured party under the New York Uniform Commercial Code in respect of the repayment of the advance, overdraft or accrued interest.

(b) Bank shall be further entitled to set any such Indebtedness off against any cash or deposit account of a Fund with Bank or any of its Affiliates of which the Fund is the beneficial owner, regardless of the currency involved. Bank shall notify Customer in advance of any such charge.

5. SUBCUSTODIANS, SECURITIES DEPOSITORIES, AND OTHER AGENTS

5.1 Appointment of Subcustodians; Use of Securities Depositories.

(a) Bank is authorized under this Agreement to act through and hold Customer's Global Assets with subcustodians, being at the date of this Agreement the entities listed in Schedule 1 and/or such other entities as Bank may appoint as subcustodians ("Subcustodians"). Bank shall use reasonable care, prudence and diligence in the selection

12

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and continued appointment of such Subcustodians. In addition, Bank and each Subcustodian may deposit Global Assets with, and hold Global Assets in, any securities depository, settlement system, dematerialized book entry system or similar system (together a "Securities Depository") on such terms as such systems customarily operate and Customer shall provide Bank with such documentation or acknowledgements that Bank may require to hold the Global Assets in such systems.

(b) Any agreement Bank enters into with a Subcustodian for holding Bank's customers' assets shall provide that: (i) such assets shall not be subject to any right, charge, security interest, lien or claim of any kind in favor of such Subcustodian or its creditors, except a claim of payment for their safe custody or administration or, in the case of cash deposits, except for liens or rights in favor of creditors of the Subcustodian arising under bankruptcy, insolvency or similar laws; (ii) beneficial ownership of such assets shall be freely transferable without the payment of money or value other than for safe custody or administration; (iii) adequate records will be maintained identifying the

assets as belonging to Customer or as being held by a third party for the benefit of Customer; (iv) Customer and Customer's independent public accountants will be given reasonable access to those records or confirmation of the contents of those records; and (v) Customer will receive periodic reports with respect to the safekeeping of Customer's assets, including, but not limited to, notification of any transfer to or from Customer's account or a third party account containing assets held for the benefit of Customer. Where a Subcustodian deposits Securities with a Securities Depository, Bank shall cause the Subcustodian to identify on its records as belonging to Bank, as agent, the Securities shown on the Subcustodian's account at such Securities Depository. The foregoing shall not apply to the extent of any special agreement or arrangement made by Customer with any particular Subcustodian.

(c) Bank shall have no responsibility for any act or omission by (or the insolvency of) any Securities Depository. In the event Customer incurs a loss due to the negligence, bad faith, willful misconduct, or insolvency of a Securities Depository, Bank shall make reasonable endeavors to seek recovery from the Securities Depository.

5.2 Liability for Subcustodians.

(a) Subject to Section 7.1(b), Bank shall be liable for direct losses incurred by Customer that result from:

- (i) the failure by the Subcustodian to use reasonable care in the provision of custodial services by it in accordance with the standards prevailing in the relevant market or from the fraud or willful default of such Subcustodian in the provision of custodial services by it; or

13

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- (ii) the insolvency of any Affiliated Subcustodian.

(b) Subject to Section 7.1(b) and Bank's duty to use reasonable care, prudence and diligence in the monitoring of a Subcustodian's financial condition as reflected in its published financial statements and other publicly available financial information concerning it, Bank shall not be responsible for the insolvency of any Subcustodian which is not a branch or an Affiliated Subcustodian.

(c) Bank reserves the right to add, replace or remove Subcustodians. Bank shall give Customer prompt notice of any such action, which shall be advance notice if practicable. Upon request by Customer, Bank shall identify the name, address and principal place of business of any Subcustodian and the name and address of the governmental agency or other regulatory authority that supervises or regulates such Subcustodian.

5.3 Use of Agents.

(a) Bank may provide certain services under this Agreement through third parties. These third parties may be Affiliates. Except to the extent provided in Section 5.2 with respect to Subcustodians, Bank shall not be responsible for any loss as a result of a failure by any broker or any other third party that it selects and retains using reasonable care to provide ancillary services, such as

pricing, proxy voting, and corporate action services, that it does not customarily provide itself. Nevertheless, Bank shall be liable for the performance of any such service provider selected by Bank that is an Affiliate to the same extent as Bank would have been liable if it performed such services itself.

(b) Bank shall execute transactions involving Financial Assets of United States origin through a broker which is an Affiliate (i) in the case of the sale under Section 2.8 of a fractional interest or (ii) if an Authorized Person directs Bank to use the affiliated broker or otherwise requests that Bank select a broker for that transaction, unless, in either case, the Affiliate does not execute similar transactions in such Financial Assets. The affiliated broker may charge its customary commission (or retain its customary spread) with respect to either such transaction.

6. ADDITIONAL PROVISIONS RELATING TO CUSTOMER

6.1 Representations of Customer and Bank.

(a) Customer represents and warrants to Bank that: (i) it has full authority and power, and has obtained all necessary authorizations and consents, to deposit and control the Financial Assets and cash in the Accounts, to use Bank as its custodian in accordance with the terms of this Agreement and to incur indebtedness, pledge Financial Assets as contemplated by Section 4.3, and enter into foreign exchange transactions; and (ii) this Agreement is its legal, valid and binding obligation, enforceable in accordance with its terms and it has full

14

<PAGE>

power and authority to enter into and has taken all necessary corporate action to authorize the execution of this Agreement. Bank may rely upon the above or the certification of such other facts as may be required to administer Bank's obligations hereunder.

(b) Bank represents and warrants to Customer that this Agreement is its legal, valid and binding obligation, enforceable in accordance with its terms and it has full power and authority to enter into and has taken all necessary corporate action to authorize the execution of this Agreement. Customer may rely upon the above or the certification of such other facts as may be required to administer Customer's obligations hereunder.

6.2 Customer to Provide Certain Information to Bank.

Upon request, Customer shall promptly provide to Bank such information about itself and its financial status as Bank may reasonably request, including Customer's organizational documents and its current audited and unaudited financial statements.

6.3 Customer is Liable to Bank Even if it is Acting for Another Person.

If Customer is acting as an agent for a disclosed or undisclosed principal in respect of any transaction, cash, or Financial Asset, Bank nevertheless shall treat Customer as its principal for all purposes under this Agreement. In this regard, Customer shall be liable to Bank as a principal in respect of any transactions relating to the Account. The foregoing shall not affect any rights Bank might have against Customer's principal.

6.4 Several Obligations of the Funds.

This Agreement is executed on behalf of the Board of Trustees of each Fund as Trustees and not individually and the obligations of this Agreement are not binding upon any of the Trustees or shareholders individually but are binding only upon the assets and property of the Funds. With respect to the obligations of each Fund arising hereunder, Bank shall look for payment or satisfaction of any such obligation solely to the assets of the Fund to which such obligation relates as though Bank had separately contracted by separate written instrument with respect to each Fund.

7. WHEN BANK IS LIABLE TO CUSTOMER

7.1 Standard of Care; Liability.

(a) Bank shall use reasonable care in performing its obligations under this Agreement. Bank shall not be in violation of this Agreement with respect to any matter as to which it has satisfied its obligation of reasonable care.

(b) Bank shall be liable for Customer's direct damages to the extent they result from Bank's negligence, bad faith or willful misconduct in performing its duties as set out in

15

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this Agreement and to the extent provided for in Section 5.2(a). Nevertheless, under no circumstances shall Bank be liable for any indirect, incidental, consequential or special damages (including, without limitation, lost profits) of any form incurred by any person, whether or not foreseeable and regardless of the type of action in which such a claim may be brought, with respect to the Accounts or Bank's performance hereunder or its role as custodian.

(c) Customer shall indemnify the Bank Indemnitees against, and hold them harmless from, any Liabilities that may be imposed on, incurred by or asserted against any of the Bank Indemnitees in connection with or arising out of Bank's performance under this Agreement, provided the Bank Indemnitees have not acted with negligence or bad faith or engaged in fraud or willful misconduct in connection with the Liabilities in question. Nevertheless, Customer shall not be obligated to indemnify any Bank Indemnitee under the preceding sentence with respect to any Liability for which Bank is liable under Section 5.2 of this Agreement.

(d) Without limiting Subsections 7.1 (a), (b) or (c), Bank shall have no duty or responsibility to: (i) question Instructions or make any suggestions to Customer or an Authorized Person regarding such Instructions that Bank believes in good faith to have been given by Authorized Persons or which are transmitted with proper testing or authentication pursuant to terms and conditions that Bank may specify; (ii) supervise or make recommendations with respect to investments or the retention of Financial Assets; (iii) advise Customer or an Authorized Person regarding any default in the payment of principal or income of any security other than as provided in Section 2.7(b) of this Agreement; (iv) evaluate or report to Customer or an Authorized Person regarding the financial condition of any broker, agent or other party to which Bank is instructed to deliver Financial Assets or cash; or (v) except for trades settled at DTC where the broker provides DTC trade confirmation and Customer provides for Bank to receive the trade instruction, review or reconcile trade confirmations received from brokers (and Customer or its Authorized Persons issuing Instructions shall

bear any responsibility to review such confirmations against Instructions issued to and statements issued by Bank).

7.2 Force Majeure.

Bank shall maintain and update from time to time business continuation and disaster recovery procedures with respect to its global custody business that it determines from time to time meet reasonable commercial standards. Bank shall have no liability, however, for any damage, loss or expense of any nature that Customer may suffer or incur, caused by an act of God, fire, flood, civil or labor disturbance, war, act of any governmental authority or other act or threat of any authority (de jure or de facto), legal constraint, fraud or forgery (except by Bank or Bank Indemnitees), malfunction of equipment or software (except to the extent such malfunction is primarily attributable to Bank's negligence, or willful misconduct in maintaining the equipment or software), failure of or the effect of rules or operations of any external funds transfer system, inability to obtain or interruption of external communications facilities, or any cause beyond the reasonable control of Bank (including without limitation, the non-availability of appropriate foreign

16

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exchange). Bank shall endeavor to promptly notify Customer when it becomes aware of any situation outlined above, but shall not be liable for failure to do so.

7.3 Bank May Consult with Counsel.

Bank shall be entitled to rely on, and may act upon the advice of professional advisers in relation to matters of law, regulation or market practice (which may be the professional advisers of Customer), and shall not be liable to Customer for any action reasonably taken or omitted pursuant to such advice.

7.4 Bank Provides Diverse Financial Services and May Generate Profits as a Result.

Customer acknowledges that Bank or its Affiliates may have a material interest in transactions entered into by Customer with respect to the Account or that circumstances are such that Bank may have a potential conflict of duty or interest. For example, Bank or its Affiliates may act as a market maker in the Financial Assets to which Instructions relate, provide brokerage services to other customers, act as financial adviser to the issuer of such Financial Assets, act in the same transaction as agent for more than one customer, have a material interest in the issue of the Financial Assets, or earn profits from any of these activities. Customer acknowledges that Bank or its Affiliates may be in possession of information tending to show that the Instructions received may not be in the best interests of Customer. Bank is not under any duty to disclose any such information.

8. TAXATION

8.1 Tax Obligations.

(a) Customer confirms that Bank is authorized to deduct from any cash received or credited to the Cash Account any taxes or levies required by any revenue or governmental authority for whatever reason in respect of Customer's

Accounts.

(b) If Bank does not receive appropriate declarations, documentation and information then additional United Kingdom taxation shall be deducted from all income received in respect of the Financial Assets issued outside the United Kingdom (which shall for this purpose include United Kingdom Eurobonds) and any applicable United States tax (including, but not limited to, non-resident alien tax) shall be deducted from United States source income. Customer shall provide to Bank such certifications, documentation, and information as it may require in connection with taxation, and warrants that, when given, this information is true and correct in every respect, not misleading in any way, and contains all material information. Customer undertakes to notify Bank immediately if any information requires updating or correcting.

(c) Customer shall be responsible for the payment of all taxes relating to the Financial Assets in the Securities Account, and Customer shall pay, indemnify and hold Bank

17

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harmless from and against any and all liabilities, penalties, interest or additions to tax with respect to or resulting from, any delay in, or failure by, Bank (1) to pay, withhold or report any U.S. federal, state or local taxes or foreign taxes imposed on, or (2) to report interest, dividend or other income paid or credited to the Cash Account, whether such failure or delay by Bank to pay, withhold or report tax or income is the result of (x) Customer's failure to comply with the terms of this paragraph, or (y) Bank's own acts or omissions; provided however, Customer shall not be liable to Bank for any penalty or additions to tax due as a result of Bank's failure to pay or withhold tax or to report interest, dividend or other income paid or credited to the Cash Account solely as a result of Bank's negligent acts or omissions.

8.2 Tax Reclaims.

(a) Subject to the provisions of this Section, Bank shall apply for a reduction of withholding tax and any refund of any tax paid or tax credits in respect of income payments on Financial Assets credited to the Securities Account that Bank believes may be available.

(b) The provision of a tax reclamation service by Bank is conditional upon Bank receiving from Customer (i) a declaration of its identity and place of residence and (ii) certain other documentation (pro forma copies of which are available from Bank). If Financial Assets credited to the Account are beneficially owned by someone other than Customer, this information shall be necessary with respect to the beneficial owner. Customer acknowledges that Bank shall be unable to perform tax reclamation services unless it receives this information.

(c) Bank shall perform tax reclamation services only with respect to taxation levied by the revenue authorities of the countries advised to Customer from time to time and Bank may, by notification in writing, in its absolute discretion, supplement or amend the countries in which the tax reclamation services are offered. Other than as expressly provided in this Section 8.2 Bank shall have no responsibility with regard to Customer's tax position or status in any jurisdiction.

(d) Customer confirms that Bank is authorized to disclose any information requested by any revenue authority or any governmental body in relation to the processing of any tax reclaim.

9. TERMINATION

Either party may terminate this Agreement on sixty days' notice in writing to the other party. If Customer gives notice of termination, it must provide full details of the persons to whom Bank must deliver Financial Assets and cash. If Bank gives notice of termination, then Customer must, within sixty days following receipt of the notice, notify Bank of details of its new custodian, failing which Bank may elect (at any time after sixty days following Customer's receipt of the notice) either to retain the Financial Assets and cash until such details are given, continuing to charge fees due (in which case Bank's sole obligation shall be for the safekeeping of the Financial Assets and cash), or deliver the Financial Assets and cash to Customer. Bank shall in any event be entitled to deduct any uncontested amounts owing to it prior to delivery of the Financial Assets and cash (and, accordingly, Bank shall be

18

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entitled to deduct cash from the Cash Account in satisfaction of uncontested amounts owing to it). Customer shall reimburse Bank promptly for all out-of-pocket expenses it incurs in delivering Financial Assets upon termination by Customer. Termination shall not affect any of the liabilities either party owes to the other arising under this Agreement prior to such termination.

10. MISCELLANEOUS

10.1 Notices.

Notices (other than Instructions) shall be served by registered mail or hand delivery to the address of the respective parties as set out on the first page of this Agreement, unless notice of a new address is given to the other party in writing. Notice shall not be deemed to be given unless it has been received.

10.2 Successors and Assigns.

This Agreement shall be binding on each of the parties' successors and assigns, but the parties agree that neither party can assign its rights and obligations under this Agreement without the prior written consent of the other party, which consent shall not be unreasonably withheld.

10.3 Interpretation.

Headings are for convenience only and are not intended to affect interpretation. References to sections are to sections of this Agreement and references to sub-sections and paragraphs are to sub-sections of the sections and paragraphs of the sub-sections in which they appear.

10.4 Entire Agreement.

(a) The following Rider(s) are incorporated into this Agreement:

- ___ Cash Trade Execution;
- ___ Accounting Services

X Investment Company
 X Domestic and Global

19

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(b) This Agreement, including the Schedules, Exhibits, and Riders (and any separate agreement which Bank and Customer may enter into with respect to any Cash Account), sets out the entire Agreement between the parties in connection with the subject matter, and this Agreement supersedes any other agreement, statement, or representation relating to custody, whether oral or written. Amendments must be in writing and signed by both parties.

10.5 Information Concerning Deposits at Bank.

(a) Bank's London Branch is a member of the United Kingdom Deposit Protection Scheme (the "Scheme") established under Banking Act 1987 (as amended). The Scheme provides that in the event of Bank's insolvency payments may be made to certain customers of Bank's London Branch. Payments under the Scheme are limited to 90% of a depositor's total cash deposits subject to a maximum payment to any one depositor of (pound)18,000 (or 20,000 euros if greater). Most deposits denominated in sterling and other European Economic Area Currencies and euros made with Bank within the United Kingdom are covered. Further details of the Scheme are available on request.

(b) In the event that Bank incurs a loss attributable to Country Risk with respect to any cash balance it maintains on deposit at a Subcustodian or other correspondent bank in regard to its global custody or trust businesses in the country where the Subcustodian or other correspondent bank is located, Bank may set such loss off against Customer's Cash Account to the extent that such loss is directly attributable to Customer's investments in that market.

10.6 Confidentiality.

The parties hereto agree that each shall treat confidentially the terms and conditions of this Agreement and all information provided by each party to the other regarding its business and operations. All confidential information provided by a party shall be used by the other party solely for the purpose of rendering or obtaining services pursuant to this Agreement, and except as may be required in carrying out this Agreement, shall not be disclosed to any third party without the prior consent of such providing party. The foregoing shall not be applicable to any information that is publicly available when provided or thereafter becomes publicly available other than through a breach of this provision, or that is required to be disclosed by or to any regulatory authority, any external or internal accountant, auditor or counsels of the parties, by judicial or administrative process or otherwise by applicable law, or to any disclosure made by a party if such party's counsel has advised that such party could be liable under any applicable law or any judicial or administrative order or process for failure to make such disclosure.

10.7 Insurance.

Bank shall not be required to maintain any insurance coverage for the benefit of Customer.

20

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10.8 Governing Law and Jurisdiction. Certification of Residency.

This Agreement shall be construed, regulated, and administered under the laws of the United States or State of New York, as applicable, without regard to New York's principles regarding conflict of laws. The United States District Court for the Southern District of New York shall have the sole and exclusive jurisdiction over any lawsuit or other judicial proceeding relating to or arising from this Agreement. If that court lacks federal subject matter jurisdiction, the Supreme Court of the State of New York, New York County shall have sole and exclusive jurisdiction. Either of these courts shall have proper venue for any such lawsuit or judicial proceeding, and the parties waive any objection to venue or their convenience as a forum. The parties agree to submit to the jurisdiction of any of the courts specified and to accept service of process to vest personal jurisdiction over them in any of these courts. The parties further hereby knowingly, voluntarily and intentionally waive, to the fullest extent permitted by applicable law, any right to a trial by jury with respect to any such lawsuit or judicial proceeding arising or relating to this Agreement or the transactions contemplated hereby. Customer certifies that it is a resident of the United States and shall notify Bank of any changes in residency. Bank may rely upon this certification or the certification of such other facts as may be required to administer Bank's obligations hereunder. Customer shall indemnify Bank against all losses, liability, claims or demands arising directly or indirectly from any such certifications.

10.9 Severability and waiver.

(a) If one or more provisions of this Agreement are held invalid, illegal or unenforceable in any respect on the basis of any particular circumstances or in any jurisdiction, the validity, legality and enforceability of such provision or provisions under other circumstances or in other jurisdictions and of the remaining provisions shall not in any way be affected or impaired.

(b) Except as otherwise provided herein, no failure or delay on the part of either party in exercising any power or right hereunder operates as a waiver, nor does any single or partial exercise of any power or right preclude any other or further exercise, or the exercise of any other power or right. No waiver by a party of any provision of this Agreement, or waiver of any breach or default, is effective unless in writing and signed by the party against whom the waiver is to be enforced.

[Section 10.10 follows on next page]

21

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10.10 Counterparts.

This Agreement may be executed in several counterparts, each of which shall be deemed to be an original and together shall constitute one and the same agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

Each of the open-end investment companies listed
on Exhibit 1 (each a "Trust")

By: /s/ Robert D. Snowden
Title: Assistant Treasurer
Date: June 25, 2001

THE CHASE MANHATTAN BANK

By: /s/ James E. Cecere, Jr.
Title: Vice President
Date: June 28, 2001

22

<PAGE>

EXHIBIT 1

EACH VANGUARD REGISTERED INVESTMENT COMPANY (AND THEIR FUNDS) THAT IS ENTERING
INTO THE AMENDED AND RESTATED GLOBAL CUSTODY AGREEMENT WITH THE CHASE MANHATTAN
BANK AND DATED AS OF JUNE 25, 2001

Vanguard Bond Index Funds

Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund

Vanguard Fixed Income Securities Funds

Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Inflation Protected Securities Fund
Vanguard Long-Term Corporate Fund

Vanguard Index Funds

Vanguard 500 Index Fund
Vanguard Growth Index Fund
Vanguard Small-Cap Index Fund
Vanguard Total Stock Market Index Fund
Vanguard Value Index Fund

Vanguard Specialized Funds

Vanguard Health Care Fund
Vanguard Precious Metals Fund

Vanguard STAR Funds

Vanguard Developed Markets Index Fund
Vanguard Institutional Developed Markets Index Fund
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund

Vanguard Tax-Managed Funds

Vanguard Tax-Managed Balanced Fund
Vanguard Tax-Managed Capital Appreciation Fund
Vanguard Tax-Managed Growth and Income Fund
Vanguard Tax-Managed Small-Cap Fund

23

<PAGE>

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard World Funds

Vanguard International Growth Fund

24

<PAGE>

Investment Company Rider to Amended and Restated Global Custody Agreement
Between The Chase Manhattan Bank and
Certain Open-End Management Investment Companies Listed on Exhibit 1
of the Agreement

The following modifications are made to the Agreement. To the extent there are any inconsistencies between the terms in this Investment Company Rider and the terms in the Agreement, the terms in this Investment Company Rider shall govern.

A. Add a new Section 2.17 to the Agreement as follows:

"2.17. Compliance with Securities and Exchange Commission ("SEC") rule 17f-5 ("rule 17f-5").

(a) Customer's board of directors (or equivalent body) (hereinafter 'Board') hereby delegates to Bank, and, except as to the country or countries as to which Bank may, from time to time, advise Customer that it does not accept such delegation, Bank hereby accepts the delegation to it, of the obligation to perform as Customer's 'Foreign Custody Manager' (as that term is defined in rule 17f-5(a)(3) as promulgated under the Investment Company Act of 1940, as amended ("1940 Act")), including for the purposes of: (i) selecting Eligible Foreign Custodians (as that term is defined in SEC rule 17f-5(a)(1), and as the same may be amended from time to time, or that have otherwise been exempted pursuant to an SEC exemptive order) to hold foreign Financial Assets and cash, (ii) evaluating the contractual arrangements with such Eligible Foreign Custodians (as set forth in SEC rule 17f-5(c)(2)), (iii) monitoring such foreign custody arrangements (as set forth in rule 17f-5(c)(3)).

(b) In connection with the foregoing, Bank shall:

- (i) provide written reports notifying Customer's Board of the placement of Financial Assets and cash with particular Eligible Foreign Custodians and of any material change in the arrangements with such Eligible Foreign Custodians, with such reports to be provided to Customer's Board at such times as the Board deems reasonable and appropriate based on the circumstances of Customer's foreign custody arrangements (and until further notice from Customer such reports shall be provided not less than annually with respect to the placement of Financial Assets and cash with particular Eligible Foreign Custodians and with reasonable promptness upon the occurrence of any material change in the

arrangements with such Eligible Foreign Custodians);

- (ii) exercise such reasonable care, prudence and diligence in performing as Customer's Foreign Custody Manager as a person having responsibility for the safekeeping of foreign Financial Assets and cash would exercise;

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- (iii) in selecting an Eligible Foreign Custodian, first have determined that foreign Financial Assets and cash placed and maintained in the safekeeping of such Eligible Foreign Custodian shall be subject to reasonable care, based on the standards applicable to custodians in the relevant market, after having considered all factors relevant to the safekeeping of such foreign Financial Assets and cash, including, without limitation, those factors set forth in SEC rule 17f-5(c)(1)(i)-(iv);
- (iv) determine that the written contract with an Eligible Foreign Custodian requires that the Eligible Foreign Custodian shall provide reasonable care for foreign Financial Assets and cash based on the standards applicable to custodians in the relevant market, including, without limitation, those factors set forth in SEC rule 17f-5(c)(1)(i)-(iv).
- (v) have established a system to monitor the continued appropriateness of maintaining foreign Financial Assets and cash with particular Eligible Foreign Custodians and of the governing contractual arrangements; it being understood, however, that in the event that Bank shall have determined that the existing Eligible Foreign Custodian in a given country would no longer afford foreign Financial Assets and cash reasonable care and that no other Eligible Foreign Custodian in that country would afford reasonable care, Bank shall promptly so advise Customer and shall then act in accordance with the Instructions of Customer with respect to the disposition of the affected foreign Financial Assets and cash.

(c) Subject to (b)(i)-(v) above, Bank is hereby authorized to place and maintain foreign Financial Assets and cash on behalf of Customer with Eligible Foreign Custodians pursuant to a written contract deemed appropriate by Bank. Each such contract shall, except as set forth in the last paragraph of this subsection (c), include provisions that provide:

- (i) For indemnification or insurance arrangements (or any combination of the foregoing) that will adequately protect Customer against the risk of loss of Financial Assets and cash held in accordance with such contract;
- (ii) That Customer's Financial Assets will not be subject to any right, charge, security interest, lien or claim of any kind in favor of the Eligible Foreign Custodian or its creditors, except a claim of payment for their safe custody or administration or, in the case of cash, liens or rights in favor of creditors of such Eligible Foreign Custodian arising under bankruptcy, insolvency or similar laws;
- (iii) That beneficial ownership of Customer's Assets will be freely transferable without the payment of money or value other than for safe custody or administration;

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(iv) That adequate records will be maintained identifying Customer's Assets as belonging to Customer or as being held by a third party for the benefit of Customer;

(v) That Customer's independent public accountants will be given access to those records described in (iv) above or confirmation of the contents of those records; and

(vi) That Customer will receive sufficient and timely periodic reports with respect to the safekeeping of Customer's Assets, including, but not limited to, notification of any transfer to or from Customer's account or a third party account containing Assets held for the benefit of Customer.

Such contract may contain, in lieu of any or all of the provisions specified in this subsection (c), such other provisions that Bank determines will provide, in their entirety, the same or a greater level of care and protection for Customer's Assets as the specified provisions, in their entirety.

(d) Except as expressly provided herein, Customer shall be solely responsible to assure that the maintenance of foreign Financial Assets and cash hereunder complies with the rules, regulations, interpretations and exemptive orders as promulgated by or under the authority of the SEC.

(e) Bank represents to Customer that it is a U.S. Bank as defined in Rule 17f-5(a)(7). Customer represents to Bank that: (1) the foreign Financial Assets and cash being placed and maintained in Bank's custody are subject to the 1940 Act, as the same may be amended from time to time; (2) its Board has determined that it is reasonable to rely on Bank to perform as Customer's Foreign Custody Manager; and (3) its Board or its investment adviser shall have determined that Customer may maintain foreign Financial Assets and cash in each country in which Customer's Financial Assets and cash shall be held hereunder and determined to accept Country Risk. Nothing contained herein shall require Bank to make any selection or to engage in any monitoring on behalf of Customer that would entail consideration of Country Risk.

(f) Bank shall provide to Customer such information relating to Country Risk as is specified in Appendix 1 hereto. Customer hereby acknowledges that: (i) such information is solely designed to inform Customer of market conditions and procedures and is not intended as a recommendation to invest or not invest in particular markets; and (ii) Bank has gathered the information from sources it considers reliable, but that Bank shall have no responsibility for inaccuracies or incomplete information, provided that Bank transmits the information using reasonable care.

B. Add a new Section 2.18 to the Agreement as follows:

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2.18. Compliance with SEC rule 17f-7 ("rule 17f-7").

(a) Bank shall, for consideration by Customer, provide an analysis of the custody risks associated with maintaining Customer's Financial Assets with each Eligible Securities Depository used by Bank as of the date hereof (or, in the case of an Eligible Securities Depository not used by Bank as of the date

hereof, prior to the initial placement of Customer's Financial Assets at such Depository) and at which any Financial Assets of Customer are held or are expected to be held. The foregoing analysis will be provided to Customer at Bank's Website. In connection with the foregoing, Customer shall notify Bank of any Eligible Securities Depositories at which it does not choose to have its Financial Assets held. Bank shall monitor the custody risks associated with maintaining Customer's Financial Assets at each such Eligible Securities Depository on a continuing basis and shall promptly notify Customer or its investment adviser of any material changes in such risks.

(b) Bank shall exercise reasonable care, prudence and diligence in performing the requirements set forth in Section 2.18(a) above.

(c) Based on the information available to it in the exercise of diligence, Bank shall determine the eligibility under rule 17f-7 of each depository before including it on Schedule 3 hereto and shall promptly advise Customer if any Eligible Securities Depository ceases to be eligible. (Eligible Securities Depositories used by Bank as of the date hereof are set forth in Schedule 3 hereto, and as the same may be amended on notice to Customer from time to time.)

C. Add the following after the first sentence of Section 5.1(a) of the Agreement: "At the request of Customer, Bank may, but need not, add to Schedule 1 an Eligible Foreign Custodian where Bank has not acted as Foreign Custody Manager with respect to the selection thereof. Bank shall notify Customer in the event that it elects to add any such entity."

D. Add the following language as Sections 5.1(d) and (e) of the Agreement:

(d) The term Subcustodian as used herein shall mean the following:

- (i) a 'U.S. Bank,' which shall mean a U.S. bank as defined in SEC rule 17f-5(a)(7);
- (ii) an 'Eligible Foreign Custodian,' which shall mean: (i) a banking institution or trust company, incorporated or organized under the laws of a country other than the United States, that is regulated as such by that country's government or an agency thereof, and (ii) a majority-owned direct or indirect subsidiary of a U.S. Bank or bank holding company which subsidiary is incorporated or organized under the laws of a country other than the United States. In addition, an Eligible Foreign Custodian shall also mean any other entity that

4

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shall have been so qualified by exemptive order, rule or other appropriate action of the SEC.

- (iii) For purposes of clarity, it is agreed that as used in Section 5.2(a), the term Subcustodian shall not include any Eligible Foreign Custodian as to which Bank has not acted as Foreign Custody Manager.

(e) The term 'securities depository' as used herein when referring to a securities depository located outside the U.S. shall mean:

an "Eligible Securities Depository" which, in turn, shall have the same meaning as in rule 17f-7(b)(1)(i)-(vi) as the same may be amended from time to time, or that has otherwise been made exempt pursuant to an SEC exemptive order;

provided that, prior to the compliance date with rule 17f-7 for a particular securities depository the term "securities depository" shall be as defined in (a)(1)(ii)-(iii) of the 1997 amendments to rule 17f-5.

(f) The term "securities depository" as used herein when referring to a securities depository located in the U.S. shall mean a "securities depository" as defined in SEC rule 17f-4(a).

5

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Appendix 1

Information Regarding Country Risk

1. To aid Customer in its determinations regarding Country Risk, Bank shall furnish annually and upon the initial placing of Financial Assets and cash into a country the following information (check items applicable):

A. Opinions of local counsel concerning:

___ i. whether applicable foreign law would restrict the access afforded Customer's independent public accountants to books and records kept by an eligible foreign custodian located in that country.

___ ii. whether applicable foreign law would restrict the Customer's ability to recover its Financial Assets and cash in the event of the bankruptcy of an Eligible Foreign Custodian located in that country.

___ iii. whether applicable foreign law would restrict the Customer's ability to recover Financial Assets that are lost while under the control of an Eligible Foreign Custodian located in the country.

B. Written information concerning:

___ i. The foreseeability of expropriation, nationalization, freezes, or confiscation of Customer's Financial Assets.

___ ii. whether difficulties in converting Customer's cash and cash equivalents to U.S. dollars are reasonably foreseeable.

C. A market report with respect to the following topics:

(i) securities regulatory environment, (ii) foreign ownership restrictions, (iii) foreign exchange, (iv) securities settlement and registration, (v) taxation, and (vi) depositories (including depository evaluation), if any.

2. To aid Customer in monitoring Country Risk, Bank shall furnish Customer the following additional information:

Market flashes, including with respect to changes in the information in market reports.

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DOMESTIC AND GLOBAL
SPECIAL TERMS AND CONDITIONS RIDER

Corporate Actions and Proxies through The Depository Trust Company ("DTC")

With respect to Financial Assets held at DTC, the following provisions shall apply rather than the pertinent provisions of Sections 2.10-2.11 of the Agreement:

Bank shall send to Customer or the Authorized Person for a Securities Account, such proxies (signed in blank, if issued in the name of Bank's nominee or the nominee of a central depository) and communications with respect to Financial Assets in the Securities Account as call for voting or relate to legal proceedings within a reasonable time after sufficient copies are received by Bank for forwarding to its customers. In addition, Bank shall follow coupon payments, redemptions, exchanges or similar matters with respect to Financial Assets in the Securities Account and advise Customer or the Authorized Person for such Account of rights issued, tender offers or any other discretionary rights with respect to such Financial Assets, in each case, of which Bank has received notice from the issuer of the Financial Assets, or as to which notice is published in publications routinely utilized by Bank for this purpose.

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Correspondent banks are listed for information only.
April 11, 2001

SUB-CUSTODIAN EMPLOYED BY

THE CHASE MANHATTAN BANK, GLOBAL CUSTODY

COUNTRY -----	SUB-CUSTODIAN -----	CORRESPONDENT BANK -----
ARGENTINA	The Chase Manhattan Bank Arenales 707, 5th Floor 1061 Buenos Aires ARGENTINA	Banco Generale de Negocios Buenos Aires
	Citibank, N.A. Bartolome Mitre 530 1036 Buenos Aires ARGENTINA	Banco Generale de Negocios Buenos Aires
AUSTRALIA	The Chase Manhattan Bank Level 37 AAP Center 259, George Street Sydney NSW 2000 AUSTRALIA	Australia and New Zealand Banking Group Ltd. Melbourne
AUSTRIA	Bank Austria AG Julius Tandler Platz - 3 A-1090 Vienna	Chase Manhattan Bank AG Frankfurt

AUSTRIA

BAHRAIN	HSBC Bank Middle East PO Box 57 Manama, 304 BAHRAIN	National Bank of Bahrain Manama
BANGLADESH	Standard Chartered Bank 18-20 Motijheel C.A. Box 536, Dhaka-1000 BANGLADESH	Standard Chartered Bank Dhaka
BELGIUM	Fortis Bank N.V. 3 Montagne Du Parc 1000 Brussels BELGIUM	Chase Manhattan Bank AG Frankfurt

1 of 14

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COUNTRY	SUB-CUSTODIAN	CORRESPONDENT BANK
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Correspondent banks are listed for information only.
April 11, 2001

BERMUDA	The Bank of Bermuda Limited 6 Front Street Hamilton HMDX BERMUDA	The Bank of Bermuda Ltd Hamilton
BOTSWANA	Barclays Bank of Botswana Limited Barclays House, Khama Crescent Gaborone BOTSWANA	Barclays Bank of Botswana Ltd Gaborone
BRAZIL	Citibank, N.A. Avenida Paulista, 1111 Sao Paulo, SP 01311-920 BRAZIL	Citibank, N.A.. Sao Paulo
	BankBoston, N.A. Rua Libero Badaro, 425-29 andar Sao Paulo - SP 01009-000 BRAZIL	BankBoston, N.A.. Sao Paulo
BULGARIA	ING Bank N.V. Sofia Branch 7 Vassil Levski Street 1000 Sofia BULGARIA	ING Bank N.V. Sofia

CANADA	Canadian Imperial Bank of Commerce Commerce Court West Security Level Toronto, Ontario M5L 1G9 CANADA	Royal Bank of Canada Toronto
	Royal Bank of Canada 200 Bay Street, Suite 1500 15th Floor Royal Bank Plaza, North Tower Toronto Ontario M5J 2J5 CANADA	Royal Bank of Canada Toronto

CHILE	Citibank, N.A. Avda. Andres Bello 2687 3rd and 5th Floors Santiago CHILE	Citibank, N.A. Santiago
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2 of 14

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COUNTRY -----	SUB-CUSTODIAN -----	CORRESPONDENT BANK -----
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CHINA - SHANGHAI	The Hongkong and Shanghai Banking Corporation Limited 34/F, Shanghai Senmao International Building 101 Yin Cheng East Road Pudong Shanghai 200120 THE PEOPLE'S REPUBLIC OF CHINA	Citibank, N.A. New York
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CHINA - SHENZHEN	The Hongkong and Shanghai Banking Corporation Limited 1st Floor Century Plaza Hotel No.1 Chun Feng Lu Shenzhen THE PEOPLE'S REPUBLIC OF CHINA	The Chase Manhattan Bank Hong Kong
---------------------	--	---------------------------------------

COLOMBIA	Cititrust Colombia S.A. Fiduciaria Sociedad Fiduciaria Santa Fe de Bogota Carrera 9a No 99-02 First Floor Santa Fe de Bogota, D.C. COLOMBIA	Cititrust Colombia S.A. Sociedad
----------	---	-------------------------------------

CROATIA	Privredna banka Zagreb d.d. Savska c.28 10000 Zagreb CROATIA	Privredna banka Zagreb d.d. Zagreb
CYPRUS	The Cyprus Popular Bank Ltd. 154 Limassol Avenue P.O. Box 22032 CY-1598 Nicosia, CYPRUS	Cyprus Popular Bank Nicosia
CZECH REPUBLIC	Ceskoslovenska Obchodni Banka, A.S. Na Prikope 14 115 20 Prague 1 CZECH REPUBLIC	Ceskoslovenska Obchodni Banka, A.S Prague
DENMARK	Danske Bank A/S 2-12 Holmens Kanal DK 1092 Copenhagen K DENMARK	Unibank A/S Copenhagen

3 of 14

<PAGE>

COUNTRY -----	SUB-CUSTODIAN -----	CORRESPONDENT BANK -----
ECUADOR	Citibank, N.A. Av. Republica de El Salvador y Naciones Unidas (Esquina) Quito ECUADOR	Citibank, N.A. Quito
EGYPT	Citibank, N.A. 4 Ahmed Pasha Street Garden City Cairo EGYPT	Citibank, N.A. Cairo
ESTONIA	Hansabank Liivalaia 8 EE0001 Tallinn ESTONIA	Esti Uhispank Tallinn
FINLAND	Merita Bank Plc 2598 Custody Services Aleksis Kiven Katu 3-5 FIN-00020 MERITA, Helsinki FINLAND	Chase Manhattan Bank AG Frankfurt
FRANCE	BNP PARIBAS S.A. Ref 256	Chase Manhattan Bank AG Frankfurt

BP 141
3, Rue D'Antin
75078 Paris
Cedex 02
FRANCE

Societe Generale
50 Boulevard Haussman
75009 Paris
FRANCE

Credit Agricole Indosuez
96 Blvd. Haussmann
75008 Paris
FRANCE

Chase Manhattan Bank AG
Frankfurt

Chase Manhattan Bank AG
Frankfurt

GERMANY

Dresdner Bank AG
Juergen-Ponto-Platz 1
60284 Frankfurt/Main
GERMANY

Chase Manhattan Bank AG
Frankfurt

4 of 14

<PAGE>

COUNTRY

SUB-CUSTODIAN

CORRESPONDENT BANK

GHANA

Barclays Bank of Ghana Limited
Barclays House, High Street
Accra
GHANA

Barclays Bank of Ghana Ltd
Accra

GREECE

HSBC Bank plc
1, Kolokotroni Street
105 62 Athens
GREECE

Chase Manhattan Bank AG
Frankfurt

HONG KONG

The Hongkong and Shanghai
Banking
Corporation Limited
36th Floor, Sun Hung Kai Centre
30 Harbour Road
Wan Chai
HONG KONG

The Chase Manhattan Bank
Hong Kong

HUNGARY

Citibank Rt.
Szabadsag ter 7-9
H-1051 Budapest V
HUNGARY

Citibank Rt.
Budapest

INDIA

The Hongkong and Shanghai
Banking
Corporation Limited
Sudam Kalu Ahire Marg, worli
Mumbai 400 025
INDIA

The Hongkong and Shanghai
Banking Corporation Limited
Mumbai

	Deutsche Bank AG Kodak House 222 D.N. Road, Fort Mumbai 400 001 INDIA	Deutsche Bank AG Mumbai
	Standard Chartered Bank Phoenix Centre, Phoenix Mills Compound Senapati Bapat Marg, Lower Parel Mumbai 400 013 INDIA	Standard Chartered Bank Mumbai
INDONESIA	The Hongkong and Shanghai Banking Corporation Limited World Trade Center Jl. Jend Sudirman Kav. 29-31 Jakarta 10023 INDONESIA	Standard Chartered Bank Jakarta
5 of 14		
<PAGE>		
COUNTRY	SUB-CUSTODIAN	CORRESPONDENT BANK
-----	-----	-----
	Standard Chartered Bank Jl. Jend Sudirman Kav. 33-A Jakarta 10220 INDONESIA	Standard Chartered Bank Jakarta
IRELAND	Bank of Ireland International Financial Services Centre 1 Harbourmaster Place Dublin 1 IRELAND	Chase Manhattan Bank AG Frankfurt
	Allied Irish Banks, p.l.c. P.O. Box 518 International Financial Services Centre Dublin 1 IRELAND	Chase Manhattan Bank AG Frankfurt
ISRAEL	Bank Leumi le-Israel B.M. 35, Yehuda Halevi Street 61000 Tel Aviv ISRAEL	Bank Leumi Le-Israel B.M. Tel Aviv
ITALY	BNP PARIBAS S.A. 2 Piazza San Fedele 20121 Milan ITALY	Chase Manhattan Bank AG Frankfurt

IVORY COAST	Societe Generale de Banques en Cote d'Ivoire 5 et 7, Avenue J. Anoma - 01 B.P. 1355 Abidjan 01 IVORY COAST	Societe Generale Paris
JAMAICA	CIBC Trust and Merchant Bank Jamaica Limited 23-27 Knutsford Blvd. Kingston 10 JAMAICA	CIBC Trust and Merchant Bank Jamaica Limited Kingston
JAPAN	The Fuji Bank, Limited 6-7 Nihonbashi-Kabutocho Chuo-Ku Tokyo 103 JAPAN	The Chase Manhattan Bank Tokyo
6 of 14		
<PAGE>		
COUNTRY -----	SUB-CUSTODIAN -----	CORRESPONDENT BANK -----
	The Bank of Tokyo-Mitsubishi, Limited 3-2 Nihombashi Hongkucho 1-chome Chuo-ku Tokyo 103 JAPAN	The Chase Manhattan Bank Tokyo
JORDAN	Arab Bank Plc P O Box 950544-5 Amman Shmeisani JORDAN	Arab Bank Plc Amman
KAZAKHSTAN	ABN AMRO Bank Kazakhstan 45, Khadzhi Mukana Street 480099 Almaty KAZAKHSTAN	ABN AMRO Bank Kazakhstan Almaty
KENYA	Barclays Bank of Kenya Limited c/o Barclaytrust Investment Services & Limited Mezzanine 3, Barclays Plaza, Loita Street Nairobi KENYA	Barclays Bank of Kenya Ltd Nairobi
LATVIA	A/S Hansabanka Kalku iela 26 Riga, LV 1050 LATVIA	A/S Hansabanka Riga

LEBANON	HSBC Bank Middle East Ras-Beirut Branch P.O. Box 11-1380 Abdel Aziz Ras-Beirut LEBANON	The Chase Manhattan Bank New York
---------	---	--------------------------------------

LITHUANIA	Vilniaus Bankas AB Ukmerges str. 41-106 LT 2662 Vilnius LITHUANIA	Vilniaus Bankas AB Vilnius
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LUXEMBOURG	Banque Generale du Luxembourg S.A. 50 Avenue J.F. Kennedy L-2951 LUXEMBOURG	Chase Manhattan Bank AG Frankfurt
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7 of 14

<PAGE>

COUNTRY -----	SUB-CUSTODIAN -----	CORRESPONDENT BANK -----
------------------	------------------------	-----------------------------

MALAYSIA	The Chase Manhattan Bank (M) Berhad Menara Dion, Level 26 Jalan Sultan Ismail 50250, Kuala Lumpur MALAYSIA	The Chase Manhattan Bank (M) Berhad Kuala Lumpur
----------	---	--

HSBC Bank Malaysia Berhad 2 Leboh Ampang 50100 Kuala Lumpur MALAYSIA	HSBC Bank Malaysia Berhad Kuala Lumpur
---	---

MAURITIUS	The Hongkong and Shanghai Banking Corporation Limited 5/F Les Cascades Building Edith Cavell Street Port Louis MAURITIUS	The Hongkong and Shanghai Banking Corporation Limited Port Louis
-----------	---	--

MEXICO	Chase Manhattan Bank Mexico, S.A. Torre Optima Paseo de las Palmas #405 Piso 15 Lomas de Chapultepec 11000 Mexico, D. F. MEXICO	Chase Manhattan Bank Mexico, S.A. Mexico, D.F
--------	--	---

Citibank Mexico, S.A. Paseo de la Reforma 390 06695 Mexico, D.F. MEXICO	Citibank Mexico, S.A. Mexico, D.F
--	--------------------------------------

MOROCCO	Banque Commerciale du Maroc S.A. 2 Boulevard Moulay Youssef	Banque Commerciale du Maroc S.A. Casablanca
---------	--	--

Casablanca 20000
MOROCCO

NAMIBIA	Standard Bank Namibia Limited Mutual Platz Cnr. Stroebe1 and Post Streets P.O.Box 3327 windhoek NAMIBIA	Standard Corporate & Merchant Bank Johannesburg
---------	--	--

NETHERLANDS	ABN AMRO N.V. Kemelstede 2 P. O. Box 3200 4800 De Breda NETHERLANDS	Chase Manhattan Bank AG Frankfurt
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8 of 14

<PAGE>

COUNTRY -----	SUB-CUSTODIAN -----	CORRESPONDENT BANK -----
	Fortis Bank (Nederland) N.V. 55 Rokin P.O. Box 243 1000 AE Amsterdam NETHERLANDS	Chase Manhattan Bank AG Frankfurt
NEW ZEALAND	National Nominees Limited Level 2 BNZ Tower 125 Queen Street Auckland NEW ZEALAND	National Bank of New Zealand Wellington
NIGERIA	Stanbic Merchant Bank Nigeria Limited 188 Awolowo Road P.O. Box 54746 Falomo, Ikoyi Lagos NIGERIA	Standard Bank of South Africa Johannesburg

*RESTRICTED SERVICE ONLY. PLEASE CONTACT YOUR RELATIONSHIP MANAGER
FOR FURTHER INFORMATION.*

NORWAY	Den norske Bank ASA Stranden 21 PO Box 1171 Sentrum N-0107 Oslo NORWAY	Den norske Bank ASA Oslo
--------	--	-----------------------------

OMAN	HSBC Bank Middle East Bait Al Falaj Main Office Ruwi, Muscat PC 112 OMAN	Oman Arab Bank Muscat
------	---	--------------------------

PAKISTAN
Citibank, N.A.
AWT Plaza
I.I. Chundrigar Road
Karachi 74200
PAKISTAN

Citibank, N.A.
Karachi

Deutsche Bank AG
Unitowers
I.I. Chundrigar Road
Karachi 74200
PAKISTAN

Deutsche Bank AG
Karachi

9 of 14

<PAGE>

COUNTRY

SUB-CUSTODIAN

CORRESPONDENT BANK

Standard Chartered Bank
Box 4896
Ismail Ibrahim Chundrigar Road
Karachi 74200
PAKISTAN

Standard Chartered Bank
Karachi

PERU
Citibank, N.A.
Camino Real 457
Torre Real - 5th Floor
San Isidro, Lima 27
PERU

Banco de Credito del Peru
Lima

PHILIPPINES	The Hongkong and Shanghai Banking Corporation Limited 30/F Discovery Suites 25 ADB Avenue Ortigas Center Pasig City, Manila PHILIPPINES	The Hongkong and Shanghai Banking Corporation Limited Manila
-------------	--	---

POLAND
Bank Handlowy w. Warszawie S.A.
ul. Senatorska 16
00-082 Warsaw
POLAND

Bank Rozwoju Eksportu S.A.
Warsaw

Bank Polska Kasa Opieki S.A.
11 Lucka street
00-950 Warsaw
POLAND

Bank Rozwoju Eksportu S.A.
Warsaw

PORTUGAL
Banco Espirito Santo e Comercial de Lisboa, S.A.
Rua Mouzinho da Silveira, 36 R/c
1250 Lisbon
PORTUGAL

Chase Manhattan Bank AG
Frankfurt

Banco Comercial Portugues, S.A.
Rua Augusta, 62174
1100 Lisbon

Chase Manhattan Bank AG
Frankfurt

PORTUGAL

ROMANIA	ABN AMRO Bank (Romania) S.A. World Trade Centre Building-E, 2nd Floor Bld. Expozitiei Nr. 2 78334 Bucharest 1 ROMANIA	ABN AMRO Bank (Romania) S.A. Bucharest
---------	--	---

10 of 14

<PAGE>

COUNTRY -----	SUB-CUSTODIAN -----	CORRESPONDENT BANK -----
	ING Bank N.V. 13-15 Kiseleff Blvd Bucharest 1 ROMANIA	ING Bank N.V. Bucharest
RUSSIA	Chase Manhattan Bank International 1st Tverskaya - Yamskaya, 23 125047 Moscow RUSSIA	The Chase Manhattan Bank New York A/C The Chase Manhattan London (US\$ NOSTRO Account)
	Credit Suisse First Boston AO Nikitsky Pereulok, 5 103009 Moscow RUSSIA	The Chase Manhattan Bank New York A/C The Chase Manhattan London (US\$ NOSTRO Account)

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FOR FURTHER INFORMATION.*

SINGAPORE	Standard Chartered Bank 3/F, 6 Battery Road 049909 SINGAPORE	Oversea-Chinese Banking Corporation Singapore
SLOVAK REPUBLIC	Ceskoslovenska Obchodni Banka, A.S. Michalska 18 815 63 Bratislava SLOVAK REPUBLIC	Ceskoslovenska Obchodni Banka, A.S. Bratislava
SLOVENIA	Bank Austria Creditanstalt d.d. Ljubljana Kotnikova 5 SL-61104 Ljubljana SLOVENIA	Bank Austria Creditanstalt d.d. Ljubljana
SOUTH AFRICA	The Standard Bank of South Africa Limited Standard Bank Centre 1st Floor 5 Simmonds Street	Standard Corporate & Merchant Bank Johannesburg

Johannesburg 2001
SOUTH AFRICA

SOUTH KOREA	The Hongkong and Shanghai Banking Corporation Limited 5/F HSBC Building #25, Bongrae-dong 1-ga Seoul SOUTH KOREA	The Hongkong and Shanghai Banking Corporation Limited Seoul
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11 of 14

<PAGE>

COUNTRY -----	SUB-CUSTODIAN -----	CORRESPONDENT BANK -----
	Standard Chartered Bank 22/F, Seoul Finance Centre Building 63, Mukyo-dong, Chung-Ku Seoul SOUTH KOREA	Standard Chartered Bank Seoul
SPAIN	Chase Manhattan Bank CMB, S.A. Paseo de la Castellana, 51 28046 Madrid SPAIN	Chase Manhattan Bank AG Frankfurt
SRI LANKA	The Hongkong and Shanghai Banking Corporation Limited Unit #02-02, West Block Podium World Trade Center Colombo 1 SRI LANKA	The Hongkong and Shanghai Banking Corporation Limited Colombo
SWEDEN	Skandinaviska Enskilda Banken Sergels Torg 2 SE-106 40 Stockholm SWEDEN	Svenska Handelsbanken Stockholm
SWITZERLAND	UBS AG 45 Bahnhofstrasse 8021 Zurich SWITZERLAND	UBS AG Zurich
TAIWAN	The Chase Manhattan Bank 14th Floor 2, Tun Hwa S. Road Sec. 1 Taipei TAIWAN	The Chase Manhattan Bank Taipei
	The Hongkong and Shanghai Banking Corporation Limited International Trade Building 16th Floor, Taipei World Trade Center 333 Keelung Road, Section 1 Taipei 110	The Hongkong and Shanghai Banking Corporation Limited Taipei

TAIWAN

THAILAND	Standard Chartered Bank 14th Floor, Zone B Sathorn Nakorn Tower 100 North Sathorn Road Bangrak, Bangkok 10500 THAILAND	Standard Chartered Bank Bangkok
12 of 14		
<PAGE>		
COUNTRY -----	SUB-CUSTODIAN -----	CORRESPONDENT BANK -----
TUNISIA	Banque Internationale Arabe de Tunisie, S.A. S.A. 70-72 Avenue Habib Bourguiba P.O. Box 520 1080 Tunis Cedex TUNISIA	Banque Internationale Arabe de Tunis
TURKEY	The Chase Manhattan Bank Emirhan Cad. No: 145 Atakule, A Blok Kat:11 80700-Dikilitas/Besiktas Istanbul TURKEY	The Chase Manhattan Bank Istanbul
UKRAINE	ING Bank Ukraine 28 Kominterna Street 5th Floor Kiev, 252032 UKRAINE	ING Bank Ukraine Kiev
RESTRICTED SERVICE ONLY. PLEASE CONTACT YOUR RELATIONSHIP MANAGER FOR FURTHER INFORMATION.		
U.A.E.	HSBC Bank Middle East P.O. Box 66 Dubai UNITED ARAB EMIRATES	The National Bank of Abu Dhabi Abu Dhabi
U.K.	The Chase Manhattan Bank Crosby Court Ground Floor 38 Bishopsgate London EC2N 4AJ UNITED KINGDOM	National Westminster Bank London
URUGUAY	BankBoston, N.A. Zabala 1463 Montevideo URUGUAY	BankBoston, N.A. Montevideo
U.S.A.	The Chase Manhattan Bank	The Chase Manhattan Bank

4 New York Plaza
New York
NY 10004
U.S.A.

New York

13 of 14

<PAGE>

COUNTRY

SUB-CUSTODIAN

CORRESPONDENT BANK

VENEZUELA

Citibank, N.A.
Carmelitas a Altigracia
Edificio Citibank
Caracas 1010
VENEZUELA

Citibank, N.A.
Caracas

ZAMBIA

Barclays Bank of Zambia Limited
Kafue House, Cairo Road
Lusaka
ZAMBIA

Barclays Bank of Zambia Ltd
Lusaka

ZIMBABWE

Barclays Bank of Zimbabwe Limited
2nd Floor, 3 Anchor House
Jason Mayo Avenue
Harare

Barclays Bank of Zimbabwe Ltd
Harare

14 of 14

<PAGE>

[LOGO]
JP MORGAN
SECURITIES DEPOSITORIES

<TABLE>
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COUNTRY INSTRUMENTS		DEPOSITORY
<S> Argentina Corporate Debt, Government Debt	<C> CVSA Government Debt (Caja de valores S.A.)	<C> Equity,
Argentina Government Debt	CRYL (Central de Registration y Liquidacion de Instrumentos de Endeudamiento Publico)	

Australia Debt, Money Market, Semi-Government Debt	Austraclear Limited	Corporate
Australia	CHESS (Clearing House Electronic Sub-register System)	Equity
Australia Government Debt	RITS (Reserve Bank of Australia/Reserve Bank Information and Transfer System)	
Austria Corporate Debt, Government Debt	OeKB (Oesterreichische Kontrollbank AG)	Equity,
Belgium Corporate Debt	CIK (Caisse Interprofessionnelle de Depots et de Virements de Titres S.A.)	Equity,
Belgium Debt, Government Debt	NBB (National Bank of Belgium)	Corporate
Brazil	CBLC (Companhia Brasileira de Liquidacao e Custodia)	Equity
Brazil Debt	CETIP (Central de Custodia e Liquidacao Financiera de Titulos Privados)	Corporate
Brazil Government Debt	SELIC (Sistema Especial de Liquidacao e Custodia)	
Bulgaria Government Debt	BNB (Bulgaria National Bank)	
Bulgaria Corporate Debt	CDAD (Central Depository A.D.)	Equity,
Canada Corporate, Government Debt	CDS (The Canadian Depository for Securities Limited)	Equity,

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April 19, 2001

1

[LOGO]
JP MORGAN
SECURITIES DEPOSITORIES

COUNTRY INSTRUMENTS		DEPOSITORY
Chile	DCV	Equity,
Corporate Debt, Government Debt	(Deposito Central de Valores S.A.)	
China, Shanghai	SSCCRC	Equity
	(Shanghai Securities Central Clearing and Registration Corporation)	
China, Shenzhen	SSCC	Equity
	(Shenzhen Securities Clearing Company, Limited)	
Colombia	DCV	
Government Debt	(Deposito Central de Valores)	
Colombia	DECEVAL	Equity,
Corporate Debt, Government Debt	(Deposito Centralizado de Valores de Colombia S.A.)	
Croatia	SDA	Equity,
Government Debt	(Central Depository Agency Inc. - Stredisnja depozitarna agencija d.d.)	

Croatia	Ministry of Finance of the Republic of Croatia	Finance.
Short-term debt issued by the Ministry of		
Croatia	CNB	
Short-term debt issued by the National	(Croatian National Bank)	Bank of
Croatia.		
Czech Republic	SCP	Equity,
Corporate Debt, Government Debt	(Stredisko cennych papiru)	
Czech Republic	CNB	
Government Debt	(Czech National Bank)	
Denmark	VP	Equity,
Corporate Debt, Government Debt	(Vaerdipapircentralen A/S)	
Egypt	MCSD	Equity,
Corporate Debt	(Misr for Clearing, Settlement and Depository, S.A.E.)	
Estonia	ECDS	Equity,
Corporate Debt, Government Debt	(Estonian Central Depository for Securities Limited - Eesti Vaatpaberite Keskdepositoorium)	
Euromarket	DCC	Euro-CDS
	(The Depository and Clearing Centre)	
Euromarket	Clearstream	Euro-Debt
	(Clearstream Banking, S.A.)	
Euromarket	Euroclear	Euro-Debt

</TABLE>

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April 19, 2001

[LOGO]
JP MORGAN
SECURITIES DEPOSITORIES

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COUNTRY INSTRUMENTS		DEPOSITORY
<S> Finland	<C> APK	<C> Equity,
	Corporate Debt, Government Debt (Finnish Central Securities Depository Limited)	
France	Euroclear France	Equity,
	Corporate Debt, Government Debt	
Germany	Clearstream	Equity,
	Corporate Debt, Government Debt (Clearstream Banking AG)	
Greece	CSD	Equity,
	Corporate Debt (Central Securities Depository S.A.)	
Greece	BoG	
	Government Debt (Bank of Greece)	
Hong Kong	HKSCC	Equity
	(Hong Kong Securities Clearing Company Limited)	
Hong Kong	CMU	Corporate
	Debt, Government Debt (Central Moneymarkets Unit)	
Hungary	KELER	Equity,
	Corporate Debt, Government Debt (Central Clearing House and Depository (Budapest) Ltd. - Kozponti Elszámolóház és Ertektár (Budapest) Rt.)	
India	NSDL	Equity,
	Corporate Debt, Government Debt (National Securities Depository Limited)	
India	CDSL	Equity
	(Central Depository Services (India) Limited)	

India Government Debt	RBI (Reserve Bank of India)	
Indonesia Corporate Debt	KSEI (PT Kustodian Sentral Efek Indonesia)	Equity,
Ireland Corporate Debt	CREST (CRESTCo Limited)	Equity,
Israel Corporate Debt, Government Debt	TASE Clearing House (Tel Aviv Stock Exchange Clearing House)	Equity,
Italy Corporate Debt, Government Debt	Monte Titoli S.p.A.	Equity,
Italy Government Debt	Banca d'Italia	

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April 19, 2001

3

<PAGE>

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SECURITIES DEPOSITORIES

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COUNTRY INSTRUMENTS	DEPOSITORY
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Ivory Coast	DC/BR (Le Depositaire Central / Banque de Reglement)	Equity
Japan Convertible Debt	JASDEC (Japan Securities Depository Center)	Equity,
Japan Registered Government Debt	BoJ (Bank of Japan)	
Kazakhstan	CSD (Central Securities Depository CJSC)	Equity
Kenya Government Debt	CBCD (Central Bank Central Depository)	
Latvia Corporate Debt, Government Debt	LCD (Latvian Central Depository)	Equity,
Lebanon	Midclear S.A.L. (Custodian and Clearing Center of Financial Instruments for Lebanon and the Middle East S.A.L.)	Equity
Lithuania Corporate Debt, Government Debt	CSDL (Central Securities Depository of Lithuania)	Equity,
Luxembourg	Clearstream (Clearstream Banking S.A.)	Equity
Malaysia Corporate Debt, Government Debt	MCD (Malaysian Central Depository Sdn. Bhd.)	Equity,
Mauritius Corporate Debt	CDS (Central Depository and Settlement Company Limited)	Equity,
Mexico Corporate Debt, Government Debt	INDEVAL (S.D. INDEVAL S.A. de C.V.)	Equity,
Morocco Corporate Debt, Government Debt	Maroclear	Equity,

Netherlands Corporate Debt, Government Debt	NECIGEF (Nederlands Centraal Instituut voor Giraal Effectenverkeer B.V.)	Equity,
--	--	---------

New Zealand Corporate Debt, Government Debt	NZCSD (New Zealand Central Securities Depository)	Equity,
--	--	---------

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April 19, 2001

4

<PAGE>

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JP MORGAN
SECURITIES DEPOSITORIES

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COUNTRY INSTRUMENTS	DEPOSITORY	
<S>	<C>	<C>
Nigeria Corporate Debt, Government Debt	CSCS (Central Securities Clearing System Limited)	Equity,
Norway Corporate Debt, Government Debt	VPS (Verdipapirsentralen)	Equity,
Oman Corporate Debt	MDSRC (The Muscat Depository and Securities Registration Company, S.A.O.C.)	Equity,
Pakistan Corporate Debt	CDC	Equity,

(Central Depository Company of Pakistan Limited)		
Pakistan Government Debt	SBP (State Bank of Pakistan)	
Peru Corporate Debt, Government Debt	CAVALI (CAVALI ICLV S.A.)	Equity,
Philippines	PCD (Philippine Central Depository, Inc.)	Equity
Philippines Government Debt	ROSS (Bangko Sentral ng Pilipinas / Register of Scripless Securities)	
Poland Long-Term Government Debt	NDS (National Depository for Securities S.A.)	Equity,
Poland Government Debt	CRT (Central Registry of Treasury-Bills)	Short-Term
Portugal Corporate Debt, Government Debt	CVM (Central de Valores Mobiliarios e Sistema de Liquidacao e Compensacao)	Equity,
Romania	SNCDD (National Company for Clearing, Settlement and Depository for Securities)	Equity
Romania	BSE (Bucharest Stock Exchange Registry)	Equity
Russia Corporate Debt, Government Debt of Finance Bonds)	VTB (Vneshtorgbank)	Equity, (Ministry

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April 19, 2001

5

<PAGE>

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JP MORGAN
SECURITIES DEPOSITORIES

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COUNTRY INSTRUMENTS		DEPOSITORY
<S>	<C>	<C>
Russia Corporate Debt, Government Debt	NDC (National Depository Centre)	Equity,
Russia	DCC (Depository Clearing Company)	Equity
Singapore Corporate Debt	CDP (The Central Depository (Pte) Limited)	Equity,
Singapore Government Debt	SGS (Monetary Authority of Singapore / Singapore Government Securities Book-Entry System)	
Slovak Republic Corporate Debt, Government Debt	SCP (Stredisko cennych papierov SR Bratislava, a.s.)	Equity,
Slovak Republic Government Debt	NBS (National Bank of Slovakia)	
Slovenia Corporate Debt, Government Debt	KDD (Centralna klirinsko depotna druzba d.d.)	Equity,
South Africa Debt, Government Debt	CDL (Central Depository (Pty) Limited)	Corporate
South Africa	STRATE (Share Transactions Totally Electronic)	Equity

South Korea Corporate Debt, Government Debt	KSD (Korea Securities Depository)	Equity,
Spain Corporate Debt	SCLV (Servicio de Compensacion y Liquidacion de Valores, S.A.)	Equity,
Spain Government Debt	CBEO (Banco de Espana / Central Book Entry Office)	
Sri Lanka Corporate Debt	CDS (Central Depository System (Private) Limited)	Equity,
Sweden Corporate Debt, Government Debt	VPC (Vardepapperscentralen AB)	Equity,

</TABLE>

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April 19, 2001

6

<PAGE>

[LOGO]
JP MORGAN
SECURITIES DEPOSITORIES

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COUNTRY INSTRUMENTS	DEPOSITORY
<S> Switzerland Corporate Debt, Government Debt	<C> SIS (SIS SegmaInterSettle AG)

<C>
Equity,

Taiwan Government Debt	TSCD (Taiwan Securities Central Depository Co., Ltd.)	Equity,
Thailand Corporate Debt, Government Debt	TSD (Thailand Securities Depository Company Limited)	Equity,
Tunisia Corporate Debt, Government Debt	STICODEVAM (Societe Tunisienne Interprofessionnelle pour la Compensation et le Depot des Valeurs Mobilieres)	Equity,
Turkey Corporate Debt, Government Debt	TAKASBANK (IMKB Takas ve Saklama Bankasi A.S.)	Equity,
United Kingdom Corporate Debt, Government Debt	CREST (CRESTCo Limited)	Equity,
United Kingdom & Euro CDs, Commercial Paper	CMO (Central Moneymarkets office)	Sterling
United States Corporate Debt	DTC (Depository Trust Company)	Equity,
United States Back Debt	PTC (Participants Trust Company)	Mortgage
United States Government Debt	FED (The Federal Reserve Book-Entry System)	
Uruguay Debt, Government Debt	BCU (Banco Central del Uruguay)	Corporate
Venezuela Government Debt	BCV (Banco Central de Venezuela)	
Zambia Government Debt	CSD	Equity,

(LuSE Central Shares Depository Limited)

Zambia Government Debt	BoZ (Bank of Zambia)
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This document is for information only and is designed to keep you abreast of market conditions and procedures. This document is intended neither to influence your investment decisions nor to amend or supplement any agreement governing your relations with JP Morgan Chase. JP Morgan Chase has gathered the information from a source it considers reliable, however, it cannot be responsible for inaccuracies, incomplete information or updating of the information furnished hereby.

April 19, 2001

7

<PAGE>

EXHIBIT 1 - AMENDMENT #1

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001 (the "Agreement") by and between The Chase Manhattan Bank ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Bond Index Funds

- Vanguard Intermediate-Term Bond Index Fund
- Vanguard Long-Term Bond Index Fund
- Vanguard Short-Term Bond Index Fund
- Vanguard Total Bond Market Index Fund

Vanguard Fixed Income Securities Funds

- Vanguard GNMA Fund
- Vanguard High-Yield Corporate Fund
- Vanguard Inflation Protected Securities Fund
- Vanguard Long-Term Corporate Fund

Vanguard Index Funds

- Vanguard 500 Index Fund
- Vanguard Extended Market Index Fund
- Vanguard Growth Index Fund
- Vanguard Small-Cap Index Fund
- Vanguard Total Stock Market Index Fund
- Vanguard Value Index Fund

Vanguard Specialized Funds

- Vanguard Health Care Fund
- Vanguard Precious Metals Fund

Vanguard STAR Funds

- Vanguard Developed Markets Index Fund

Vanguard Institutional Developed Markets Index Fund
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund

Vanguard Tax-Managed Funds
Vanguard Tax-Managed Balanced Fund
Vanguard Tax-Managed Capital Appreciation Fund
Vanguard Tax-Managed Growth and Income Fund
Vanguard Tax-Managed Small-Cap Fund

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

1

<PAGE>

Vanguard World Funds
Vanguard International Growth Fund

AGREED TO as of July 23, 2001 BY:

Chase Manhattan Bank	Each Fund listed on Exhibit 1
By: /s James E. Cecere, Jr.	By: /s Robert D. Snowden
Name: James E. Cecere, Jr.	Name: Robert D. Snowden
Title: Vice President	Title: Assistant Treasurer

2

<PAGE>

EXHIBIT 1 - AMENDMENT #2

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001 and amended July 23, 2001 (the "Agreement") by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Bond Index Funds
Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund

Vanguard Fixed Income Securities Funds
Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Inflation Protected Securities Fund
Vanguard Long-Term Corporate Fund

Vanguard Index Funds
 Vanguard 500 Index Fund
 Vanguard Extended Market Index Fund
 Vanguard Growth Index Fund
 Vanguard Small-Cap Index Fund
 Vanguard Total Stock Market Index Fund
 Vanguard Value Index Fund

Vanguard Institutional Index Funds
 Vanguard Institutional Total Bond Market Index Fund

Vanguard Specialized Funds
 Vanguard Health Care Fund
 Vanguard Precious Metals Fund

Vanguard STAR Funds
 Vanguard Developed Markets Index Fund
 Vanguard Institutional Developed Markets Index Fund
 Vanguard LifeStrategy Conservative Growth Fund
 Vanguard LifeStrategy Growth Fund
 Vanguard LifeStrategy Income Fund
 Vanguard LifeStrategy Moderate Growth Fund

Vanguard Tax-Managed Funds
 Vanguard Tax-Managed Balanced Fund
 Vanguard Tax-Managed Capital Appreciation Fund
 Vanguard Tax-Managed Growth and Income Fund
 Vanguard Tax-Managed Small-Cap Fund

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Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund
 Vanguard International Explorer Fund

Vanguard World Funds
 Vanguard International Growth Fund

AGREED TO as of May 20, 2002 BY:

JPMorgan Chase Bank	Each Fund listed on Exhibit 1
By: /S/ JAMES E. CECERE, JR.	By: /S/ THOMAS J. HIGGINS
Name: James E. Cecere, Jr.	Name: Thomas J. Higgins
Title: Vice President	Title: Treasurer

<PAGE>

EXHIBIT 1 - AMENDMENT #4

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001 and amended July 23, 2001, May 20, 2002, and November 15, 2002 (the "Agreement") by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the

terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Bond Index Funds

- Vanguard Intermediate-Term Bond Index Fund
- Vanguard Long-Term Bond Index Fund
- Vanguard Short-Term Bond Index Fund
- Vanguard Total Bond Market Index Fund

Vanguard Chester Funds

- Vanguard Target Retirement Income Fund
- Vanguard Target Retirement 2005 Fund
- Vanguard Target Retirement 2015 Fund
- Vanguard Target Retirement 2025 Fund
- Vanguard Target Retirement 2035 Fund
- Vanguard Target Retirement 2045 Fund

Vanguard Fixed Income Securities Funds

- Vanguard GNMA Fund
- Vanguard High-Yield Corporate Fund
- Vanguard Inflation Protected Securities Fund
- Vanguard Long-Term Corporate Fund

Vanguard Index Funds

- Vanguard 500 Index Fund
- Vanguard Extended Market Index Fund
- Vanguard Growth Index Fund
- Vanguard Large-Cap Index Fund
- Vanguard Mid-Cap Index Fund
- Vanguard Small-Cap Growth Index Fund
- Vanguard Small-Cap Index Fund
- Vanguard Small-Cap Value Index Fund
- Vanguard Total Stock Market Index Fund
- Vanguard Value Index Fund

Vanguard Institutional Index Funds

- Vanguard Institutional Total Bond Market Index Fund

Vanguard Specialized Funds

- Vanguard Health Care Fund
- Vanguard Precious Metals Fund

Vanguard STAR Funds

- Vanguard Developed Markets Index Fund
- Vanguard Institutional Developed Markets Index Fund
- Vanguard LifeStrategy Conservative Growth Fund
- Vanguard LifeStrategy Growth Fund
- Vanguard LifeStrategy Income Fund
- Vanguard LifeStrategy Moderate Growth Fund

Vanguard Tax-Managed Funds

- Vanguard Tax-Managed Balanced Fund
- Vanguard Tax-Managed Capital Appreciation Fund
- Vanguard Tax-Managed Growth and Income Fund
- Vanguard Tax-Managed Small-Cap Fund

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund

Vanguard International Explorer Fund
Vanguard World Funds
Vanguard International Growth Fund

AGREED TO as of September 18, 2003

BY:

JPMorgan Chase Bank

Each Fund listed on Exhibit 1

By: /S/ JAMES E. CECERE, JR.

By: /S/ THOMAS J. HIGGINS

Name: James E. Cecere, Jr.

Name: Thomas J. Higgins

Title: Vice President

Title: Treasurer

<PAGE>

AMENDMENT TO GLOBAL CUSTODY AGREEMENT

This instrument, dated November 25, 2003, is between each open-end management investment company listed on Exhibit 1 attached to the Global Custody Agreement (each a "Trust") collectively ("Customer"), and JPMorgan Chase Bank ("Bank"). It amends the Global Custody Agreement, dated June 25, 2001 (as amended), (the "Custody Agreement") between Customer and Bank.

RECITAL

Customer and Bank wish to amend the Custody Agreement to reflect changes to the proxy voting service provided by Bank.

AMENDMENT

1. Amendment to the Custody Agreement.

The existing clause 2.11 shall be deleted and replaced with the following new clause 2.11:-

"2.11 Proxy Voting.

(a) Bank shall provide Customer or its agent with details of Securities in the Account on a daily basis ("Daily Holdings Data"), and Bank or its agent shall act in accordance with Instructions from an Authorized Person in relation to matters Customer or its agent determine in their absolute discretion are to be voted upon at meetings of holders of Financial Assets, based upon such Daily Holdings Data ("the proxy voting service"). Neither Bank nor its agent shall be under any duty to provide Customer or its agent with information which it or they receive on matters to be voted upon at meetings of holders of Financial Assets.

(b) Bank or its agent shall act upon Instructions to vote, provided Instructions are received by Bank or its agent at its proxy voting department by the relevant deadline for such Instructions as determined by Bank or its agent. If Instructions are not received in a timely manner, neither Bank nor its agent shall be obligated to provide further notice to Customer.

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(c) In markets where the proxy voting service is not available or where Bank has not received a duly completed enrollment form or other relevant documentation, Bank or its agent shall endeavor to act upon Instructions to vote on matters before meetings of holders of Financial Assets where it is reasonably practicable for Bank or its agent (or its Subcustodians or nominees as the case may be) to do so and where such Instructions are received in time for Bank or its agent to take timely action.

(d) Customer acknowledges that the provision of the proxy voting service may be precluded or restricted under a variety of circumstances. These circumstances include, but are not limited to: (i) the Financial Assets being on loan or out for registration, (ii) the pendency of conversion or another corporate action, or (iii) Financial Assets being held at Customer's request in a name not subject to the control of Bank or its Subcustodian, in a margin or collateral account at Bank or another bank or broker, or otherwise in a manner which affects voting, local market regulations or practices, or restrictions by the issuer. Additionally, in some markets, Bank may be required to vote all shares held for a particular issue for all of Bank's customers in the same way. Bank or its agent shall inform Customer or its agent where this is the case.

(e) Notwithstanding the fact that Bank may act in a fiduciary capacity with respect to Customer under other agreements or otherwise hereunder, in performing the proxy voting service Bank shall be acting solely as the agent of Customer, and shall not exercise any discretion with regard to such proxy voting service or vote any proxy except when directed by an Authorized Person."

2. Miscellaneous.

(a) This Amendment shall be governed under the laws of the United States or State of New York, as applicable, without regard to New York's principles regarding conflict of laws.

2

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(b) This Amendment shall be binding upon and inure to the benefit of the parties and their respective heirs, successors and permitted assigns when executed by all parties. Nothing in this Amendment, express or implied, shall be construed to confer any rights or remedies upon any party other than the parties hereto and their respective successors and permitted assigns.

(c) All defined terms used in this Amendment shall have the same meaning as provided in the Custody Agreement except where specifically herein modified.

(d) As modified and amended hereby, the parties hereby ratify, approve and confirm the Custody Agreement in all respects.

(e) This Amendment may not be changed orally, but only by an agreement in writing signed by the parties hereto.

(f) This Amendment may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

3. Effective Time.

This Amendment shall be effective as of November 25, 2003.

JPMORGAN CHASE BANK

EACH TRUST LISTED IN EXHIBIT 1 OF
THE CUSTODY AGREEMENT

By: /S/ JAMES E. CECERE, JR.

By: /S/ THOMAS J. HIGGINS

Name: James E. Cecere, Jr.

Name: Thomas J. Higgins

Title: Vice President

Title: Treasurer

3

<PAGE>

EXHIBIT 1 - AMENDMENT #5

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Bond Index Funds

Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund

Vanguard Chester Funds

Vanguard Target Retirement Income Fund Vanguard Target Retirement 2005
Fund Vanguard Target Retirement 2015 Fund Vanguard Target Retirement
2025 Fund Vanguard Target Retirement 2035 Fund Vanguard Target
Retirement 2045 Fund

Vanguard CMT Funds

Vanguard Market Liquidity Fund
Vanguard Yorktown Liquidity Fund

Vanguard Fixed Income Securities Funds

Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Inflation Protected Securities Fund
Vanguard Long-Term Corporate Fund

Vanguard Index Funds

Vanguard 500 Index Fund
Vanguard Extended Market Index Fund Vanguard Growth Index Fund Vanguard
Large-Cap Index Fund Vanguard Mid-Cap Index Fund Vanguard Small-Cap
Growth Index Fund Vanguard Small-Cap Index Fund Vanguard Small-Cap
Value Index Fund Vanguard Total Stock Market Index Fund Vanguard Value
Index Fund

Vanguard Institutional Index Funds

Vanguard Institutional Total Bond Market Index Fund

Vanguard Specialized Funds

Vanguard Health Care Fund

Vanguard Precious Metals Fund

Vanguard STAR Funds

Vanguard Developed Markets Index Fund
Vanguard Institutional Developed Markets Index Fund
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund

Vanguard Tax-Managed Funds

Vanguard Tax-Managed Balanced Fund
Vanguard Tax-Managed Capital Appreciation Fund
Vanguard Tax-Managed Growth and Income Fund
Vanguard Tax-Managed Small-Cap Fund

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund

Vanguard International Explorer Fund

Vanguard World Funds

Vanguard International Growth Fund

AGREED TO as of May 13, 2004 BY:

JPMorgan Chase Bank

Each Fund listed on Exhibit 1

By: /S/ Nela D'Agosta

By: /S/ THOMAS J. HIGGINS

Name: Nela D'Agosta

Name: Thomas J. Higgins

Title: Vice President

Title: Treasurer

Page 2 of 2

<PAGE>

EXHIBIT 1 - AMENDMENT #6

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Bond Index Funds

Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund

Vanguard Chester Funds

Vanguard Target Retirement Income Fund Vanguard Target Retirement 2005
Fund Vanguard Target Retirement 2015 Fund Vanguard Target Retirement
2025 Fund Vanguard Target Retirement 2035 Fund Vanguard Target
Retirement 2045 Fund

Vanguard CMT Funds

Vanguard Market Liquidity Fund
Vanguard Yorktown Liquidity Fund

Vanguard Fixed Income Securities Funds

Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Inflation Protected Securities Fund
Vanguard Long-Term Corporate Fund

Vanguard Index Funds

Vanguard 500 Index Fund
Vanguard Extended Market Index Fund Vanguard Growth Index Fund Vanguard
Large-Cap Index Fund Vanguard Mid-Cap Index Fund Vanguard Small-Cap
Growth Index Fund Vanguard Small-Cap Index Fund Vanguard Small-Cap
Value Index Fund Vanguard Total Stock Market Index Fund Vanguard Value
Index Fund

Vanguard Institutional Index Funds

Vanguard Institutional Total Bond Market Index Fund

Vanguard Specialized Funds

Vanguard Health Care Fund
Vanguard Precious Metals Fund
Vanguard REIT Index Fund

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Vanguard STAR Funds

Vanguard Developed Markets Index Fund
Vanguard Institutional Developed Markets Index Fund
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund

Vanguard Tax-Managed Funds

Vanguard Tax-Managed Balanced Fund
Vanguard Tax-Managed Capital Appreciation Fund
Vanguard Tax-Managed Growth and Income Fund
Vanguard Tax-Managed Small-Cap Fund

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund

Vanguard International Explorer Fund

Vanguard World Funds

Vanguard International Growth Fund

AGREED TO as of August 27, 2004 BY:

JPMorgan Chase Bank

Each Fund listed on Exhibit 1

By: /s Nela D'Agosta

Name: Nela D'Agosta

Title: Vice President

By: /s Thomas J. Higgins

Name: Thomas J. Higgins

Title: Treasurer

<PAGE>

EXHIBIT 1 - AMENDMENT #7

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Balanced Index Fund
Vanguard Balanced Index Fund

Vanguard Bond Index Funds
Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund

Vanguard Chester Funds
Vanguard Target Retirement Income Fund
Vanguard Target Retirement 2005 Fund
Vanguard Target Retirement 2015 Fund
Vanguard Target Retirement 2025 Fund
Vanguard Target Retirement 2035 Fund
Vanguard Target Retirement 2045 Fund

Vanguard CMT Funds
Vanguard Market Liquidity Fund
Vanguard Yorktown Liquidity Fund

Vanguard Fixed Income Securities Funds
Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Inflation Protected Securities Fund
Vanguard Long-Term Corporate Fund

Vanguard Index Funds
Vanguard 500 Index Fund
Vanguard Extended Market Index Fund
Vanguard Growth Index Fund
Vanguard Large-Cap Index Fund
Vanguard Mid-Cap Index Fund
Vanguard Small-Cap Growth Index Fund
Vanguard Small-Cap Index Fund
Vanguard Small-Cap Value Index Fund
Vanguard Total Stock Market Index Fund
Vanguard Value Index Fund

Vanguard Institutional Index Funds

Vanguard Institutional Total Bond Market Index Fund

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Vanguard Specialized Funds

Vanguard Dividend Appreciation Index Fund
Vanguard Health Care Fund
Vanguard Precious Metals Fund
Vanguard REIT Index Fund

Vanguard STAR Funds

Vanguard Developed Markets Index Fund
Vanguard Institutional Developed Markets Index Fund
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund

Vanguard Tax-Managed Funds

Vanguard Tax-Managed Balanced Fund
Vanguard Tax-Managed Capital Appreciation Fund
Vanguard Tax-Managed Growth and Income Fund
Vanguard Tax-Managed Small-Cap Fund

Vanguard Variable Insurance Fund

Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund

Vanguard International Explorer Fund

Vanguard World Funds

Vanguard International Growth Fund

AGREED TO as of February 28, 2006 BY:

JPMorgan Chase Bank

Each Fund listed on Exhibit 1

By: /s/Nela D'Agosta

By: /s/Thomas J. Higgins

Name: Nela D'Agosta

Name: Thomas J. Higgins

Title: Vice President

Title: Treasurer

<PAGE>

EXHIBIT 1 - AMENDMENT #8

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Balanced Index Fund
Vanguard Balanced Index Fund

Vanguard Bond Index Funds
Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund

Vanguard Chester Funds
Vanguard Target Retirement Income Fund
Vanguard Target Retirement 2005 Fund
Vanguard Target Retirement 2010 Fund
Vanguard Target Retirement 2015 Fund
Vanguard Target Retirement 2020 Fund
Vanguard Target Retirement 2025 Fund
Vanguard Target Retirement 2030 Fund
Vanguard Target Retirement 2035 Fund
Vanguard Target Retirement 2040 Fund
Vanguard Target Retirement 2045 Fund
Vanguard Target Retirement 2050 Fund

Vanguard CMT Funds
Vanguard Market Liquidity Fund
Vanguard Yorktown Liquidity Fund

Vanguard Fixed Income Securities Funds
Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Inflation Protected Securities Fund
Vanguard Long-Term Corporate Fund

Vanguard Index Funds
Vanguard 500 Index Fund
Vanguard Extended Market Index Fund
Vanguard Growth Index Fund
Vanguard Large-Cap Index Fund
Vanguard Mid-Cap Index Fund
Vanguard Small-Cap Growth Index Fund
Vanguard Small-Cap Index Fund
Vanguard Small-Cap Value Index Fund

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Vanguard Total Stock Market Index Fund
Vanguard Value Index Fund

Vanguard Institutional Index Funds
Vanguard Institutional Total Bond Market Index Fund

Vanguard Specialized Funds
Vanguard Dividend Appreciation Index Fund
Vanguard Health Care Fund
Vanguard Precious Metals Fund
Vanguard REIT Index Fund

Vanguard STAR Funds
Vanguard Developed Markets Index Fund
Vanguard Institutional Developed Markets Index Fund
Vanguard LifeStrategy Conservative Growth Fund

Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund

Vanguard Tax-Managed Funds
Vanguard Tax-Managed Balanced Fund
Vanguard Tax-Managed Capital Appreciation Fund
Vanguard Tax-Managed Growth and Income Fund
Vanguard Tax-Managed Small-Cap Fund

Vanguard Variable Insurance Fund
Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund
Vanguard International Explorer Fund

Vanguard World Funds
Vanguard International Growth Fund

AGREED TO as of March 22, 2006 BY:

JPMorgan Chase Bank

Each Fund listed on Exhibit 1

By: /s/ Nela D'Agosta

By: /s/ Thomas J. Higgins

Name: Nela D'Agosta

Name: Thomas J. Higgins

Title: Vice President

Title: Treasurer

<PAGE>

EXHIBIT 1 - AMENDMENT #9

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Balanced Index Fund
Vanguard Balanced Index Fund

Vanguard Bond Index Funds
Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund

Vanguard Chester Funds
Vanguard Target Retirement Income Fund
Vanguard Target Retirement 2005 Fund
Vanguard Target Retirement 2010 Fund

Vanguard Target Retirement 2015 Fund
Vanguard Target Retirement 2020 Fund
Vanguard Target Retirement 2025 Fund
Vanguard Target Retirement 2030 Fund
Vanguard Target Retirement 2035 Fund
Vanguard Target Retirement 2040 Fund
Vanguard Target Retirement 2045 Fund
Vanguard Target Retirement 2050 Fund

Vanguard CMT Funds
Vanguard Market Liquidity Fund
Vanguard Yorktown Liquidity Fund

Vanguard Fixed Income Securities Funds
Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Inflation Protected Securities Fund
Vanguard Long-Term Investment-Grade Fund

Vanguard Index Funds
Vanguard 500 Index Fund
Vanguard Extended Market Index Fund
Vanguard Growth Index Fund
Vanguard Large-Cap Index Fund
Vanguard Mid-Cap Growth Index Fund
Vanguard Mid-Cap Index Fund
Vanguard Mid-Cap Value Index Fund
Vanguard Small-Cap Growth Index Fund
Vanguard Small-Cap Index Fund
Vanguard Small-Cap Value Index Fund
Vanguard Total Stock Market Index Fund
Vanguard Value Index Fund

Vanguard Institutional Index Funds
Vanguard Institutional Total Bond Market Index Fund

Vanguard Specialized Funds
Vanguard Dividend Appreciation Index Fund
Vanguard Health Care Fund
Vanguard Precious Metals Fund
Vanguard REIT Index Fund

Vanguard STAR Funds
Vanguard Developed Markets Index Fund
Vanguard Institutional Developed Markets Index Fund
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund

Vanguard Tax-Managed Funds
Vanguard Tax-Managed Balanced Fund
Vanguard Tax-Managed Capital Appreciation Fund
Vanguard Tax-Managed Growth and Income Fund
Vanguard Tax-Managed Small-Cap Fund

Vanguard Variable Insurance Fund
Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund
Vanguard International Explorer Fund

Vanguard World Funds
Vanguard International Growth Fund

AGREED TO as of _____, 2006 BY:

JPMorgan Chase Bank Each Fund listed on Exhibit 1

By: /s/ Nela D'Agosta By: /s/ Thomas J. Higgins

Name: Nela D'Agosta Name: Thomas J. Higgins
Title: Vice President Title: Treasurer

EXHIBIT 1 - AMENDMENT #10

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Balanced Index Fund
Vanguard Balanced Index Fund

Vanguard Bond Index Funds
Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund

Vanguard Chester Funds
Vanguard Target Retirement Income Fund
o Vanguard Target Retirement 2005 Fund
o Vanguard Target Retirement 2010 Fund
o Vanguard Target Retirement 2015 Fund
o Vanguard Target Retirement 2020 Fund
o Vanguard Target Retirement 2025 Fund
o Vanguard Target Retirement 2030 Fund
o Vanguard Target Retirement 2035 Fund
o Vanguard Target Retirement 2040 Fund
Vanguard Target Retirement 2045 Fund
o Vanguard Target Retirement 2050 Fund

Vanguard CMT Funds
Vanguard Market Liquidity Fund
Vanguard Yorktown Liquidity Fund

Vanguard Fixed Income Securities Funds
Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Inflation Protected Securities Fund
Vanguard Long-Term Corporate Fund

Vanguard Index Funds
 Vanguard 500 Index Fund
 Vanguard Extended Market Index Fund
 Vanguard Growth Index Fund
 Vanguard Large-Cap Index Fund
 Vanguard Mid-Cap Growth Index Fund
 Vanguard Mid-Cap Index Fund
 Vanguard Mid-Cap Value Index Fund
 Vanguard Small-Cap Growth Index Fund
 Vanguard Small-Cap Index Fund
 Vanguard Small-Cap Value Index Fund
 Vanguard Total Stock Market Index Fund
 Vanguard Value Index Fund

Vanguard Institutional Index Funds
 Vanguard Institutional Total Bond Market Index Fund

Vanguard Specialized Funds
 Vanguard Dividend Appreciation Index Fund
 Vanguard Health Care Fund
 Vanguard Precious Metals Fund
 Vanguard REIT Index Fund

Vanguard STAR Funds
 Vanguard Developed Markets Index Fund
 Vanguard Institutional Developed Markets Index Fund
 Vanguard LifeStrategy Conservative Growth Fund
 Vanguard LifeStrategy Growth Fund
 Vanguard LifeStrategy Income Fund
 Vanguard LifeStrategy Moderate Growth Fund

Vanguard Tax-Managed Funds
 Vanguard Tax-Managed Balanced Fund
 Vanguard Tax-Managed Capital Appreciation Fund
 Vanguard Tax-Managed Growth and Income Fund
 Vanguard Tax-Managed Small-Cap Fund

Vanguard Variable Insurance Fund
 Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund
 Vanguard High Dividend Yield Index Fund
 Vanguard International Explorer Fund

Vanguard World Funds
 Vanguard International Growth Fund

AGREED TO as of September 6, 2006 BY:

JPMorgan Chase Bank

By: /s/ Nela D'Agosta

Name: Nela D'Agosta

Title: Vice President

Each Fund listed on Exhibit 1

By: /s/ Thomas J. Higgins

Name: Thomas J. Higgins

Title: Treasurer

<PAGE>

EXHIBIT 1 - AMENDMENT #11

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Balanced Index Fund
Vanguard Balanced Index Fund

Vanguard Bond Index Funds
Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund

Vanguard Chester Funds
Vanguard Target Retirement Income Fund
Vanguard Target Retirement 2005 Fund
Vanguard Target Retirement 2010 Fund
Vanguard Target Retirement 2015 Fund
Vanguard Target Retirement 2020 Fund
Vanguard Target Retirement 2025 Fund
Vanguard Target Retirement 2030 Fund
Vanguard Target Retirement 2035 Fund
Vanguard Target Retirement 2040 Fund
Vanguard Target Retirement 2045 Fund
Vanguard Target Retirement 2050 Fund

Vanguard CMT Funds
Vanguard Market Liquidity Fund
Vanguard Yorktown Liquidity Fund

Vanguard Fixed Income Securities Funds
Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Inflation Protected Securities Fund
Vanguard Long-Term Investment-Grade Fund

Vanguard Index Funds
Vanguard 500 Index Fund
Vanguard Extended Market Index Fund
Vanguard Growth Index Fund
Vanguard Large-Cap Index Fund
Vanguard Mid-Cap Growth Index Fund
Vanguard Mid-Cap Index Fund
Vanguard Mid-Cap Value Index Fund
Vanguard Small-Cap Growth Index Fund
Vanguard Small-Cap Index Fund
Vanguard Small-Cap Value Index Fund
Vanguard Total Stock Market Index Fund

Vanguard Value Index Fund

Vanguard Institutional Index Funds

Vanguard Institutional Total Bond Market Index Fund

Vanguard Specialized Funds

Vanguard Dividend Appreciation Index Fund

Vanguard Health Care Fund

Vanguard Precious Metals Fund

Vanguard REIT Index Fund

Vanguard STAR Funds

Vanguard Developed Markets Index Fund

Vanguard Institutional Developed Markets Index Fund

Vanguard LifeStrategy Conservative Growth Fund

Vanguard LifeStrategy Growth Fund

Vanguard LifeStrategy Income Fund

Vanguard LifeStrategy Moderate Growth Fund

Vanguard Tax-Managed Funds

Vanguard Tax-Managed Balanced Fund

Vanguard Tax-Managed Capital Appreciation Fund

Vanguard Tax-Managed Growth and Income Fund

Vanguard Tax-Managed Small-Cap Fund

Vanguard Variable Insurance Fund

Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund

Vanguard High Dividend Yield Index Fund

Vanguard International Explorer Fund

Vanguard World Funds

Vanguard Extended Duration Treasury Index Fund

Vanguard International Growth Fund

AGREED TO as of 8/13,2007 BY:

JPMorgan Chase Bank

By: /s/Richard A. Stiefunter

Name: Richard A. Stiefunter

Title: Vice President

Each Fund listed on Exhibit 1

By: /s/Jean E. Drabick

Name: Jean E. Drabick

Title: Assistant Treasurer

<PAGE>

EXHIBIT 1 - AMENDMENT #12

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Balanced Index Fund
Vanguard Balanced Index Fund

Vanguard Bond Index Funds
Vanguard Inflation Protected Securities Fund
Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund

Vanguard Chester Funds
Vanguard Target Retirement Income Fund Vanguard Target Retirement 2005 Fund Vanguard Target Retirement 2010 Fund Vanguard Target Retirement 2015 Fund Vanguard Target Retirement 2020 Fund Vanguard Target Retirement 2025 Fund Vanguard Target Retirement 2030 Fund Vanguard Target Retirement 2035 Fund Vanguard Target Retirement 2040 Fund Vanguard Target Retirement 2045 Fund Vanguard Target Retirement 2050 Fund

Vanguard CMT Funds
Vanguard Market Liquidity Fund
Vanguard Yorktown Liquidity Fund

Vanguard Fixed Income Securities Funds
Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Long-Term Investment-Grade Fund

Vanguard Index Funds
Vanguard 500 Index Fund
Vanguard Extended Market Index Fund Vanguard Growth Index Fund Vanguard Large-Cap Index Fund Vanguard Mid-Cap Growth Index Fund Vanguard Mid-Cap Index Fund Vanguard Mid-Cap Value Index Fund Vanguard Small-Cap Growth Index Fund Vanguard Small-Cap Index Fund Vanguard Small-Cap Value Index Fund Vanguard Total Stock Market Index Fund Vanguard Value Index Fund

Vanguard Institutional Index Funds
Vanguard Institutional Total Bond Market Index Fund

Vanguard Specialized Funds
Vanguard Dividend Appreciation Index Fund
Vanguard Health Care Fund
Vanguard Precious Metals Fund
Vanguard REIT Index Fund

Vanguard STAR Funds
Vanguard Developed Markets Index Fund
Vanguard Institutional Developed Markets Index Fund
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund

Vanguard Tax-Managed Funds
Vanguard Tax-Managed Balanced Fund
Vanguard Tax-Managed Capital Appreciation Fund
Vanguard Tax-Managed Growth and Income Fund
Vanguard Tax-Managed Small-Cap Fund

Vanguard Variable Insurance Fund
 Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund
 Vanguard High Dividend Yield Index Fund
 Vanguard International Explorer Fund

Vanguard World Funds
 Vanguard Extended Duration Treasury Index Fund
 Vanguard International Growth Fund

AGREED TO as of __9/17_____, 2007 BY:

JPMorgan Chase Bank
 /s/ Paul Larkin
 By: _____

Name: Paul Larkin
 Title: Vice President

Each Fund listed on Exhibit 1
 /s/ Thomas Higgins
 By: _____

Name: Thomas J. Higgins
 Title: Treasurer

<PAGE>

EXHIBIT 1 - AMENDMENT #13

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Bond Index Funds
 Vanguard Inflation-Protected Securities Fund
 Vanguard Intermediate-Term Bond Index Fund
 Vanguard Long-Term Bond Index Fund
 Vanguard Short-Term Bond Index Fund
 Vanguard Total Bond Market Index Fund

Vanguard Chester Funds
 Vanguard Target Retirement Income Fund Vanguard Target Retirement 2005 Fund Vanguard Target Retirement 2010 Fund Vanguard Target Retirement 2015 Fund Vanguard Target Retirement 2020 Fund Vanguard Target Retirement 2025 Fund Vanguard Target Retirement 2030 Fund Vanguard Target Retirement 2035 Fund Vanguard Target Retirement 2040 Fund Vanguard Target Retirement 2045 Fund Vanguard Target Retirement 2050 Fund

Vanguard CMT Funds
 Vanguard Market Liquidity Fund

Vanguard Fixed Income Securities Funds
Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Long-Term Investment-Grade Fund

#40727, 16 3/4/2008

<PAGE>

Vanguard Index Funds
Vanguard 500 Index Fund
Vanguard Extended Market Index Fund Vanguard Growth Index Fund Vanguard
Large-Cap Index Fund Vanguard Mid-Cap Growth Index Fund Vanguard
Mid-Cap Index Fund Vanguard Mid-Cap Value Index Fund Vanguard Small-Cap
Growth Index Fund Vanguard Small-Cap Index Fund Vanguard Small-Cap
Value Index Fund Vanguard Total Stock Market Index Fund Vanguard Value
Index Fund

Vanguard Institutional Index Funds
Vanguard Institutional Total Bond Market Index Fund

Vanguard Specialized Funds
Vanguard Dividend Appreciation Index Fund
Vanguard Health Care Fund
Vanguard Precious Metals Fund
Vanguard REIT Index Fund

Vanguard STAR Funds
Vanguard Developed Markets Index Fund
Vanguard Institutional Developed Markets Index Fund
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund

Vanguard Tax-Managed Funds
Vanguard Tax-Managed Balanced Fund
Vanguard Tax-Managed Capital Appreciation Fund
Vanguard Tax-Managed Growth and Income Fund
Vanguard Tax-Managed Small-Cap Fund

Vanguard Valley Forge Funds
Vanguard Balanced Index Fund

Vanguard Variable Insurance Fund
Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund
Vanguard High Dividend Yield Index Fund
Vanguard International Explorer Fund

Vanguard World Funds
Vanguard Extended Duration Treasury Index Fund
Vanguard International Growth Fund

#40727, 16 3/4/2008

<PAGE>

AGREED TO as of _March 20_____, 2008 BY:

JPMorgan Chase Bank
By: /s/ Paul Larkin

Name: Paul Larkin
Title: Executive Director

Each Fund listed on Exhibit 1
By: /s/ Thomas Higgins

Name: Thomas J. Higgins
Title: Treasurer

EXHIBIT 1 - AMENDMENT #14

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Bond Index Funds
Vanguard Inflation-Protected Securities Fund
Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund

Vanguard Chester Funds
Vanguard Target Retirement Income Fund Vanguard Target Retirement 2005 Fund Vanguard Target Retirement 2010 Fund Vanguard Target Retirement 2015 Fund Vanguard Target Retirement 2020 Fund Vanguard Target Retirement 2025 Fund Vanguard Target Retirement 2030 Fund Vanguard Target Retirement 2035 Fund Vanguard Target Retirement 2040 Fund Vanguard Target Retirement 2045 Fund Vanguard Target Retirement 2050 Fund

Vanguard CMT Funds
Vanguard Market Liquidity Fund

Vanguard Fixed Income Securities Funds
Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Long-Term Investment-Grade Fund

<PAGE>

Vanguard Index Funds

Vanguard 500 Index Fund
Vanguard Extended Market Index Fund Vanguard Growth Index Fund Vanguard
Large-Cap Index Fund Vanguard Mid-Cap Growth Index Fund Vanguard
Mid-Cap Index Fund Vanguard Mid-Cap Value Index Fund Vanguard Small-Cap
Growth Index Fund Vanguard Small-Cap Index Fund Vanguard Small-Cap
Value Index Fund Vanguard Total Stock Market Index Fund Vanguard Value
Index Fund

Vanguard Institutional Index Funds

Vanguard Institutional Total Bond Market Index Fund

Vanguard Specialized Funds

Vanguard Dividend Appreciation Index Fund
Vanguard Health Care Fund
Vanguard Precious Metals Fund
Vanguard REIT Index Fund

Vanguard STAR Funds

Vanguard Developed Markets Index Fund
Vanguard Institutional Developed Markets Index Fund
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund
Vanguard Total International Stock Index Fund

Vanguard Tax-Managed Funds

Vanguard Tax-Managed Balanced Fund
Vanguard Tax-Managed Capital Appreciation Fund
Vanguard Tax-Managed Growth and Income Fund
Vanguard Tax-Managed Small-Cap Fund

Vanguard Valley Forge Funds

Vanguard Balanced Index Fund

Vanguard Variable Insurance Fund

Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund

Vanguard High Dividend Yield Index Fund
Vanguard International Explorer Fund

Vanguard World Funds

Vanguard Extended Duration Treasury Index Fund
Vanguard International Growth Fund

<PAGE>

AGREED TO as of _____, 2008 BY:

JPMorgan Chase Bank

By: _____

Name:

Title:

<PAGE>

Each Fund listed on Exhibit 1
/s/ Thomas Higgins

By: _____

Name: Thomas J. Higgins

Title: Treasurer

EXHIBIT 1 - AMENDMENT #15

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Bond Index Funds
Vanguard Inflation-Protected Securities Fund
Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund
Vanguard Total Bond Market II Index Fund

Vanguard Chester Funds

Vanguard Target Retirement Income Fund
Vanguard Target Retirement 2005 Fund
Vanguard Target Retirement 2010 Fund
Vanguard Target Retirement 2015 Fund
Vanguard Target Retirement 2020 Fund
Vanguard Target Retirement 2025 Fund
Vanguard Target Retirement 2030 Fund
Vanguard Target Retirement 2035 Fund
Vanguard Target Retirement 2040 Fund
Vanguard Target Retirement 2045 Fund
Vanguard Target Retirement 2050 Fund

Vanguard CMT Funds

Vanguard Market Liquidity Fund

Vanguard Fixed Income Securities Funds

Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Long-Term Investment-Grade Fund

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Vanguard Index Funds

Vanguard 500 Index Fund

Vanguard Extended Market Index Fund
Vanguard Growth Index Fund
Vanguard Large-Cap Index Fund
Vanguard Mid-Cap Growth Index Fund
Vanguard Mid-Cap Index Fund
Vanguard Mid-Cap Value Index Fund
Vanguard Small-Cap Growth Index Fund
Vanguard Small-Cap Index Fund
Vanguard Small-Cap Value Index Fund
Vanguard Total Stock Market Index Fund
Vanguard Value Index Fund

Vanguard Institutional Index Funds
Vanguard Institutional Total Bond Market Index Fund

Vanguard Specialized Funds
Vanguard Dividend Appreciation Index Fund
Vanguard Health Care Fund
Vanguard Precious Metals Fund
Vanguard REIT Index Fund

Vanguard STAR Funds
Vanguard Developed Markets Index Fund
Vanguard Institutional Developed Markets Index Fund
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund
Vanguard Total International
Stock Index Fund

Vanguard Tax-Managed Funds
Vanguard Tax-Managed Balanced Fund
Vanguard Tax-Managed Capital Appreciation Fund
Vanguard Tax-Managed Growth and Income Fund
Vanguard Tax-Managed Small-Cap Fund

Vanguard Valley Forge Funds
Vanguard Balanced Index Fund

Vanguard Variable Insurance Fund
Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund
Vanguard High Dividend Yield Index Fund
Vanguard International Explorer Fund

Vanguard World Funds
Vanguard Extended Duration Treasury Index Fund
Vanguard International Growth Fund

AGREED TO as of ____January 9____, 2009 BY:

JPMorgan Chase Bank

Each Fund listed on Exhibit 1

By: /s/ Paul Larkin

By: /s/ Thomas J. Higgins

Name: Paul Larkin

Name: Thomas J. Higgins

Title: Executive Director

Title: Chief Financial Officer

<PAGE>

EXHIBIT 1 - AMENDMENT #16

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Bond Index Funds

Vanguard Inflation-Protected Securities Fund Vanguard Intermediate-Term Bond Index Fund Vanguard Long-Term Bond Index Fund Vanguard Short-Term Bond Index Fund Vanguard Total Bond Market Index Fund Vanguard Total Bond Market Index II Fund

Vanguard Chester Funds

Vanguard Target Retirement Income Fund Vanguard Target Retirement 2005 Fund Vanguard Target Retirement 2010 Fund Vanguard Target Retirement 2015 Fund Vanguard Target Retirement 2020 Fund Vanguard Target Retirement 2025 Fund Vanguard Target Retirement 2030 Fund Vanguard Target Retirement 2035 Fund Vanguard Target Retirement 2040 Fund Vanguard Target Retirement 2045 Fund Vanguard Target Retirement 2050 Fund

Vanguard CMT Funds

Vanguard Market Liquidity Fund

Vanguard Fixed Income Securities Funds

Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Long-Term Investment-Grade Fund

Vanguard Index Funds

Vanguard Growth Index Fund
Vanguard Mid-Cap Growth Index Fund
Vanguard Mid-Cap Value Index Fund
Vanguard Small-Cap Index Fund
Vanguard Total Stock Market Index Fund

Vanguard Institutional Index Funds

Vanguard Institutional Total Bond Market Index Fund

<PAGE>

Vanguard Specialized Funds

Vanguard Dividend Appreciation Index Fund

Vanguard Health Care Fund
Vanguard Precious Metals Fund

Vanguard STAR Funds
Vanguard Developed Markets Index Fund Vanguard Institutional Developed
Markets Index Fund Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund Vanguard Total International
Stock Index Fund

Vanguard Tax-Managed Funds
Vanguard Tax-Managed Balanced Fund

Vanguard Valley Forge Funds
Vanguard Balanced Index Fund

Vanguard Variable Insurance Fund
Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund
Vanguard High Dividend Yield Index Fund
Vanguard International Explorer Fund

Vanguard World Funds
Vanguard Extended Duration Treasury Index Fund
Vanguard International Growth Fund

AGREED TO as of __August 17__, 2009 BY:

JPMorgan Chase Bank	Each Fund listed on Exhibit 1
By: /s/ Paul Larkin	By: /s/ Thomas J. Higgins
Name: Paul Larkin	Name: Thomas J. Higgins
Title: Executive Director	Title: Chief Financial Officer

<PAGE>

EXHIBIT 1 - AMENDMENT #17

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Bond Index Funds
Vanguard Inflation-Protected Securities Fund Vanguard Intermediate-Term
Page 77

Bond Index Fund Vanguard Long-Term Bond Index Fund Vanguard Short-Term
Bond Index Fund Vanguard Total Bond Market Index Fund Vanguard Total
Bond Market Index II Fund

Vanguard Chester Funds

Vanguard Target Retirement Income Fund Vanguard Target Retirement 2005
Fund Vanguard Target Retirement 2010 Fund Vanguard Target Retirement
2015 Fund Vanguard Target Retirement 2020 Fund Vanguard Target
Retirement 2025 Fund Vanguard Target Retirement 2030 Fund Vanguard
Target Retirement 2035 Fund Vanguard Target Retirement 2040 Fund
Vanguard Target Retirement 2045 Fund Vanguard Target Retirement 2050
Fund

Vanguard CMT Funds

Vanguard Market Liquidity Fund

Vanguard Fixed Income Securities Funds

Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Long-Term Investment-Grade Fund

Vanguard Index Funds

Vanguard Growth Index Fund
Vanguard Mid-Cap Growth Index Fund
Vanguard Mid-Cap Value Index Fund
Vanguard Small-Cap Index Fund
Vanguard Total Stock Market Index Fund

Vanguard Institutional Index Funds

Vanguard Institutional Total Bond Market Index Fund

<PAGE>

Vanguard Scottsdale Funds

Vanguard Short-Term Government Bond Index Fund
Vanguard Intermediate-Term Government Bond Index Fund
Vanguard Long-Term Government Bond Index Fund
Vanguard Short-Term Corporate Bond Index Fund
Vanguard Intermediate-Term Corporate Bond Index Fund
Vanguard Long-Term Corporate Bond Index Fund
Vanguard Mortgage-Backed Securities Index Fund

Vanguard Specialized Funds

Vanguard Dividend Appreciation Index Fund
Vanguard Health Care Fund
Vanguard Precious Metals Fund

Vanguard STAR Funds

Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund
Vanguard Total International Stock Index Fund

Vanguard Tax-Managed Funds

Vanguard Tax-Managed Balanced Fund

Vanguard Valley Forge Funds

Vanguard Balanced Index Fund

Vanguard Variable Insurance Fund

Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund
Vanguard High Dividend Yield Index Fund
Vanguard International Explorer Fund

Vanguard World Funds
Vanguard Extended Duration Treasury Index Fund
Vanguard International Growth Fund

AGREED TO as of __September 23 __, 2009 BY:

JPMorgan Chase Bank	Each Fund listed on Exhibit 1
By: /s/ Paul Larkin	By: /s/ Thomas J. Higgins
Name: Paul Larkin	Name: Thomas J. Higgins
Title: Executive Director	Title: Chief Financial Officer
EXHIBIT 1 - AMENDMENT #18	

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Bond Index Funds
Vanguard Inflation-Protected Securities Fund
Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund
Vanguard Total Bond Market Index II Fund

Vanguard Chester Funds
Vanguard Target Retirement Income Fund
Vanguard Target Retirement 2005 Fund
Vanguard Target Retirement 2010 Fund
Vanguard Target Retirement 2015 Fund
Vanguard Target Retirement 2020 Fund
Vanguard Target Retirement 2025 Fund
Vanguard Target Retirement 2030 Fund
Vanguard Target Retirement 2035 Fund
Vanguard Target Retirement 2040 Fund
Vanguard Target Retirement 2045 Fund
Vanguard Target Retirement 2050 Fund

Vanguard CMT Funds
Vanguard Market Liquidity Fund

Vanguard Fixed Income Securities Funds
Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Long-Term Investment-Grade Fund

Vanguard Index Funds
Vanguard Growth Index Fund
Vanguard Mid-Cap Growth Index Fund
Vanguard Mid-Cap Value Index Fund
Vanguard Small-Cap Index Fund
Vanguard Total Stock Market Index Fund

Vanguard Scottsdale Funds
Vanguard Short-Term Government Bond Index Fund
Vanguard Intermediate-Term Government Bond Index Fund
Vanguard Long-Term Government Bond Index Fund
Vanguard Short-Term Corporate Bond Index Fund
Vanguard Intermediate-Term Corporate Bond Index Fund
Vanguard Long-Term Corporate Bond Index Fund
Vanguard Mortgage-Backed Securities Index Fund

Vanguard Specialized Funds
Vanguard Dividend Appreciation Index Fund
Vanguard Health Care Fund
Vanguard Precious Metals Fund

Vanguard STAR Funds
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund
Vanguard Total International Stock Index Fund

Vanguard Tax-Managed Funds
Vanguard Tax-Managed Balanced Fund

Vanguard Valley Forge Funds
Vanguard Balanced Index Fund

Vanguard Variable Insurance Fund
Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund
Vanguard High Dividend Yield Index Fund
Vanguard International Explorer Fund

Vanguard World Funds
Vanguard Extended Duration Treasury Index Fund
Vanguard International Growth Fund

AGREED TO as of _____, 2010 BY:

JPMorgan Chase Bank

Each Fund listed on Exhibit 1

By: _____
Name: _____
Title: _____

By: _____
Name: Jean E. Drabick
Title: Assistant Treasurer

EXHIBIT 1 - AMENDMENT #19

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Bond Index Funds
Vanguard Inflation-Protected Securities Fund
Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund
Vanguard Total Bond Market Index II Fund

Vanguard Chester Funds
Vanguard Target Retirement Income Fund
Vanguard Target Retirement 2005 Fund
Vanguard Target Retirement 2010 Fund
Vanguard Target Retirement 2015 Fund
Vanguard Target Retirement 2020 Fund
Vanguard Target Retirement 2025 Fund
Vanguard Target Retirement 2030 Fund
Vanguard Target Retirement 2035 Fund
Vanguard Target Retirement 2040 Fund
Vanguard Target Retirement 2045 Fund
Vanguard Target Retirement 2050 Fund
Vanguard Target Retirement 2055 Fund

Vanguard CMT Funds
Vanguard Market Liquidity Fund

Vanguard Fixed Income Securities Funds
Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Long-Term Investment-Grade Fund

Vanguard Index Funds
Vanguard Growth Index Fund
Vanguard Mid-Cap Growth Index Fund
Vanguard Mid-Cap Value Index Fund
Vanguard Small-Cap Index Fund
Vanguard Total Stock Market Index Fund

Vanguard Scottsdale Funds
Vanguard Short-Term Government Bond Index Fund
Vanguard Intermediate-Term Government Bond Index Fund
Vanguard Long-Term Government Bond Index Fund

Vanguard Short-Term Corporate Bond Index Fund
Vanguard Intermediate-Term Corporate Bond Index Fund
Vanguard Long-Term Corporate Bond Index Fund
Vanguard Mortgage-Backed Securities Index Fund

Vanguard Specialized Funds
Vanguard Dividend Appreciation Index Fund
Vanguard Health Care Fund
Vanguard Precious Metals Fund

Vanguard STAR Funds
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund
Vanguard Total International Stock Index Fund

Vanguard Tax-Managed Funds
Vanguard Tax-Managed Balanced Fund

Vanguard Valley Forge Funds
Vanguard Balanced Index Fund

Vanguard Variable Insurance Fund
Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Fund
Vanguard High Dividend Yield Index Fund
Vanguard International Explorer Fund

Vanguard World Funds
Vanguard Extended Duration Treasury Index Fund
Vanguard International Growth Fund

AGREED TO as of _____, 2010 BY:

JPMorgan Chase Bank

Each Fund listed on Exhibit 1

By: _____

By: _____

Name: _____

Name: Jean E. Drabick

Title: _____

Title: Assistant Treasurer

EXHIBIT 1 - AMENDMENT #20

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1.

Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with

respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Admiral Funds

- Vanguard S&P 500 Growth Index Fund
- Vanguard S&P 500 Value Index Fund
- Vanguard S&P Mid-Cap 400 Growth Index Fund
- Vanguard S&P Mid-Cap 400 Index Fund
- Vanguard S&P Mid-Cap 400 Value Index Fund
- Vanguard S&P Small-Cap 600 Growth Index Fund
- Vanguard S&P Small-Cap 600 Index Fund
- Vanguard S&P Small-Cap 600 Value Index Fund

Vanguard Bond Index Funds

- Vanguard Inflation-Protected Securities Fund
- Vanguard Intermediate-Term Bond Index Fund
- Vanguard Long-Term Bond Index Fund
- Vanguard Short-Term Bond Index Fund
- Vanguard Total Bond Market Index Fund
- Vanguard Total Bond Market Index II Fund

Vanguard Chester Funds

- Vanguard Target Retirement Income Fund
- Vanguard Target Retirement 2005 Fund
- Vanguard Target Retirement 2010 Fund
- Vanguard Target Retirement 2015 Fund
- Vanguard Target Retirement 2020 Fund
- Vanguard Target Retirement 2025 Fund
- Vanguard Target Retirement 2030 Fund
- Vanguard Target Retirement 2035 Fund
- Vanguard Target Retirement 2040 Fund
- Vanguard Target Retirement 2045 Fund
- Vanguard Target Retirement 2050 Fund
- Vanguard Target Retirement 2055 Fund

Vanguard CMT Funds

- Vanguard Market Liquidity Fund

Vanguard Fixed Income Securities Funds

- Vanguard GNMA Fund
- Vanguard High-Yield Corporate Fund
- Vanguard Long-Term Investment-Grade Fund

Vanguard Index Funds

- Vanguard Growth Index Fund
- Vanguard Mid-Cap Growth Index Fund
- Vanguard Mid-Cap Value Index Fund
- Vanguard Small-Cap Index Fund
- Vanguard Total Stock Market Index Fund

Vanguard Scottsdale Funds

- Vanguard Short-Term Government Bond Index Fund
- Vanguard Intermediate-Term Government Bond Index Fund
- Vanguard Long-Term Government Bond Index Fund
- Vanguard Short-Term Corporate Bond Index Fund
- Vanguard Intermediate-Term Corporate Bond Index Fund
- Vanguard Long-Term Corporate Bond Index Fund
- Vanguard Mortgage-Backed Securities Index Fund

Vanguard Specialized Funds

- Vanguard Dividend Appreciation Index Fund

Vanguard Health Care Fund
Vanguard Precious Metals Fund

Vanguard STAR Funds
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund
Vanguard Total International Stock Index Fund

Vanguard Tax-Managed Funds
Vanguard Tax-Managed Balanced Fund

Vanguard Valley Forge Funds
Vanguard Balanced Index Fund

Vanguard Variable Insurance Funds
Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Funds
Vanguard International Explorer Fund
Vanguard High Dividend Yield Index Fund

Vanguard World Fund
Vanguard Extended Duration Treasury Index Fund
Vanguard International Growth Fund

AGREED TO as of _____, 2010 BY:

JPMorgan Chase Bank

Each Fund listed on Exhibit 1

By: _____
Name: _____
Title: _____

By: _____
Name: Jean E. Drabick
Title: Assistant Treasurer

EXHIBIT 1 - AMENDMENT #21

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1.

Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Admiral Funds
Vanguard S&P 500 Growth Index Fund
Vanguard S&P 500 Value Index Fund

- Vanguard S&P Mid-Cap 400 Growth Index Fund
- Vanguard S&P Mid-Cap 400 Index Fund
- Vanguard S&P Mid-Cap 400 Value Index Fund
- Vanguard S&P Small-Cap 600 Growth Index Fund
- Vanguard S&P Small-Cap 600 Index Fund
- Vanguard S&P Small-Cap 600 Value Index Fund

Vanguard Bond Index Funds

- Vanguard Inflation-Protected Securities Fund
- Vanguard Intermediate-Term Bond Index Fund
- Vanguard Long-Term Bond Index Fund
- Vanguard Short-Term Bond Index Fund
- Vanguard Total Bond Market Index Fund
- Vanguard Total Bond Market Index II Fund

Vanguard Chester Funds

- Vanguard Target Retirement Income Fund
- Vanguard Target Retirement 2005 Fund
- Vanguard Target Retirement 2010 Fund
- Vanguard Target Retirement 2015 Fund
- Vanguard Target Retirement 2020 Fund
- Vanguard Target Retirement 2025 Fund
- Vanguard Target Retirement 2030 Fund
- Vanguard Target Retirement 2035 Fund
- Vanguard Target Retirement 2040 Fund
- Vanguard Target Retirement 2045 Fund
- Vanguard Target Retirement 2050 Fund
- Vanguard Target Retirement 2055 Fund

Vanguard CMT Funds

- Vanguard Market Liquidity Fund

Vanguard Fixed Income Securities Funds

- Vanguard GNMA Fund
- Vanguard High-Yield Corporate Fund
- Vanguard Long-Term Investment-Grade Fund

Vanguard Index Funds

- Vanguard Growth Index Fund
- Vanguard Mid-Cap Growth Index Fund
- Vanguard Mid-Cap Value Index Fund
- Vanguard Small-Cap Index Fund
- Vanguard Total Stock Market Index Fund

Vanguard Scottsdale Funds

- Vanguard Short-Term Government Bond Index Fund
- Vanguard Intermediate-Term Government Bond Index Fund
- Vanguard Long-Term Government Bond Index Fund
- Vanguard Short-Term Corporate Bond Index Fund
- Vanguard Intermediate-Term Corporate Bond Index Fund
- Vanguard Long-Term Corporate Bond Index Fund
- Vanguard Mortgage-Backed Securities Index Fund

Vanguard Specialized Funds

- Vanguard Dividend Appreciation Index Fund
- Vanguard Health Care Fund
- Vanguard Precious Metals Fund

Vanguard STAR Funds

- Vanguard LifeStrategy Conservative Growth Fund
- Vanguard LifeStrategy Growth Fund
- Vanguard LifeStrategy Income Fund

Vanguard LifeStrategy Moderate Growth Fund
Vanguard Total International Stock Index Fund

Vanguard Tax-Managed Funds
Vanguard Tax-Managed Balanced Fund

Vanguard Valley Forge Funds
Vanguard Balanced Index Fund

Vanguard Variable Insurance Funds
Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Funds
Vanguard International Explorer Fund

Vanguard World Fund
Vanguard Extended Duration Treasury Index Fund
Vanguard International Growth Fund

AGREED TO as of 8/23, 2010 BY:

JPMorgan Chase Bank Each Fund listed on Exhibit 1

By: /s/ Paul Larkin
Name: Paul Larkin
Title: Executive Director

By: /s/ Jaen E. Drabick
Name: Jean E. Drabick
Title: Assistant Treasurer

EXHIBIT 1 - AMENDMENT #22

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Admiral Funds
Vanguard S&P 500 Growth Index Fund
Vanguard S&P 500 Value Index Fund
Vanguard S&P Mid-Cap 400 Growth Index Fund
Vanguard S&P Mid-Cap 400 Index Fund
Vanguard S&P Mid-Cap 400 Value Index Fund
Vanguard S&P Small-Cap 600 Growth Index Fund
Vanguard S&P Small-Cap 600 Index Fund
Vanguard S&P Small-Cap 600 Value Index Fund

Vanguard Bond Index Funds
Vanguard Inflation-Protected Securities Fund

Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund
Vanguard Total Bond Market Index II Fund

Vanguard Chester Funds
Vanguard Target Retirement Income Fund
Vanguard Target Retirement 2005 Fund
Vanguard Target Retirement 2010 Fund
Vanguard Target Retirement 2015 Fund
Vanguard Target Retirement 2020 Fund
Vanguard Target Retirement 2025 Fund
Vanguard Target Retirement 2030 Fund
Vanguard Target Retirement 2035 Fund
Vanguard Target Retirement 2040 Fund
Vanguard Target Retirement 2045 Fund
Vanguard Target Retirement 2050 Fund
Vanguard Target Retirement 2055 Fund
Vanguard Target Retirement 2060 Fund

Vanguard CMT Funds
Vanguard Market Liquidity Fund

Vanguard Fixed Income Securities Funds
Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Long-Term Investment-Grade Fund

Vanguard Index Funds
Vanguard Growth Index Fund
Vanguard Mid-Cap Growth Index Fund
Vanguard Mid-Cap Value Index Fund
Vanguard Small-Cap Index Fund
Vanguard Total Stock Market Index Fund

Vanguard Scottsdale Funds
Vanguard Short-Term Government Bond Index Fund
Vanguard Intermediate-Term Government Bond Index Fund
Vanguard Long-Term Government Bond Index Fund
Vanguard Short-Term Corporate Bond Index Fund
Vanguard Intermediate-Term Corporate Bond Index Fund
Vanguard Long-Term Corporate Bond Index Fund
Vanguard Mortgage-Backed Securities Index Fund

Vanguard Specialized Funds
Vanguard Dividend Appreciation Index Fund
Vanguard Health Care Fund
Vanguard Precious Metals Fund

Vanguard STAR Funds
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund
Vanguard Total International Stock Index Fund

Vanguard Tax-Managed Funds
Vanguard Tax-Managed Balanced Fund

Vanguard Valley Forge Funds
Vanguard Balanced Index Fund

Vanguard Variable Insurance Funds
Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Funds
Vanguard International Explorer Fund

Vanguard World Fund
Vanguard Extended Duration Treasury Index Fund
Vanguard International Growth Fund

AGREED TO as of __December 1,_____, 2011 BY:

JPMorgan Chase Bank Each Fund listed on Exhibit 1

By: ____/s/_____
By: ____/s/_____

Name: Jeffrey Teikelbaum Name: Jean E. Drabick
Title: Vice President Title: Assistant Treasurer

EXHIBIT 1 - AMENDMENT #23

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Admiral Funds
 Vanguard S&P 500 Growth Index Fund
 Vanguard S&P 500 Value Index Fund
 Vanguard S&P Mid-Cap 400 Growth Index Fund
 Vanguard S&P Mid-Cap 400 Index Fund
Vanguard S&P Mid-Cap 400 Value Index Fund
Vanguard S&P Small-Cap 600 Growth Index Fund
Vanguard S&P Small-Cap 600 Index Fund
Vanguard S&P Small-Cap 600 Value Index Fund

Vanguard Bond Index Funds
Vanguard Inflation-Protected Securities Fund
Vanguard Intermediate-Term Bond Index Fund
 Vanguard Long-Term Bond Index Fund
 Vanguard Short-Term Bond Index Fund
 Vanguard Total Bond Market Index Fund
 Vanguard Total Bond Market Index II Fund

Vanguard Chester Funds

- Vanguard Target Retirement Income Fund
- Vanguard Target Retirement 2005 Fund
- Vanguard Target Retirement 2010 Fund
- Vanguard Target Retirement 2015 Fund
- Vanguard Target Retirement 2020 Fund
- Vanguard Target Retirement 2025 Fund
- Vanguard Target Retirement 2030 Fund
- Vanguard Target Retirement 2035 Fund
- Vanguard Target Retirement 2040 Fund
- Vanguard Target Retirement 2045 Fund
- Vanguard Target Retirement 2050 Fund
- Vanguard Target Retirement 2055 Fund
- Vanguard Target Retirement 2060 Fund

Vanguard CMT Funds

- Vanguard Market Liquidity Fund

Vanguard Fixed Income Securities Funds

- Vanguard GNMA Fund

Vanguard High-Yield Corporate Fund

Vanguard Long-Term Investment-Grade Fund

Vanguard Index Funds

- Vanguard Growth Index Fund
- Vanguard Mid-Cap Growth Index Fund
- Vanguard Mid-Cap Value Index Fund
- Vanguard Small-Cap Index Fund
- Vanguard Total Stock Market Index Fund

Vanguard Malvern Funds

- Vanguard Short-Term Inflation- Protected Securities Index Fund

Vanguard Scottsdale Funds

- Vanguard Short-Term Government Bond Index Fund
- Vanguard Intermediate-Term Government Bond Index Fund
- Vanguard Long-Term Government Bond Index Fund
- Vanguard Short-Term Corporate Bond Index Fund
- Vanguard Intermediate-Term Corporate Bond Index Fund
- Vanguard Long-Term Corporate Bond Index Fund
- Vanguard Mortgage-Backed Securities Index Fund

Vanguard Specialized Funds

- Vanguard Dividend Appreciation Index Fund

Vanguard Health Care Fund

Vanguard Precious Metals Fund

Vanguard STAR Funds

- Vanguard LifeStrategy Conservative Growth Fund
- Vanguard LifeStrategy Growth Fund
- Vanguard LifeStrategy Income Fund
- Vanguard LifeStrategy Moderate Growth Fund
- Vanguard Total International Stock Index Fund

Vanguard Tax-Managed Funds

- Vanguard Tax-Managed Balanced Fund

Vanguard Valley Forge Funds

- Vanguard Balanced Index Fund

Vanguard Variable Insurance Funds

- Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Funds

Vanguard International Explorer Fund

Vanguard World Fund

Vanguard Extended Duration Treasury Index Fund

Vanguard International Growth Fund

AGREED TO as of _____, 2012 BY:

JPMorgan Chase Bank

Each Fund listed on Exhibit 1

By: _____ By: _____

Name: _____
Title: _____

Name: Jean E. Drabick
Title

EXHIBIT 1 - AMENDMENT #24

The following is an amendment ("Amendment") to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the "Agreement"), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) ("Bank") and each open-end management investment company listed on Exhibit 1 thereto (each a "Trust," collectively "Customer"). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a "Fund") listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Admiral Funds

Vanguard S&P 500 Growth Index Fund
Vanguard S&P 500 Value Index Fund
Vanguard S&P Mid-Cap 400 Growth Index Fund
Vanguard S&P Mid-Cap 400 Index Fund

Vanguard S&P Mid-Cap 400 Value Index Fund
Vanguard S&P Small-Cap 600 Growth Index Fund
Vanguard S&P Small-Cap 600 Index Fund
Vanguard S&P Small-Cap 600 Value Index Fund

Vanguard Bond Index Funds

Vanguard Inflation-Protected Securities Fund
Vanguard Intermediate-Term Bond Index Fund
Vanguard Long-Term Bond Index Fund
Vanguard Short-Term Bond Index Fund
Vanguard Total Bond Market Index Fund
Vanguard Total Bond Market Index II Fund

Vanguard Chester Funds

Vanguard Target Retirement Income Fund
Vanguard Target Retirement 2005 Fund
Vanguard Target Retirement 2010 Fund
Vanguard Target Retirement 2015 Fund
Vanguard Target Retirement 2020 Fund
Vanguard Target Retirement 2025 Fund

Vanguard Target Retirement 2030 Fund
Vanguard Target Retirement 2035 Fund
Vanguard Target Retirement 2040 Fund
Vanguard Target Retirement 2045 Fund
Vanguard Target Retirement 2050 Fund
Vanguard Target Retirement 2055 Fund
Vanguard Target Retirement 2060 Fund

Vanguard CMT Funds
Vanguard Market Liquidity Fund

Vanguard Fixed Income Securities Funds
Vanguard GNMA Fund
Vanguard High-Yield Corporate Fund
Vanguard Long-Term Investment-Grade Fund

Vanguard Index Funds
Vanguard Growth Index Fund
Vanguard Mid-Cap Growth Index Fund
Vanguard Mid-Cap Value Index Fund
Vanguard Small-Cap Index Fund
Vanguard Total Stock Market Index Fund

Vanguard Malvern Funds
Vanguard Short-Term Inflation- Protected Securities Index Fund
Vanguard TIPS Transition Fund

Vanguard Scottsdale Funds
Vanguard Short-Term Government Bond Index Fund
Vanguard Intermediate-Term Government Bond Index Fund
Vanguard Long-Term Government Bond Index Fund
Vanguard Short-Term Corporate Bond Index Fund
Vanguard Intermediate-Term Corporate Bond Index Fund
Vanguard Long-Term Corporate Bond Index Fund
Vanguard Mortgage-Backed Securities Index Fund

Vanguard Specialized Funds
Vanguard Dividend Appreciation Index Fund
Vanguard Health Care Fund
Vanguard Precious Metals Fund

Vanguard STAR Funds
Vanguard LifeStrategy Conservative Growth Fund
Vanguard LifeStrategy Growth Fund
Vanguard LifeStrategy Income Fund
Vanguard LifeStrategy Moderate Growth Fund
Vanguard Total International Stock Index Fund

Vanguard Tax-Managed Funds
Vanguard Tax-Managed Balanced Fund

Vanguard Valley Forge Funds
Vanguard Balanced Index Fund

Vanguard Variable Insurance Funds
Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Funds
Vanguard International Explorer Fund

Vanguard World Fund
Vanguard Extended Duration Treasury Index Fund
Vanguard International Growth Fund

AGREED TO as of April 19, 2013 BY:

JPMorgan Chase Bank

Each Fund listed on Exhibit 1

By: /S/ Carrie L Mark

By: /S/ Jean E. Drabick

Name: ___ Carrie L Mark
Title: Executive Director

Name: Jean E. Drabick
Title: Assistant Treasurer

EXHIBIT 1 - AMENDMENT # 25

The following is an amendment (“Amendment”) to the Global Custody Agreement dated June 25, 2001, as amended from time to time (the “Agreement”), by and between JPMorgan Chase Bank (previously The Chase Manhattan Bank) (“Bank”) and each open-end management investment company listed on Exhibit 1 thereto (each a “Trust,” collectively “Customer”). This Amendment serves to update the names of the Trusts and certain of their portfolios (each a “Fund”) listed on Exhibit 1. Bank and Customer hereby agree that all of the terms and conditions as set forth in the Agreement are hereby incorporated by reference with respect to the Trusts and Funds listed below.

Exhibit 1 is hereby amended as follows:

Vanguard Admiral Funds

- Vanguard S&P 500 Growth Index Fund
- Vanguard S&P 500 Value Index Fund
- Vanguard S&P Mid-Cap 400 Growth Index Fund
- Vanguard S&P Mid-Cap 400 Index Fund
- Vanguard S&P Mid-Cap 400 Value Index Fund
- Vanguard S&P Small-Cap 600 Growth Index Fund
- Vanguard S&P Small-Cap 600 Index Fund
- Vanguard S&P Small-Cap 600 Value Index Fund

Vanguard Bond Index Funds

- Vanguard Inflation-Protected Securities Fund
- Vanguard Intermediate-Term Bond Index Fund
- Vanguard Long-Term Bond Index Fund
- Vanguard Short-Term Bond Index Fund
- Vanguard Total Bond Market Index Fund
- Vanguard Total Bond Market II Index Fund

Vanguard Chester Funds

- Vanguard Target Retirement Income Fund
- Vanguard Target Retirement 2010 Fund
- Vanguard Target Retirement 2015 Fund
- Vanguard Target Retirement 2020 Fund
- Vanguard Target Retirement 2025 Fund
- Vanguard Target Retirement 2030 Fund
- Vanguard Target Retirement 2035 Fund
- Vanguard Target Retirement 2040 Fund
- Vanguard Target Retirement 2045 Fund
- Vanguard Target Retirement 2050 Fund
- Vanguard Target Retirement 2055 Fund
- Vanguard Target Retirement 2060 Fund

Vanguard CMT Funds

- Vanguard Market Liquidity Fund

Vanguard Fixed Income Securities Funds

- Vanguard GNMA Fund
- Vanguard High-Yield Corporate Fund
- Vanguard Long-Term Investment-Grade Fund

Vanguard Index Funds

- Vanguard Growth Index Fund
- Vanguard Mid-Cap Growth Index Fund
- Vanguard Mid-Cap Value Index Fund
- Vanguard Small-Cap Index Fund
- Vanguard Total Stock Market Index Fund

Vanguard Malvern Funds

- Vanguard Short-Term Inflation- Protected Securities Index Fund

Vanguard Scottsdale Funds

- Vanguard Short-Term Government Bond Index Fund
- Vanguard Intermediate-Term Government Bond Index Fund
- Vanguard Long-Term Government Bond Index Fund
- Vanguard Short-Term Corporate Bond Index Fund
- Vanguard Intermediate-Term Corporate Bond Index Fund
- Vanguard Long-Term Corporate Bond Index Fund
- Vanguard Mortgage-Backed Securities Index Fund

Vanguard Specialized Funds

- Vanguard Dividend Appreciation Index Fund
- Vanguard Health Care Fund
- Vanguard Precious Metals and Mining Fund

Vanguard STAR Funds

- Vanguard LifeStrategy Conservative Growth Fund
- Vanguard LifeStrategy Growth Fund
- Vanguard LifeStrategy Income Fund
- Vanguard LifeStrategy Moderate Growth Fund
- Vanguard Total International Stock Index Fund

Vanguard Tax-Managed Funds

- Vanguard Tax-Managed Balanced Fund

Vanguard Valley Forge Funds

- Vanguard Balanced Index Fund

Vanguard Variable Insurance Funds

- Total Bond Market Index Portfolio

Vanguard Wellesley Income Fund

Vanguard Wellington Fund

Vanguard Whitehall Funds
Vanguard International Explorer Fund

Vanguard World Fund
Vanguard Extended Duration Treasury Index Fund
Vanguard International Growth Fund

AGREED TO as of July _9_, 2013 BY:

JPMorgan Chase Bank

Each Fund listed on Exhibit 1

By: /S/ Christopher Gordner

By: /S/ Jean E. Drabick

Name: Christopher Gordner

Name: Jean E. Drabick

Title: Vice President

Title: Assistant Treasurer